

fRf“f|□[flf“fg,ì“o~^14001

ŽQ□Æ

fRf“f|□[flf“fg□CfRf“f|□[flf“fg,lfvf□fpfefB,âf□fbbfh□CfCxf“fg,ð<L□q,μ,½,¾,¯,Á,í□C,Û,¾fRf“f|
□[flf“fg,ì□□□,ÍŠ®—¹,μ,Ã,ç,Û,¹,ñ□B,±,ê,Û,Á,É□□□,μ,½<@“\,¾,¯,Á,à□\•ª,ÉŽÀ—p“l,ÈfRf“f|
□[flf“fg,Á,·,ª□C,» ,x,μ,½<@“\,ð□YCEvŽž,É,à‘€□ì,Á,« ,é,æ,x,É,·,ê,í□C,æ,è<—í,ÈfRf|
□[flf“fg,ªŠ®□□,μ,Û,·□B

fRf“f|□[flf“fg,ð□C,» ,ì—{—^ ,ì□ì<Æ,ð□s,x,¾,¯,Á,É,-
□YCEvŽž,É,à‘€□ì,Á,« ,é,à,ì,É,·,é,½,ß,ìžè□±,íŽŸ,ì,Æ,“ ,è,Á,·□B

- fRf“f|□[flf“fg,ì Delphi ,Ö,ì“o~^
- f□fCEfbfgfrfbfgf}fbfv,ì‘Ç%oÁ
- fvf□fpfefB,ÆfCxf“fg,É,Á,ç,Á,lfwf<fv,ì’ñ<Ÿ
- fvf□fpfefB,ì•Û‘¶,Æ“Ç,Y□ž,Y

,½,¾,μ□CfRf“f|□[flf“fg,É,æ,Á,Ã,í□C□ă,ìžè□±,ì^ê•”,í•K—v, ,è,Û,¹,ñ□B,½,Æ,¡,Î□C□V,μ,çfvf□fpfe
fB,âfCxf“fg,ð’è< ,μ,É,©,Á,½□ê□±,í□Cfwf<fv,ð’ñ<Ÿ,·,é•K—v,í, ,è,Û,¹,ñ□B□í,É•K—
v,È,ì,ì□C Delphi ,Ö,ì“o~^,¾,¯,Á,·□B

ŽQÆ14002

fRf“f|□[f|f“fg□ì□□→,ìŠT→v

fRf“f|□[f|f“fgŠ|”ŽÒ,ì,½,β,ì OOP

fv□□pfefB,ì□ì□□→

fCxf“fg,ì□ì□□→

f□f□bfh,ì□ì□□→

fRf“f|□[f|f“fg,É,“,□,éOf%oftfBf□fN,ìŽg,č•û

f□bfZ□[fW,ì□^→□

fRf“f|□[flf“fg, ì Delphi ,Ö, ì“o~^14003

ŽQ□Æ

fRf“f|□[flf“fg, ð“o~^, ; ê, î□C Delphi , ìfRf“f|□[flf“fg, ð“FŽ^, μ, ÄfRf“f|
□[flf“fgpf□Æfbfg, É“z’u, Å, «, Û, ·□B“o~^, ìftfjfbfg’P^É, Å□s, ç, Û, ·□B1 , Ä, ìftfjfbfg, É•; □” , ìfRf“f|
□[flf“fg, ð□ì□¬, μ, ½□ê□±, Í□C, » , ìfRf“f|□[flf“fg, Í^ê“x, É“o~^, ^3, ê, Û, ·□B

fRf“f|□[flf“fg, ð“o~^, ; , é, É, Í□CfRf“f|□[flf“fgftfjfbfg, ÉŽè’±, « Register , ð<L□q, μ, Û, ·□B, ±
, ì□ì<Æ, É, Ä, ç, Ä^È%ºº, ì 2 , Ä, ì□€-Ú, ð□à-¾, μ, Û, ·□B

- Register Žè’±, «, ì□é□¾
- Register Žè’±, «, ìŽÄ’•

“o~^, ð□, ì, ½□æ□CfRf“f|□[flf“fg, ðfp□Æfbfg, ÉfCf“fXfg□[f<, μ, Û, ·□BfRf“f|
□[flf“fg, ìfCf“fXfg□[f<, É, Ä, ç, Ä, Í□wft□[fU□[fyfKfCfh□x, ì□à-¾, ðŽQ□Æ, μ, Ä, , ¾, ^3, ç□B

ŽQÆ14004

fpfCEfbfgfrfbfgf}fbfv,ì'Ç%Á

fvf[]pfefB,ÆfCxf"fg,É,Â,ç,Ä,lfwf<fv,ìň<Ÿ

fvf[]pfefB,ì•Ù'¶,Æ"Ç,Ý[]ž,Ý

Register Žè'±,«,ìéĈ¾14005

ŽQÆ —á

fRf“f|“flf“fg,đ“o~^,;é,É,íCfRf“f|“flf“fg,łtffjfbfg,É Register ,Æ,ç,æ-¼'O,ìŽè'±
,«,đ<Lq,μ,Û,·BRegister ,ìéĈ¾,í•K, ,ftffjfbfg,ìfCf“f^“f“fF“fX•”,É<Lq,μ,ÅCDelphi ,^a
Register ,đ“Ĉ©,Å,«,é,æ,æ,É,μ,Û,·B,±,ì Register ,ì't,ÅC “o~^,;éŠefRf“f|“flf“fg,É,Å,ç
,ÄŽè'±,« RegisterComponents ,đĈÄ,Ño,μ,Û,·B

—á14006

□V,μ,ϕfRf“f□[f]f“fgCE^,δ□ì□¬,μ,Ä“o~^,;,éŠÈ'P,Èftfjfbfg,ì—á,ðŽŸ,ÉŽì,μ,Ü,·□B

```
unit MyBtns;
```

```
interface
```

```
type
```

```
{ ,±,±,ÅfRf“f□[f]f“fgCE^,δ□éCE¾ }
```

```
procedure Register; { ,±,ì•¶,í•K,„fCf“f^□[ftfF□[fX•”,É<L□q,;é }
```

```
implementation
```

```
{ ,±,±,ÅfRf“f□[f]f“fg,ðŽÀ'• }
```

```
procedure Register;
```

```
begin
```

```
{ fRf“f□[f]f“fg,ð“o~^ }
```

```
end;
```

```
end.
```

ŽQÆ14007

Register Žè±,«İŽÆ»

Register Žè'±,«,ìŽÀŒ»14008

ŽQŒ —á

fRf"fi[]lfi"fg,ªŠ'®,·,éftfjfbfg,ìŽè'±,« Register ,ì't,Á[]CfRf"fi[]lfi"fgfpfŒfbfg,É'Ç
%oÁ,·,éŠefRf"fi[]lfi"fg,ð"o~^,µ,Û,·[]Bftfjfbfg,É·;[]",ìfRf"fi[]lfi"fg,ª,·,é[]ê[]#,ì[]C,·,x,Ä,ìfRf"fi
[]lfi"fg,ð,Û,Œ,ß,Ä^ê"x,É"o~^,Ä,«,Û,·[]B

fRf"fi[]lfi"fg,ð"o~^,·,é,É,ì[]CfRf"fi[]lfi"fg,ð'Ç%oÁ,·,éRf"fi
[]lfi"fgfpfŒfbfg,ì,»,ê,¼,ê,ìfy[]fW,É'í,µ,ÄŽè'±,« RegisterComponents
,ðŒÄ,Ñ[]o,µ,Û,·[]BRegisterComponents ,ì[]C"o~^,·,éRf"fi[]lfi"fg,ÉŠÖ,·,é^È%o,ì 2 ,Ä,ì[]î·ñ,ð
Delphi ,É'É'm,µ,Û,·[]B

- fRf"fi[]lfi"fg,ðfCf"fxfg[]f<,·,épfŒfbfgfy[]fW,ì-¼'O
- fCf"fxfg[]f<,·,éRf"fi[]lfi"fg,ì-¼'O

fpfŒfbfgfy[]fW,ì-¼'O,í·¶Žš—ñ,ÄŽw'è,µ,Û,·[]BŽw'è,µ,½-
¼'O,ìfpfŒfbfgfy[]fW,ª'¶Ÿ,µ,È,ç[]ê[]#,ì[]CDelphi ,í,»,ì-¼'O,ìfy[]fW,ð[]V,µ,-
[]ì[]-,µ,Û,·[]BDelphi ,í·W[]Œfy[]fW,ì-¼'O,ð·¶Žš—ñfŠfxfgfŠf[]fX,ì't,ÉŠi"l,µ,Ä,ç
,Û,·[]B,»,ì,½,ß[]C[]»·i,ìfCf"fi^[]fifvf#fif<"Ä,Ä,ìfy[]fW,ÉŽ©[]",ìŒ¾-t,Ä-¼'O,ð·t,·,é,±
,Œ,ª,Ä,«,Û,·[]BfRf"fi[]lfi"fg,ð·W[]Œfy[]fW,ÉfCf"fxfg[]f<,µ,½,ç[]ê[]#,ì[]CLoadStr
ŠÖ",ðŒÄ,Ñ[]o,µ[]C,»,ìfy[]fW,ì,½,ß,ì·¶Žš—ñfŠf[]fX,ð·\,·'è" (,½,Œ,ì,ì System
fy[]fW,ì,½,ß,ì srSystem ,ì,æ,æ,É) ,ð"n,µ,Äfy[]fW-¼,ðŽæ"¾,µ,Û,·[]B

fRf"fi[]lfi"fg,ì-¼'O,ìfi[]fvf""z—ñ,Ä"n,µ,Û,·[]B,±,ì"z—ñ,ì RegisterComponents
,ìŒÄ,Ñ[]o,µ·¶,ì't,Ä[]ì[]-,Ä,«,Û,·[]B

—á14009

Žè±,« Register ,l—á,ðŽŸ,ÉŽ!,μ,Û,·BTMyComponent ,Æ,ç,α-¼'O,lfRf"fj
[]fj"fg,ð"o~^,μCMiscellaneous ,Æ,ç,α-¼'O,lfRf"fj[]fj"fgfpfCEfbfgfy[]fW,É,»,lfRf"fj
[]fj"fg,ð"z'u,μ,Û,·B

```
procedure Register;
begin
  RegisterComponents('Miscellaneous', [TMyComponent]);
end;
```

,Û,½C•i",lfRf"fj[]fj"fg,ð"-,lfy[]fW,É^è"x,É"o~^,μ,½,èC•i",lfRf"fj
[]fj"fg,ð•i",lfy[]fW,É"o~^,·,é,±,Æ,à,Â,«,Û,·BŽŸ,É,»,l,æ,α,È—á,ðŽ!,μ,Û,·B

```
procedure Register;
begin
  RegisterComponents('Miscellaneous', [TFirst, TSecond]);      { ,±
,lfy[]fW,É 2 ,Â... }
  RegisterComponents('Assorted', [TThird]); { ...•É,lfy[]fW,É 1 ,Â... }
  RegisterComponents(LoadStr(srStandard), [TFourth]); { ...[Standard]
fy[]fW,É 1 ,Â... }

end;
```

ŽQÆ14010

Register Žè±,«,ìéĚ¾

fpfCEfbfgfrfbfgf}fbfv,ì'Ç%oÁ14011

ŽQ□Æ —á

,: ,x,Ä,ìfRf“f|□[flf“fg,É,í□C,»),ìfRf“f|□[flf“fg,ðfRf“f|□[flf“fgfpfCEfbfg,Á•\
Žì,·,é,½,ß,ìfRf“f|□[flf“fg}fbfv,ª•K—

v,Á,·□B“ÆŽ©,ìfRf“f|□[flf“fg}fbfv,ðŽw’è,μ,È,¯,ê,î□CfftfHf<fg,ìfRf“f|□[flf“fg}fbfv,ªŽg—p,³,ê,Ü,·□B

fpfCEfbfgfrfbfgf}fbfv,ª•K—v,È,ì,í□ÝCEvŽž,¾,¯,È,ì,Á□CfpfCEfbfgfrfbfgf}fbfv,ðfRf“f|
□[flf“fgftfjfbfg’t,ÉfRf“fpfCf<,·,é•K—v,í, ,è,Ü,¹,ñ□BfpfCEfbfgfrfbfgf}fbfv,í Windows fŠf\
□[fXftf@fCf<,Á’ñ<ÿ,μ,Ü,·□Bftf@fCf<,ì-¼’O,í□Cftfjfbfg,Æ“¯,¶-¼’O,ÉŠg’£Žq .DCR (Dynamic
Component Resource) ,ð•t,¯,½,à,ì,É,μ,Ü,·□BfŠf\□[fXftf@fCf<,í Delphi
,ìfRf“f|□[flf“fg}fbfvfGffBf^,Á□□□,Á,«„Ü,·□Bfrfbfgf}fbfv,ì’á,«„³,í 24 fsfNfZf<Žì•ù,É,μ,Ü,·□B

fCf“fXfg□[f<,·,éŠeftfjfbfg,É1,Á, ,.ÁfpfCEfbfgfrfbfgf}fbfvftf@fCf<,ð□□□,μ□C,»,ìftf@fCf<“à,É□C“
o~^,·,éŠefRf“f|□[flf“fg,É 1 ,Á, ,.Áfrfbfgf}fbfv,ð□□□,μ,Ü,·□B,±,ìfRf“f|□[flf“fg}fbfvfCf□□[fW,É,ìfRf“f|
□[flf“fg,Æ“¯,¶-

¼’O,ð•t,¯,Ü,·□BfpfCEfbfgfrfbfgf}fbfvftf@fCf<,í□CfRf“fpfCf<□ì,ÿ,ìftfjfbfg,Æ“¯,¶fffBfCEfNfgfŠ,É“
ü,ê,Ä,¯,«„Ü,·□B,±,«„·,ê,ì□CfRf“f|□[flf“fg,ðfpfCEfbfg,ÉfCf“fXfg□[f<,·,é□Ü,É Delphi
,ªfrfbfgf}fbfv,ð’T,μ□o,¹,Ü,·□B

—á14012

,½,Æ,í,íCftfjfbfg ToolBox ,ÁfRf“f|[]f|f“fg TMyControl ,ð[]-μ,½ê[]#,íCCTOOLBOX.DCR
,Æ,ç,æ-¼'O,lfŠf[]fXftf@fCf<É TMYCONTROL ,Æ,ç,æ-¼'O,lfrfbfgf}fbfv,ð[]-μ,Ü,·BfŠf\
[]fX-¼,Á,í'â•¶Žš,Æ[]-•¶Žš,í<æ•Ê,³,ê,Ü,¹,ñ,ªC'É[]í,í'â•¶Žš,ðŽg—p,μ,Ü,·B

ŽQÆ14013

fRf“f□□[f]f“fg,ì Delphi ,Ö,ì“o~^

fvf□fpfefB,ÆfCxf“fg,É,Â,ç,Ä,ìfwf<fv,ìň<Ÿ

fvf□fpfefB,ì•Ù‘¶,Æ“Ç,Ý□ž,Ý

fvf[]fpfefB,ÆfCxf"fg,É,Â,ç,Ä,lfwf<fv,ì'ñ<ÿ14014

ŽQ[]Æ

^è"É,É[]CftfH[]f€,ÅfRf"fj

[]fj"fg,ð'l'ð,μ,½,Æ,«,â[]CflufWfFfNfgfCf"fXfyfNf^,Åfvf[]fpfefB,âfCxf"fg,ð'l'ð,μ,½,Æ,«,É F1,ð%öÿ,·,Æ[]C,»,ì[]€-Ú,É,Â,ç,Ä,lfwf<fv,ªCEÄ,Ñ[]o,³,ê,Û,·[]BŠj",μ,½fRf"fj[]fj"fg,Éfwf<fvftf@fCf<,ð-p^Ó,μ,Ä,¨,·,î[]CfRf"fj[]fj"fgft[]fU[][,í"¨,¶,æ,æ,Éfwf<fv,ð-~ -p,Ä,«,Û,·[]B

Delphi ,É,í·;[]",lfwf<fvftf@fCf<,ðCEÿ[]ð,·,é"ÆŽ©,lfwf<fvfGf"fwf",ª, ,é,ì,Ä[]CŠj",μ,½fRf"fj

[]fj"fg,É,Â,ç,Ä,ì[]î•ñ,¾,¨,ð"ü,ê,½[]-,³,Éfwf<fvftf@fCf<,ð-p^Ó,·,ê,î[]\

•ª,Ä,·[]Bft[]fU[][,í,»,ì[]î•ñ,ðŠÈ'P,ÉCEÿ[]ð,Ä,«,Û,·[]B,Ä,Û,è[]C[]ì[]-,μ,½fwf<fvftf@fCf<,í[]+ "I,È

Delphi fwf<fvfVfXfef€,ì^è•",É'g,Ý[]ž,Û,ê,Û,·[]B

fRf"fj[]fj"fgft[]fU[][,Éfwf<fv,ð'ñ<ÿ,·,é•û-@,É,Â,ç,Ä[]C^È%º,ì 2 ,Ä,ì[]€-Ú,ð[]à-¾,μ,Û,·[]B

- Delphi ,ªfwf<fv-v<[],ð[]^ -[],·,é•û-@
- "ÆŽ©,lfwf<fv,ð Delphi ,É'g,Ý[]ž,p•û-@

ŽQÆ14015

fRf“f□□[f]f“fg,ì Delphi ,Ö,ì“o~^

fpfCEfbfgfrfbfgf}fbfv,ì'Ç%oÁ

fvf□fpfefB,ì•Ù'¶,Æ“Ç,Ý□ž,Ý

Delphi ,lfwfv—v<□,ì□^—□14016

ŽQ□Æ —á

Delphi ,í—

v<□,³,ê,½fwfv,ðfL□[f□□[fh,É,æ,Á,ÄŸ□ö,μ,Ü,·□B,½,Æ,¡,î□Cft□[fU□[,²ftfH□[fēfffUfCfi,ÅfRf“f] □[f]f“fg,ð‘l‘ð,μ,Ä F1 ,ð%Ÿ,μ,½,Æ,μ,Ü,·□BDelphi ,í,»,lfRf“f]□[f]f“fg,ì-¼‘O,ðfL□[f□□[fh (,± ,ì□ê□‡,í□Cclass_ ,É,»,lfRf“f]□[f]f“fgĈ^-¼,ð%Á,¡,½•¶Žš—ñ) ,É•İŠ·,μ□CŽŸ,É Windows ,lfwfvfGf“fWf” (WinHelp)

,ðĈÄ,Ñ□o,μ,Ä□C,»,lfL□[f□□[fh,ðŽ□,ÂfwfvfvgfsfbfN,ðĈŸ□ö,μ,Ü,·□B

fL□[f□□[fhĈŸ□ö,í Windows •W□€fwfvfVfXfef€,ì<@“\,Å,·□BŽÀŮ□CWinHelp

,ì□mfL□[f□□[fh,ÄŸ□ö□nf_fCfAf□Of{fbfNfX,É,í□Cfwfvfvtf@fCf<,lfL□[f□□[fh,²fŠfXfg,³,ê,Ü,·□B, ½,¾,μ□CfRf“f]□[f]f“fg,ÄŽg—p,μ,Ä,ç,é,æ,α,È□C□ó<μŠ‘‘mĈ^,ìĈŸ□ö—

p,lfL□[f□□[fh,í□C□İŌ,²“Ç,p,½,β,ì,à,ì,Á,í, ,è,Ů,¹,ñ□B,±,ì,æ,α

,É‘ä‘ÖfL□[f□□[fh,í□C□mfL□[f□□[fh,ÄŸ□ö□nf_fCfAf□Of{fbfNfX,É,í•Ž! ,³,ê,Ü,¹,ñ□B

—á14017

,½,Æ,í,íC, ,éft[fU[,ª Tsomething ,Æ,ç,æ-¼'O,lfRf“f[fif“fg,É,Â,ç,Ä,ìà-
¾,ðŸö,·,éê‡,íCmfL[f[fh,ÅŸönf_fCfAfffOf{fbfNfX,Å Tsomething
,ðŸö,µ,Û,·BftfH[f€ffUfCfi,ìó<µŠ''mĒ^,ìŸö,Å,Í class_Tsomething ,Æ,ç
,æ'ã'ÖfL[f[fh,ðŽg—p,µ,Ä,ç,Û,·ªCft[fU[,ª,±,ê,ðŸö,·,é,±,Æ,Í, ,è,Û,¹,ñB,»,ì,½,ßCcl
ass_Tsomething ,Æ,ç
,æ“ÁŽê,ÈfL[f[fh,ímfL[f[fh,ÅŸönf_fCfAfffOf{fbfNfX,lfŠfXfg,É,í•Ž|,³,ê,Û,¹,ñB

ŽQÆ14018

“ÆŽ©.lfwf<fv.đ@Delphi .É’g,Ýž.P

“ÁŽê.È<r’i’Ç%oÁ

“ÆŽ©,lfwf<fv,đ Delphi ,É'g,YŹ,Ð14019

ŽQÆ

Delphi ,É,íCWindows fwf<fvfRf“fpfCf% HC.EXE ,È,ÇCWindows
fwf<fvftf@fCf<,ííŹ,Æ'g,YŹ,É•K—v,Éfc[f<,ª,·,×,ĂŠÜ,Ü,è,Ä,ç,Û,·BDelphi fRf“f|f|f“fg—
p,lfwf<fvftf@fCf<,đíŹ,·,·,é•û-@,ÍC^ê”Ê,lfwf<fvftf@fCf<,đíŹ,·,·,é•û-
@,Æ”˘,¶,Á,·B,½,¾,µCf%oCfuf%oS,ì,Û,©,lfwf<fvftf@fCf<,ÆEÝŠ·Ź,đ•Û,Ä,É,íC,ç,-
,Ä,©,ìK'¥,ÉŹ,·K—v,ª,·,è,Û,·B

fwf<fvftf@fCf<,ìê”Ê”l,ÈíŹ,·,·,é•û-@,É,Ä,ç,Ä,ÍCWindows fwf<fv,ìíŹ,·,đŽQÆ,µ,Ä,¾,¾,çB
,Û,©,ì Delphi fRf“f|f|f“fgfwf<fv,ÆEÝŠ·Ź,ª,·,·,é,É,ÍC^È%º,ì 4
,Ä,ìíŹ,Æ,ª•K—v,Ä,·B

1 fwf<fvftf@fCf<,ìíŹ,·

2 “ÁŽè,Èçr’Ź,ì’Ç%ºÁ

3 fL[fŹ[fhftf@fCf<,ìíŹ,·

4 fwf<fvfCf“ffbfNfX,lf}ŹfW

ŠJ” ,µ,½fRf“f|f|f|f“fg—p,lfwf<fv,đŠ©Ź,µ,½'íŠK,Ä,ÍC^È%º,lf tf@fCf<,ªíŹ,·,ª,è,Ä,ç,Û,·B

- fRf“fpfCf<,ª,è,½fwf<fv (.HLP) ftf@fCf<
- fwf<fvfL[fŹ[fh (.KWF) ftf@fCf<
- fwf<fvfŹ[fX (.RTF) ftf@fCf< (·,±,lf tf@fCf<,í•;í” ,ìéŹ,à,·,è,Û,·)
- fwf<fvfvfŹfWfFfNfg (.HPJ) ftf@fCf<

fRf“fpfCf<,ª,è,½fwf<fvftf@fCf<,Æfwf<fvfL[fŹ[fhftf@fCf<,íCŠJ” ,µ,½fRf“f|

Ź[f|f“fg,lf tfjfbfg,Æ”˘,¶ffBfÇEfnfgfŠ,É”ù,è,Û,·BŠJ” ,µ,½fRf“f|

Ź[f|f“fg,đ,Û,©,lf tfŹfUŹ,É”z•z,·,éŹŹ,É,ÍCfRf“fpfCf·Ź,Í,lf tfjfbfg (.DCU)

ftf@fCf<,É”Y,!,ÄC,±,ì 2 ,Ä,lf tf@fCf<,à”z•z,µ,Û,·Bfwf<fvfŹ

Ź[fXftf@fCf<,Æfwf<fvfvfŹfWfFfNfgftf@fCf<,íCfwf<fvftf@fCf<,Æfwf<fvfL[fŹ[fhftf@fCf<,lf

Ź[fXfRŹ[fh,Ä,·BfŹŹ[fXfRŹ[fh,í”KŹ,É•Û’¶EŠÇ—Ź,µ,Ä,¾,¾,çB

ŽQÆ14020

Delphi .İfwf:fv—v<.,İ^—

fwf<fvftf@fCf<,i0i0-14021

ŽQAE

Windows fwf<fvftf@fCf<,i0i0-,É,Í" C^Ó,lfC[f<,đŽg—p,Á,«,Ü,·BDelphi
,i•;i"ftf@fCf<CEÏöfGf"fwf",i0C•;i" ,lfwf<fvftf@fCf<,iff[f^,đŠÇ—
□,Á,«,Ü,·BfRf"fpfCf<□,Ý,lfwf<fvftf@fCf<,É%Á,Á,Á□□'Ž®•t,«fefLfXfgE`Ž® (RTF) ,lf
□[fXftf@fCf<,à—p^Ó,μ,Á,“,«,Ü□B,±,é,Í□CfL□[f□□[fhftf@fCf<,đ□i□-,·,é,½,β,Á,·□B,È,“□C'É□í,í
RTF ftf@fCf<,đ"z•z,·,é,±,Æ,Í, ,è,Ü,¹,ñ□B

f%ofCfuf%oS,ì,Ù,©,lfRf"f□[flf"fg,lfwf<fvftf@fCf<,Æ"~,¶,æ,κ
,É"®□i,·,éfwf<fvftf@fCf<,đ□i□-,·,é,Æ,«,í□C^È%o,ì<K¥,É□],t,Ü,·□B

1 ŠefRf"f□[flf"fg,É%oæ-È,đ 1 ,Á,„,ÁŠ„,è“-,Ä,é

fRf"f□[flf"fg%oæ-È,Á,í□C,»,lfRf"f□[flf"fg,ì-Ú"i,đŠÈ'P,É□à-¾,μ□Cft□[fU□[,žg—
p,Á,«,é,·,×,Ä,lfvf□pfefB□CfCxf"fg□Cf□[fbfh,đ•É□X,ÉfŠfXfg,μ,Ü,·BfAfvfŠfP□[fVf#“ŠJ”-
ŽÒ,í□CftfH□[f€,Á,»,lfRf"f□[flf"fg,đ'í'đ,μ,Á F1 ,đ%oÿ,·,±,Æ,É,æ,è□C,±,ì%oæ-È,đ•\
Ž!,μ,Ü,·BfRf"f□[flf"fg%oæ-È,ìŽÀ□Ü,ì—á,đ•\Ž!,·,é,É,í□CftfH□[f€,É" C^Ó,lfRf"f
□[flf"fg,đ"z'u,μ,Á F1 ,đ%oÿ,μ,Ü,·□B

fRf"f□[flf"fg%oæ-È,É,í□CfL□[f□□[fhCEÏö—p,ì<r'□•¶Žš□uK□v,đ•t,~,Ä□CfRf"f□[flf"fg,ì-
¼'O,đŽw'è,μ,Ü,·□B,½,Æ,í,í□CTmemo fRf"f□[flf"fg,lfL□[f□□[fh<r'□,í□uTmemo fRf"f
□[flf"fg□v,Æ,È,è,Ü,·□B

2 fRf"f□[flf"fg,É'Ç%oÁ,μ,½,©□C,Ü,½,í'á,«,·í□X,μ,½Šefvf□pfefB□CfCxf"fg□Cf□[fbfh,É
%oæ-È,đ1,Á,„,ÁŠ„,è“-,Ä,é

fvf□pfefB□CfCxf"fg□Cf□[fbfh,ìŠe%oæ-È,É,í□C,»,ì□€-Ú,žŠ'® ,·,éRf"f□[flf"fg,Æ□C,»,ì□€-
Ú,đ□éCE¾,·,é□\•¶,đŽ!,μ□C,³,ç,ÉŽg—p•ú-@,đ□à-¾,μ,Ü,·BfAfvfŠfP□[fVf#“ŠJ”-
ŽÒ,í□CflfufWfFfNfgfCf"fxfyfNf^,Á,»,ì□€-Ú,đ<'²•\Ž!,³,¹,Ä F1 ,đ
%oÿ,·,©□C,Ü,½,lfR□[fhfGfffBf^,Á,»,ì□€-Ú,ì-¼'O,ÉfefXfgf□[f<,đ^Ú"®,³,¹,Ä F1 ,đ%oÿ,·,±
,Æ,É,æ,è□C,»,ì□€-Ú,ì%oæ-È,đ•\Ž!,μ,Ü,·Bfvf□pfefB%oæ-È,ìŽÀ□Ü,ì—á,đ•\
Ž!,·,é,É,í□CflfufWfFfNfgfCf"fxfyfNf^,Á" C^Ó,lfvf□pfefB,đ'í'đ,μ,Á F1 ,đ%oÿ,μ,Ü,·□B

fvf□pfefB□CfCxf"fg□Cf□[fbfh,ìŠe%oæ-È,É,í□CfL□[f□□[fhCEÏö—p,ì<r'□•¶Žš K
,đ•t,~,Ä□C,»,ì□€-Ú,ì-¼'O,ÆŽí—p,đŽw'è,μ,Ü,·□B,½,Æ,í,í□CTop
fvf□pfefB,lfL□[f□□[fh<r'□,í□uTop fvf□pfefB□v,Æ,È,è,Ü,·□B

Žÿ,É□CDelphi ,ž•;i"ftf@fCf<fCf"ffbfNfXCEÏö,ÉŽg—p,·,é"ÁŽè,È<r'□,đfwf<fvftf@fCf<,ìŠe%oæ-
È,É•t,~,Ü,·□B

ŽQÆ14022

Windows fwf<fv,ììììì

“ÁŽê,È<r’ì,ì’Ç%oÁ

fLì[fììììfhftf@fCf<,ììììì

“ÁŽê,È<r’□,Ì’Ç%oÁ14023

ŽQ□Æ

fRf“f□[flf“fg—p,lfwf<fv%oæ-Ê,ð,»ê^ÈŠO,ì“~ ,¶,æ,α,È-¼’O,ì•t,ç,½□€-
 Ú,©,ç<æ•Ê,·,é,½,β□CDelphi ,ì“ÁŽê,ÈCEÿ□ōfl□[,ðŽg—p,μ,Û,·□B,±,ì,½,βŠe□€-
 Ú,É,í□C•W□€fl□[f□□[fhCEÿ□ō—p,ì K ,ì<r’□,¾,~ ,Á,È,□CDelphi —p,ì“ÁŽê,È<r’□,à•K—v,Á,·□B

flfufWfFfNfgfCf“fXfyfNf^ ,âfR□[fhfGfffBf^ ,Á F1 ,É,æ,éCEÿ□ō,ð□s,α
 ,É,í□CŠefwf<fvftf@fCf<%oæ-Ê,È<r’□•¶Žš□uB□v,ð•t,~ ,Á□Cfl□[f□□[fh,ðŽw’è,μ,Û,·□B

•¶ŽšB<r’□,í□CWinHelp ,ì•W□€fl□[f□□[fhCEÿ□ō,ÉŽg—p,¾,ê,é K ,ì<r’□,ÆŽ—,Á,ç,Û,·,ª□CB
 ,ì<r’□,ðŽg—p,·,é,ì,í Delphi ,ìCEÿ□ōfGf“fWf“ ,¾,~ ,Á,·□B^È%o°,ì•\,í□CŠeŽí,lfRf“f□[flf“fgfwf<fv
 %oæ-Ê,ì B ,ì<r’□,ð□□~ ,·,é•û-@,ðŽí,μ,Û,·□B

%oæ-Ê,ìŽí—p	•¶Žš B ,ì<r’□,ì“à—e	—á
f□Cf“fRf“f□[flf“fg,ì %oæ-Ê	'class_' + fRf“f□[flf“fgCE^-¼	class_TMemo
”Ä— p“l,Èfvf□fpfefB,Û,½,ífCfx f“fg,ì%oæ-Ê	'prop_' + fvf□fpfefB-¼ 'event_' + fCfxf“fg-¼	prop_WordWrap event_OnChange
fRf“fj □[flf“fg“ÆŽ©,ìfvf□fpfefB ,Û,½,ífCfxf“fg,ì%oæ-Ê	'prop_' + fRf“f□[flf“fg-¼ + fvf□fpfefB-¼ 'event_' + fRf“f□[flf“fg-¼ + fCfxf“fg-¼	prop_TMemoWordWrap event_TMemoOnChang e

”Ä—p,ì%oæ-Ê,ÆfRf“f□[flf“fg“ÆŽ©,ì%oæ-Ê,Æ,ì<æ•Ê,ì’â□Ø,Á,·□B”Ä—p,ì%oæ-
 Ê,í□C,·,x,Ä,lfRf“f□[flf“fg,ì“Á’è,ìfvf□fpfefB,âfCfxf“fg,É“K—p,¾,ê,Û,·□B,½,Æ,ì,í□C,·,x,Ä,lfRf“fj
 □[flf“fg,ì“~ ,¶ Left fvf□fpfefB,ðŽ□,ç,Û,·□B,μ,½,ª,Á,Á□C,±,ìfvf□fpfefB,ìCEÿ□ō—p•¶Žš—ñ,í
 prop_Left ,Á,·□B^ê•û□CBorderStyle fvf□fpfefB,ì<@“\,í□S’®,·,éRf“fj
 □[flf“fg,É,æ,Á,Ä^Û,È,è,Û,·□B,μ,½,ª,Á,Á□CŠefRf“f□[flf“fg,ì BorderStyle
 fvf□fpfefB,í□C,» ,ê,¼,ê“ÆŽ©,ì%oæ-Ê,ðŽg—p,μ,Û,·□B,½,Æ,ì,í□C•Ò□Wf{fbfNfXfRf“f□[flf“fg
 TEdit,ìBorderStyle fvf□fpfefB—p,ì%oæ-Ê,É,í□Cprop_TEditBorderStyle ,Æ,ç,αCEÿ□ō—p•¶Žš—
 ñ,ª•t,~ ,ç,ê,Ä,ç,Û,·□B

ŽQÆ14024

Windows fw<fv,ììì

fw<fvftf@fC<,ììì

fL[fìììfhftf@fC<,ììì

fL[f][fhftf@fCf<,i[i]-14025

ŽQAE

ŠJ",μ,½fRf"f|[f|f"fg—p,lfwf<fvftf@fCf<,ð[i]-,μ,ÄfRf"fpfCf<,μCfL[f][fhCEÿö—
p,i"AZê,É<r'ð'Ç%Á,μ,½CEã,íCfL[f][fhftf@fCf<,ð[i]-,μ,Ü,·B,±,lfL[f][fhftf@fCf<,i"à—
e,íCDelphi ,lf}fXf^ [CEÿöfCf"ffbfNfX,Éf}[fW,³,è,Ü,·B

fwf<fvf[fX (RTF) ftf@fCf<,©,çfL[f][fh (.KWF) ftf@fCf<,ð[i]-,·,éŽè±,íŽÿ,ì,Æ,"è,Å,·B

- 1 fL[f][fhftf@fCf<[f]-fAfvfŠfP[fvff" KWGEN ,ðŽÀ[s,μ,Ü,·Bfvf[fOf%of€f}f|[fWff,©,ç
Delphi fOf<[fv,ì Keyword Generate ,ð<N"® ,μC[m.HPJ
ftf@fCf<(H)n,Éfv[fWfFfNfgftf@fCf<,ðŽw'è,μ,Ü,·B

KWGEN ,ìŽÀ[s,³[i]-¹,μ,½,Æ,«,É,íCfL[f][fhftf@fCf<,³[i]-,³,è,Ä,ç
,Ü,·BfL[f][fhftf@fCf<,ì-¼'O,íCfwf<fvftf@fCf<,âfwf<fvfvf[fWfFfNfgftf@fCf<,ì-
¼'O,Æ" ,¶,ÅCŠg'£Žq,³ .KWF ,É,È,è,Ü,·B

2

[i]-,³,è,½fL[f][fhftf@fCf<,ðCfRf"fpfCf<[i,Ý,lfjfbfgftf@fCf<,âfwf<fvftf@fCf<,Æ" ,¶ffBf
CfNfgfŠ,É"ü,è,Ü,·B

fRf"f|[f|f"fgfpfCEfbfg,ÉfRf"f|[f|f"fg,ðfCf"fXfg[f<,·,éè±,à Delphi fwf<fvfVfXfef€
,lf}fXf^ [CEÿöfCf"ffbfNfX,ÉfL[f][fh,ðf}[fW,Å,«,Ü,·B

ŽQÆ14026

Windows fw<fv,ìììì

“ÁŽè,È<rì,ì'Ç%oÁ

fw<fvftf@fCf<,ìììì

fwf<fvfCf“ffbfNfX,lf}[]fW14027

ŽQÆ

fwf<fvftf@fCf<, ©, çL[]f[]fhftf@fCf<, ð[]—, μ, ½, ç[]CŽŸ, lfL[]f[]fh, ð Delphi
, lf}fXf^[]fwf<fvfCf“ffbfNfX, Éf}[]fW, μ, Ü, ·[]B

fL[]f[]fhftf@fCf<, ð Delphi f}fXf^[]fwf<fvfCf“ffbfNfX, Éf}[]fW, ·, éŽè[]‡, ÍŽŸ, ì, Æ, ¨, è, Å, ·[]B

1 fL[]f[]fh (.KWF) ftf@fCf<, ÆfRf“fpfCf<, ³, ê, ½fwf<fv (.HLP)
ftf@fCf<, ðfRf“fpfCf<[]İ, Ÿftfjfbfgftf@fCf<, Æ“˘, ¶ffBfÆfNfgfŠ, É’u, «, Ü, ·[]B

2 fAfvfŠfP[]fVf‡f“ HELPINST , ðŽÀ[]s, μ, Ü, ·[]BHELPINST , í Delphi , É•t’@, ·, é Windows
fAfvfŠfP[]fVf‡f“, Å, ·[]B

HELPINST , ÌŽÀ[]s, ³[]—¹, μ, ½, Æ, «, É, Í[]C Delphi f}fXf^[]fwf<fv (.HDX) ftf@fCf<, É[]CfRf“f[]
[]f[]f“fg, lfwf<fv%œ-É—p, lfL[]f[]fh, ²“ü, Á, Ä, ç, Ü, ·[]B

ŽQÆ14028

fwf<fvftf@fCf<,iñiñ-

“ÁŽè,È<rñ,i'Ç%oÁ

fvf[]fpfefB,ì•Ù'¶,Æ“Ç,Ý[]ž,Ý14029

ŽQ[]Æ

Delphi ,íftfH[][f€ ,Æ ,» ,) ,)Rf“f[][]lf“fg ,ðftfH[][f€ (.DFM)
ftf@fCf< ,ÉŠi”[,μ ,Ü ,·[]BftfH[][f€ftf@fCf< ,É ,í[]CftfH[][f€ ,ÆfRf“f[]
[]lf“fgfvf[]fpfefB ,³fofCfifŠCE`Ž @ ,Å•Ù'¶ ,³ ,ê ,Ü ,·[]BftfH[][f€ ,ª•Ù'¶ ,³ ,ê ,é ,Æ ,«[]CftfH[][f€
,É”z'u ,³ ,ê ,½Rf“f[][]lf“fg ,ÍŽ @[]g ,)fvf[]fpfefB ,ðftfH[][f€ftf@fCf< ,É[] ,«[]ž ,Ý ,Ü ,·[]B” -I ,É[]CDelphi
,É“Ç ,Ý[]ž ,Ü ,ê ,é ,Æ ,« ,â[]CfAfvfŠfP[][fVf+“ ,) ^ê” ,Æ ,μ ,ÄŽÀ[]s ,³ ,ê ,é ,Æ ,« ,É ,í[]CfRf“f[]
[]lf“fg ,ÍŽ @[]g ,ðftfH[][f€ftf@fCf< ,© ,ç•œCE³ ,μ ,Ü ,·[]B

fRf“f[][]lf“fg ,É ,íftfH[][f€ftf@fCf< ,ð'€[]ì ,· ,é<@”\ ,ª” ò ,í ,Á ,Ä ,ç ,Ü ,·[]B ,Á ,Ü ,è[]C ,· ,x ,Ä ,)Rf“f[]
[]lf“fg ,)fofCfifŠ•\CE» ,)•Ù'¶ ,Æ“Ç ,Ý[]ž ,Ý ,)k@”\ ,ðCEp[]³ ,μ ,Ä ,ç ,Ü ,·[]B ,μ ,© ,μ[]CfRf“f[]
[]lf“fg ,ªŽ @[]g ,ð•Ù'¶ ,· ,é•ù-@ ,â[]C“Ç ,Ý[]ž ,Ü ,ê ,½ ,Æ ,« ,)[]%Šú%»•ù-@ ,ð•ì[]X ,μ ,½ ,ç[]ê[]± ,ª , ,è ,
Ü ,·[]B ,» ,) ,½ ,β ,É ,í[]CŠi”b”I ,Éf[]fjfyf€ ,É ,Á ,ç ,Ä , ,é”ö”x—[]%ð ,· ,é•K—v ,ª , ,è ,Ü ,·[]B

fvf[]fpfefB,ì•Ù'¶,Æ“Ç,Ý[]ž,Ý,É,Á,ç,Ä^È%º,ì,±,Æ,ð[]à-¾,μ,Ü,·[]B

- •Ù'¶,Æ“Ç,Ý[]ž,Ý,í[]f[]fjfyf€
- ffftfHf<fg'l,íŽw'è
- •Ù'¶'í[]Ü,íCE^è
- “Ç,Ý[]ž,ÝCEã,í[]%Šú%»

ŽQÆ14030

fRf“f|□[flf“fg,ì Delphi ,Ö,ì“o~^

fpfCEfbfgfrfbfgf}fbfv,ì'Ç%oÁ

fvf□fpfefB,ÆfCxf“fg,É,Á,ç,Ä,lfwf<fv,ìñ<Ÿ

• Ů'ŕ,Æ“Ç,Ýž,Ý,ìfjffjYf€14031

ŽQÆ

fAfvfŠfP[fVf+f“Šj”ŽÒ,āftfH[f€,đŸYv,μ,½ēñ#CftfH[f€,ì<Lq,íftfH[f€ (.DFM)
ftf@fCf<,É•Ů'ŕ,³,ēCCĀă,ÉfRf“fpfCf<ĭ,Ÿ,lfAfvfŠfP[fVf+f“,ÉC<,Ň•t,̄,ç,ê,Ů,·BfAfvfŠfP[fVf+f“
,ÍŽÀsŽž,ÉftfH[f€,ì<Lq,đ“Ç,Ýž,Ý,Ů,·B

ftfH[f€,ì<Lq,É,ÍCftfH[f€,lfvfpfefB,lfŠfXfg,ÆCftfH[f€“à,ìŠefRf“f|f|f“fg,ì“—l,ì<Lq,ā, ,
è,Ů,·BftfH[f€,âfRf“f|f|f“fg,ÍCŽ©g,ì<Lq,ì•Ů'ŕ,Æ“Ç,Ýž,Ý,đs,æ@“\,đ”ô,ł,Ā,ç,Ů,·B

'ÊíCfRf“f|f|f“fg,āŽ©g,ì<Lq,đ•Ů'ŕ,·,éêñ#,ÍCfpufŠfbfN,Ů,½,ÍpfufŠfbfVf...
,ÉéC¾,³,ê,Ā,ç,évfpfefB,ì,æ,¿C'l,āfftfHf<fg,Æ^Ů,È,é,à,ì,đéC¾ñ#,É',«ž,Ÿ,Ů,·BfRf“f|
|f|f“fg,āŽ©g,ì<Lq,đ“Ç,Ýž,þêñ#,ÍC,Ů, ,Ž©g,đñ¬,μC,·,x,Ā,lfvfpfefB,đfftfHf<fg'l,É
Ÿ'è,μ,Ā,©,çC•Ů'ŕ,³,ê,Ā,ç,é (fftfHf<fg'l,Ā,Í,È,ç) fvfpfefB'l,đ“Ç,Ýž,Ý,Ů,·B

,Ů,Æ,ñ,ç,ìêñ#C,±,lfftfHf<fg,lfjffjYf€,đ•İX,·,é•K—v,Í, ,è,Ů,¹,ñB,μ,©,μC“Á'è,lfRf“f|
|f|f“fg,ì•Ů'ŕ,Æ“Ç,Ýž,Ý,ì^—,đffXf^f}fCfY,·,é•û-@,à,ç,,Ā,©—p^Ó,³,ê,Ā,ç,Ů,·B

ŽQÆ14032

ffftHf<fg'l,ìŽw'è

•Ù'¶'í□Ù,ìÆ'^è

“Ç,Ý□ž,ÝÆä,ì□%oŠú%o»

ffftfHf<fg'l,ìŽw'è14033

ŽQÆ —á

Delphi fRf“fj□[fj“fg,í□C'l,ªffftfHf<fg'l,Æ^Ù,È,Á,Ä,ç
,éfvf□pfefB,¾,¯,ð•Ù'¶,µ,Û,·□B“Á,ÉŽw'è,µ,È,¯,ê,í□Cfvf□pfefB,íffftfHf<fg'l,ðŽ□,Á,Ä,ç,È,ç
,Æ,Ý,È,³,ê□C,»),ìfvf□pfefB,í'l,É,©,©,í,ç,_,□í,É•Ù'¶,³,ê,Û,·□B

fRf“fj□[fj“fgfRf“fXfgf
%ofNf^,É,æ,Á,Ä'l,ðY'è,³,ê,È,çfvf□pfefB,í□C'l,ªf[f□,É,È,è,Û,·□Bfvf□pfefB,ìCE^,É,æ,Á,Ä□C,±
,ì□uf[f□□v,É'í%ž,·,éŽÀ□Û,ì'l,í,³,Û,´,Û,Á,·□B,Á,Û,è□C□"l,È,ç,ìf[f□□C~_—□'l,È,ç,í False□Cf|
fCf“f^,È,ç,í nil ,É,È,è,Û,·□Bf[f□,Æ,Ý,È,³,ê,é'l,ª
%o½,Á, ,é,©Šm□M,ªŽ□,Á,È,ç□ê□#,í□CffftfHf<fg'l,ð-¾Ž'l,ÉŽw'è,µ,Ä,,¾,³,ç□B

fvf□pfefB,íffftfHf<fg'l,ðŽw'è,·,é,É,í□Cfvf□pfefB□éCE¾•¶,ì□ÁCEã,É default Žw—
ß,ÆffftfHf<fg'l,ð<L□q,µ,Û,·□B

fvf□pfefB,ð□Ä□éCE¾,·,é,Æ,«,à□CffftfHf<fg'l,ðŽw'è,Á,«,Û,·□BŽÀ□Û□C^Ù,È,Á,½ffftfHf<fg'l,ðŽw
'è,·,é,½,ß,Éfvf□pfefB,ð□Ä□éCE¾,·,é,±,Æ,à,æ,, ,è,Û,·□B

f□f.:

ffftfHf<fg'l,ðŽw'è,µ,½,¾,¯,Á□CfífufWfFfNfg□ì□—Žž,É,»,ì'l,ªŽ©“®“l,É,»,ìfvf□pfefB,É'
ã“ü,³,ê,é,í,¯,Á,í, ,è,Û,¹,ñ□BfRf“fj□[fj“fg,ì Create fRf“fXfgf%ofNf^,Á'l,ð'ã“ü,·,é•K—
v,ª, ,è,Û,·□B

—á14034

ŽŸ,lfR[fh—á,Å,íCfRf“f|[]f|f“fgéÉ¾,Å Align fvf[]fpfefB,ÉffftfHf<fg‘l,ðŽw’è,μCfRf“f|
[]f|f“fgfRf“fXfgf%ofNf^,Å,»,iffftfHf<fg‘l,ðŽÅÜ,É‘ã“ü,μ,Å,ç,Ü,·B[]V,μ,çfRf“f|
[]f|f“fg,íC·W[]€fpf|f<fRf“f|[]f|f“fg,ð·ïX,μ,ÅCfEfBf“fhfE,lfXfe[]f^fXfo[],Æ,μ,ÄŽg—
p,μ,Ü,·B,»,ì,½,ßCfEfBf“fhfE,iffftfHf<fg,ì”z’u,ðf|[]fi[],ì%o°”,Æ,μ,ÄŽw’è,μ,Ü,·B

type

```
TStatusBar = class (TPanel)
public
  constructor Create (AOwner: TComponent); override;    {
[V,μ,çffftfHf<fg,ðŸ’è,·é,½,ßf|[]fo[]f%ofCfh }
  published
    property Align default alBottom;    { [V,μ,çffftfHf<fg‘l,ÅÄÉÉ¾ }
  end;
...
constructor TStatusBar.Create (AOwner: TComponent);
begin
  inherited Create (AOwner);    { Cp³,μ,½[]%Šú%»^—,ðŽÅ[s }
  Align := alBottom; { Align ,É[V,μ,çffftfHf<fg‘l,ð‘ã“ü }
end;
```

ŽQÆ14035

•Ů'¶,Æ"Ç,Ýž,Ý.ìfjffjYf€

•Ů'¶'îŮ,ìÆ'^è

"Ç,Ýž,ÝÆã,ì%Šú%»

•Ů'ŕ'íŮŮ,ìĈ^'è14036

ŽQŮÆ —á

fRf"flŮflf"fg,lfvfŮpfefB,ì,».,ê,¼,ê,É,Â,ç,ÄŮC•Ů'ŕ,.,é,©,Ç,ŕ
,©,ðŽw'è,Â,«.,ŮBffftfHf<fg,Â,ÍŮCflfufWfFfNfgŮéĈ¾,ì **published**
•",ì,.,x,Ä,lfvfŮpfefB,^a•Ů'ŕ,³ê,Ů,.,^aŮC"Á'è,lfvfŮpfefB,ð•Ů'ŕ,μ,È,ç,æ,ŕ
,ÉŽw'è,μ,½,èŮCfvfŮpfefB,ð•Ů'ŕ,.,é,©,Ç,ŕ,©,ðŽÀŮsŽž,ÉĈ^'è,.,éŠÖŮ",ðŽw'è,.,é,±
,Æ,^a,Â,«.,Ů,ŮB

fvfŮpfefB,ð•Ů'ŕ,.,é,©,Ç,ŕ,©,ðŽw'è,.,é,É,ÍŮC,»,lfvfŮpfefB,ìŮéĈ¾,É **stored** Žw—ß,ð'Ç
%oÁ,μŮC,»,ìĈě,É True,©FalseŮC,Ů,½,Í~—Ů'l,ð•Ů,.,fŮŮfbfh,ì-¼'O,ð<LŮq,μ,Ů,ŮB

stored Ůß,ÍŮC,.,x,Ä,lfvfŮpfefB,ìŮéĈ¾,,"æ,ŃŮÄŮéĈ¾,É<LŮq,Â,«.,Ů,ŮB

—á14037

ŽŸ,lfR[fh—á,Á,íCfRf“f|□[flf“fg,Á 3 ,Á,ì□V,μ,çfvf□fpfefB,đ□éCE¾4,μ,Ä,ç,Ü,·□B□Á□%
,lfvf□fpfefB,í•K, ,•Ú‘¶,³,é□C2 "Ô-Ú,lfvf□fpfefB,í□í,É•Ú‘¶,³,é, ,□C3 "Ô-Ú,lfvf□fpfefB,lf□f
fbfh,ª•Ö,~_—□‘l,É%ž,¶,Ä•Ú‘¶,³,é,Ü,·□B

type

```
TSampleComponent = class(TComponent)  
protected  
    function StoreIt: Boolean;  
public    { 'É□í□CŠi"[,³,é,È,ç }  
    property Important: Integer stored True; { □í,É•Ú‘¶,³,é,é }  
published { 'É□í□C□í,ÉŠi"[,³,é,é }  
    property Unimportant: Integer stored False; { □í,É•Ú‘¶,³,é,È,ç }  
    property Sometimes: Integer stored StoreIt; { ŠÖ□“‘l,É%ž,¶,Ä•Ú‘¶ }  
end;
```

ŽQÆ14038

•Ů'¶,Æ"Ç,Ýž,Ý.ìfjjfjYf€

fftfHf<fg'l,ìŽw'è

"Ç,Ýž,ÝĚã,ì%Šú%»

“Ç,Ýž,ÝĚã,ì%Šú%»14039

ŽQÆ —á

fRf“f|[]f|f“fg,íC,·,×,Ä,lfvf[]pfefB'l,ð•Ú'¶,³,ê,Ä,ç,é<L[]q,©,ç“Ç,Ýž,ň,¾Ěã[]Loaded ,Æ,ç,×
%¼'zf[]fbfh,ðĚÄ,Ñ[]o,μ,Û,·[]B,±,ì%¼'zf[]fbfh,Ä,íC•K—v,É[]Šú%»»,ð[]s,×,±
,Æ,ª,Ä,«,,Û,·[]BLoaded ,íftfH[]f€,âfRf“fgf[]f<,ª•\Ž,³,ê,é'O,ÉĚÄ,Ñ[]o,³,ê,é,ì,Ä[]C[]Šú%»^
—[],É,æ,Ä,Ä%æ-Ê,É,ç,Ä,ª[]¶,¶,é,±,Æ,í, ,è,Û,¹,ň[]B

fvf[]pfefB,ª“Ç,Ýž,Û,ê,½Ěã,ÄfRf“f|[]f|f“fg,ð%Šú%»»,·,é[]ê[]‡,É,í[]CLoaded f[]f
fbfh,ðf[]fo[]f%ofCfh,μ,Û,·[]B

f[]f,: []V,μ,ç Loaded f[]fbfh,Ä,í[]C,Û,·Ěp[]³,μ,½ Loaded f[]fbfh,ðĚÄ,Ñ[]o,μ,Û,·[]B,»×
,·,é,í[]C“ÆŽ©,ì%Šú%»»,ð[]s,×'O,É[]C,·,×,Ä,ìĚp[]³fvf[]pfefB,ð“K[]Ø,É[]Šú
%»»,Ä,«,,Û,·[]B

-á14040

ŽŸ,ÉŽ!,.fR[fh,íCTDatabasefRf“f|f|“fg,lfR[fh,ðCE³,É,μ,Ä,ç,Ü,·B,±
,lf[f^fx[fX,íC“Ç,Ýž,Ü,ê,½CEãC,·,x,Ä,ìÚ'±,ð•Ú'ŸŽž,ìó'Ô,É-ß,»x
,Æ,μ,Ü,·B,Ü,½CÚ'±^—'†,É—áŠO,ª”Ÿ,μ,½é†,ì^—•û-@,àŽw'è,μ,Ä,ç,Ü,·B

```
procedure TDatabase.Loaded;  
begin  
  inherited Loaded; { í,ÉCCep³f|f|fh,ðÁ%o,ÉCEÄ,Ño,· }  
  try  
    if FStreamedConnected then Open; { Ú'±,ðÄŠm—š,·,é }  
  except  
    if csDesigning in ComponentState then { ÝCEvŽž,É,ç,Î... }  
      Application.HandleException(Self) { ...Delphi,É—áŠO,ð^—  
    ,³,¹,é }  
    else Raise; { ,»x,Ä,È,çé†,É,íC—áŠO,ðŸ— }  
  end;  
end;
```


ŽQÆ14041

•Ů'¶,Æ"Ç,Ýž,Ý.ìfñffjYf€

fftfHf<fg'l,ìŽw'è

•Ů'¶'íŮ,ìÆ'^è

fRf“f|□[f|f“fgŠJ” ,ì,í,¶,ß,É14042

ŽQ□Æ

Delphi ,í□CfRf“f|□[f|f“fg,đŽg—p,μ,ÄfrfWf...fAf<,ÉfAfvfŠfP□[fVf#f“ ,đ□ì□—,·,éŠJ” -
ŠÂ<« ,Ä,·,ª□C,» ,ê,¾, ,Ä,í, ,è,Ü,¹,ñ□B Delphi ,Ä,í□C,» ,ìfRf“f|□[f|f“fgŽ© ‘ì,đ“ ,¶ Object Pascal
Æ¾¼Æê,É,æ,Ä,Ä□ì□—,·,é,±,Æ,à,Ä,« ,Ü,·□B

□wfRf“f|□[f|f“fgŠJ” ŽÒfKfCfh□x,Æ□C‘í%ž,·,éfwf<fvftf@fCf< (CWG.HLP) ,É,í□C Delphi
fAfvfŠfP□[fVf#f“ —pRf“f|□[f|f“fg,ìŠJ” ,É•K—v,È,·,x,Ä,ì□î•ñ,ª<L□Ú,³,ê,Ä,ç,Ü,·□B“^è,ì“à—
e,đf}fjf...fAf<,Æfwf<fvftf@fCf<,ì 2 ,Ä,ìÆ`Ž® ,Ä’ñ<Ÿ,μ,Ü,·□B

,±,ìf}fjf...fAf<,É,í^È%º,ì 2 ,Ä,ì-Ú“l,ª, ,è,Ü,·□B

1 fRf“f|□[f|f“fg,ì□ì□—•û-@,đ□à-¾,·,é

2 □ì□—,μ,½fRf“f|□[f|f“fg,đ Delphi ŠÂ<« ,ì^ê•” •ª,Æ,μ,Ä“K□# ,³,¹,é

,±,ìf}fjf...fAf<,É□],ì,ì□CŠJ” ŽÒŽ© □g,ìfAfvfŠfP□[fVf#f“ ,Ä,à□C, ,é,ç
,Ížs”l,·,éfAfvfŠfP□[fVf#f“ ,Ä,à□C,·,x,Ä,ì Delphi fAfvfŠfP□[fVf#f“ ,Ä³,μ,“ ®□ì,·,éRf“f|
□[f|f“fg,đŠJ” ,Ä,« ,Ü,·□B

ŽQÆ14043

fRf“f|□[flf“fgŠ]”,í%½,â^á,α,ì,©

fRf“f|□[flf“fg,Æ,í%½,©

fRf“f|□[flf“fg,ìì□→ (Ü,Æ,β)

fRf“f|□[flf“fgìì□→,ìŠT—v

fRf“f|□[flf“fg,Æ,í%½, © 14044

ŽQ□Æ

fRf“f|□[flf“fg,í Delphi fAfvfŠfP□[fVf#f“,đ□□¬,·,é•”•i,Â,·□B‘â•”•ª,}fRf“f|
□[flf“fg,íft□[fU□[fCf“f^□[ftfF□[fX,ì^è•”•ª,Æ,μ,Ä•Ž|,³,ê,Û,·,ª□Cf^fCf}□[.âff□[f^fx□[fX,ì,æ,π
,È,ç,,Â,©,}fRf“f|□[flf“fg,í□Cfvf□fOf%of€‘t,É‘¶□Ý,·,é,¾,¯,Â•Ž|,³,ê,Û,¹,ñ□B

fRf“f|□[flf“fg,í 3 ,Â,}fCefxf<,Â□|,ì,é,±,Æ,ª,Â,«,Û,·□B

fRf“f|□[flf“fg,ì<@”\“l’è<`

fRf“f|□[flf“fg,ì<Z□p“l’è<`

Šj”ŽÒ,É,Æ,Á,Ä,}fRf“f|□[flf“fg’è<`

ŽQÆ14045

fRf“f|□[f|f“fgŠ]”.í%oo½,ª^á,α,ì,©

fRf“f|□[f|f“fg,ì)ì□→ (.Ü,Æ,β)

fRf“f|□[f|f“fg,ì<@”\“l’è<` 14046

ŽQ□Æ

Žg—p,·,é—š□è,©,ç,Ý,½fRf“f|

□[f|f“fg,í□CfpfCEfbfg,©,ç,l’ð,μ,ÄftfH□[f€fffUfCfi,âfR□[fhfGfffBf^,Â•Ò□W,μ□CfAfvfŠfP□[fVf#f“,
ÅŽg—p,·,é’í□Û,Å,·□B,±,ê,É’í,μ,Ä□CŠJ”,·,é—š□è,©,ç,Ý,½fRf“f|

□[f|f“fg,í□CfR□[fh,Å□’,©,ê,½f|fufWfFfNfg,Å,·□BfRf“f|□[f|f“fg,ìŠJ”,É,“,·,éŽÀŽ¿“l,È□š-

ñ,í,Û,Æ,ñ,ç,È,□C,³,Û,‘,Û,ÈfRf“f|□[f|f“fg,ð□ì□-,Å,«,Û,·,·^a□CfRf“f|□[f|f“fg,ìŽg—pŽÒ,^a

%^o½,ì,½,ß,É,»,ìfRf“f|□[f|f“fg,ðŽg—p,·,é,ì,©□C,Æ,ç,π“_ð□í,É^ÓŽ~,μ,Ä,“,·,Æ,æ,ç,Å,μ,â,π□B

ft□[fU□[.É,Æ,Á,ÅŽg,ç,â,·,çfRf“f|□[f|f“fg,ð□ì□-,·,é,½,ß,É□C,Û,·,Delphi,É•t’®,·,éŠù’¶,ìfRf“f|

□[f|f“fg,ð,æ,—□%^oð,μ,Ä,“,·,ç,Ä,,³/₄,³,ç□B,È,é,x,□C,Û,©,ìfRf“f|□[f|f“fg,Æ“~,¶,æ,π,ÉŽg,ì,éfRf“f|

□[f|f“fg,ð□ì□-,·,é,x,«,Å,·□B

ŽQÆ14047

fRf“f□[f]f“fg,ì<Z□p“l’è<`

Šj”ŽÒ,É,Æ,Á,Ä,ÏRf“f□[f]f“fg’è<`

fRf“f|□[flf“fg,ì<Z□p“l'è<` 14048

ŽQ□Æ

□Å, àŠî-{"l, ÈfCEfxf<, Å, í□CfRf“f|□[flf“fg, Æ, í Tcomponent CE^, ðCEp□³, ·, éflfufWfFfNfg, ì, ±, Æ, Å, ·□BComponent, í□CfRf“f|□[flf“fgfpgfCEfbfg, Ö, ì•\

Žl, âftfH□[f€ffUfCfi, Å, ì“@□ì, È, Ç□C, ·, ×, Ä, ìfRf“f|□[flf“fg,ª”ð, ì, Ä, ç, È, ·, è, î, È, ç, È, ç □Å’áCEÀ, ì<@“\, ð’è<`, μ, Ä, ç, Ü, ·□B

, μ, ©, μ□C, ±, ìŠî-{"l, È<@“\, ¾, ·, Å□\•ª, Æ, íCEÀ, è, Ü, ¹, ñ□BComponent, í□CfRf“f|□[flf“fg,ª Delphi ŠÅ<«, Å“@□ì, ·, é, ½, ß, È•K—v, ÈŠî-{"l, È<@“\, ð’è<`, μ, Ä, ç, Ü, ·,ª□C, ½, Æ, ì, î□CŠJ”ŽÒ,ªfRf“f|□[flf“fg, È’Ç%oÁ, μ, ½“ÆŽ©, ì<@“\, ð□^—□, ·, é•û-@, ì’è<`, μ, Ä, ç, Ü, ¹, ñ□B, » , ì, æ, x, È<@“\, È, Å, ç, Ä, í□CŠJ”ŽÒŽ©□g,ª□^—□Žè□‡, ðŽw’è, μ, È, ·, è, î, È, è, Ü, ¹, ñ□B

□³, μ, “@□ì, ·, éfRf“f|□[flf“fg, ð□ì□¬, ·, é, ì, í□C, » , è, Ù, Ç“i, μ, ç, ±, Æ, Å, í, , è, Ü, ¹, ñ□B, ½, ¾, μ□C, » , è, È, í, ±, ìf}fjf...fAf<, È<L□Ü, ³, è, Ä, ç, é<K-ñ□C<K’¥, È□\•ª, È’□^Ó, ð•¥, x•K—v,ª , è, Ü, ·□B

ŽQÆ14049

fRf“f□[f]f“fg,ì<@”\“l’è<`

Šj”ŽÒ.É,Æ.Á.Ä.ìfRf“f□[f]f“fg’è<`

ŠJ"ŽÒ,É,Æ,Á,Ä,İfRf"fİ[fİf"fg'è<` 14050

ŽQÆ

ŽÄÜ,É,İCfRf"fİ[fİf"fg,Æ,Í Delphi ŠJ"ŠÄ««Éu·,μž,þv,±,Æ,^aÄ,«é—v'f,İ,±,Æ,Ä,·B'Pİf,È,à,ì,©,ç·;ŽG,È,à,ì,Ü,ÄC, ,ç,ä,éfRf"fİ[fİf"fg,^a, ,è,Ü,·B•WİfRf"fİ[fİf"fg,É'Pİf,È<@"\,đ'Ç%oÄ,μ,^{1/2,3/4,-},İfRf"fİ[fİf"fg,à, ,é,İC,Ü,©,İfnİ[fhfEfffA,â\ftfgfEfffA,Ö,İ<â,Ä·;ŽG,ÈfCf"f^İ[ftfFİ[fX,đŽÄ«»,·,éfRf"fİ[fİf"fg,à, ,è,Ü,·B,Ä,Ü,èfRf"fİ[fİf"fg,İCfRf"fİ[fİf"fgftfCEİ[f€fİİfN,É"Kİ±,μ,Ä,ç,éCEÄ,èCfRİ[fh,Äİİ-,μ^{3/4},é,·,x,Ä,İ"®İC,·,x,Ä,İ,à,İ,đ·\CE»,Ä,«,Ü,·B

fRf"fİ[fİf"fg,Í- {Žİ"İ,ÉfCf"f^İ[ftfFİ[fX,İžd—İ,Ä,·B,±,İf}fİf...fAf<,İfRf"fİ[fİf"fgftfCEİ[f€fİİfN,đ<LÜ,μ,Ä,"èCfRİ[fh,đ,±,İftfCEİ[f€fİİfN (~g'g),É,»,Ä,Äİİ-,·,è,İC,»,İfRİ[fh,Í Delphi ,Ä"®İ,μ,Ü,·B

,μ,^{1/2},^a,Ä,ÄCfRf"fİ[fİf"fg,İCEÄŠE,É,Ä,ç,Äq,x,é,±,Æ,İCfvfİfOf%of~f"fo,İCEÄŠE,É,Ä,ç,Äq,x,é,±,Æ,Æ"~ ,İ,Ä,·B, ,éfvfİfOf%of~f"foCE^{3/4}CEê,Äİİ-,μ^{3/4},é,·,x,Ä,İfvfİfOf%of€,đà-^{3/4},·,é,±,Æ,^a,Ä,«,È,ç,İ,Æ"~—İ,ÉCİİİ-,μ^{3/4},é,·,x,Ä,İfRf"fİ[fİf"fg,đà-^{3/4},·,é,±,Æ,Í,Ä,«,Ü,¹,ñB,±,İf}fİf...fAf<,É,Ä,«,é,±,Æ,İCDelphi ŠÄ««É³,μ,"Kİ±,·,éRİ[fh,İ<Lq·û-@,đà-^{3/4},·,é,±,Æ,^{3/4}, ,Ä,·B

ŽQÆ14051

fR“f□[f]“fg,ì<@”\“l’è<`

fR“f□[f]“fg,ì<Z□p“l’è<`

fRf“f|□[flf“fgŠJ” ,í%½,ª^á,ꝛ,ì, © 14052

ŽQ□Æ

Delphi ,ÅŽg—p,·,éRf“f|□[flf“fg,ð□□¬,·,é□ì<Æ,Æ□CfRf“f|□[flf“fg,ðŽg—
p,μ,½fAfvfŠfP□[fVf#f” ,ð□□¬,·,é,Æ,ç,ꝛ□C,æ,è^è”É“l,É□ì<Æ,Æ,ìŠÔ,É,í□C^È%º,ì 3 ,Â,ì□d—
v,É‘Š^á“_ª, ,è,Ü,·□B

- fRf“f|□[flf“fgŠJ” ,ífrfWf...fAf< ,Å,Í,È,ç
- fRf“f|□[flf“fgŠJ” ,É,lfufufWfFfNfg,í□[ç‘mŽ¬,ð—v,·,é
- fRf“f|□[flf“fgŠJ” ,É,í,æ,è‘½,,ì<K‘¥,ª”º,ꝛ

ŽQÆ14053

fRf"fi□[fi"fg,Æ,í%½,©

fRf"fi□[fi"fg,ì)□→ (.Ü,Æ,β)

fRf“f|□[flf“fgŠJ” ,ÍfrfWf...fAf<,Á,Í,È,ç 14054

ŽQ□Æ

Delphi ,É, ¨ ,ç, Ä□CfRf“f|□[flf“fg,đŠJ” , ,é□ì<Æ,ª□CfRf“f|□[flf“fg,đŽg—
p,μ,ÄfAfvfŠfP□[fVf†f“ ,đ□ì□— , ,é□ì<Æ,É” ä, x, Ä□Ä, à-¾” ,É^Ù,È,Á,Ä,ç, é,ì,í□CfRf“f|□[flf“fg,ìŠJ”-
 ,Í’S-Ê”I,ÉfR□[fh,É,æ,Á,Ä□s,í,ê,é,Æ,ç,π”_ ,Á,·□BDelphi fAfvfŠfP□[fVf†f“ ,đfrfWf...
fAf<,É□ÝÇEv, , ,é,É,ÍŠ®□— ,μ,½fRf“f|□[flf“fg,ª•K—v,È,½,ß□CfRf“f|□[flf“fgŽ©’ì,đ□ì□— , ,é,Æ,« ,Í
Object Pascal fR□[fh,Á<L□q,μ,È, ¨ ,ê,î,È,è,Û,¹,ñ□B

fAfvfŠfP□[fVf†f“ ,đ□ì□— , ,é□ê□†,Æ,Í^Ù,È,è□CfRf“f|□[flf“fg,ì□ì□— ,ÁfrfWf...fAf<,Èfc□[f<,đŽg—
p, , ,é,±,Æ,Í,Á,« ,Û,¹,ñ,ª□CfR□[fhfGfffBf^□C“□□†ffofbfK□CflfufWfFfNfgfuf%ofEfU,È,Ç,ì Delphi
ŠJ”ŠÄ<<,ìfvf□fOf%of~f“fO<@”\, , ,x,ÄŽg—p,Á,« ,Û,·□B

ŽQÆ14055

fRf“f□[f]f“fgŠ]”.É,Íf|fufWfFfNfg,ì□[.č‘mŽ̄,ð—v, :.é

fRf“f□[f]f“fgŠ]”.É,Í,æ,è‘½,,ì<K‘¥,³”º,ꝛ

fRf“f|□[flf“fgŠJ” ,É,ífufufWfFfNfg,ì□[,ç'mž̃ ,đ—v,·,é14056

ŽQ□Æ

fvf□fOf%of~f“fO,²fRfWf...fAf<,Á,í,È,ç,Æ,ç,æ,±,Æ^ÈŠO,É□CfRf“f|□[flf“fg,ìŠJ”□ì<Æ,²fRf“f|
□[flf“fg,ìŽg—p,Æ□Á,à'á,«,^Ù,È,é,ì,ìŽY,ì“_ ,Á,·□B,Á,Û,è□C□V,μ,çfRf“f|
□[flf“fg,đ□i□-,·,é□Û,É,Í□CŠù'¶,ífufufWfFfNfgCE^,É□V,μ,çfvf□fpfefB,Æf□fVbfh,đ'Ç
%oÁ,μ,Ä□C□V,μ,çfufufWfFfNfgCE^,đ”h□¶,³,¹,é•K—v,ª, ,é,Æ,ç,æ“_ ,Á,·□B,±
,ê,É'í,μ,Ä□CŠù'¶,ífRf“f|□[flf“fg,đŽg—p,·,éft□[fU□[,Í□CfAfvfŠfP□[fVfþf“□ÝEvŽž,ÉfRf“f|
□[flf“fg,ífvf□fpfefB,đ•İ□X,μ,½,è□CfCxf“fg,É'í,·,é%ož“š,đŽw'è,·,é,±,Æ,Á□CfRf“f|
□[flf“fg,ì“®□ì,đjfxf^f}fCfY,μ,Û,·□B

□V,μ,çfufufWfFfNfgCE^,đ”h□¶,³,¹,éêê#□CŠJ”-
ŽÒ,Í□ã^ÊfufufWfFfNfg,ìfp□[fc,ÉfAfNfZfX,Á,«,Û,·,²□CfufufWfFfNfg,đŽg—
p,·,éGf“fhft□[fU□[,í,»,é,ç,ìfp□[fc,đŽg—p,Á,«,Û,¹,ñ□BfRf“f|□[flf“fg,ìŠJ”ŽÒ,¾,¯,ªŽg—p,·,é,±
,ì,æ,æ,Éfp□[fc,Í□CfufufWfFfNfg,ì□ufvf□fefNfgfCf“f^□[ftfF□[fX□v,ÆCEÄ,í,ê,Û,·□B,Û,½□C
%o^ÊfufufWfFfNfg,í,½,ç,Ä,ç□ã^ÊfufufWfFfNfg,đCEÄ,Ñ□o,·•K—v,ª, ,è,Û,·□BfRf“f|
□[flf“fg,đ□i□-,·,éêê# ,Í□CfufufWfFfNfgŽwCEüfvf□fOf%of~f“fO,É□K□n,·,é•K—v,ª, ,è,Û,·□B

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fRf“f|□[f|f“fgŠ|” .ÍfrfWf...fAf<,Á.Í.È.č

fRf“f|□[f|f“fgŠ|” .É.Í.æ.è'½,,ì<K'¥,³”º,ꝛ

fRf“f|□[flf“fgŠJ” ,É,í,æ,è‘½,,ì<K‘¥,ª”º,π14058

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fRf“f|□[flf“fg,ìŠJ” ,í□CfAfvfŠfP□[fVf#f“ ,ìfrfWf...fAf<,È□ì□¬,É”ä,x,é,Æ□]—^,ìfvf□fOf
%of~f“fO□ì<Æ,É,æ,è<β,□CŠù‘¶,ìfRf“f|□[flf“fg,ðŽg—p,·,é□ê□‡,æ,è,à‘½,,ì<K‘¥,É□],π•K—v,ª, ,è,
Ü,·□BfRf“f|□[flf“fg,ðŠJ” ,·,é‘O,É□CDelphi ,Å‘ñ<ÿ,³,ê,Ä,ç,éŠù‘¶,ìfRf“f|□[flf“fg,ðŽg—p,μ,Ä,Ý,Ä,-
,³/₄,³,ç□B^{-1/2-1/4}<K‘¥,È,Ç,É,Ä,ç,ÄŠ‘□G,ð“³/₄,é,±,Æ,^a,Ä,«□C,Ü,½□Cft□[fU□[,í
%º½,ðŠú‘Ò,μ,ÄfRf“f|□[flf“fg,ðŽg—p,·,é,ì,©□C,Æ,ç,π,±,Æ,ðŽÀ□Ü,ÉCeoCe±,Å,«,Ü,·□B

fRf“f|□[flf“fg,ìft□[fU□[,í□C□u,ç,Ä,Å,à□C,Ü,Æ,ñ,Ç%º½,Å,à□s,ì,é□v,æ,π,ÈfRf“f|
□[flf“fg,ðŠú‘Ò,μ,Ä,ç,Ü,·□B,±,π,μ,½Šú‘Ò,É%ºž,ì,éfRf“f|□[flf“fg,ðŠJ” ,·,é,±,Æ,í□C,»,è,Ü,Ç“i,μ,ç
,±,Æ,Å,í, ,è,Ü,¹,ñ,ª□C,»,è,É,í, ,éŽí,ì□[—¶,Æ<K‘¥,Ö,ì□€<’,ª•K—v,Å,·□B

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fRf“f|□[flf“fgŠ]”.ÍfrfWf...fAf<,Á.Í.È.č

fRf“f|□[flf“fgŠ]”.É.ÍflfufWfFfNfg,ì□[.č‘mŽ̄,ð—v,:.é

fRf“f|□[flf“fg,ì□□¬ (,Ü,Æ,ß)14060

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“ÆŽ©,ìfRf“f|□[flf“fg,ð□□¬,;évf□fZfX,í^È%º,ì 5 ,Ä,ì'iŠK,É,Ü,Æ,ß,ç,ê,Û,·□B

1 □V,μ,çfRf“f|□[flf“fg—p,ìftfjfbfg,ð□□¬,;é

2 Šù'¶,ìfRf“f|□[flf“fgÆ^,©,çfRf“f|□[flf“fgÆ^,ð“h□¶,³,¹,é

3 •K—v,É%ºž,¶,Ä□Cfvf□pfefB□Cf□f\fbfh□CfCxf“fg,ð'Ç%ºÁ,;é

4 Delphi ,ÉfRf“f|□[flf“fg,ð“o~^,;é

5 ŠJ”,μ,½fRf“f|□[flf“fg,Æ□C,»ìfRf“f|□[flf“fg,ìvf□pfefB□Cf□f\fbfh□CfCxf“fg,É,Ä,ç
,Äfwf<fvftf@fCf<,ð□□¬,;é

,±,ìfwf<fvftf@fCf<,Ä,íC^Èã,ìŠe'iŠK,ð□Ú□×,É%ºð□à,μ,Û,·□B□ì□¬fvf□fZfX,ª□I—

¹,μ,½,Æ,«□CŠ@□¬,μ,½fRf“f|□[flf“fg,É,í^È%º,ì 4 ,Ä,ìftf@fCf<,ªŠÜ,Û,ê,Ä,ç,Û,·□B

1 fRf“fpfCf<□İ,Ýftfjfbfg (.DCU)

2 fpfÆfbfgfrfbfgf}fbfv (.DCR)

3 fwf<fvftf@fCf< (.HLP)

4 fwf<fvfL□[f□□[fhftf@fCf< (.KWF)

ŽÀ□Û,É•K□{,È,ì,í□Å□%º,ìftf@fCf<,¾,¬,Ä,;ª□C,»è^ÈŠO,ìftf@fCf<,ª, ,é,î□CŠJ”,μ,½fRf“f|
□[flf“fg,í,³,ç,É•Ö—~ ,ÄŽg,ç,â,;ç,à,ì,É,È,è,Û,·□B

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fRf“f|□[f|f“fgŠ|”.í%½,ª^á,æ,ì,©

fRf“f|□[f|f“fg,Æ,í%½,©

FRf“f[]lf“fgŠJ”ŽÒ,ì,½,ß,ì OOP14062

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fIfufWfFfNfg,Íff[]f^,ÆfR[]fh,©,ç[]¬,³,è,Ü,·BfRf“f[]lf“fgŠJ”ŽÒ,¾,¯,Å,È,[]C·[]É,ì Delphi fAfvfŠfP[]fVf‡f“,ìŠJ”ŽÒ,àfIfufWfFfNfg,ð[]í,É^μ,Å,Ä,ç,Ü,·

,½,¾[]C[]V,μ,çfRf“f[]lf“fg,ð[]ì¬,·,é[]ê[]‡,É,Í[]CfGf“fhft[]fU[][,É,Í,Ü,Å,½,·K—v,ì,È,ç·û- @,ÅfIfufWfFfNfg,ðŽæ,è^μ,π[]ê-Ê,ª[]o,Å,«,Ü,·BfRf“f[]lf“fg,ì[]ì¬,ðŠŽn,·,é‘O,É[]CfIfufWfFfNfgŽwCEüfvf[]fOf%~f“fo (OOP) ^è”È,É,Å,ç, Å[]CŽÿ,ì[]€-Ú,ð—[]%ð,μ,Ä,“,·K—v,ª, ,è,Ü,·[]B

- []V,μ,çfIfufWfFfNfg,ì[]ì,è·û
- []ã^ÊfIfufWfFfNfg,Æ%ª^ÊfIfufWfFfNfg
- fAfNfZfX,ì[]\$CEä
- f[]f[]fbfh,lfffBfXf[]p[]bf`
- fIfufWfFfNfg,Æf[]fCf“f^

,±,ìfwf<fvftf@fCf<,Í[]C[]wft[]fU[]fYfKfCfh[]x,ì’æ 6 []í,Å,Å[]à-¾,μ,Ä,ç

,é‘mŽ¯,ð‘Oñ,É<L[]q,³,è,Å,ç,Ü,·[]B,Ü,½[]C^È‘O,Éf{[]f%~f“fh,ì Pascal

CE¾CEê[]»·i,ÅfIfufWfFfNfg,ðŽg—p,μ,½CEoCE±,ª, ,é[]ê[]‡,É,Í[]CPascal fIfufWfFfNfg,ì·ï[]X,É,Å,ç

,Ä,ì[]à-¾,ð,““Ç,ÿ,,¾,¾,ç[]B

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fRf“f|□[flf“fg□ì□□□,ìŠT—v

fvf□fpfefB,ì□ì□□□

fCxf“fg.ì□ì□□□

f□\fbfh,ì□ì□□□

fRf“f|□[flf“fg,É,“,□,éOf%oftfBfbfN,ìŽg.č•û

f□fbfZ□[fW,ì□^—□

fRf“f|□[flf“fg,ì“o~^

V,μ,ϕlfufWfFfNfg,ì,è•û14064

ŽQÆ

fRf“f[]f[]fgft[]fU[][,lfufWfFfNfg,lfCf“fXf^f“fX,đ‘€[]ì,μ,Û,·[]B,»è,É‘í,μ,Ä[]CfRf“f[]f[]fg,ìŠ”-
ŽÖ,í[]V,μ,ϕŽí—p,lfufWfFfNfg,đ[]ì[]¬,μ,Û,·[]B,±,±,É[]CfRf“f[]f[]fgft[]fU[][,ÆfRf“f[]f[]fgŠ”-
ŽÖ,Æ,ì‘æ^è,ì‘Š^á“_ª,è,Û,·[]BfCf“fXf^f“fX,ÆCE^,ì<æ•É,í[]CfufWfFfNfgŽwCEüfv[]fOf
%of~f“fO,É,“,èŠì-{}“l,È—v‘f,Ä,·[]BŽ©•ª,ÄfRf“f[]f[]fg,đ[]ì[]¬,·,é[]ê[]‡,í[]C,±,ì<æ•É,É,Ä,ϕ
,Ä,æ,—[]%ø,μ,Ä,“,±,Æ,ª[]d—v,Ä,·[]B

CE^,ÆfCf“fXf^f“fX,ìŠ”O,í[]CfufWfFfNfg,É“Á—L,ì,à,ì,Ä,í,è,Û,¹,ñ[]Bfv[]fOf%of}
,í[]í,ÉCE^,ÆfCf“fXf^f“fX,đŽg—p,μ,Ä,ϕ,Û,·[]B,½,¾[]C,±,π,μ,½—pCEè,đ^è”É,É,ÍŽg—p,μ,È,ϕ
,¾,“,Ä,·[]BObject Pascal ,lfv[]fOf%of€,Ä,í[]CCE^,ìŠ”O,đ,æ,Žg—p,μ,Û,·[]Bfv[]fOf%of}
,í“ú[]í“l,É[]CCE^,đŠì,É•ï[]”,đ[]ì[]¬,μ,Ä,ϕ,Û,·[]B,»μ,Ä[]C,»ì•ï[]”,±
,»ª[]C,»ìCE^,lfCf“fXf^f“fX,Ä,·[]B

^è”É,ÉlfufWfFfNfgCE^,í[]CInteger
,È,Ç,ì‘P[]f,ÈCE^,æ,è,à•jŽG,Ä,·ª[]C“¬,¶CE^,É‘@,·,éŠefCf“fXf^f“fX,É,³,Û,‘,Û,È‘l,đŽw’è,·,é,±
,Æ,É,æ,è[]C,«,í,ß,Ä‘½—l,È[]^—[],đŽÀCE»,Ä,«,Û,·[]B

,½,Æ,ì,í[]C,æ,,é,±,Æ,Ä,·ª[]C^è•û,í OK ,Æ,ϕ,πf%ofxf<,đŽ[],z[]C‘¼•û,í Cancel ,Æ,ϕ,πf
%ofxf<,đŽ[],Ä 2 ,Ä,lf{f^f““,đ,éftfH[]f€[]ã,É[]ì[]¬,·,é,Æ,μ,Û,·[]B,±,ì[]ê[]‡[]C2 ,Ä,lf{f^f““,í—
¼•û,Æ,à Tbutton CE^,lfCf“fXf^f“fX,É,È,è,Û,·[]B,μ,©,μ[]CText, Default, Cancel
,ìŠefv[]fpfefB,É^Û,È,é‘l,đŽw’è,μ[]C,³,ç,É OnClick fCfxf“fg,É^Û,È,éfnf“fhf%ø,đ[]Ý’è,·,é,±
,Æ,É,æ,è[]C,±,ì 2 ,Ä,lfCf“fXf^f“fX,É,Û,Ä,½,^Û,È,Ä,½<@“\,đ—^,ì,Û,·[]B

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V,μ,ϕCE^,ì”h

V,μ,ϕRf“f|[f|f“fgCE^,ìéCE¾

V,μ,ϕCE^,ì”h¶¶14066

ŽQAE

fIfufWfFfNfgCE^,đ'è<` , ,é-Ú“l,Í□CŽÀ—p“l,ÈfCf“fXf^f“fX,đ□□□-, , ,é,½,β,ì“y’ä,đ—p^Ó, , ,é,± ,Æ,Å, ·□B, Å, Û, è-Ú•W, Í□CSJ”ŽÒ, âŠJ”ŽÒ^ÈŠO, Ìft□[fU□[,ª□C,³, Û, ´, Û, È□ó<μ %º, Å,³, Û, ´, ÈfAfvfŠfP□[fVf†f“ ,É (, Û, ½, Í□, È, ,Æ, à“^è, ÌfAfvfŠfP□[fVf†f“ , ÌŠe•”•ª,É) Žg— p, Å, «, éfIfufWfFfNfg, Ì□□□-, Å, ·□B

V,μ,ϕCE^,đ”h¶¶,³,¹,é,ì,Í□CŽÏ, Ì 2 , Å, Ì—□—R,ª, ,è, Û, ·□B

- CE^, ÌffftfHf<fg, đ•İ□X, , ,é
- CE^, È□V, μ, ϕ”\—Í, đ’Ç%ºÅ, , ,é

,Ç, ÿ, ç, Ì□ê¶, à□C-Ú•W, Í□Ä—~—p%ºÅ”\, ÈfIfufWfFfNfg, Ì□□□-, Å, ·□B’•Šú“l, ÈCEv%ºæ, đ— §, Å□C□«—^, Ì□Ä—~—p, đ□□—¶, μ, ÅfIfufWfFfNfg, đ□ÝCEv, ·, ê, Ì□CCEã□X□C’½, - , Ì□□<Æ, đ□È, ¯, Û, ·□BŠJ” , , éfIfufWfFfNfgCE^, É, Í□C—L—p, ÈffftfHf<fg’l, đ— ^, Ì, Å□C“~Žž, ÈfjXf^f}fCfY, à%ºÅ”\, É, μ, Ä, ¯, «, Û, ·□B

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V,μ.ctRf“f|[]f|“fgE^,ìéE¾

CE ^, ìffftfHf<fg, ð•İX, , é14068

, , x, Ä, ìfvf[]fOf%of~f“fO[]i<AE, Ä, İ[]C•K—v^È[]ă, ì”½•œ[]i<AE, İ, Ä, «, é, ¾, ~”ð, ~, ½, ç
, à, ì, Ä, ·[]B, ½, AE, İ, İ[]C“~ , İfR[] [fh, ð%½“x, àCEJ, è•Ô, µ<L[]q, µ, Ä, ç, é, ±, AE, É<C•t, ç
, ½[]ê[]‡, É, İ[]C, » , İfR[] [fh, ðfTfuf<[]f`f“, âŠÖ[]” , AE, µ, Ä“AE—š, ¾, 1, é, ©[]C, Ü, ½, İ, ¾, ç, Éf<[]f`f“, ðf
%ofCfuf%ofŠ%» , µ, Ä’½, , ìfvf[]fOf%of€ , ÄŽg—p, Ä, «, é, æ, x, É, µ, Ü, ·[]B

fRf“f[][]f[]f“fg, É, Ä, ç, Ä, à“~ , İ[]I, İ•û, a, » , ì, Ü, Ü“K—
p, Ä, «, Ü, ·[]B“~ , İfvf[]f[]pfefB, ðCEJ, è•Ô, µ•İ[]X, µ, ½, è[]C“~ , İf[]f[]fbfh, ðCEJ, è•Ô, µCEÄ, Ñ[]o, µ, Ä, ç
, é, æ, x, È[]ê[]‡, É, İ[]C’½, , ì[]ê[]‡[]C, » , è, ðffftfHf<fg, Ä[]s, x[]V, µ, çfRf“f[][]f[]f“fgCE ^, ð[]i[]—, , x, «, Ä, ·[]B
, ½, AE, İ, İ[]CfAfvfŠfP[] [fvf‡f“ , ð[]i[]—, , é, ½, Ñ, É[]C“Á’è, ìŠÖ[]” , ðŽÀ[]s, , é, ½, ß, İf_fCfAf[]fOf{fbfNfXft
fH[] [f€, ð’C%Á, µ, Ä, ç, é, ±, AE, a, , è, Ü, ·[]B“~ , İf_fCfAf[]fOf{fbfNfX, ð-^%ñ[]i[]—, , é, İ, İ, » , è, Ü, Ç[]
ç“İ, É, ±, AE, Ä, İ, , è, Ü, 1, ñ, a[]C, » , è, İ•s•K—v, È[]i<AE, Ä, ·[]B, È, o, È, ç[]C[]Ä[]%
, É1“x, ¾, ~_fCfAf[]fOf{fbfNfX, ð[]ÝCEv, µ, Äfvf[]f[]pfefB, ð[]Ý’è, µ[]C, » , è, ð[]Ä—~ —p%Ä“\, ÈfRf“f[]
[] [f[]f“fg, AE, µ, ÄfRf“f[][]f[]f“fgpfCEfbfg, ÉfCf“fXfg[] [f<, , é, ±, AE, a, Ä, «, é, ©, ç, Ä, ·[]B, ±
, è, É, æ, Ä, Ä[]C”½•œ[]i<AE, ðCE , [], Ä, «, é, ¾, ~ , Ä, È, []C•W[]€
%» , a[], []i, ¾, è[]Cf_fCfAf[]fOf{fbfNfX, ì[]Ä[]i[]—, É, ~ , ç, ÄfGf%[] [, a”[]İ, , é%Ä“\[]« , aCE , [], µ, Ü, ·[]B

CE^,É□V,μ,ϕ"\\—Í,ð'Ç%oÁ,·,é14069

□V,μ,ϕŽí—p,ìfRf"f□□fjf"fg,ð□ì□—,·,é,à,κ 1 ,Á,ì—□—R,í□CSù'¶,ìfRf"f□□fjf"fg,ª"ð,ì,Á,ϕ,È,ϕ"\\—
Í,ì'Ç%oÁ,Á,·□B,±,ì□ê□#,É,í□C"Á%o»,μ,½fŠfXfgf{fbfNfX,ð□ì□—,·,é□ê□#,ì,æ,κ,ÉŠù'¶,ìfRf"f□
□□fjf"fgCE^,©,ϕ"h□¶,³,¹,é,©□CTcomponent ,â Tcontrol ,È,Ç,ì'Š□ÚŠî-
{CE^,©,ϕ"h□¶,³,¹,é,©□C,ì,Ç,ì,ϕ,©,ì•û-@,ð□ì,è,Ü,·□B

^è"Ê"i,ÈCE'¥,í□C□V,μ,ϕfRf"f□□fjf"fg,í□C•K—v,È<@"\\,É□Á,à<ß,ϕ<@"\\
,ìfTfufZfbfg,ð"ð,ì,½CE^,©,ϕ"h□¶,³,¹,é□C,Æ,ϕ,κ,±,Æ,Á,·□BfífufWfFfNfg,É'í,μ,Á<@"\\,ð'Ç
%oÁ,·,é,±,Æ,í,Á,«,Ü,·,ª□CfífufWfFfNfg,©,ϕ<@"\\,ðŽæ,è<Ž,é,±
,Æ,í,Á,«,Ü,¹,ñ□B,μ,½,ª,Á,Á□CSù'¶,ìfRf"f□□fjf"fgCE^,É□CSJ",·,éfRf"f□□fjf"fg,ÉŠÜ,ß,½,-
,È,ϕfvf□fpfefB,ª"ü,Á,Á,ϕ,é□ê□#,É,í□C,»,"ìfRf"f□□fjf"fg,ì□ã^ÊfífufWfFfNfg,©,ϕ"h□¶,³,¹,é•K—v,ª,
,è,Ü,·□B

,½,Æ,ì,í□CfŠfXfgf{fbfNfX,É, ,éŽí,ì<@"\\,ð'Ç%oÁ,·,é□ê□#,É,í□CTListBox ,©,ϕ□V,μ,ϕfRf"f□
□□fjf"fg,ð"h□¶,³,¹,é,±,Æ,ª,Á,«,Ü,·□B,½,¾,μ□C, ,é□V,μ,ϕ<@"\\,ð'Ç%oÁ,·,é,¾,¯,Á,È,-
□C•W□€fŠfXfgf{fbfNfX,ì, ,éŽí,ìŠù'¶,ì<@"\\,í□œ<Ž,μ,½,ϕ,Æ,ϕ,κ□ê□#,É,í□CTListBox
,ì□ã^ÊfífufWfFfNfg,Á, ,é TCustomListBox ,©,ϕ□V,μ,ϕfŠfXfgf{fbfNfX,ð"h□¶,³,¹,Ü,·□B,±
,ì□ê□#□CfŠfXfgf{fbfNfX,ì<@"\\,ì,κ,ì•K—v,È,à,ì,í□Á□ì□—,μ,Ü,·□B,»,"μ,Á□C□V,μ,ϕ<@"\\,ð'Ç
%oÁ,μ,Ü,·□B

V,μ,ϕRf“f[fif“fgCE^,ìéCE¾14070

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V,μ,ϕCE^,ìfRf“f[fif“fg,ð”h□¶,³,¹,éê□¶,É,Í□C,Ü, V,μ,ϕCE^,ì”h□¶CE³,ðCE^,β,é•K—v,ª, ,è,Ü,·
□BSù‘¶,ìCE^,É□V,μ,ϕ<@“\,ð’Ç%oÁ,·,éêê□¶CSî-“l,É,Í□CSJ”,·,éRf“f[fif“fg,ÉŠÜ,β,½,ϕ<@“\
,ª,È,é,x,¹½,“ü,Á,Ä,ϕ,Ä□C,μ,©,à□CSÜ,β,½,,È,ϕ<@“\,í,Ü,Á,½,“ü,Á,Ä,ϕ,È,ϕ,æ,x
,ÉCE^,©,ç”h□¶,³,¹,Ü,·□B

Delphi ,Á,Í□C”¹½,,ìŠÜfRf“f[fif“fgCE^,ª—p^Ó,³,é,Ä,ϕ,Ü,·□BfRf“f[fif“fgŠJ”ŽÒ,íŠÜfRf“f[fif“fgCE^,ð—~—p,μ,Ä□V,μ,ϕRf“f[fif“fgCE^,ð”h□¶,³,¹,Ü,·□BfRf“f[fif“fg,ì□ì□—•û—@,ì\)
,É□CfRf“f[fif“fgŠJ”,Á”h□¶CE³,Æ,μ,ÄŽg—p,Á,«,é,³,Ü,´,Ü,ÈCE^,ðŽì,μ,Ü,·□B

V,μ,ϕfRf“f[fif“fgCE^,ðéCE¾,·,é,É,Í□C,»,ìfRf“f[fif“fg,ìfjfbfg,ÉCE^éCE¾,ð<L□q,μ,Ü,·□B

-á14071

ŠÈ'P,ÈfOf%oftfBfbfNfRf"f|[]f|f"fg,ìéĀ¼,ðŽŸ,ÉŽ!,μ,Ü,·□B

type

TSampleShape = **class**(TGraphicControl)

end;

□Å□"I,É,í□C,±,ìfRf"f|[]f|f"fg□éĀ¼,ì **end** ,ì'O,Éfvf□fpfefB□CftfB□[f<fh□Cf□f\fbfh,ìŠe□éĀ¼,â<L□q,³,ê,é,±,Æ,É,È,è,Ü,·□B,μ,©,μ□C,»,ì,æ,æ,È<L□q,í•K□{,Å,í, ,è,Ü,¹,ñ□B"-□%o,í<ó,ì,Ü,Ü,É,μ,Ä,¨,«□CĀă,Å'Ç%oÁ,Å,«,Ü,·□B

ŽQÆ14072

V,μ,φE^,l" h

ŽQÆ14074

flfufWfEfNfgŠK'w

flfufWfFfNfgŠK'w14075

1 ,Â,lfAvfŠfP[fvff" ,Â,íC,·,x,Ä,ìã^Ê%°^Ê,ìŠÖEW,ª 1 ,Â,lfifufWfFfNfgŠK'w,ð\ □¬,μ,Ü,·□B Delphi ,lfifufWfFfNfgfuf%ofEfU,Â,íCflfufWfFfNfgŠK'w,ðfAfEfjg%ofCf"ftfH□[f€,Å·\ Ž!,Â,«,Ü,·□B

flfufWfFfNfgŠK'w,ì'Á'¥,Æ,μ,Ä□C,æ,è%°^Ê,lfifufWfFfNfg,Ü,Ç'½,,ì<@"\,ª"ü,Á,Ä,ç ,Ü,·□B,Â,Ü,è□C, ,élfufWfFfNfg,í,»,ìã^ÊlfifufWfFfNfg,ì<@"\,ð,·,x,ÄEp□³,μ,½,κ ,!,Â□C□V,μ,çff□[f^,âf□\fbfh,ð'Ç%°Á,μ,½,è□CSù'¶,lf□\fbfh,ð□Ä'è<` ,μ,Ü,·□B

,½,¾,μ□C, ,élfufWfFfNfg,ªEp□³,μ,½<@"\,í□œ<Ž,Â,«,Ü,¹,ñ□B,½,Æ,!,í□C, ,élfufWfFfNfg,ªŽ□,Á "Á'è,lfvf□pfefB,í□C,»,lfifufWfFfNfg,ì,·,x,Ä,ì%°^ÊlfifufWfFfNfg,É,à•K, _CEp□³,³,ê,Ü,·□B,± ,ê,í□C'¼□Ú"í,È%°^ÊlfifufWfFfNfg,É,àŠÖ□Ú"í,È%°^ÊlfifufWfFfNfg,É,à"- ,Á,Í,Ü,è,Ü,·□B

"h□¶CE³,lfifufWfFfNfg,ð'l'è,·,é□Ú,ì<K'¥,í□C'Ê□í□C'P,É□V,μ,çflfufWfFfNfg,ÉŠÜ,ß,½,ç ,à,ì,ª,È,é,x,¹/²,"ü,Á,Ä," ,è□C,½,¾,μ□CSÜ,ß,½,,È,ç,à,ì,Í,Ü,Á,½,"ü,Á,Ä,ç,È,ç,æ,κ ,ÉlfifufWfFfNfg,ð'l,Ñ□o,·,±,Æ,Á,·□BflfufWfFfNfg,É<@"\,ð'Ç%°Á,·,é,±,Æ,Í,ç ,Á,Á,à,Á,«,Ü,·,ª□CflfufWfFfNfg,©,ç<@"\,ðŽæ,è<Ž,é,±,Æ,Í,Á,«,È,ç,©,ç,Á,·□B

fAfnfzfx, ì §CEä 14076

Object

Pascal, Å, í CflfufWfFfNfg, ì Še • " •ª, É'í, µ, Ä4, Å, ÌfCefxf<, ÌfAfnfzfx §CEä,ª, Å, «, Ü, · BfAfnfzfx §CEä, É, æ, è C, Ç, Ì, æ, x

, ÈfR [fh,ª flfufWfFfNfg, Ì, Ç, Ì • " •ª, ÉfAfnfzfx, Å, «, é, ©, ðŽw'è, µ, Ü, · BfAfnfzfx, ÌfCefxf<, ðŽw'è, ·, é, ±, Æ, Å CŠJ", ·, éfRf"fl

□ [flf"fg, ÌfCf"f^ □ [ftfF □ [fX, ð'è<` , µ, Ü, · BfCf"f^ □ [ftfF □ [fX, ð T □ d, É YCEv, ·, è, í C—L—p, Å □ Ä— ~ — p □ «, Ì, ·, çfRf"fl □ [flf"fg, ðŠJ", Å, «, Ü, · B

"Á, ÉŽw'è, µ, È, çCEÀ, è CflfufWfFfNfg, ÌftfB □ [f<fh □ Cf □ fbfh □ Cfvf □ fpfefB, í CfpufŠfbVf... (published)

, É Y'è,ª, è, Ü, · B, Å, Ü, è CflfufWfFfNfg 'S'ì, ÉfAfnfzfx, ·, é, ·, x, Å, ÌfR □ [fh, í C, » , ÌflfufWfFfNfg, ì Še • " •ª, É, àfAfnfzfx, Å, «, Ü, · BfRf"fpfCf%o, ÌflfufWfFfNfg, ì Še □ €-Ü, É, Å, ç

, ÄŽÀ □ sŽžCE ^ í • ñ, ð □ ¶ □ ¬, µ, Ü, · B

• \

2.1, ÉfAfnfzfx, ÌfCefxf<, ðŽì, µ, Ü, · B □ Å, àfAfnfzfx,ª §CEÀ,ª, è, éfCefxf<, ©, ç □ C □ Å, àfAfnfzfx, µ, à, ·, çfCefxf<, í □ ‡, ÉŽì, µ, Ü, · B

• ÜCEifCefxf< Žg—p-Ü"ì

private ŽÀ'•, Ì □ Ú □ x, Ì %oB • Á

protected ŠJ"—pfCf"f^ □ [ftfF □ [fX, Ì'è<`

public ŽÀ □ sŽžCf"f^ □ [ftfF □ [fX, Ì'è<`

published □ YCEvŽžCf"f^ □ [ftfF □ [fX, Ì'è<`

fAfnfzfx §CEä, Ìftfjfbfg'P^É, Å<@ "\, µ, Ü, · B, Å, Ü, è CflfufWfFfNfg, Ì'Á'è, Ì • " •ª,ª □ C, , éftfjfbfg, Ì, , é • " •ª, ©, çfAfnfzfx %oÅ "\ (, Ü, ½, ÌfAfnfzfx • s %oÅ)

, Å, , é □ è □ ‡, É, í C, » , Ì • " •ª, Ì "' , ¶ftfjfbfg, Ì, Ü, ©, Ì, ·, x, Å, Ì è □ Š, ©, çfAfnfzfx %oÅ "\ (, Ü, ½, ÌfAfnfzfx • s %oÅ)

, Å, · BflfufWfFfNfg, à flfufWfFfNfg, Ì • " •ª, ÌfAfnfzfx §CEä, í C, » , ÌflfufWfFfNfg, ðŠÜ, pftfjfbfg, ÅŽw'è, µ, Ü, · B

ŽĀ'•,ìŮŮ×,ì%•Á14077

ŽQŮÆ —á

flfufWfFfNfg,ì, ,é"•ª,đ **private**

,Æ,μ,ĀéŮ¾,·,é,ÆŮC,» ,ì"•ª,íŮC,» ,ìfufWfFfNfgĈ ,đéŮ¾,μ,½ftfjfbfg^ÈŠŮ,ìRŮfh,©,ç,íŮŮ,ì,È,,È,è,Ů,·ŮB,» ,ìéŮ¾,đŮs,Á,½ftfjfbfg"à,ìRŮfh,©,ç,íŮC**public** ,ì"•ª,Æ"- ,ŋ,æ,Ů ,ÉfAfNfZfX,Ā,« ,Ů,·ŮB

flfufWfFfNfgĈ ,ì private •" ,íŮC,» ,ìfufWfFfNfg,ìftŮfUŮ[,©,çŽĀ'•,ìŮŮ×,đ%•Á,·,é,Æ,« ,É—L—p,Ā,·ŮBflfufWfFfNfg,ìftŮfUŮ[,ì private •" ,ÉfAfNfZfX,Ā,« ,È,ç

,ì,ĀŮCflfufWfFfNfg,ì,» ,ì"•ª,ì"à"•"i,ÈŽĀ'••û-@,đ•íŮX,μ,Ā,àŮCftŮfUŮ[,ìRŮfh,É,ì%œ<¿,đ—^ ,ì,Ů,¹,ñŮB

fŮf: %•Á,ÉŠŮ,·,é,±,ìŽd—l,íŮCC++ ,È,ç,ìfufWfFfNfgŽwŮüŮ¾ŮĈ,Æ,í^Ů,È,Á,Ā,ç ,Ů,·ŮB,±,Ů,μ,½Ů¾ŮĈ,Ā,íŮCfNf%ŮX,ìŮftfŮf"fhŮv'©Ů« ,đŽŮ,ĀfNf %ŮX,âŠŮŮ" ,ì,Ý,ª,» ,ìfNf%ŮX,ì private •" ,ÉfAfNfZfX,Ā,« ,Ů,·ŮB,» ,ì^Ů- ; ,Ā,íŮC, ,éftfjfbfg,ì,·,×,Ā,ìfufWfFfNfg,âRŮfh,íŮCŽŮ"©"Ů"i,É,» ,ìftfjfbfg,ĀéŮ¾,³,è, ½,·,×,Ā,ìfufWfFfNfg,ìftfŮf"fh,É,È,éŮC,Æ,ç,Ů,±,Æ,à,Ā,« ,Ů,·ŮB

—á14078

ŽŸ,ì—á,Á,Í□C, ,éftfB□[f<fh,ðprivate,Æ,μ,Ä□éCE¾, ,é,Æ□Cft□[fU□[.É,æ,éfAfNfZfX,ª,Ç,ì,æ,π,É<ÖŽ~,,ª,é,é,©□C,Æ,ç,π“_É,Á,ç,ÄŽ!,μ,Ä,ç,Ü,·□BfR□[fhfŠfXfg,ì2,Ä,ìftfH□[f€ftfjfbfg,É,Í□C,»é,¼,éOnCreatefCfxf“fg—p,ìfnf“fhf%o,ª, ,è,Ü,·□BŠefnf“fhf%o,ìftfH□[f€“à,ìfvf%ofCfx□[fg,ÉftfB□[f<fh,É'l,ð'ã“ü,μ,Ü,·,ª□CfRf“fpfCf%o,Í□C,»ìfvf%ofCfx□[fgftfB□[f<fh,ð□éCE¾,μ,½ftfH□[f€“à,Á,ì'ã“ü,μ,©<-%oÁ,μ,Ü,¹,ñ□B

```
unit HideInfo;
interface
uses SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
Forms, Dialogs;
type
TSecretForm = class(TForm)      { □V,μ,çftfH□[f€,ì□éCE¾ }
  procedure FormCreate(Sender: TObject);
private { private •“,ì□éCE¾ }
  FSecretCode: Integer; { fvf%ofCfx□[fg,ÉftfB□[f<fh,ì□éCE¾ }
end;
var
  SecretForm: TSecretForm;
implementation
procedure TSecretForm.FormCreate(Sender: TObject);
begin
  FSecretCode := 42; { □³,μ,fRf“fpfCf<,Á,«,é }
end;
end. { ftfjfbfg,ì□I,í,è }
```

```
unit TestHide; { f□fCf“,ìftfH□[f€ftf@fCf< }
interface
uses SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,
Forms, Dialogs,
  HideInfo; { TSecretForm ,ì, ,éftfjfbfg }
type
TTestForm = class(TForm)
  procedure FormCreate(Sender: TObject);
end;
var
  TestForm: TTestForm;
implementation
procedure TTestForm.FormCreate(Sender: TObject);
begin
  SecretForm.FSecretCode := 13; { fRf“fpfCf%o,Í□uField identifier
  expected□V,Æ,ç,πfGf%o□[,ð•\Ž!, ,é }
end;
end. { ftfjfbfg,ì□I,í,è }
```

HideInfo ftfjfbfg,ðŽg—p,·,éfvf□fOf%of€,Í TSecretForm CE^,ìfìufWfFfNfg,ÍŽg—p,Á,«,Ü,·,ª□C,»ìfìufWfFfNfg,ì FSecretCode ftfB□[f<fh,É,ìfAfNfZfX,Á,«,Ü,¹,ñ□B

ŽQÆ14079

Šj" —pfCf"f^□[ftfF□[fX,ì'è<`

ŽÀ□sŽžfCf"f^□[ftfF□[fX,ì'è<`

□ÝCEvŽžfCf"f^□[ftfF□[fX,ì'è<`

ŠJ” —pfCf“f^[]ftfF[]fX,ì'è<` 14080

ŽQ[]Æ

fIfufWfFfNfg,Å **protected** ,Æ,μ,Ä[]éCE¾,μ,½•”•ª,í[]C**private** ,Æ,μ,Ä[]éCE¾,μ,½•”•ª,Æ“ —
l,É[]C,»,ìfIfufWfFfNfgCE^,ð[]éCE¾,μ,½ftfjfbfg,ìŠO•”,ìfR[]fh,©,ç,íCE©,!,Û,¹,ñ[]B,½,¾,μ
protected

•”,í[]C,»,ìfIfufWfFfNfgCE^,©,ç”h[]q,μ,½fIfufWfFfNfgCE^,ìftfjfbfg,©,çfAfNfZfX,Å,«,é,Æ,ç
,æ”_ ,Ä[]Cprivate •”,Æ,í^Û,È,Á,Ä,ç,Û,·[]B

protected []éCE¾,í[]CfIfufWfFfNfg,ìŠJ” ŽÒ,ì,½,ß,ìfCf“f^[]ftfF[]fX,ð'è<` ,·,é,±,Æ,ÉŽg—
p,Å,«,Û,·[]Bprotected •”,í[]CfIfufWfFfNfg,ìft[]fU[][,ífAfNfZfX,Å,«,Û,¹,ñ,ª[]CfRf“f]
[]fIf“fg,È,ç,ìŠJ” ŽÒ,ìfAfNfZfX,Å,«,Û,·[]B,±,ì•û-

@,É,æ,Á,Ä[]CfGf“fhft[]fU[][,É[]Ú[]x,ðCEöŠJ,·,é,±,Æ,È,[]CfRf“f[]fIf“fgŠJ”-
ŽÒ,ªfIfufWfFfNfg,ì” ®[]ì,ð•ì[]X,·,é,½,ß,ìfCf“f^[]ftfF[]fX,ð—p^Ó,Å,«,Û,·[]B

ŽQÆ14081

ŽÀ'•.ìÚ×,ì%°B•Á

ŽÀsŽžCf“f^[ftf[X,ì'è<`

ÝCEvŽžCf“f^[ftf[X,ì'è<`

ŽÄŮŹŹfCf“f^[]ftfF[]fX,ì'è<` 14082

ŽQÆ —á

fufWfFfNfg,Å **public**

,Æ,μ,ÄéCE¾,μ,½•”•ª,íC,».,lfufWfFfNfg‘S‘ì,ÉfAfNfZfX,·,é,·,×,Ä,ìR[]fh,©,çCE©,!,é,æ,κ
,É,È,è,Ü,·B,Ä,Ü,èCpublic•”,É,í“Á,É[]š-ñ,ª, ,è,Ü,¹,ñB,È,“CfAfNfZfX[]\$Eä (**private**,
protected, **public**) ,ðŽw’è,μ,È,©,Á,½ftfB[]f<fh[]Cf[]f[]bfh[]Cfvf[]pfefB,íC**published**
,É,È,è,Ü,·B

fufWfFfNfg,ì public •”,íCŽÄŮŹŹ,É,·,×,Ä,ìR[]fh,ÅŽg—

p,Å,«,Ü,·B,μ,½,ª,Á,ÄCfufWfFfNfg,í,».,ì public

•”,É,æ,Á,ÄŽÄŮŹŹfCf“f^[]ftfF[]fX,ª’è<` ,³,é,é,±

,Æ,É,È,è,Ü,·BŽÄŮŹŹ,ìî•ñ,É`È‘¶,·,é“Ç,Ýo,μê—p,ìvf[]pfefB,È,ÇC[]ÝCEvŽž,É,í-³CEø,È€-
Ú,íCŽÄŮŹŹfCf“f^[]ftfF[]fX,ÉéCE¾,μ,Ü,·B,Ü,½CŠ” ,; ,éRf“fj

[]fj“fg,ìft[]fU[],É,æ,Á,ÄCEÄ,Ño,³,è,éf[]f[]bfh,àCŽÄŮŹŹfCf“f^[]ftfF[]fX,ÉéCE¾,μ,Ü,·B

“Ç,Ýo,μê—pvf[]pfefB,íCÝCEvŽž,É,í<@“\,μ,È,ç,ì,ÅC**public** éCE¾•”•ª,É<L[]q,·,é•K—

v,ª, ,è,Ü,·B

—á14083

ŽŸ,ì—á,í□CfRf“f□□lf“fg,ìŽÀ□sŽžfCf“f^□[ftfF□[fX,ì•”•ª,É□éCE¾,¾,¾,½ 2 ,Á,ì“Ç,Ý□o,μ□ê—
pfvf□fpfefB,ðŽ!,μ,Û,·□B

type

TSampleComponent = **class** (TComponent)

private

FTempCelsius: Integer; { ŽÁ•,ì□Ú□x,ð private •”,É<L□q }

function GetTempFahrenheit: Integer;

public

property TempCelsius: Integer **read** FTempCelsius; { fvf□fpfefB,ð
public •”,É<L□q }

property TempFahrenheit: Integer **read** GetTempFahrenheit;

end;

...

function TSampleComponent.GetTempFahrenheit: Integer;

begin

Result := FTempCelsius * 9 **div** 5 + 32;

end;

ft□[fU□[í,±,ì 2 ,Á,ìfvf□fpfefB,ì!l,ð•ì□X,Á,«,È,ç,ì,Á□C,±
,ìfvf□fpfefB,ìfufWfFfNfgfCf“fXfyfNf^,É,ì•Ž!,¾,¾,Û,¹,ñ□B,Á,Û,è□C,±
,ìfvf□fpfefB,ìÝCEvŽžfCf“f^□[ftfF□[fX,É,ÍSÛ,Û,è,Û,¹,ñ□B

ŽQÆ14084

ŽÀ'•.ìÚx,ì%oB•Á

Šj"—pfCf“f^□[ftf□[fX,ì'è<`

□ÝCEvŽžfCf“f^□[ftf□[fX,ì'è<`

ČevžžfCf“f^[]ftfF[]fX,ì'è<` 14085

ŽQÆ —á

fIfufWfFfNfg,Å **published** ,Æ,μ,ÄéCE^{3/4},μ,1/2•”•^a,íCfpufŠbfN,É,È,èC,³,ç,É,»,ì•”•^a,É,Á,ç
,Ä,ìŽÀsžžCE^î•ñ,^a¶[]→,³,ê,Ü,·B,±
,ìŽÀsžžCE^î•ñ,É,æ,èCfIfufWfFfNfgfCf“fXfyfNf^,Åfvf[]pfefB,âfCfxf“fg,ÉfAfNfZfX,Å,«,é,æ,
x,É,È,è,Ü,·B

published •”,^{3/4},⁻,^afIfufWfFfNfgfCf“fXfyfNf^,É•\Ž|,³,ê,Ü,·B,Ä,Ü,èCfIfufWfFfNfg,ìpublished
•”,É,æ,Á,ÄC,»,ìfIfufWfFfNfg,ìČevžžfCf“f^[]ftfF[]fX,^aè<`³,ê,é,±
,Æ,É,È,è,Ü,·BfIfufWfFfNfg,ìŠe‘x-É,ì,x,èCft[]fU[]^aČevžž,ÉffXf^f}fCfY,·,é%oÄ“\«,ì, ,é•”
•^a,í,·,x,ÄČevžžfCf“f^[]ftfF[]fX,ÉŠÜ,ß,Ü,·B,±
,é,É‘í,μ,ÄCŽÀsžžŠÁ««,ì“Á‘è,ìî•ñ,É^É‘¶,·,é,·,x,Ä,ìfvf[]pfefB,íCČevžžfCf“f^[]ftfF[]fX,É,í
ŠÜ,ß,Ü,¹,ñB

f[]f: “Ç,Ýo,μè—pfvf[]pfefB,íft[]fU[]^aìX,Ä,«,È,ç
,ì,ÄCČevžžfCf“f^[]ftfF[]fX,ÉŠÜ,ß,Ü,¹,ñB“Ç,Ýo,μè—pfvf[]pfefB,í **public**
,ÆéCE^{3/4},μ,Ü,·B

—á14086

ŽŸ,ì—á,íCfufufŠfbfVf...,ÉŸ'è,³,ê,½fvf[]pfefB,đŽ!,μ,Ü,·B,±,lfvf[]pfefB,lfufufŠfbfVf...
,ÉŸ'è,³,ê,Ä,ç,é,½,βCŸvŽž,ÉlfufWfFfNfgfCf“fXfyfNf^,É•Ž!,³,ê,Ü,·B

type

```
TSampleComponent = class (TComponent)
```

```
  private
```

```
    FTemperature: Integer; { ŽÀE»,)Úx,í private •”,É<Lq }
```

```
  published
```

```
    property Temperature: Integer read FTemperature write FTemperature;
```

```
    { [',«ž,Ÿ%oÁ"| }
```

```
  end;
```

,±,ì—á,lfvf[]pfefB Temperature ,íCfRf“f[]f[]fgft[]fU[],ªŸvŽž,É,»,ì'! ,đ•ìX,Ä,«,Ü,·B

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ŽÀ'•.ìÚ×,ì%B•Á

Šj"—pfCf"f^[]ftf[]fX,ì'è<`

ŽÀsžžfCf"f^[]ftf[]fX,ì'è<`

lfvbfh,iffBfXfpbf` 14088

f∅
fbfh,ªCEÄ,Ñ∅o,³,ê,½∅ê∅#∅CfAfvfŠfP∅[fvf#f“ªžÀ∅Û,ÉžÀ∅s,³,ê,éfR∅[fh,ðCE^'è,µ,ÄCEÄ,Ñ∅o,·,±
,Æ,ðfffBfXfpbf`,ÆCEÄ,Ñ,Û,·∅BfufWfFfNfg,lfvbfh,ðCEÄ,Ñ∅o,·fR∅[fh,í∅Cžè'±
,«,âŠÖ∅”,ðCEÄ,Ñ∅o,·fR∅[fh,ì,æ,x,É<L∅q,µ,Û,·∅B,µ,©,µ∅CfufWfFfNfg,É,íf∅
fbfh,ðfffBfXfpbf` ,·,é,½,ß,ì3'È,è,ì•û-@,ª,è,Û,·∅B

3 Ží—p,lfvbfhfffBfXfpbf`,ížÿ,ì,Æ,“,è,Å,·∅B

- ∅Ä“l
- %∅¼'z
- “®“l

%∅¼'zfvbfh,Æ“®“lfvbfh,í“~,¶,æ,x,É<@“\,µ,Û,·,ª∅CžÀ∅Û,ìžÀCE»•û-
@,í^Û,È,è,Û,·∅B,Û,½∅C,±,ì 2 Ží—p,lfvbfh,Æ∅Ä“lfvbfh,í,Û,Á,½,^Û,È,Á,Ä,ç,Û,·∅BfRf“fj
∅[fj“fg,ì

□Ã“lf□f□fbfh14089

ŽQ□Æ —á

“Á,ÉŽw’è,μ,È,̄,ê,í□C,·,×,Ä,lfifufWfFfNfgf□f□fbfh,í□Ã“lf□f□fbfh,É,È,è,Ü,·□B□Ã“lf□f□fbfh,í□C·□’É,ìŽè’±,«CEÄ,Ñ□o,μ,âŠÖ□”CEÄ,Ñ□o,μ,Æ“˘,¶,æ,α,É”@□i,μ,Ü,·□BfRf“fpcfCf%o,íf□f□fbfh,ì□³Sm,ĚfAfhfCEfX,ðCE˘’è,μ□CfRf“fpcfCf<Žž,É,»„lf□f□fbfh,ðfŠf“fN,μ,Ü,·□B

□Ã“lf□f□fbfh,ì’æ^è,ì—~“_„í□CfffBfXfpcfbf` ,²□,‘-„Ä, ,é,±,Æ,Á,·□BfRf“fpcfCf%o,í□Ã“lf□f□fbfh,ì□³Sm,ĚfAfhfCEfX,ðCE˘’è,μ,Ä□Cf□f□fbfh,ð’¼□ÚfŠf“fN,Á,«„Ü,·□B,±,é,É’í,μ,Ä%o¼’zf□f□fbfh,Æ”@“lf□f□fbfh,Á,í□CŽÄ□sŽž,ÉŠÖ□Ú“l,È•ú-@„Áf□f□fbfh,lfAfhfCEfX,ð’T,·K—v,², ,é,½,ß’½ □’x,,È,è,Ü,·□B

□Ã“lf□f□fbfh,ì,à,α1,Â,ì“Á’¥,Æ,μ,Ä□C,Ü,©,ìCE^,É,æ,Á,ÄCEp³,³,è,½□ê□‡,É,Ü,Á,½,•ï%o»,μ,È,ç ,Æ,ç,α“_„², ,è,Ü,·□B,Á,Ü,è□C, ,é□Ã“lf□f□fbfh,ðŽ□,ÁfifufWfFfNfgCE^,©,ç□V,μ,çfifufWfFfNfgCE^,ð”h□¶,³,¹,½□ê□‡□C— ¼•ú,lfifufWfFfNfg,í□³Sm,É“˘,¶lfAfhfCEfX,ì“˘,¶lf□f□fbfh,ð<α—L,μ,Ü,·□B,±,ì,½,ß□Ã“lf□f□fbfh,í□CfifufWfFfNfg,ìŽÄ□Ú,ìCE^,É,©,©,í,è,É,í,É“˘,¶lf□f□fbfh,ð□s,ç,Ü,·□B

□Ã“lf□f□fbfh,íf□f□fo□f□f%ofCfh,Á,«„Ü,¹,ñ□B%o²^ĚfifufWfFfNfg“à,Á□ă^ĚfifufWfFfNfg,ì□Ã“lf□f□fbfh,Æ“˘,¶-¼’O,lf□f□fbfh,ð□éCE¾,μ,½□ê□‡,É,í□C□ă^ĚfifufWfFfNfg

—á14090

ŽŸ,ÉŽ!,·fR□[fh,Á,í□C'æ 1 ,ìfRf"f|□[flf"fg,ª 2 ,Á,ì□Ã"lf□f\fbfh,ð□éÉ¾,μ□C,³,ç,É□C'æ 2 ,ìfRf"f|
□[flf"fg,ª 2 ,Á,ì□Ã"lf□f\fbfh,ð"~,¶-¼'O,Á□éÉ¾,μ,Á,ç,Û,·□B,» ,ìC<%oÉ□C'æ 2 ,ìfRf"f|□[flf"fg,ì 2
,Á,ìf□f\fbfh,ª□C'æ 1 ,ìfRf"f|□[flf"fg,ìf□f\fbfh,ð'uŠ·,μ,Û,·□B

type

TFirstComponent = **class** (TComponent)

procedure Move;

procedure Flash;

end;

TSecondComponent = **class** (TFirstComponent)

procedure Move; { "~,¶éÉ¾,¾,ªÉp□³f□f\fbfh,Á,í,É,ç }

function Flash(HowOften: Integer): Integer; { ,±,é,à^Û,É,é }

ŽQÆ14091

%o¼'zf\fbfh

%¼'zf\fbfh14092

ŽQÆ

%¼'zf\fbfh,ðÆÄ,Ño,·\·¶,íC,Ù,©,ìf\fbfh,ðÆÄ,Ño,·ê¶,Æ“¶,¶,Ä,·,ªCffBfXfpfbf` ,ìf\ffjfyf€,í,æ,è_“î,Å•;ŽG,Å,·B%¼'zf\fbfh,ðŽg—p,·,ê,îCfvf\Of%of},ªŽÄÜ,ìf\ufWfFfNfgÆ^,ð^ÓŽ^,µ,È,,Ä,àC,»,ìÆ^,É%ž,¶,½f\fbfh,ªÆÄ,Ño,³,ê,Ü,·B%¼'zf\fbfh,ìf\fhfÆfX,íCfRf“fpfCf<ŽŽ,Å,í,È,-ŽÀsŽŽ,ÉÆ^è,³,ê,Ü,·B

%¼'zf\fbfh,ðéÆ¾,·,é,É,íCf\fbfhéÆ¾,ìÆã,É **virtual** Žw—ß,ð'Ç%oÁ,µ,Ü,·Bf\fbfhéÆ¾,É **virtual** Žw—ß,ª<Lq,³,ê,é,ÆC,»,ìf\ufWfFfNfg,ì%¼'zf\fbfhfe\uf< (VMT),ÉfGf“fgfŠ,ª¶—,³,ê,Ü,·B VMT ,É,íC,»,ìf\ufWfFfNfgÆ^,ì,·,x,Ä,ì%¼'zf\fbfh,ìf\fhfÆfX,ªŠi”[,³,ê,Ü,·B

Šù¶,ìf\ufWfFfNfgÆ^,©,çV,µ,çf\ufWfFfNfg,ð”h¶,³,¹,é,ÆC,»,ìV,µ,çÆ^,É,í,»,êŽ©g,ìVMT ,ª—^,ì,ç,ê,Ü,·B,±,ì VMT ,É,íC¶ã^Êf\ufWfFfNfgÆ^,©,çÆp³,µ,½,·,x,Ä,ì%¼'zf\fbfh,ìf\ufWfFfNfg,ÅV,½,ÉéÆ¾,³,ê,½,·,x,Ä,ì%¼'zf\fbfh,ìf\fhfÆfX,ªŠi”[,³,ê,Ü,·B,Ü,½C%o^Êf\ufWfFfNfg,ìÆp³,³,ê,½%¼'zf\fbfh,ðf\fo\%ofCfh,Å,«,Ü,·B

ŽQÆ 14093

“@”lf\fbfh

“Ã”lf\fbfh

f\fbfh,lf\fo\lf%ofCfh

—á14095

ŽŸ,ì—á,Å,íC2 ,Â,ìŠÈ'P,ÈfRf“f|[]f|f“fg,ìéCÉ¾,ðŽ!,μ,Û,·B'æ 1 ,ìfRf“f|[]f|f“fg,íC,»,é,¼,é,ìŽí
—p,ìffBfXfpfbf`,ðs,κ 3 ,Â,ìf[]fbfh,ðéCÉ¾,μ,Å,ç,Û,·B'æ 1 ,ìfRf“f|[]f|f“fg,©,ç”h[]l,μ,½'æ
2 ,ìfRf“f|[]f|f“fg,íCÃ“ìf[]fbfh,ð'uŠ,μC%¼'zf[]fbfh,ðf[]fo[]f%ofCfh,μ,Û,·B

type

TFirstComponent = class(TCustomControl)

procedure Move; { []Ã“ìf[]fbfh }

procedure Flash; **virtual**; { %¼'zf[]fbfh }

procedure Beep; **dynamic**; { “®“ì%¼'zf[]fbfh }

end;

TSecondComponent = class(TFirstComponent)

procedure Move; { []V,μ,çf[]fbfh }

procedure Flash; **override**; { CÉp¾,¾,é,½f[]fbfh,ðf[]fo[]f%ofCfh }

procedure Beep; **override**; { CÉp¾,¾,é,½f[]fbfh,ðf[]fo[]f%ofCfh }

ŽQÆ14096

%¼'zf\fbfh

“@“lf\fbfh

“®“lfvfbfh14097

ŽQAE —á

“®“lfvfbfh,í%¼'zfvbfh,ÆŽ—,Ä,ç,Ü,·,ªC,â,â^Ù,È,Á,½ffBfXfpbf` fffjYf€,đ”ö,!,Ä,ç,Ü,·B“®“lfvfbfh,íCflufWfFfNfg,ì%¼'zfvbfhfe[fuf<,ÉfGf“fgfŠ,đi—,µ,È,ç,½,ßCflufWfFfNfg,ªÁ”i,·,éff,fŠ—É,íC,µ,Ü,·,ªCffBfXfpbf` ,É,©,©,éŽŠÖ,Í•É,ì%¼'zfvbfh,æ,è,à,µ,·B'ÉíCCEÄ,Ño,µ,ìŽAs'—“x,ªd—v,Éffbfh,âCCEJ,è•Ö,µCEÄ,Ño,·fvbfh,ìê±,É,íC“®“lfvfbfh,Á,Í,È,%¼'zfvbfh,đŽg—p,µ,Ü,·B

“®“lfvfbfh,đéCE¾,·,é,É,íCfvbfhéCE¾,ìCEä,É **dynamic** Žw—ß,đ'Ç%Á,µ,Ü,·B

dynamic Žw—ß,íCflufWfFfNfg,ì%¼'zfvbfhfe[fuf<,ÉfGf“fgfŠ,đi—,·,é,©,í,è,ÉC,»,ìfvbfh,É”Ô±,đŠ,,è—,ÄCfR[fh,ìfAfhfCEfX,đSi”l,µ,Ü,·B%¼'zfvbfhfe[fuf<,É,íC,»,ìfufWfFfNfg,ÁCEp³,Ü,½,í'Ç%Á,³,è,½,·,x,Ä,ì%¼'zfvbfh,ìfAfhfCEfX,ª“ü,Ä,Ä,ç,Ü,·,ªC“®“lfvfbfhfŠfXfg,É,íC“Á'è,ìfufWfFfNfgCE^,É,æ,Á,Ä'Ç%Á,Ü,½,ìf[fof%fCh,³,è,½fvbfh,ìfGf“fgfŠ,¾,·,ª“ü,Ä,Ä,ç,Ü,·BCEp³,³,è,½“®“lfvfbfh,ªffBfXfpbf` ,³,è,éê±,íCCEp³,Æ,í<±,Éã^ÉfufWfFfNfg,đ,½,Ç,Á,ÄC“®“lfvfbfhfŠfXfg,đCEÿö,µ,Ä,ç,«,Ü,·B

Delphi ,ìfAvfŠfP[fVf±“,Á,íCWindows fbfZ[fW,È,Ç,ìfbfZ[fW,ì^—,Á,³,Ü,·,Ü,È“®“lfvfbfh,ªŽg—p,³,è,Ü,·BfbfZ[fW—,Á,íC,±,µ,½fbfZ[fW^—f[fbfh,É,Ä,ç,Äà-¾,µ,Ü,·BfbfZ[fWfnf“fhf%o,ìffBfXfpbf` fffjYf€,í

ŽQÆ 14098

%o¼'zf\fbfh

f\fbfh.lf\fo[f%ofCfh

flfufWfFfNfg,Æf|fCf“f^14099

Object Pascal flfufWfFfNfg, í, ·, x, ÄŽÀÜ, É, í|f|Cf“f^, Å, , è□CfRf“f|□|flf“fg, à“—l, Å, ·□B, ±, è, í□CŠù‘¶, |fRf“f|□|flf“fg, ðŽg—p, ·, é, ¾, ¯, È, ç, î□l—¶, ·, é•K—v, ì, È, ç“_ , Å, ·, °□CfRf“f|□|flf“fg, ðŠj”- ·, ·, é□ê□‡, É, í•K—v, È‘mŽ¯, Å, ·□B, à, Á, Æ, à□C Šj”ŽÒ, É, ©, í, Á, ÄfRf“f|p|Cf%o , ðŽ© “@“l, ÉflfufWfFfNfg|fCf“f^, ð:tŽQ□Æ, ·, é, ì, Å□C, Ù, Æ, ñ, ç, ì□ê□‡flfufWfFfNfg, æf|fCf“f^, Å, , é, ±, Æ, ð□l—¶, ·, é•K—v, ì, , è, Ù, ¹, ñ□B

, μ, ©, μ□CflfufWfFfNfg, ðf|f%o|f^, Æ, μ, Ä“n, ·, Æ, «, í□C, ±, ì“_ , °□d—v, É, È, è, Ù, ·□B

^è”É, É□CflfufWfFfNfg, íŽQ□Æ“n, μ, Å, í, È, ‘l“n, μ, Å“n, μ, Ù, ·□B, Å, Ù, è□CflfufWfFfNfg, ðf<□|f`f“ , |f|p|f%o|f^, Æ, μ, ÄéÉ¾, ·, é□ê□‡, í□C, » , è, ð **var** f|f%o|f^, É, ·, x, «, Å, í, , è, Ù, ¹, ñ□B, È, °, È, ç□CflfufWfFfNfg, í, à, Æ, à, Æf|fCf“f^□C, Å, Ù, èŽQ□Æ, Å, , é, ½, ß□C, , éflfufWfFfNfg, ð **var** f|f%o|f^, Æ, μ, Ä“n, ·, ±, Æ, í□CŽQ□Æ, ìŽQ□Æ, ð“n, ·, ±, Æ, É, È, é, ©, ç, Å, ·□B

fRf“f|□[flf“fg□ì□-,ìŠT—v14100

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,±,lfwf<fvftf@fCf<,Â,í□CDelphi fAfvfŠfP□[fvf#f“—pfRf“f|□[flf“fg,lfA□[flfefNf`ff□C□ÝÆv,ìÆ
‘‘¥□CŠJ”fvf□fZfX,É,Â,ç,Ä,ìŠT—v,ðŽ!,μ,Û,·□B

,±,ìí,Â,í^È%º,ì,±,Æ,É,Â,ç,Ä□à-¾,μ,Û,·□B

- fRfWf...fAf<fRf“f|□[flf“fgf%ofCfuf%ofŠ
- fRf“f|□[flf“fg,ÆflfufWfFfNfg
- fRf“f|□[flf“fg,ì□ì□-•û-@
- fRf“f|□[flf“fg,ì,³,Û,´,Û,É’α-Ê
- □V,μ,çfRf“f|□[flf“fg,ì□ì□-
- fCf“fXfg□[f<,³,ê,Â,ç,Ë,çfRf“f|□[flf“fg,lfefXfg

,±,lf}fjf...fAf<,í□CDelphi ,Æ,»,ì•W□€fRf“f|□[flf“fg,É,Â,ç
,Ä,ì, ,é’ò“x,ì’mŽ˘,ð’O’ñ,Æ,μ,Ä<L□q,³,ê,Â,ç,Û,·□B

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fRf“f|□[flf“fgŠ]”ŽÒ,ì,½,β,ì OOP

fvf□pfefB,ìì□□□

fCxf“fg.ìì□□□

f□\fbfh,ìì□□□

fRf“f|□[flf“fg,É,¨,¨,éfOf%oftfBfbfN,ìŽg,č•û

f□fbfZ□[fW,ì□^—□

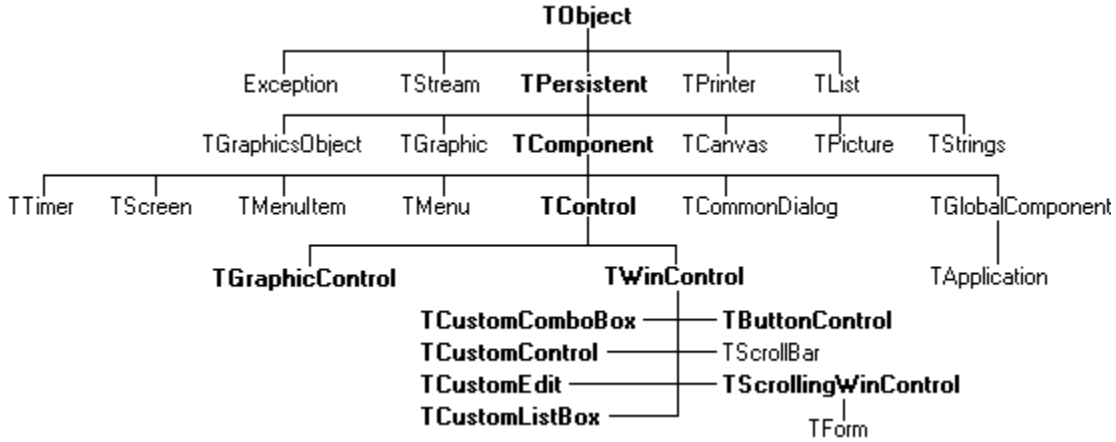
fRf“f|□[flf“fg,ì“o~^

Delphi VCL Class Hierarchy

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Delphi VCL (Visual Component Library) is a set of classes and interfaces used for building graphical user interfaces in Delphi. The hierarchy starts with TObject at the top.

TObject is the base class for all VCL classes. It has several subclasses, including TComponent, TControl, TGraphicControl, and TWinControl. TComponent is the base class for TControl, TGraphicControl, and TWinControl. TControl is the base class for TGraphicControl and TWinControl. TWinControl is the base class for TCustomComboBox, TCustomControl, TCustomEdit, TCustomListBox, TButtonControl, TScrollBar, TScrollingWinControl, and TForm.



The VCL classes are organized into a hierarchy. TObject is the root. TComponent is a major branch, which includes TControl, TGraphicControl, and TWinControl. TControl includes TGraphicControl and TWinControl. TWinControl includes TCustomComboBox, TCustomControl, TCustomEdit, TCustomListBox, TButtonControl, TScrollBar, TScrollingWinControl, and TForm. TApplication is a subclass of TGlobalComponent.

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fRf“f|□[flf“fg,ì|□-•û-@

fRf“f|□[flf“fg,ì,³,Ü,´,Ü,È’α-Ê

□V,μ,çfRf“f|□[flf“fg,ì|□-

fCf“fXfg□[f<,³,ê,Ä,ç,È,çfRf“f|□[flf“fg,lfefXfg

fRf“f|□[flf“fg,ÆflfufWfFfNfg14104

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fRf“f|□[flf“fg,ÍflfufWfFfNfg,Á, ,è□CfRf“f|□[flf“fgŠj”ŽÒ,ÍfRf“f|
□[flf“fgft□[fU□[,Æ,Í^Ù,È,éfCEfxf<,ÅflfufWfFfNfg,ðŽg—p,μ,Û,·□B□V,μ,¢fRf“f|
□[flf“fg,ð□ì□¬,·,é,É,Í□CflfufWfFfNfg,ì□V,μ,¢CE^,ð”h□¶,³,¹,é•K—v,^a, ,è,Û,·□BfRf“f|□[flf“fgŠj”-
ŽÒ,É,Æ,Á,Ä•K—v,ÉflfufWfFfNfgŽwCEüfvf□fOf%of~f“fO,É,Á,¢,Ä,ÍfRf“f|□[flf“fgŠj”ŽÒ,ì OOP
,ðŽQ□Æ,μ,Ä,,³/₄,³,¢□B

—v-ñ,·,é,Æ□CfRf“f|□[flf“fg,ì□ì□¬,ÆfRf“f|□[flf“fg,ìŽg—p,Æ,ìŠÔ,É,Í□CŽÿ,ì 2 ,Á,ìŽå—
v,È‘Š^á“_^a, ,è,Û,·□B

- fRf“f|□[flf“fgŠj” -
ŽÒ,Í□CfGf“fhft□[fU□[,^afAfNfZfX,Á,«,È,¢flfufWfFfNfg,ìŠe•”•^a,É,àfAfNfZfX,·,é
- fRf“f|□[flf“fgŠj”ŽÒ,Í□CfRf“f|□[flf“fg,É (fvf□pfefB,È,Ç,ì) □V,μ,¢•”•^a,ð’Ç%oÁ,·,é
,±,ì,½,ß□CfRf“f|□[flf“fgŠj”ŽÒ,ÍfRf“f|□[flf“fg,É,Á,¢,Ä,æ,è□Ú,μ,—□%oð,μ,Ä,“,•K—v,^a, ,è,Û,·□B,
Û,½□CŠj”,μ,½fRf“f|□[flf“fg,ðfGf“fhft□[fU□[,^a,Ç,ì,æ,±,ÉŽg—p,·,é,ì,©,Æ,¢,±,Æ,É,Á,¢,Ä,à□|—
¶,μ,È,¯,é,ì,È,è,Û,¹,ñ□B

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fRf“f[]f[]fg,ì[]-•û-@

fRf“f[]f[]fg,ì,³,Ü,´,Ü,È’α-Ê

□V,μ,çfRf“f[]f[]fg,ì[]-

fCf“fXfg[]f<,³,ê,Ä,ç,È,çfRf“f[]f[]fg,ìfexfg

FRf“f|[]f|f“fg,ì[]ì[]→•û-@14106

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ŠJ”ŽÒ,°[]ÝCEvžž,É^μ,μfvf[]fOf%of€—v’f,ì,Ù,Æ,ñ,Ç,ífRf“f|[]f|f“fg,Å,·[]B[]V,μ,¢fRf“f|
[]f|f“fg,ð[]ì[]→,·,é,É,í[]CSù’¶,ífRf“f|
[]f|f“fgf|fufWfFfNfgCE^,©,ç[]V,μ,¢CE^,ð”h[]¶,³,¹,Û,·[]B[]V,μ,¢fRf“f|[]f|f“fg,í”C^Ó,ífRf“f|
[]f|f“fg,©,ç”h[]¶,Å,«,Û,·,°[]C^ê”É,É^È%°°,ì,æ,μ,È•û-@,Å[]ì[]→,μ,Û,·[]B

- Šù’¶,ífRf“fgf[]f[]f<,ì•ì[]X
- “ÆŽ©,ífRf“fgf[]f<,ì[]ì[]→
- fOf%oftfBfbfNfRf“fgf[]f<,ì[]ì[]→
- Windows fRf“fgf[]f<,ì[]TfufNf%ofX%°°»
- ”ñfrfWf...fAf<fRf“f|[]f|f“fg,ì[]ì[]→

^È%°°,ì•\,É[]CfRf“f|[]f|f“fg,ìSe[]ì[]→•û-@,Å[]C”h[]¶CE³,Æ,μ,Äžg—p,·,é|fufWfFfNfgCE^,ð—v-
ñ,μ,Û,·[]B

Ží—b

”h[]¶CE³,Æ,È,é|fufWfFfNfgCE^

Šù’¶,ífRf“f []f f“fg,ì•ì[]X	Tbutton ,â TListBox ,È,Ç,ìŠù’¶,ífRf“f []f f“fg,©[]CTCustomListBox ,È,Ç,ì’Š[]ÛfRf“f []f f“fgCE^
“ÆŽ©,ífRf“fgf[]f<,ì[]ì[]→	TCustomControl
fOf%oftfBfbfNfRf“fgf[]f<,ì[]ì[]→	TGraphicControl
Windows fRf“fgf[]f<,ìžg—p	TWinControl
”ñfrfWf...fAf<fRf“f []f f“fg,ì[]ì[]→	TComponent
,Û,½[]CfRf“f []f f“fg,Å,í,È,¢f fufWfFfNfg,ð”h[]¶,³,¹,é,±,Æ,à,Å,«,Û,·,°[]C,»,μ ,μ,½f fufWfFfNfg,ífTfH[]f€,ì’†,Å,í’€[]ì,Å,«,Û,¹,ñ[]BDelphi ,É,í[]CTINIFile ,â Tfont ,È,Ç[]C,»,ìží,íf fufWfFfNfg,à’½[]”, ,è,Û,·[]B	

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fRfWf...fAf<fRf“f|□[flf“fgf%ofCfuf%ofŠ

fRf“f|□[flf“fg,ÆflfufWfFfNfg

fRf“f|□[flf“fg,ì,³,Ü,´,Ü,È‘α-È

□V,μ,çfRf“f|□[flf“fg,ì|□□=

fCf“fXfg□[f<,³,ê,Ä,ç,È,çfRf“f|□[flf“fg,lfefXfg

Šù'¶,lfRf"fgf¶¶[f<,ì•ïX14108

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fRf"fl¶[flf"fg,ð¶¶¶,;é¶Å,àŠÈ'P,È•ù-@,íCŠù'¶,lfRf"fl¶[flf"fg,ðCE³,É,μ,ÄjffXf^f}fCY,;é•ù-
@,Ä,·BDelphi ,ª'ñ<Ÿ,;é,Ç,lfRf"fl¶[flf"fg,©,ç,Ä,àC¶V,μ,çfRf"fl¶[flf"fg,ð"ħ¶¶,³,¹,é,±
,Æ,ª,Ä,«,Ü,·B,½,Æ,ì,îC, ,é•W¶€fRf"fgf¶¶[f<,lfv¶¶f¶f¶B'ì,ð•ìX,μ,ÄC¶V,μ,çfRf"fl
¶[flf"fg,ð¶¶¶,Ä,«,Ü,·B

fŠfXfgf{fbfNfX,âfOšfbfh,ì,æ,¶,ÈfRf"fgf¶¶[f<,É,íC<¶'È,ìŠî-{ "ì,È<@ " \,ðŽ¶,Ä'½,-
,lfOšfG¶[fVf¶¶,ª, ,è,Ü,·B,±,ê,É'í%ž,μ,ÄCDelphi
,É,í Š¶ÜfRf"fgf¶¶[f<CE^,ª, ,è,Ü,·B'Š¶ÜfRf"fgf¶¶[f<CE^,íC¶V,μ,ffXf^f}fCY,μ,½fRf"fl
¶[flf"fg,ð"ħ¶¶,³,¹,éCE³,Æ,μ,ÄŽg—p,Ä,«,Ü,·B,È, "C¶Delphi ,ìŠ¶ÜCE^,ì-¼'O,íCTCustomGrid
,È,Ç,ì,æ,¶,É¶ucustom¶v,Æ,ç,¶•¶Žš—ñ,ðŠÜ,Ý,Ü,·B

,½,Æ,ì,îC•W¶€,ì TListBox CE^,lfv¶¶f¶f¶B,©,ç,ç,,Ä,©,ð¶œ,ç
,ÄC"Ä•È,ÈfŠfXfgf{fbfNfX,ð¶¶¶,;é,Æ,μ,Ü,·B¶ã^ÈfufWfFfNfgCE^,©,çfv¶¶f¶f¶B,ð¶œ<Ž,;é
,±,Æ,ì,Ä,«,È,ç,ì,ÄCTListBox ,æ,è¶ã^È,ìŠK'w,lfufWfFfNfg,©,ç,» ,lfRf"fl
¶[flf"fg,ð"ħ¶¶,μ,Ü,·B,±,ìè¶¶C^è"È"ì,È'Š¶ÜfRf"fgf¶¶[f<CE^,Ü,Ä-ß,Ä,Ä,μ,Ü,¶
,ÆCfŠfXfgf{fbfNfX,ì<@ " \,ð¶Ä,Ñ,·,×,Ä¶¶¶,μ,È, ,è,ì,È,è,Ü,¹,ñ¶B,» ,ì,½,ßCfufWf...fAf<fRf"fl
¶[flf"fgf%ofCfuf%ofŠ (VCL) ,É,íCTCustomListBox ,ª'ñ<Ÿ,³,è,Ä,ç,Ü,·B,±,ì TCustomListBox
,É,íCfŠfXfgf{fbfNfX,È•K—v,È,·,×,Ä,lfv¶¶f¶f¶B,ª, ,è,Ü,·B,½,¾,μC,» ,ì,·,×,Ä,ªpfufŠfbfVf...
,É¶Ý'è,³,è,Ä,ç,é,ì, ,Ä,ì, ,è,Ü,¹,ñ¶B

TCustomListBox ,È,Ç,ì,æ,¶,È'Š¶ÜCE^,©,çfRf"fl¶[flf"fg,ð"ħ¶¶,³,¹,éè¶¶,É,íCŠJ",;éRf"fl
¶[flf"fg,ÄŽg—p,;éfv¶¶f¶f¶B,ðpfufŠfbfVf...
,É¶Ý'è,μC,» ,ì,Ü,©,lfv¶¶f¶f¶B,lfv¶¶f¶f¶Nfg¶Ý'è,ì,Ü,ÜŽc,μ,Ü,·B

“ÆŽ©,lfRf“fgf□□[f<,l□̀□~14110

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‘Ê□í□C•W□€fRf“fgf□□[f<,íŽÀ□sŽž,ÉfrfWf...fAf<,É•\

Ží,³,ê□Cft□[fU□[,í‘€□í‘í□Ú,Æ,É,è,Ü,·□B,·,x,Ä,ì•W□€fRf“fgf□□[f<,í□CTCustomControl

flfufWfFfNfgCE^,ðCEp□³,μ,Ä,ç,Ü,·□B“ÆŽ©,É□C,Ä,Ü,èŠù‘¶,lfRf“fgf□□[f<,Æ,Í-

³ŠÖCEW,ÉfRf“fgf□□[f<,ð□̀□-,·,é□ê□‡,É,í□C“h□¶CE³,lfRf“fgf□□[f<,Æ,μ,Ä TCustomControl ,ðŽg

—p,μ,Ü,·□B

•W□€fRf“fgf□□[f<,ì‘â,«,È“Á‘¥,í□CfEfBf“fhfEfnf“fhf<,ðŽ□,Ä“_Ä,·□BfEfBf“fhfEfnf“fhf<,lfvf□fpfefB

Handle ,É•ÚŽ□,³,è,Ü,·□BfEfBf“fhfEfnf“fhf<,ðŽ□,Ä,Æ,ç,‡,±,Æ,í□CWindows

,ª,».,lfRf“fgf□□[f<,ð□u“F‘m,μ,Ä,ç,é□v,±,Æ,ð^Ó-í,μ□C,».,è,É,æ,è^È%º,ìCEø%ºÊª, ,è,Ü,·□B

▪ ,».,lfRf“fgf□□[f<,í□C“ü—íftfH□[fjX,ðŽó,~Žæ,é,±,Æª,Ä,«.,é

▪ ,».,lfnf“fhf<,ð Windows API ŠÖ□“,É“n,·,±,Æª,Ä,«.,é (Windows

,í□CfEfBf“fhfE,ðŽ•Ê,·,é,½,β,Éfnf“fhf<,ð•K—v,Æ,·,é)

ŠJ” ,·,éRf“fgf□□[f<,ª“ü—íftfH□[fjX,ðŽó,~Žæ,é•K—vª,È,ç□ê□‡,í□C,».,lfRf“fgf□□[f<,ðfOf

%øftfBfbfNfRf“fgf□□[f<,É,·,é,ífVfXfef€fŠf□[fX,ð□β-ñ,Ä,«.,Ü,·□B

%øÿ,μf{f^f“□CfŠfXfgf{fbfNfX□C•Ò□Wf{fbfNfX,È,Ç,lfRf“fj

□[fj“fg,í□C•W□€fEfBf“fhfEfRf“fgf□□[f<,Ä,·□B,±,ì,æ,‡,ÉfRf“fj□[fj“fg,í□C,½,¾ 1 ,Ä,ì—

áŠO,ð□œ,ç,Ä□C,·,x,Ä TWinControl ,ðCEp□³,μ,Ä,ç,Ü,·□B—áŠO,í Tlabel ,Ä,·□Bf

%øfxf<fRf“fgf□□[f<,ª“ü—íftfH□[fjX,ðŽó,~Žæ,é•K—v,í,È,ç,©,ç,Ä,·□B

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"ñrfWf...fAf<fR"f|[]f"fg.ìì□□

Šù'¶.ìfRf"fgf□□[f<.ì•ï□X

fOf%oftfBfbfNfRf"fgf□□[f<.ìì□□

Windows fRf"fgf□□[f<.ìfTfufNf%ofX%o»

fOf%oftfBfbfNfRf“fgf□□[f<,ìì□-14112

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fOf%oftfBfbfNfRf“fgf□□[f<,í•W□€fRf“fgf□□[f<,É,æ,Ž—,Ä,ç,Ü,·,ª□CWindows
fRf“fgf□□[f<,É”º,xf□□[fo□[fwfbfh,ª, ,è,Ü,¹,ñ□BWindows ,ÍfOf

%oftfBfbfNfRf“fgf□□[f<,ð”FŽ¯,µ,Ü,¹,ñ□BfOf

%oftfBfbfNfRf“fgf□□[f<,ÍfEfBf“fhfEfnf“fhf<,ðŽ□,½,È,ç,ì,Å□CfVfXfef€fŠf\

□[fX,ð□Á”í,µ,Ü,¹,ñ□B,»,ì,©,í,è□CfOf%oftfBfbfNfRf“fgf□□[f<,í“ü—ÍftfH□[fjfX,ðŽó,¯Žæ,ê,Ü,¹,ñ□B

Delphi ,Å,Í□CfOf%oftfBfbfNfRf“fgf□□[f<,ìì□-ì,½,ß,É TGraphicControl □E^,ð—p^Ó,µ,Ä,ç

,Ü,·□BGraphicControl ,Í□CTcontrol ,©,ç”h□¶,µ,½’Š□Ú□E^,Å,·□B□ì□-,·,éfRf“fgf□□[f<,ð

Tcontrol ,©,ç’¼□Ú”h□¶,³,¹,é,±,Æ,à,Å,«,Ü,·,ª□CTGraphicControl

,©,ç”h□¶,³,¹,é•û,ª,Í,é,©,ÉŠÈ’P,Å,·□B,È,º,È,ç□CTGraphicControl ,Å,ÍfyfCf“fg—p,ÍfLfff“fofX,ª—

p^Ó,³,ê□C,Ü,½ WM_PAINT f□fbfZ□[fw,à□^—□,³,ê,é,©,ç,Å,·□BSJ”ŽÓ,É•K—v,È□ì<Æ,Í□CPaint

f□f\fbfh,ðf□□[fo□[f%ofCfh,·,é,±,Æ,¾,¯,Å,·□B

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"ñfrfWf...fAf<fRf"f|□[f|f"fg.ì□□□□

"ÆŽ©.ìfRf"fgf□□[f<.ì□□□□

Šù'¶.ìfRf"fgf□□[f<.ì•ï□X

Windows fRf"fgf□□[f<.ìfTfufNf%ofX%o»

Windows fRf“fgf□□[f<,lfTfufNf%ofX%oo»14114

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Windows ,É,lfEfBf“fhfEfNf%ofX,ÆCEÄ,Î,ê,éŠT”O,ª, ,è,Ü,·□B,±
,İŠT”O,Í□CflfufWfFfNfgŽwCEüvf□fOf%of~f“fO,lfIfufWfFfNfg,âfNf%ofX,É,Â,ç,Ä,İ□,İ,•û,ÆŽ—
,Ä,ç,Ü,·□BfEfBf“fhfEfNf%ofX,İ□î•ñ,Í□CWindows ,l“~^ê,İŽí—p,lfEfBf“fhfE (fRf“fgf□□[f<)
,İŠefCf“fXf^f“fX,İŠÖ,Å<α—L,³,ê,Ü,·□B

□]—^,İ Windows fvf□fOf%of~f“fO,Ä□V,μ,çŽí—p,lfRf“fgf□□[f< (fjXf^f€fRf“fgf□□[f<)
,ð□□—,·,é□ê□±,Í□C□V,μ,çfEfBf“fhfEfNf%ofX,ð’è<` ,μ,ÄWindows
,É“o~^ ,μ,Ü,·□B,Ü,½□CŠù’¶,lfNf%ofX,ðCE³,É,μ,Ä□V,μ,çfEfBf“fhfEfNf%ofX,ð□□—,·,é,±
,Æ,à,Å,«,Ü,·□B,±,ê,İ•û—@,lfTfufNf%ofX%oo»,ÆCEÄ,Î,ê,Ü,·□B

□]—^,İ Windows fvf□fOf
%of~f“fO,ÅfjXf^f€fRf“fgf□□[f<,ð□□—,·,é□ê□±□C,» ,lfRf“fgf□□[f<,ðf_fCfif~fbfNfŠf“fNf%ofCfuf
%ofŠ (DLL) ,É<L□q,μ,Ä□CfCf“f^□[ftfF□[fX,ð—p^Ó,·,é•K—v,ª, ,è,Ü,μ,½□B,±,ê,İ□C•W□€,İ
Windows fRf“fgf□□[f<,Æ,Ü,Ú“—l,İ•û—@,Å,·□B

Šù’¶,lfIfufWfFfNfg (,½,Æ,İ,İ Windows fRf“fgf□□[f<),ð□Cf+□[fU□[fvf□fOf%of€,©,çŽg—
p,Å,« ,é,æ,α,ÉfRf“f□[flf“fg,Æ,μ,Ä’è<` ,·,é,±,Æ,ð□CflfufWfFfNfg,ð•i,Ý□ž,p,æ,α
,ÉfR□[fh,ð<L□q,·,é,±,Æ,© ,ç□uf%ofbfsf“fO□v,ÆCEÄ,Ñ□C,» ,İ,æ,α,ÉfRf“f□[flf“fg,ðf
%ofbfp□[fRf“f□[flf“fg (, ,é,ç,İ’P,É□uf%ofbfp□[□v) ,ÆCEÄ,Ñ,Ü,·□BDelphi ,Å,Í□CŠù’¶,İ Windows
fNf%ofX,İŽü,è,ÉfRf“f□[flf“fg,İ□uf%ofbfp□[□v,ð□□—,Å,« ,Ü,·□B,±,İ,½,ß□CDelphi
fAfvfŠfP□[fVf±f“ ,ÄŽg—p,·,éjXf^f€fRf“fgf□□[f<,ª,·,Å,É’¶□Y,μ,Ä,ç
,é□ê□±□C,» ,lfRf“fgf□□[f<,â,» ,±,© ,ç“h□¶,μ,½fRf“fgf□□[f<,ðŽg—p,μ,Ä□CDelphi fRf“fj
□[flf“fg,ð□□—,Å,« ,Ü,·□B

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Šù'¶,lfRf“fgf□□[f<,i•i□X

“ÆŽ©,lfRf“fgf□□[f<,i□i□=

fOf%oftfBfbfNfRf“fgf□□[f<,i□i□=

”ñfrfWf...fAf<fRf“f□□[f“fg,ì□i□=

"ňfrfWf...fAf<fRf"f|[]f|f"fg,ì[]-14116

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'Š[]Úf|fufWfFfNfgCE^,Å, ,é Tcomponent ,í[]C,·,x,Ä,lfRf"f|[]f|f"fg,ìŠi-
{CE^,Å,·[]B,μ,©,μ[]C'¼[]Ú Tcomponent ,©,ç[]-·,·,éRf"f|[]f|f"fg,í[]C"ňfrfWf...fAf<fRf"f|
[]f|f"fg,¾,·,Ä,·[]B'É[]í[]CSJ",·,é'å·"·^a,lfRf"f|[]f|f"fg,í[]C,³Ü,´,Ü,ÈfrfWf...fAf<fRf"f|f<,Å,·[]B
Tcomponent ,í[]CfRf"f|[]f|f"fg,^aftfH[]f€ffUfCfi"à,Å"®[],·,é,½,β,É·K-
v,É[]C,·,x,Ä,lfvf[]fpefB,Æf[]fbfh,ð'è<,μ,Ü,·[]B,±,é,É,æ,Á,Ä[]CTcomponent
,©,ç" h[]^{3,1,½,·,x,Ä,lfRf"f|[]f|f"fg,í[]ÝCEvŽž,ÉŽg-p,Å,«,é,æ,κ,É,È,è,Ü,·[]B}
"ňfrfWf...fAf<fRf"f|[]f|f"fg,í, ,Ü,èŽg-p,³,é,Ü,¹,ñ[]B"ňfrfWf...fAf<fRf"f|[]f|f"fg,í^{½,-}
,ìê[]#[]C"ňfrfWf...fAf<fvf[]fOf%of€-v'f (Delphi ,lff[]f^fx[]fX-v'f,È,Ç)
,ì,½,β,lfCf"f^[]ftfF[]fX,Æ,μ,Ä[]C,Ü,½[]Cf_fCfAf[]fOf{fbfNfX (ftf@fCf<f_fCfAf[]fOf{fbfNfX,È,Ç)
,ì,½,β,lfvf[]fXfzf<f_,Æ,μ,ÄŽg-p,³,é,Ü,·[]B

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“ÆŽ©,lfRf“fgf□□[f<,l□i□=

Šù‘¶,lfRf“fgf□□[f<,l•i□X

fOf%oftfBfbfNfRf“fgf□□[f<,l□i□=

Windows fRf“fgf□□[f<,lfTfufNf%ofX%o»

fRf“f|□[flf“fg,ì,³,Ü,´,Ü,È‘κ-Ê14118

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fRf“f|□[flf“fg,ìŠJ”,É,¨,¯,é□š-ñ,í,ù,Æ,ñ,ç, ,è,Ü,¹,ñ□B,μ,©,μ□Cf†□[fU□[,É,Æ,Á,ÄŽg,ç,â,·,□C□M—
Š□«,ì□,,çfRf“f|□[flf“fg,ðŠJ” ,·,é,½,β,É,í□C,ç,,Â,©,ì<K‘¥,É□],κ•K—v,^a, ,è,Ü,·□B

,±,ì□β,Â,í□CfRf“f|□[flf“fg,ðÝCEv,·,é□Ù,ìŠ’b“l,ÈCE‘‘¥,É,Â,ç,Ä□C^È%oº,ì,±,Æ,ð□à-¾,μ,Ü,·□B

- ^È‘¶ŠÖCEW,ì□œ<Ž
- fvf□pfefB, fCxf“fg, f□f□bfh
- fOf%o°ftfBfbfN,lfjfvfZf<%o°»
- “o~^

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fRfWf...fAf<fRf“f|□[flf“fgf%°fCfuf%°fŠ

fRf“f|□[flf“fg,ÆflfufWfFfNfg

fRf“f|□[flf“fg,ìììì→•û-@

□V,μ,çfRf“f|□[flf“fg,ìììì

fCf“fXfg□[f<,è,Ä,ç,È,çfRf“f|□[flf“fg,lfefXfg

^Ě'ŕŠÖŒW,ìœ<Ž14120

ŽQÆ —á

Delphi ,lfRf"flflf"fg,đññ-,,:éèññC^Ě'ŕŠÖŒW,đ,È,,:é,±,Æ,³d—
v,Ä,·B,Ä,Ü,èCfGf"fhft[fU[,²fRf"flflf"fg,đfAfvfŠfP[fVf#f",É—
e^Ŏ,É'g,Ýž,þ,É,íC^ê"Ê,ÉCfR[fh't,ì"C^Ó,ìèñŠ,Å"C^Ó,lfRf"flflf"fg,đŽg—
p,Å,«,È,̄,ê,î,È,è,Ü,¹,ñB

,à,Æ,à,ÆfRf"flflf"fg,ì«Žž,íC,³,Ü,´,Ü,È'g,Ýñ,í,¹Cññ~CŠÂ««,É,"ç
,ÄCfAfvfŠfP[fVf#f",É'g,Ý"ü,ê,é,ì,É"K,μ,Ä,ç,Ü,·B'O^—,đ•K—v,Æ,¹,·,ç,ä,éó<μ,Å<@"\
,,:é,æ,α,ÈfRf"flflf"fg,đÝŒv,μ,È,̄,ê,î,È,è,Ü,¹,ñB

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fv\fpfefB, fCxf“fg, f\fbfh

fOf%oftfBbfN,lfjvfZf<%o»

“o~^

^Ě'ŕŠÖŒWœ<Ž,ì—á14122

fRf"fi[]flf"fg,ìĚ'ŕŠÖŒWœ<Ž,ìD—á,Æ,μ,ÄCfEfBf"fhfEfRf"fgf[]f<,ì Handle
fvf[]pfefB,ª, ,è,Ü,·B^ê"Ě,ì Windows fAfvfŠfP[]fvfj" ,Ä,ìCCreateWindow ,Æ,ç,κ API
ŠÖŒ",ðŒÄ,Ŧo,μ,ÄfEfBf"fhfE,©fRf"fgf[]f<,ð[]Œ,·,·,é'Œ,ÉC,»,ìfEfBf"fhfE,âfRf"fgf[]f<,ÉfAfN
fZfX,μ,Ä,Í,È,è,Ü,¹,ñB,±,è,ìCfvf[]fOf%œ€ ,ð[]Œ,·,·,éŒ,ÉÄ,àfGf%œ[] ,ð<N,±,μ,â,·,ç"_,ì 1
,Ä,Ä,·BAPI ŠÖŒ",ð-³Œø,Èfnf"fhf<,ÄŒÄ,Ŧo,·,ÆC'½,,ì-â'è,ª"[]ŕ,Ü,·B

Delphi fRf"fi[]flf"fg,Ä,ìCfnf"fhf<,ª•K—v,È,Æ,« ,ìí,É,»,ìfnf"fhf<,í—
LŒø,Ä,·B,»,ì,½,ßCft[]fU[] ,ìfEfBf"fhfEfnf"fhf<,ª—LŒø,©,Ç,κ,©,ð[] ,ì,é•K—v,ª, ,è,Ü,¹,ñBf
Rf"fi[]flf"fg,ìCfEfBf"fhfEfnf"fhf<—p,ìfvf[]pfefB,ðŽQ[]Æ,·,è,ìC,»,ìfEfBf"fhfE,ª[]Œ—Ŧ,Ÿ,Ä, ,é,
©,Ç,κ,©C,Ä,Ü,èfEfBf"fhfEfnf"fhf<,ª—LŒø,©,Ç,κ,©,ðŒŸ,Ä,« ,Ü,·Bfnf"fhf<,ª—
LŒø,Ä,È,ç[]ê[] ,ìfEfBf"fhfE,ð[]Œ,·,μCfvf[]pfefB,ìfnf"fhf<,ð•Œ,μ,Ü,·B,±,κ
,μ,ÄCft[]fU[] ,ìR[]fh,ª Handle fvf[]pfefB,ðfAfNfZfX,μ,½,Æ,« ,ìCí,É—
LŒø,Èfnf"fhf<,ð"¾,ç,è,é,±,Æ,ª•Œø,³,è,Ü,·B

fRf"fi[]flf"fg,Ä,ìCfEfBf"fhfE,ì[]Œ,È,Ç,ì^—[] ,ªŽ©"®"ì,É[]s,í,è,é,ì,ÄCŠJ"Žò,ì-
^,ì[]<Æ,É[]é"Œ,Ä,« ,Ü,·BŠJ"Žò,ªfEfBf"fhfEfnf"fhf<,ð API ŠÖŒ",É"n,·K—
v,ª, ,é[]ê[] ,àC, ,ç,©,ŕ,ß—LŒø,Èfnf"fhf<,ª, ,é,©,Ç,κ,©,ðŠm" F,μ,½,èC•K—
v,È[]ê[] ,ì[]Œ,·,·,é,Æ,ç,κ,æ,κ,È[]<Æ,í•K—v, ,è,Ü,¹,ñBfRf"fi[]flf"fgfx[]fX,ìfvf[]fOf
%œf~f"fo,Ä,ìCŒè,Ä,½[]ó'Œ,É,È,ç,È,ç,æ,κ,É[]â,ì, ,f fFfbfN,·,é•K—v,ì,È,[]C^Œ[]
,μ,½,Æ, ,è,É^—[] ,ª[]s,í,è,é,±,Æ,ðŠm[]M,μ,È,ª,çvf[]fOf%œf~f"fo,Ä,« ,Ü,·B

^Ě'ŕŠÖŒW,ðŽ,½,È,çfRf"fi[]flf"fg,ð[]Œ,·,·,é,É,ìC[]-
,μ,¾, ŽŽŠŒ,ª, ©, ©,é,©,à,μ,è,Ü,¹,ñ,ªC,»,ì,æ,κ,ÈŽŽŠŒ,Í^ê"Ě"ì,É—
L^Ó<,È,à,ì,Ä,·B,È,ª,È,çC,»,è,É,æ,Ä,ÄfRf"fi[]flf"fgf[]fU[] ,ª" ,ŕ[]<Æ,ðŒJ,è•Œ,μ[]s,κ•K—
v,ª,È,,È,é,¾, ,Ä,È,[]C,½,,³,ñ,ìŒx[] ,Æ,»,ì[]à-¾,ð—p^Œ,μ,½,èCft[]fU[] ,ªfRf"fi
[]flf"fg,ÉŠŒ,μ,Ä[]o%œì,κ%œÄ"[]« ,ª, ,é-â'è,ð%œðŒ^ ,μ,½,è,·,é•K—v,ª,È,ç,½,ßCf}fjf...
fAf<,ì[]Œ,·,âfTf[]fg,É,©,©,é%œ'S,ªŒ,·,·,é,©,ç,Ä,·B

fvf fpfefB, fCxf"fg, f fbfh 14123

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fRf" f f f f f" fg f f f U f, a Y e v Ž Ž, É f t f H f f e, Å ' € f, é - Ú, É e ©, l, é f C f f f f W, Å, , é, Å, ç, x " _ , ð œ, ç , Å C f R f " f f f f f " fg, l d - v, É - v ' f, l C f v f f p f e f B C f C x f " fg C f f f b f h, Å, B, ±, l f } f j f ...
f A f <, Å, l, » , é, ¼, é, É " Å - §, l i, a Š, ,, è " - , Å, ç, é, Å, ç, Ü, B, ±, l f z f n f v f f " , Å, l C, ±, l 3 , Å, l -
v ' f, l Š T " O, É, Å, ç, Å ð à - ¾, µ, Ü, B

fvf fpfefB

fRf" f f f f f" fg f f f U f, l C l, l Y ' è, â " Ç, Y o, µ, a, Å, «, é f R f " f f f f " fg ' t, l ' i " , l, æ, x , É, Å, à, è, Å f v f f p f e f B, ð µ, ç, Ü, B f R f " f f f f " fg Š " Ž Ö, l f v f f p f e f B, ð Ž g - p, , é, ± , Å, É, æ, è C Ž Å Ü, l f f f f f f " ç, ð % B • Å, µ, ½, è C l, l f A f n f z f X, É " °, x • ð - p, ð ' è < , Å, «, Ü, B

fvf fpfefB, l Ž g - p, É, æ, Å, Å f R f " f f f f " fg Š " Ž Ö, a ¾, é - ~ " _ , l ^ È % °, l, Å, , , è, Å, B

- Y e v Ž Ž, É f v f f p f e f B, ð Ž g - p, Å, «, é , ±, é, É, æ, è C f R f " f f f f " fg f f f U f, l f R f f h, ð < l q, 1, , É C f v f f p f e f B, l % Š ů ' l, ð Y ' è C • i X, Å, «, Ü, B
- f v f f p f e f B, a • i X, ¾, é, é, ½, N, É C l, â e Ž @, ð e Y f, Å, «, é f f f U f, l " ü - l, ð e Y f, , é, ±, Å, Å C - ¾ e Ø, È ' l, É, æ, Å, Å ^ ø, « < N, ±, ¾, é, é f G f % f, ð - h z ~ , Å, «, Ü, B
- K - v, É, Å, «, É f R f " f f f f " fg, a " K Ø, È ' l, ð v ' z, Å, «, é , æ, , , é f G f % f, l f C f % Š ů ' l, a " ä " ü, ¾, é, Å, ç, È, ç • i " , ð Ž Q Æ, , é, ± , Å, Å, B ' l, ð f v f f p f e f B, É, , é, l C f v f f p f e f B, ©, ç " Ç, Y o, ¾, é, ½ ' l, a f, É - l e Ø, Å, , é, ± , Å, ð • Ü Ø, Å, «, Ü, B

fvf fpfefB, l f f, Å, l C f R f " f f f f " fg, É f v f f p f e f B, ð Ç % Å, , é • û - @, É, Å, ç, Å ð à - ¾, µ, Ü, B

fCxf"fg

fCxf"fg, l C f R f " f f f f " fg Š " Ž Ö, a Ž w ' è, µ, ½ o - ^ Ž - (f } f e f X ' € f, â f l f [' € f, È, Ç) , Å C f R f " f f f f " fg f f f f f U f, a < l q, µ, ½ f R f f h (f C x f " fg f n f " f h f %) , Å, l Š Ö, l i U " _ , Å, B - { Ž ž " l, É, l C f C x f " fg, l f R f " f f f f " fg Š " Ž Ö, É, æ, Å, Å ' ñ < Y, ¾, é, é f t f b f n, Å, B f R f " f f f f " fg f f f f f U f, l f C x f " fg, ð - ~ - p, µ, Å C " Å ' è, l o - ^ Ž - , a " - f, µ, ½ è f, È, Ç, l f R f f h, ð Ž Å s, , x, «, ©, ð Ž w ' è, µ, Ü, B

, µ, ½, a, Å, Å C f R f " f f f f " fg f f f U f, ð f R f " f f f f " fg Š " Ž Ö, ©, ç < æ • È, , é, l, l f C x f " fg, Å, B f f - ^, l Windows f A f v f Š f P f f v f f " , Å f t f u f n f % f X % » , a Ž g - p, ¾, é, é - R, l ' ½, l C f f f U f, a " Å ' è, l Windows f f b f z f f W, É, Ç, É ' l, µ, Å ^ á, Å, ½ % Ž " Š, ð Ž w ' è, , é, ½, B, Å, B, ±, é, É ' l, µ, Å Delphi , Å, l C f R f " f f f f " fg f f f U f, l ' è < f, Y, l f C x f " fg, É ' l, , é f n f " f h f % , ð Ž w ' è, , é, ¾, , Å " , f e < % È, ð ¾, ç, é, Ü, B, ±, l, ½, B C f t f u f n f % f X % » , É, æ, Å, Å " Å Ž ©, l f R f " f f f f " fg, ð " h f, ¾, é • K - v, l, , è, Ü, 1, ñ B

fCxf"fg, l f f, Å, l C • W f, l Windows fCxf"fg, â C Š " Ž Ö Ž © f g, Å ' è < , , é f C x f " fg, ð Ç % Å, , é • û - @, É, Å, ç, Å ð à - ¾, µ, Ä, , è, Ü, B

f fbfh

f fbfh, Å, l C f R f " f f f f " fg, É ' g, Y ž, Ü, è, ½ Ž è ' ±, «, â Š Ö " , l, ±, Å, Å, B f R f " f f f f " fg f f f U f, l f f f b f h, ð Ž g - p, µ, Å C f R f " f f f f " fg, É ' l, µ, Å " Å ' è, l ' € f, ð s, Å, ½, è C f v f f p f e f B, É, l, È, ç ' l, ð Ž æ " ¾, Å, «, Ü, B, Ü, ½ f f b f h, l C 1 % ñ, l e Å, N o, µ, Å • i " , l Š Ö ~ A, µ, ½ f v f f p f e f B, ð X V, , é è f, É, à - l - p, Å, B

f fbfh, É, l f R f f h, l Ž Å s, a " °, x, l, Å C f f f b f h, l Ž Å s Ž Ž, É, l, Y < @ " \, µ, Ü, B

f fbfh, l f f, Å, l C f R f " f f f f " fg, É f f f b f h, ð Ç % Å, , é • û - @, a ð à - ¾, µ, Ä, , è, Ü, B

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fOf%oftfBfbfN,ìjfvfZf<%o»

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fOf%oftfBfbfN,lfjfvfZf<%o»14125

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,lfOf%oftfBfbfN,ÉSÖCEW,μ,½'p<ü,ÈŽdŽ-
,à,Ü,Æ,ñ,ÇŽæ,èœ,©,ê,Û,·BfLfff“fofX,ÍEfBf“fhfE,âfRf“fgf[f<,ì`%oæ-É,ÅCfyf“Cfuf
%ofV[CftfHf“fg,È,Ç,Ì,Û,©,lfufWfFfNfg,àŠÜ,ñ,Å,ç,Û,·BfLfff“fofX,Í Windows
,lfffOfCfXfRf“fefLfXfg,Æ,æ,Ž—,Ä,ç,Û,·CWindows
,lfffOfCfXfRf“fefLfXfg,Æ^á,π“_ÍCfLfff“fofX,Å,Í,·,x,Ä,ìL~^,àŽ©“@“l,És,í,ê,é,Æ,ç,π,±
,Æ,Å,·B

^È'O,É Windows fOf%oftfBfbfNfAfvfŠfP[fVf+f“„ðŠj” ,μ,½,±,Æ,à, ,è,ÎCŽg—p%oÅ“\
,ÈfffofCfXfRf“fefLfXfg,Ì” ,É,Å,ç,Ä,Ì\$CEÀ,âCfOf
%oftfBfbfNlfufWfFfNfg,ð”pŠü,·,é,É,Í,» ,l'O,ÉlfufWfFfNfg,ð“-□%o,Ìó'Ô,É-
ß,μ,Ä,“,©,È,_,è,Î,È,ç,È,ç,±,Æ,É,ÇCWindows ,lfOf%oftfBfbfNfffOfCfXfCf“f^ [ftfF [fX (GDI)
,à,³,Û,´,Û,È<K¥,ðŠj” ŽÖ,É%oÛ,·,±,Æ,ð,²'¶,¶,Å,μ,â,πB

Delphi ,ÅfOf%oftfBfbfN,ð'SŽè,Éî<Æ,·,éêê±,É,ÍC,» ,π,μ,½<K¥,É,Í,,ç,í,³,è,é,±
,Æ,Í, ,è,Û,¹,ñBftfH [f€,âfRf“f [flf“fg,É•`%oæ,·,éêê±,É,ÍCCanvas fvf [fpfefB,ðŽg—
p,μ,Û,·Bfyf“ ,âfuf%ofV,ðjXf^f}fCfY,·,éêê±,É,ÍCF,âfXf^fCf<,ðY'è,μ,Û,·BÏ'è,âI—
¹,·,é,ÆCfŠf [fX,Ì”jŠü,Í Delphi ,âs,ç,Û,·BŽÀÛ,É,ÍCDelphi ,lfŠf [fX,ðLfffbfVf...
,É“ü,è,Ä,“,·,Ì,ÅCfAfvfŠfP[fVf+f“ ,à“ ,¶Ží—p,lfŠf [fX,ð•p”É,ÉŽg—
p,·,éêê±,ÍC [fX,âÄ [fX,Ì^—,Í'â•,ÉCEø—!%o»,³,è,Û,·B

,à,ž,è,ñCWindows GDI ,É,à'S-Ê“l,ÉfAfNfZfX,Å,« ,Û,·B,μ,©,μCDelphi fRf“fj
 [flf“fg,lfLfff“fofX,ðŽg—p,·,é•ù,âCfR [fh,àŠÉ'P,É,È,èŽÀs'—“x,à [ã,à,è,Û,·BDelphi ,lfOf
%oftfBfbfN<@“\,É,Å,ç,Ä,ÌÚ×,ÍRf“f [flf“fg“à,lfOf%oftfBfbfN,ÌŽg,ç•ù,Åà-¾,μ,Û,·B

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^Ě'ŕŠÖŒW,ìœ<Ž

fv\pfefB, fCxf"fg, f\fbfh

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fRf“f|□[flf“fg,³YCEvŽž,É Delphi ,Å“®□i,·,é,É,í□C, ,ç,©,¶,β,»),lfRf“f|□[flf“fg,đ Delphi
,É“o~^,·,é•K—v,ª, ,è,Û,·□B“o~^,Æ,í□C,»,lfRf“f|□[flf“fg,lfRf“f|□[flf“fgfpfCEfbfg“à,ì•\Ž!^Ê’u,đ
Delphi ,ÉŽwŽ!,·,é,±,Æ,Å,·□B,Û,½□CDelphi ,³fRf“f|□[flf“fg,đftfH□[f€ftf@fCf<,ÉŠi”[·,é•û-
@.à}fXf^f}fCfY,Å,«,Û,·□B“o~^,É,Å,ç,Ä,lfRf“f|□[flf“fg,ì“o~^,Å□à-¾,μ,Û,·□B

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^Ě'ŕŠÖŒW,ìœ<Ž

fv\fpfefB, fCxf"fg, f\fbfh

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□V,μ,ϕRf“f□[flf“fg,đ□ì□¬,·,é□ê□‡,É•K—v,ÈŽè□‡,^aϕ,,Â,©,·,è,Û,·□B□V,μ,ϕRf“f□[flf“fg,ì□ì□¬—á,Í,·,×,Ä□C,±,ìŽè□‡,É,Â,ϕ,Ä,ì'mŽ⁻,đ'O'ñ,É,μ,Ä<L□q,³é,Ä,ϕ,Û,·□B

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- fRf“f□[flf“fgfGfLfXfp□[fg,đŽg—p,·,é

,ϕ,,è,©,ì•û-@,ÄfRf“f□[flf“fg,đ□ì□¬,·,é,±,Æ,É,æ,è□C□Å□¬CEÀ,ì<@“\,đŽ□,ÄfRf“f]

□[flf“fg,^a□ì□¬,³é,Û,·□B□ì□¬,³é,^{1/2}fRf“f□[flf“fg,Í□CfRf“f]

□[flf“fgfpfCEfbfg,ÉfCf“fXfg□[f<,Â,<.,Û,·□BfCf“fXfg□[f<CEã□C,»],ì□V,μ,ϕRf“f□[flf“fg,đftfH□[f€

,É'Ç%°Á,μ,Ä□C□ÝCEvŽž,ÆŽÀ□sŽž,ì—¼•û,É,Â,ϕ,ÄfefXfg,·,é,±,Æ,^aÄ,<.,Û,·□B,³ç,É□C,»],fRf“f]

□[flf“fg,É,³ç,É'½,,ì<@“\,đ'Ç%°Á,μ,Ä□CfpfCEfbfg,đ□X□V,μ□C□Ä,ÑfefXfg,·,é,±,Æ,à,Ä,<.,Û,·□B

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fRfWf...fAf<fRf“f|□[flf“fgf%oofCfuf%oofŠ

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fRf“f|□[flf“fg,ìì□-•û-@

fRf“f|□[flf“fg,ì,³,Ü,´,Ü,È’α-Ê

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fRf“f|□[flf“fg,đžè□ì<Æ,Å□ì□¬,·,é,É,Í□CŽŸ,ì 3 ,Â,ì’iŠK,^a, ,è,Û,·□B

1 □V,μ,¢ftfjfbfg,ì□ì□¬

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3 fRf“f|□[flf“fg,ì“o~^

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,Å,íCftfjfbfg,í,³,Ü,´,Ü,É-Ü“l,ì,½,β,ÉŽg—p,³,è,Ü,·B,·,×,Ä,ìftfH[f€
,í“ÆŽ©,ìftfjfbfg,ðŽ,¿C,Ü,Æ,ñ,Ç,ìfRf“f[f“fg (.Ü,½,í,»),ìOf<[fv)
,à“ÆŽ©,ìftfjfbfg,ðŽ,Ä,Ä,ç,Ü,·B

fRf“f[f“fg,ìòì-É“-½,Ä,Ä,íC,»),ìfRf“f[f“fg—
p,ìV,μ,ϕftfjfbfg,ðòì-,·,é,©C,Ü,½,íŠù‘¶,ìftfjfbfg,É,»,ìV,μ,ϕfRf“f[f“fg,ð’Ç%Á,μ,Ü,·B

fRf“f[f“fg—p,ìftfjfbfg,ðòì-,·,é,É,íCmftf@fCf<(F)bf f jfbfg,ìV<Kòì-(U)ñ,ð’l’ð,μ,Ü,·B
Delphi ,íV,μ,ϕftf@fCf<,ðòì-,μCfR[fhfGfffBf^,Å,»,ìftf@fCf<,ðŠJ,«,Ü,·B

Šù‘¶,ìftfjfbfg,ÉfRf“f[f“fg,ð’Ç%Á,·,é,É,íCmftf@fCf<(F)bf t f@fCf<,ðŠJ,-
(O)ñ,ð’l’ð,μ,ÄCŠù‘¶,ìftfjfbfg—p,ìf[fXftf@fCf<,ð’l,Ñ,Ü,·B

f[f,: Šù‘¶,ìftfjfbfg,ÉfRf“f[f“fg,ð’Ç%Á,·,éè±,É,íCftfjfbfg,É,ìfRf“f[
[f“fgfR[fh,¾,¯,ª“ü,Ä,Ä,ç,é,±,Æ,ðŠm”F,μ,Ä,¾,¾,çB,½,Æ,ì,íCftfH[f€,ª“ü,Ä,Ä,ç
,éftfjfbfg,ÉfRf“f[f“fgfR[fh,ð’Ç%Á,·,é,ÆCfRf“f[f“fgf p f C f b f g , Ä f G f % [,ª” -
¶,μ,Ü,·B

fRf“f[f“fg—p,ìV,μ,ϕftfjfbfg,©Šù‘¶,ìftfjfbfg,ª, ,è,íCfRf“f[
[f“fgfufWfFfNfg,ð”h¶,¾,¾,é,±,Æ,ª,Ä,«,Ü,·B

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fRf“f|□[flf“fgflfufWfFfNfg,ì”h□¶14135

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, , x, Ä, ìfRf“f|□[flf“fg, í□CTComponent□C, , é, ç, í Tcontrol , â TGraphicControl , È, Ç, ì Tcomponent , ð“ÁŽê%o» , μ, ½%o^ÉfifufWfFfNfg, ©, ç”h□¶, μ, ½, à, ì, Å, ·□B, Û, ½□C’¼, ìSù‘¶, ìfRf“f| □[flf“fgCE^ , ©, ç”h□¶, μ, ½, à, ì, à, , è, Û, ·□BfRf“f|□[flf“fg, ì□ì□→·û-@, Å, í□C, ³, Û, ´, Û, ÈŽí—p, ìfRf“f| □[flf“fg, ì”h□¶ŠÖCEW, É, Å, ç, Ä□à-¾, μ, Û, μ, ½□B

□V, μ, çfifufWfFfNfg, ð”h□¶, ³, ¹, é•û-@, ì□Ú□x, É, Å, ç, Ä, í□V, μ, çfifufWfFfNfg, ì□ì□→, ðŽQ□Æ, μ, Ä, - , ¾, ³, ç□B

fRf“f|□[flf“fgflfufWfFfNfg, ð”h□¶, ³, ¹, é, É, í□C, » , ìfRf“f| □[flf“fg, ð“ü, è, éftfjfbfg, ì**fCf“f^□[ftfF□[fX•**” , ÉfifufWfFfNfgCE^□éCE¾, ð<L□q, μ, Û, ·□B

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fRf“f|□[flf“fg,ìŠî- {CE^,Å, ,é Tcomponent ,đ’¼□ÚCEp□³,μ,½” ñfrfWf...fAf<fRf“f|
□[flf“fg,đ□ì□¬,; ,é,É,í□CfRf“f|
□[flf“fgftfjfbfg,ìfCf“f^□[ftfF□[fX•”,ÉŽŸ,ìCE^□éCE¾,đ<L□q,μ,Ü,·□B

type

TNewComponent = **class** (TComponent)

end;

,±,ê,Å TNewComponent ,đ“o~^,Å,«,Ü,·□B,±,ì□V,μ,çfRf“f|□[flf“fg,í□C,±,ì,Ü,Ü,Å,í Tcomponent
,Æ“~,¶,±,Æ,μ,©□s,ç,Ü,¹,ñ□B,½,¾□C,»,±,É□V,μ,çfRf“f|
□[flf“fg,đ□\z,; ,é,½,β,ìftfCE□[f€f□□[fN,²□ì□¬,³,ê,½,±,Æ,É,È,è,è,Ü,·□B

ŽQÆ14137

V,μ.ctffjfbfg,ìì

fRf“f[]f“fg,ì”o~^

fRf“f|□[flf“fg,ì“o~^14138

ŽQ□Æ —á

fRf“f|□[flf“fg,ì“o~^,í□CDelphi ,lfRf“f|□[flf“fgf%ofCfuf%ofŠ,É’Ç%oÁ,·,éfRf“f|
□[flf“fg,Æ□C,» ,lfRf“f|□[flf“fg,ð•\Ž!,·,éfRf“f|□[flf“fgfpfCEfbfg,lfy□[fW,ð Delphi
,É’m,ç,¹,é,^{3/4},¯,Á,·□B“o~^,É,Á,ç,Ä,ì□Ú□×,lfRf“f|□[flf“fg,ì“o~^,ðŽQ□Æ,μ,Ä,,^{3/4},³,ç□B

fRf“f|□[flf“fg,ð“o~^,·,éŽè□‡,ÍŽŸ,ì,Æ,“,è,Á,·□B

- 1 Register ,Æ,ç,αŽè’±,« ,ð□C,» ,lfRf“f|
□[flf“fgftfjfbfg,lfCf“f^□[ftfF□[fX•”,É<L□q,μ,Ü,·□BRegister ,lfpf
%of□□[f^,ðŽæ,è,Ü,¹,ñ□B,±,ìŠÖ□”,ì□éCE^{3/4},ðŽŸ,ÉŽ!,μ,Ü,·□B

procedure Register;

,·,Á,ÉfRf“f|□[flf“fg,“ü,Á,Ä,ç,éftfjfbfg,ÉfRf“f|□[flf“fg,ð’Ç
%oÁ,·,é□ê□‡,É,í□C,» ,lftfjfbfg,É,ÍŽè’±,« Register ,“ ,Á,É□éCE^{3/4},³,è,Ä,ç
,Ü,·□B,μ,^{1/2},“ ,Á,Ä□C□éCE^{3/4},ì’Ç%oÁ,í•K—v, ,è,Ü,¹,ñ□B

- 2 ftfjfbfg,lfŽACE»•”,ÉŽè’±,« Register ,ð<L□q,μ,Ä□C“o~^,·,éfRf“f|□[flf“fg,ì,» ,è,^{1/4},è,É,Á,ç,Ä
RegisterComponents ,ðCEÄ,Ñ□o,μ,Ü,·□B

Žè’±,« RegisterComponents ,í□C2 ,Á,lfpf%of□□[f^ (fRf“f|□[flf“fgfpfCEfbfg,lfy□[fW-
^{1/4},ÆfRf“f|□[flf“fgCE^,ì□W□‡) ,ðŽg—p,μ,Ü,·□BŠù’¶,ì“o~^fvf□ZfX,É□V,μ,çfRf“f|□[flf“fg,ð’Ç
%oÁ,·,é□ê□‡,É,í□CŠù’¶,ì•¶’t,lfRf“f|□[flf“fg,ì□W□‡,É□V,μ,çfRf“f|□[flf“fg,ð’Ç
%oÁ,·,é,©□CRegisterComponents ,ðCEÄ,Ñ□o,·□V,μ,ç•¶,ð’Ç%oÁ,μ,Ü,·□B

—á14139

TNewComponent ,Æ,¢,¼'O,lfRf"f|f|f"fg,ð"o~^,μ,ÄCfRf"f|f|f"fgpfÆfbfg,ì Samples
fy|fW,É"z'u,·,é,É,íCTNewComponent ,ìéÆ¾,ð<Lq,μ,½ftfjfbfg,É^È%º,ì,æ,¼,ÉŽè'±,«
Register ,ð'Ç%Á,μ,Ü,·B

```
procedure Register;  
begin  
    RegisterComponents('Samples', [TNewComponent]);  
end;
```

fRf"f|f|f"fg,ì"o~^,ª|,í,ê,îC,» ,lfRf"f|f|f"fg,ðfRf"f|f|f"fgpfÆfbfg,ÉfCf"fxfg|f<,Å,«,Ü,·BI
] ,íf,f,šŽQÆ%º%žžžq,Å,·B

ŽQÆ14140

fĈfWfXf^Žè'±,«.ìéĈ³/₄

fĈfWfXf^Žè'±,«.ìŽÀĈ»

□V,μ.cftfjfbfg,ìì□-

fRf“f|□[f|f“fgf|fufWfFfNfg,ì”h□¶

fRf“f|□[flf“fgfGfLfxfp□[fg,ìŽg,ç•û14141

ŽQ□Æ

fRf“f|□[flf“fgfGfLfxfp□[fg,đŽg—p,μ,Ä□C□V,μ,çfRf“f|□[flf“fg,đ□□¬,Ä,«,Û,·□BfRf“f|
□[flf“fgfGfLfxfp□[fg,đŽg,π,Æ□C□V,μ,çfRf“f|□[flf“fg,ì□□¬,ì□%Šú’iŠK,đŠĚ—ª%»),Ä,«,Û,·□B,±
,ì□é□‡,ì□CŽY,ì 3 ,Ä,ì□€-Ú,đŽw’è,·,é,¾,¯,Ä□V,μ,çfRf“f|□[flf“fg,đ□□¬,Ä,«,Û,·□B

- □V,μ,çfRf“f|□[flf“fg,ì-¼’O
- □ã^ÊĈ^
- fRf“f|□[flf“fgfGfLfxfp□[fg,ìfy□[fW

fRf“f|□[flf“fgfGfLfxfp□[fg,ì□CfRf“f|□[flf“fg,đŽè□<Æ,Ä□□¬,·,é□é□‡,Æ“—l,É□CŽY,ì 3
,Ä,ì□<Æ,đ□s,ç,Û,·□B

- □V,μ,çftfjfbfg,ì□□¬
- fRf“f|□[flf“fgfLfxfp□[fg,ì”h□¶
- fRf“f|□[flf“fg,ì“o~^

,½,¾,μ□CfRf“f|□[flf“fgfGfLfxfp□[fg,Ä,ì□CŠù’¶,ìftfjfbfg,ÉfRf“f|□[flf“fg,đ’Ç%Á,·,é,±
,Æ,ì,Ä,«,Û,¹,ñ□BŠù’¶,ìftfjfbfg,ÉfRf“f|□[flf“fg,đ’Ç%Á,·,é□é□‡,ì□CŽè□<Æ,ª•K—v,Ä,·□B

fRf“f|□[flf“fgfGfLfxfp□[fg,đŠJ,,É,ì□C□mftf@fCf<(F)□bfRf“f|
□[flf“fg,ì□V<K□□¬(T)□n,đ’l’đ,μ,Û,·□B

fRf“f|□[flf“fgfGfLfxfp□[fg,ì□€-Ú,đ“ü—í,μ,Ä□C□mOK□n,đ’l’đ,μ,Û,·□B Delphi
,ìĈ^□éĈ¾,ÆŽè±,« Register ,ª“ü,Ä,½□V,μ,çftfjfbfg,đ□□¬,μ,Ä□C,·,×,Ä,ì•W□€ Delphi
ftfjfbfg,đŽw’è,μ,½ uses □ß,đ<L□q,μ,Û,·□B

ftfjfbfg,É,í,©,è,â,·,ç-¼’O,đ•t,¯,Ä•Û’¶,μ,Ä,,¾,¾,ç□B

ŽQÆ14142

fR“f□[f“fg.ðŽè“®.Åì□-

fcf"fxfg□[f<,³,ê,Ä,ç,È,çfRf"f□□[flf"fg,lfefXfg 14143

ŽQ□Æ —á

fRf"f□□[flf"fg,ðfRf"f□□[flf"fgfjpfçfjbfjg,ÉfCf"fxfg□[f<,·,é'O,É□C,»),lfRf"fj
□[flf"fg,ìŽÄ□sŽž,ì" @□,ðfefXfg,Ä,«,Ü,·□B,±,lfefXfg,í□V,½,É□□¬,μ,½fRf"f□□[flf"fg,ìfffofjbfO,É-
ð—š,ž,Ü,·□B,±,lfefNfjfbfN,í□CfRf"f□□[flf"fgfjpfçfjbfjg,É·\Ž|,·,é,©,Ç,α
,©,É,©,©,í,ç,·□C,·,×,Ä,lfRf"f□□[flf"fg,É'í,μ,ÄŽg—p,Ä,«,Ü,·□B

Šî-{"I,É,í□Cf□□[fU□,³fRf"f□□[flf"fg,ðfRf"f□□[flf"fgfjpfçfjbfjg,©,çftfH□[f€
,É"z'u,μ,½,Æ,«,É□CDelphi ,³ŽÄ□s,·,éAfNfjfbfN,ðfGf~f...fç□□[fg,·,é,±
,Æ,É,æ,è□CfCf"fxfg□[f<,³,ê,Ä,ç,È,çfRf"f□□[flf"fg,ðfefXfg,μ,Ü,·□B

fCf"fxfg□[f<,³,ê,Ä,ç,È,çfRf"f□□[flf"fg,ðfefXfg,·,éŽè□±,íŽŸ,ì,Æ,·,è,Ä,·□B

1 fRf"f□□[flf"fg,lfjfbfjg,ì-¼'O,ð□CftfH□[f€ftfjfbfjg,ì **uses** □B,É'Ç%oÁ,μ,Ü,·□B

2 ,»,lfRf"f□□[flf"fg,ð·\,·ftfH□[f€,É□CfjfufWfFfNfgftfB□[f<fh,ð'Ç%oÁ,μ,Ü,·□B

,±,ê,í□CfRf"f□□[flf"fg,ðŠJ"ŽÒ,³Žè□ì·Æ,Ä'Ç%oÁ,·,é□è□±,Æ□CDelphi ,³Ç
%oÁ,·,é□è□±,Æ,ì'á,«,É'Š^á"_,Ä,·□BŠJ"ŽÒ,í□CftfH□[f€,íC^□éC¾,ì^è"Ó%oº,ì public
·",ÉfjfufWfFfNfgftfB□[f<fh,ð'Ç%oÁ,μ,Ü,·□B,±,ê,É'í,μ,Ä Delphi ,í□CCE^□éC¾,ìä·ù,ì
Delphi Ž©□g,ÄŠÇ—□,μ,Ä,ç,é·"·³,É'Ç%oÁ,μ,Ü,·□B

ftfH□[f€,íC^□éC¾,ì Delphi ,³ŠÇ—□,·,é·"·³,É,í□CCE^,μ,ÄftfB□[f<fh,ð'Ç%oÁ,μ,É,ç,Ä,-
,¾,³,ç□BCE^□éC¾,ì,±,ì)·"·³,É,í□CCE^,í□CftfH□[f€ftf@fCf<,ÉŠi"l,³,ê,Ä,ç,é□CCE^,É'í%ož,μ,Ä,ç,
,Ü,·□B'¶□Ý,μ,Ä,ç,É,çfRf"f□□[flf"fg,ì-¼'O,³ftfH□[f€,É'Ç%oÁ,³,ê,é,Æ□CftfH□[f€ftf@fCf<,³-
³Cø,É,É,Ä,Ä,μ,Ü,α<°,ê,³,·,è,Ü,·□B

3 ftfH□[f€,ì OnCreate fCxf"fg,Éfnf"fhf%o,ðC<,Ñ·t,·,Ü,·□B

4 ftfH□[f€,ì OnCreate fnf"fhf%o,ÄfRf"f□□[flf"fg,ð□'z,μ,Ü,·□B

fRf"f□□[flf"fg,lfRf"fxfgf%ofNf^,ðCÄ,Ñ□o,μ,½□è□±,É,í□C,»),lfRf"fj
□[flf"fg,lf□[fi□[("K□Ø,ÉžžŠú,É,»,lfRf"f□□[flf"fg,ð"pšù,·,é□Ó"C,ðž□,ÄfRf"f□□[flf"fg)
,ðžw'è,·,épfj%of□□[f^,ð"n,·K—v,³,·,è,Ü,·□B,±,ê,É,Ä,ç,Ä,í□C,Ü,Æ,ñ,Ç,·,×,Ä,í□è□±,É□CSelf
,ðf□[fi□[,Æ,μ,Ä'n,·,±,Æ,É,È,è,Ü,·□Bf□[fjfbfN,Ä,í□CSelf ,í,»,lf□[f
fbfh,³Š'@,·,élfjfufWfFfNfg,Ö,ìŽQ□Æ,ð·\,μ,Ü,·□BftfH□[f€,ì OnCreate fnf"fhf%o,Ä,í□CSelf
,lfH□[f€,Ö,ìŽQ□Æ,Ä,·□B

5 Parent fvf□pfefB,ðžw'è,μ,Ü,·□B

Parent fvf□pfefB,ì□Ý'è,í□C·K,·fRf"fgf□□[f<,ð□'z,μ,½¼CEã,É□s,ç
,Ü,·□BfRf"fgf□□[f<,í□e,í□C,»),lfRf"fgf□□[f<,ðfRfWf...fAf<,ÉŠÜ,ñ,Ä,ç,é,æ,α,ÉfRf"fj
□[flf"fg,Ä,·□B'½,,ì□è□±□C,±,è,lfH□[f€Ž©□g,É,È,è,Ü,·,³□CfOj<□[fvf{fbfNfX,âfpflf<,ì□è□±,à,
,è,Ü,·□B'É□□CParent ,í Self□C,Ä,Ü,èftfH□[f€,É□Ý'è,μ,Ü,·□B·K,·□CParent
,lfRf"fgf□□[f<,ì,Ü,©,lfvf□pfefB,ð□Ý'è,·,é'O,É□Ý'è,μ,Ü,·□B

CEx□□: fRf"f□□[flf"fg,³fRf"fgf□□[f<,Ä,í,É,ç□è□±□i,Ä,Ü,è□C,»,ì□ã^ÉfjfufWfFfNfg,ì1,Ä,³
TControl ,Ä,í,É,ç□è□±□i□C,±,ìŽè□±,í,Æ,í,μ,Ä,¾,³,ç□B,à,μCè,Ä,ÄfRf"f□□[flf"fg,Ä,í,É,-
ftfH□[f€,ì Parent fvf□pfefB,ð Self ,É□Ý'è,·,é,Æ□CWindows ,lfNf%ofbvf...ð^ø,«<N,±,
%oÄ"\□«,³,·,è,Ü,·□B

6 ·K—v,É%ož,¶,Ä□C,Ü,©,lfRf"f□□[flf"fgfjfbfjg,ð□Ý'è,μ,Ü,·□B

—á14144

NewTest ,Æ-½-¼,³,ê,½ftfjfbfg,ÅCTNewComponent Æ^,ìV,μ,çfRf“f[]f[]fg,ðfefXfg,·,é,±,Æ,ð[]l,Û,·B[]V,μ,çfvf[]fWfFfNfg,ð[]ì[]¬,μC‘O[]q,ì 1 ` 6 ,ìŽè[]#,É,μ,½,ª,Á,ÅCŽÝ,ì,æ,x,ÈftfH[]fçftfjfbfg,ð[]ì[]¬,μ,Û,·B

```
unit Unit1;
```

```
interface
```

```
uses
```

```
  SysUtils, WinTypes, WinProcs, Messages, Classes, Graphics, Controls,  
  Forms, Dialogs, NewTest; { 1. NewTest ,ð uses []B,É‘Ç%Á }
```

```
type
```

```
  TForm1 = class(TForm)
```

```
    procedure FormCreate(Sender: TObject); { 3. OnCreate ,Éfnf“fhf%  
    ,ðÆ<,Ñ•t,é }
```

```
  private
```

```
    { Private []éÆ¾ }
```

```
  public
```

```
    { Public []éÆ¾ }
```

```
    NewComponent1: TNewComponent; { 2. flfufWfFfNfgftfB[]f<fh,ð‘Ç%Á }
```

```
end;
```

```
var
```

```
  Form1: TForm1;
```

```
implementation
```

```
{ $R *.DFM }
```

```
procedure TForm1.FormCreate(Sender: TObject);
```

```
begin
```

```
  NewComponent1 := TNewComponent.Create(Self); { 4. fRf“f[]f[]fg,ð[]\‘z }
```

```
  NewComponent1.Parent := Self; { 5. fRf“f[]f[]fg,ªfRf“fgf[]f<,ìé[]# Parent  
  fvf[]pfefB,ð[]Ý‘è }
```

```
  NewComponent1.Left := 12; { 6. ,Û,©,ìfvf[]pfefB,ð[]Ý‘è... }
```

```
  ... { ...•K—v,É%ž,¶,Ä,Û,©,ìfvf[]pfefB,à[]Ý‘è }
```

```
end;
```

```
end.
```

ŽQÆ14145

fRfWf...fAf<fRf“f|□[flf“fgf%oofCfuf%oofŠ

fRf“f|□[flf“fg,Æf|fufWfFfNfg

fRf“f|□[flf“fg,ì|□□→•û-@

fRf“f|□[flf“fg,ì,³,Ü,´,Ü,È’α-Ê

□V,μ,çfRf“f|□[flf“fg,ì|□□→

fvf[]pfefB,ì[]-14146

ŽQ[]Æ

fvf[]pfefB,í[]CfRf“f[]l[]f[]fg,Å[]Å,à“Á’¥“I,È[]\[]-v’f,Å,·[]BfRf“f[]l[]f[]fgft[]fU[][,í[]Ý[]vŽž,É
%oæ-Ê,Åfvf[]pfefB,ð‘€[]ì,Å,«[]C,»,’€[]ì,ì[]C<%oÊ,í[]Š[]f[]f^[]f[]C[]f[]€,É[]f[]Rf“f[]l[]f[]fg,É”½
%of,³,ê,Ü,·[]Bfvf[]pfefB,ð“K[]Ø,É[]Ý[]v,·,ê,î[]Cft[]fU[][,É,Æ,Á,Ä,Í[]Žg,ç,â,·,[]CŠ]”-
ŽÒ,É,Æ,Á,Ä,Í·ÜŽç,μ,â,·,çfRf“f[]l[]f[]fg,³[]ì-Å,«,Ü,·[]B
,±,ì[]í,Å,í[]CŠ]”,·,é[]f[]Rf“f[]l[]f[]fg,Åfvf[]pfefB,ð-L[]C[]ø,É[]Žg-p,·,é,½,ß[]C^È%o°,ì,±,Æ,ð[]à-
¾,μ,Ü,·[]B

- fvf[]pfefB,ð[]ì[]-,·,é-[]-R
- fvf[]pfefB,ì[]C^
- Ep[]³fvf[]pfefB,ì[]Cöš]
- fRf“f[]l[]f[]fgfvf[]pfefB,ì’è<`
- ”z-ñfvf[]pfefB,ì[]ì[]-
- fvf[]pfefBfGfffBf^,Å,ì[]š]”

ŽQÆ14147

fRf“f|□[flf“fg□ì□□□,ìŠT—v

fRf“f|□[flf“fgŠ]”ŽÒ,ì,½,β,ì OOP

fCxf“fg.ì□ì□□□

f□\fbfh,ì□ì□□□

fRf“f|□[flf“fg,É,¨,□,éOf%oftfBfbfN,ìŽg,ç•û

f□fbfZ□[fW,ì□^—□

fRf“f|□[flf“fg,ì“o~^

fvfjpfefB,đjñ-,·,é—R14148

ŽQAE

fvfjpfefB,íCfRf“fj[fif“fgšj”žò,ÆfRf“fj[fif“fgft[fU□[,ì'o•û,É,Æ,Á,Ä□d—v,Ä,·□B□Á'á,ì—
~“_ ,íCfvfjpfefB,íYÆvžž,ÉfifufWfFfNfgfCf“fXfyfNf^,É•\ž!,³,ê,é,Æ,ç,±,±,Æ,Ä,·□B,±
,ê,É,æ,è□Cfpf%of□[f^,É,ç,đžw'è,·,é,©,í,è,É□Cft□[fU□[,²š,,,è“-
,Ä,½'l,đ“ç,Ý□o,·,¾,¯ ,ÁfifufWfFfNfg,đ□'z,Ä,«,é,ì,Ä□Cfvf□fOf%of~f“fo,²šÈ'P,É,È,è,Ü,·□B

fRf“fj[fif“fgft[fU□[,ì—š□ê,©,ç,íCfvfjpfefB,í•í□”,ì,æ,±
,È,à,ì,Ä,·□Bft□[fU□[,íCfifufWfFfNfgftfB□[f<fh,đ'€□[,·,é,æ,±
,É□CfvfjpfefB,ì'l,đ□Y'è,Ü,½,í“ç,Ý□o,μ,Ü,·□Bft□[fU□[,É,Æ,Á,Ä□C•í□”,Ä,í%oÄ”\
,ÁfvfjpfefB,Ä,í•s%oÄ”\,È,±,Æ,íCfvfjpfefB,đ var fpf%of□□[f^,Æ,μ,Ä,í“n,¹,È,ç,Æ,ç,±,±
,Æ,¾,¯ ,Ä,·□B

^ê•û□CfRf“fj[fif“fgšj”žò,ì—š□ê,©,ç,íC^è%o²,ì—□—
R,ÁfvfjpfefB,íP□f,ÉfifufWfFfNfgftfB□[f<fh,æ,è,à'á,«,È”\—í,đž□,Á,Ä,ç,Ü,·□B

- fvfjpfefB,íft□[fU□[,²YÆvžž,É□Y'è,Ä,«,é
žÀ□sžž,É,ì,Ý□^—□%oÄ”\,Éf□f
fbfh,Æ^á,Ä,Ä□Cft□[fU□[,ífvfjpfefB,É,æ,Á,ÄfAvfšP□[fvf†f“,đžÀ□s,·,é'ó,ÉfRf“fj
□[fif“fg,đjifXf^f}fCfY,Ä,«,Ü,·□B^è”È,É□C1,Ä,ífRf“fj[fif“fg,Ä'½,ìf□fbbfh,đ'è< ,·,é,±,Æ,í, ,è
,Ü,¹,ñ□B,Ü,Æ,ñ,ç,í□ê□†,ífvf□pfefB,Æ,μ,Áfjfvfzf<%o»,Ä,«,Ü,·□B
- fvfjpfefB,ífifufWfFfNfgftfB□[f<fh,Æ^á,Ä,Ä□CžÄ'•,ì□Ú□×,đft□[fU□[,©,ç%oB•Á,Ä,«,é
,½,Æ,ì,í□Cff□[f^,đ“à•”,Ä^Ä□+
%o»,μ,Äší”[,μ□CfvfjpfefB,ì'l,đ□Y'è,Ü,½,í“ç,Ý□o,·,Æ,«,É,í□Cff□[f^,í^Ä□+%o»,³,ê,Ä,ç
,È,ç□'ó'ó,É,È,é,æ,±,±,Æ,²□l,ì,ç,è,Ü,·□B,±,ì,æ,±,É□CfvfjpfefB,ì'l,²P□f,É□”l,Ä, ,é,Æ,μ,Ä,
à□CfRf“fj[fif“fg,í,» ,ì'l,đ“¾,é,½,ß,Éff□[f^f□[fX,đCEY□ð,μ,½,è□C•ižG,ÈÆvžž,đ□s,Á,Ä,ç
,é□ê□†,², ,è,Ü,·□B
- fvfjpfefB,ì'P□f,É'ä“ü,Ä,à□C•»□ì—p,đ□šCEä,Ä,«,é
fifufWfFfNfgftfB□[f<fh,É'í,·,é'P□f,É'ä“ü,ì,æ,±,ÉCE©,ì,é□^—□,Ä,à□CžÀ□Ú,É,íf□f
fbfh,²CEÄ,Ñ□o,³,è,Ä,ç,Ü,·□B,» ,íf□fbbfh,Ä,í□C,Ü,Æ,ñ,ç, ,ç,ä,é□^—□,²□s,ì,Ü,·□B
,±,è,đž!,·šÈ'P,Ä-¾—Ä,È—á,í□C,·,×,Ä,ífRf“fj[fif“fg,²ž□,Ä Top fvfjpfefB,Ä,·□BTop
,Ö,ì□V,μ,ç'ì,ì'ä“ü,í□C'P,É,» ,ì'l,đ•í□X,·,é,¾,¯ ,ì'€□,Ä,í, ,è,Ü,¹,ñ□B'l,²•í□X,³,è,½,±
,Æ,Ä□CfRf“fj[fif“fg,íž©•²ž©□g,đ□Ä”z'u,μ,Ä□Ä•`
%oæ,μ,Ü,·□B,Ü,½□CfvfjpfefB,ì□Y'è,²y,Ü,·%oε<¿,í□C•K, ,μ,à1,Ä,ífRf“fj
□[fif“fg,ÉCEÄ'è,³,è,é,í,¯ ,Ä,í, ,è,Ü,¹,ñ□B, ,éfXfs□[fhf{f^f“fRf“fj[fif“fg,ì Down fvfjpfefB,đ
True ,É□Y'è,·,é,Æ□CfOf<□[fv“à,ì,Ü,©,ì,·,×,Ä,ífXfs□[fhf{f^f“,ì Down fvfjpfefB,í False
,É,È,è,Ü,·□B
- fvfjpfefB,ìžÄ'•f□fbbfh,í%o¼'zf□fbbfh,Ä, ,è“¾,é
fRf“fj[fif“fgft[fU□[,©,çCE©,Ä'P^è,ífvfjpfefB,Ä,à□CfRf“fj[fif“fg,É,æ,Á,Ä,í^Ü,È,é□^—
□,đ□s,±□ê□†,², ,è,Ü,·□B

ŽQÆ14149

fvf[]pfefB,ìĈ^

ĈEp³fvf[]pfefB,ìĈöŠ|

fRf“f[]lf“fgfvf[]pfefB,ì’è<`

”z—ñfvf[]pfefB,ì[]□=

fvf[]pfefBfGfffBf^,Å,ìŠ|”

fvf[]pfefB,ìCE^14150

ŽQ[]Æ

fvf[]pfefB,ìŽÀ'•,É,ÍŠÖ[]",Žg—p,Á,«,é,ì,Á[]CŠÖ[]",Ž•Ô,¹,éCE^,È,çfvf[]pfefB,ìCE^,Æ,μ,Ä,àŽg—
p,Á,«,Ü,·[]B,Ü,½fvf[]pfefB,É,í[]C•'í[]",Æ"~,¶,æ,α,ÉCE^,ìCEÝŠ·[]«,ÉŠÖ,·,é Pascal ,ì•W[]€<K'¥
,ā,·,x,Ä"K—p,³,é,Ü,·[]BCE^,ìCEÝŠ·[]«,É,Ä,ç,Ä,í[]wft[]fU[]fYfKfCfh[]x,ì'æ 4 []í,Ä[]à-¾,μ,Ä,ç
,Ü,·[]B

fvf[]pfefB,ìCE^,ð'ì'ð,·,é,Æ,«[]Á,à[]d—v,È"_,í[]CCE^,É,æ,Á,ÄflufWfFfNfgfCf"fXfyfNf^,ì\
ŽìCE`'Ô,³CE^,Ü,é,Æ,ç

,α"_,Ä,·[]BflufWfFfNfgfCf"fXfyfNf^,Ä,í[]Cfvf[]pfefB,ìCE^,É,æ,Á,Ä[]Cft[]fU[][,É•\

Žì,·,é'ì'ðŽ^,³CE^,Ü,è,Ü,·[]BfRf"fj

[]f[]f"fg,ð"o~^,·,é,Æ,«,É,ífvf[]pfefBfGfffBf^,ðŽw'è,Á,«,Ü,·[]B[]Ú[]x,ífvf[]pfefBfGfffBf^,ìŠj"-
,ðŽQ[]Æ,μ,Ä,,¾,³,ç[]B

fvf[]pfefB,ìCE^ flufWfFfNfgfCf"fXfyfNf^,Ä,ì^μ,í,é•û

'P[]fCE^ []"[]C•¶Žš[]C•¶Žš—ñ,ìŠefvf[]pfefB,í[]C,»,é,¼,é[]"[]C•¶Žš[]C•¶Žš—
ñ,Æ,μ,Ä•Žì,³,é,é[]Bft[]fU[][,ífvf[]pfefB,ì'ì,ð'¼[]Ú"ü—í,μ,Ä•Ô[]W,Á,«,é

—ñ<"CE^ ~_—[]CE^,ðŠÜ,β,Ä[]C—ñ<"CE^,ífvf[]pfefB,Ä,í[]Cf\
[]fXfR[]f[]fh,Á'è<` ,³,é,½'ì,ā•Žì,³,é,é[]Bft[]fU[][,í[]C'ì,ì—
ñ,ðf_fuf<fNfŠfbfN,·,é,±,Æ,Ä[]CŽg—p%Ä"\
,É'ì,ð[]zŠÄ"ì,É[]Ø,è'Ò,ì,ç,é,é[]B,Ü,½[]C, ,é—
ñ<"CE^fvf[]pfefB,ì,·,x,Ä,ì'ì,ðŽì,·fhf[]fbfvf_fEf"fŠfXfg,à—p^Ó,³,é,Ä,ç,é

[]W[]±CE^ []W[]±CE^,ífvf[]pfefB,í[]C1 ,Ä,ì[]W[]±,Æ,μ,Ä•\
Žì,³,é,é[]Bft[]fU[][,í[]C[]W[]±,ð"WŠj,·,é,í[]C[]W[]±,ìŠe—v'f,ð~_—
[]'ì,Æ,μ,Ä^μ,ì,é[]B,±,ì[]è[]±[]C,»,ì—v'f,³[]W[]±,ÉŠÜ,Ü,è,Ä,ç,é[]è[]±,É,í
True[]CŠÜ,Ü,è,Ä,ç,È,ç[]è[]±,É,í False ,Æ,È,é

flufWfFfNfgCE^ flufWfFfNfg,Ä, ,éfvf[]pfefB,í[]C"ÆŽ©,ífvf[]pfefBfGfffBf^,ðŽ[],Ä[]è[]±,³,
,é[]B,½,¾,μ[]C,»,ífufWfFfNfg,³,»,ì't,ífvf[]pfefB,ðfpufŠfbfVf...
,É[]Y'è,μ,Ä,ç
,é[]è[]±,í[]Cft[]fU[][,ífufWfFfNfgfCf"fXfyfNf^,ÄflufWfFfNfgfVf[]pfefB,íf
ŠfXfg,ð"WŠj,μ,Ä[]C,»,é,ç,ðCEÄ•É,É•Ô[]W,Á,«,é[]BflufWfFfNfgfVf[]pfef
B,í•K, , Tpersistent ,ðCEp[]³,·,é

"z—ñCE^ "z—ñfvf[]pfefB,í[]C"ÆŽ©,ífvf[]pfefBfGfffBf^,ð"ð,ì,Ä,ç,é•K—v,³, ,é[]Bfl
fufWfFfNfgfCf"fXfyfNf^,Ä,ì"z—ñfvf[]pfefB,ì•Ô[]W,ífTfj[]f[]g,³,é,Ä,ç,È,ç

ŽQÆ14151

fvf[]pfefB,ð[][]-,:é-[]-R

CEp³fvf[]pfefB,ìCEöŠ]

fRf“f[][]f[]“fgfvf[]pfefB,ì’è<`

”z-ñfvf[]pfefB,ì[][]-

fvf[]pfefBfGfffBf^,Å,ìŠj”

—á14153

TWinControl , ©, çfRf“f|[]f|f“fg, ð”h[]¶, ³, 1, é, Æ[]C, ±, ìfRf“f|[]f|f“fg, í Ctl3D
fvf[]pfefB, ðCEp[]³, µ, Û, ;, ð[]C, ±, ìfvf[]pfefB, í **protected** , É, È, Á, Â, ç, Ü, ·, []B, ±, ì, ½, ßfRf“f|
[]f|f“fgft[]fU[][, í[]C[]YCEvŽž, àŽÀ[]sŽž, É Ctl3D , ÉfAfNfZfX, Á, «, Ü, ¹, ñ[]B[]V, µ, çfRf“f|[]f|f“fg, Á
Ctl3D , ð[]Ä[]éCE¾, ·, é, ±, Æ, Á[]C·ÜCEì, ìfCEfxf<, ð **public** , © **published** , ì, ç
, , , é, ©, É·ì[]X, Á, «, Ü, ·, []B

ŽŸ, ìfR[]fh, Á, í[]CCtl3D , ð **published** , Æ, µ, Ä[]Ä[]éCE¾, µ[]C[]YCEvŽž, É[]^—[]%oÁ“\, É, ·, é·û-
@, ðŽì, µ, Ä, ç, Ü, ·, []B

type

TSampleComponent = **class** (TWinControl)

published

property Ctl3D;

end;

, È, “[]C[]Ä[]éCE¾, Á, í[]C, , éfvf[]pfefB, É‘í, ·, é[]s-ñ, ðCE , , ç, ·, ±, Æ, í, Á, «, Ü, ·, ð[]C[]s-ñ, ì<-

%o» , í, Á, «, Ü, ¹, ñ[]B, Á, Ü, è[]C**protected** fvf[]pfefB, ð **public** fvf[]pfefB, É, ·, é, ±

, Æ, í, Á, «, Ü, ·, ð[]C**public** fvf[]pfefB, ð **protected** , Æ, µ, Ä[]Ä[]éCE¾, µ[]C, ±, ìfvf[]pfefB, ð

%oB·Á, ·, é, ±, Æ, í, Á, «, È, ç, Æ, ç, x, ±, Æ, Á, ·, []B

fvf[]pfefB, ð[]Ä[]éCE¾, ·, é[]Ü, É, í[]Cfvf[]pfefB-¼, ¾, ¹, ðŽw’è, µ, Ü, ·, BfRf“f|

[]f|f“fgfvf[]pfefB, ì’è< , Á[]à-¾, ·, é, æ, x, Èí·ñ, âCE^, ðŽw’è, ·, é·K—v, í, , è, Ü, ¹, ñ[]B, Ü, ½[]Cfvf[]pf

efB, ð[]Ä[]éCE¾, ·, é[]Ü, É, í[]C[]V, µ, çffftfHf<fg’l, ð[]éCE¾, Á, «[]C, » , ìfvf[]pfefB, ð·Ü’¶, ·, é, ©, Ç, x

, ©, àŽw’è, Á, «, Ü, ·, []B

ŽQÆ14154

fvf[]pfefB,ð[][],:é—[]—R

fvf[]pfefB,ìCE^

fRf“f[][]f[]“fgfvf[]pfefB,ì’è<`

”z—ñfvf[]pfefB,ì[][],

fvf[]pfefBfGfffBf^,À,ìŠj”

fRf“f|□[flf“fgjvf□fpfefB,ì'è<` 14155

ŽQ□Æ

fvf□fpfefB□éCE^{3/4},ì□\•¶,É,Â,ç,Ä,Í□Cflf“f%ofCf“fwf<fv,ì—\–ñCEê **property**
,ÉŠÖ,·,éfgfsfbfN,Å□Ú□×,É□à^{-3/4},μ,Ä,ç,Ü,·□B,±,ì□β,ì'+□Sfe□[f},.Í□CDelphi fRf“f|
□[flf“fg,lfvf□fpfefB,ì□éCE^{3/4},ÉŠÖ,·,é□Ú□×,Æ□C•W□€fRf“f|□[flf“fg,ÉŠÖ,·,é<K'¥,Å,·□B
<ì“l,Èfe□[f},.ÍŽŸ,ì,Æ,“,è,Å,·□B

- fvf□fpfefB,ì□éCE^{3/4}
- “à•”“l,Éff□[f^<L%oo`
- '3/4□ÚfAfNfZfX
- fAfNfZfXf□\fbfh
- ffftfHf<fg.lfvf□fpfefB'l

ŽQÆ14156

fvf[]pfefB,ð[] [] ,:é—[]—R

fvf[]pfefB,[]CE^

CEp³fvf[]pfefB,[]öŠ]

”z—ñfvf[]pfefB,[] []

fvf[]pfefBfGfffBf^,Å,ìŠ]

fvf[]pfefB[]éCE¾14157

ŽQ[]Æ —á

fvf[]pfefB,[]éCE¾,Æ,» ,ìŽÀ' • ,íŠÈ'P,È[]<Æ,Å, ·[]BfRf"f|
[][f]f"f[]gf[]fuf[]Wf[]Ff[]Nfg[]CE^ ,ìéCE¾,Éfvf[]pfefB,[]éCE¾,ð'Ç%oÁ, ·,é,¾, -,Å, ·[]B

fvf[]pfefB,ð[]éCE¾, ·,é,É,íŽŸ,ì 3 ,Å,ì[]€-Ú,ðŽw'è,μ,Ü, ·[]B

- fvf[]pfefB,ì-¾'0
- fvf[]pfefB,ìCE^
- fvf[]pfefB,ì' ,ð"Ç,Ý[]o, ·f[]\fbfh[]C, ",æ,Ń[]Ý'è, ·,é[]\fbfh

[]Å[]-CEÀ[]CfRf"f|[][f]f"f[]g,[]f[]fuf[]Wf[]Ff[]Nfg[]CE^[]éCE¾,ì **public**

·",Åfvf[]pfefB,ð[]éCE¾,μ,Ü, ·[]B,» ,è,É,æ,è[]CŽÀ[]sŽž,ÉfRf"f|
[][f]f"f[]g,ìŠO·", ©,çŠÈ'P,Éfvf[]pfefB,ð[]Ý'è,μ,½,è"Ç,Ý[]o,¹,é,æ,α,É,È,è,Ü, ·[]B

[]Ý[]Evžž,Éfvf[]pfefB,ð·Ò[]W,Å,« ,é,æ,α,É, ·,é,É,í[]CfRf"f|[][f]f"f[]g,[]f[]fuf[]Wf[]Ff[]Nfg[]CE^[]éCE¾,ì
published ·",Åfvf[]pfefB,ð[]éCE¾,μ,Ü, ·[]BpfufŠfbfVf...

,É[]Ý'è,³,è,½fvf[]pfefB,íŽ © " @ "I,É[]Cf[]fuf[]Wf[]Ff[]Nfg[]Cf"f[]Xfyf[]Nf^ ,Å·\ž|,³,è,Ü, ·[]B

—á14158

'ã•\“l,Èfvf[]pfefB[]éCE¾,ì—á,ðŽŸ,ÉŽl,μ,Ü,·[]B

type

TYourComponent = **class**(TComponent)

...

private

FCount: Integer; { "à•"◀L%o~—p,ìftfB[]lf<fh }

function GetCount: Integer; { "Ç,Ÿ[]o,μf[]fbfh }

procedure SetCount(ACount: Integer); { []',«[]ž,Ÿf[]fbfh }

public

property Count: Integer **read** GetCount **write** SetCount; {

fvf[]pfefB,ìéCE¾ }

end;

ŽQÆ14159

“à•”“l,Èff[]f^<L%o”

’¼ÚfAfNfZfX

fAfNfZfXf[]\fbfh

fftfHf<fg,lfvf[]pfefB’!

“à•”“l,Èff□[f^<L%o~14160

ŽQ□Æ

fvf□pfefB,lf□[f^,đŠi”[.,é•û-@,É,□C,È,ñ,ì□s-ñ,à, ,è,Ü,¹,ñ□B,¹/₂,³/₄,μ^ê”É“l,É,í□C Delphi fRf“fj
□[flf“fg,É,íŽŸ,ì<K‘¥,ª, ,è,Ü,·□B

- fvf□pfefB,lf□[f^,lfufWfFfNfgftfB□[f<fh,ÉŠi”[,³,é,é
- fvf□pfefB,lfufWfFfNfgftfB□[f<fh,ìŽ~•ÉŽq,ì□Å□%,ì•¶Žš,íF,Å□CŽ~•ÉŽq,ì‘t,Éfvf□pfefB-
¹/₄,ªŠÜ,Ü,è,é□B,¹/₂,Æ,ì,ì□Ctcontrol ,Å‘è<`³,è,¹/₂ Width fvf□pfefB,í□CFwidth ,Æ,¢
,xfufWfFfNfgftfB□[f<fh,ÉŠi”[,³,é,Ü,·□B
- fvf□pfefBff□[f^—p,lfufWfFfNfgftfB□[f<fh,í **private** ,Æ,μ,Å□éC³/₄,·,é□B,±
,è,É,æ,è□C,» ,lfvf□pfefB,đ□éC³/₄,μ,¹/₂fRf“fj
□[flf“fg,³/₄,[~],ª,» ,lfufWfFfNfgftfB□[f<fh,ÉfAfNfZfX,Å,«□CfRf“fj□[flf“fgft□[fU□[,â%o^ÉfRf“fj
□[flf“fg,©,ç,lfAfNfZfX,Å,« ,É,¢,±,Æ,ª•Ú□Ø,³,é,Ü,·□B

%o^ÉfRf“fj□[flf“fg,©,çfvf□pfefB,đ‘€□,·,é□é□±,í□C“à•”“l,Èff□[f^<L

%o^æ,É‘¹/₄□ÚfAfNfZfX,·,é,ì,Å,í,È,□CŽ©•ªŽ©□g,ÉCep□³,μ,¹/₂fvf□pfefB,đŽg—p,μ,Ü,·□B

^Èã,ì”wCei,Æ,È,éŠi- {CE‘¥,í□Cfvf□pfefB,ìŽÀ‘•f□fjbh,³/₄,[~],ªfvf□pfefB,ì”wCã,É, ,éff□[f^ ,Éf
AfNfZfX,·,é□C,Æ,¢,ª,±,Æ,Å,·□B,±,ì,¹/₂,β□Cf□fjbh,â,Ü,©,lfvf□pfefB,ª,» ,ì,æ,ª
,Éff□[f^ ,đ‘€□,·,é□é□±,í□C<L%o^æ,lf□[f^ ,É‘¹/₄□ÚfAfNfZfX,·,é,ì,Å,í,È,-
□Cfvf□pfefB,đ,Æ,“ ,μ,Å‘€□,đ□s,¢,Ü,·□B,» ,ª,·,è,í□Cfvf□pfefB,ìŽÀ‘••û-
@,đ•í□X,μ,Å,à□C,» ,lfvf□pfefB,đCep□³,·,é%o^ÉfRf“fj□[flf“fg,^{a-3}Cø,É,È,é,æ,ª,È,±,Æ,í, ,è,Ü,¹,
ñ□B

ŽQÆ14161

fvf[]pfefB[]éCE^{3/4}

'¼[]ÚfAfNfZfX

fAfNfZfXf[]\fbfh

fftfHf<fg.}fvf[]pfefB'!

'¼ÚfAfNfZfX14162

ŽQÆ —á

fvf[]pfefBff[]f^,ð^—,·,é[]Å,àŠÈ'P,È•û-@,í[]Cff[]f^,É'¼ÚfAfNfZfX,·,é,±
,Æ,Å,·[]B,»,,ê,É,í[]Cfvf[]pfefB[]éCE¾,ì **read •**,"Æ **write**

•",Å[]Cfvf[]pfefB'l,ì'ã"ü,Æ"Ç,Ý[]o,μ,í[]CfAfNfZfXf[]fbfh,ìCEÄ,Ñ[]o,μ,Å,í,É,[]C"à•""l,È<L
%o~ftfB[]f<fh,Ö,ì'¼ÚfAfNfZfX,Å[]s,æ[]C,Æ,ç,æ,±,Æ,ðŽw'è,μ,Û,·[]B"Á,É•>[]ì—

p,ðŽ,½,È,çfvf[]pfefB,ðf[]fufWfFfNfgfCf"fxfyfNf^,Å'€[]ì,μ,½,ç[]ê[]‡,É,í[]C'¼ÚfAfNfZfX,í•Ö—
~,Å,·[]B

^è"Ê,É,æ,[]s,í,ê,é•û-@,Å,í[]Cfvf[]pfefB[]éCE¾,ì **read •**,"Å,í'¼ÚfAfNfZfX,ðŽw'è,μ[]C**write**

•",Å,í[]fbfh,ìŽg—p,ðŽw'è,μ,Û,·[]B'«,[]ž,Ý,Å,í[]fbfh,ðŽg—

p,·,é,ì,Å[]C[]V,μ,çfvf[]pfefB'l,ÉŠì,Ä,ç,Ä[]í,ÉfRf"fi[]l[]fg,ì[]ó'Ô,ð[]X[]V,Å,«,Û,·[]B

—á14163

ŽŸ,ì—á,Å,íCfRf“f]□[f]f“fgĈ^□éĈ¾,ì **read** •”,Æ **write** •”,ì—
¼•û,Åfvf□pfefB,É'¼□ÚfAfNfZfX,ðŽw'è,μ,Ä,ç,Û,·□B

type

```
TSampleComponent = class (TComponent)
private { "à•"◁L%~ ,Ífvf%ofCfx□[fg }
    FReadOnly: Boolean; { fvj□pfefB'l,ð"ü,ê,Ä, ",ftfB□[f<fh,ð□éĈ¾ }
published { □ÝĈvŽž,Éfvf□pfefB,ð'€□ì%oÃ"\,É,; ,é }
    property ReadOnly: Boolean read FReadOnly write FReadOnly;
end;
```

ŽQÆ14164

fvf[]pfefB[]éCE^{3/4}

“à•”“l,Èff[]f^<l%o⁻

fAfNfZfXf[]fbfh

fAfNfZfXf ffbfh 14165

ŽQAE

fvf fpfefB éCE¾, lñ•¶, Á, íCfv fpfefB éCE¾, l **read** •, Æ **write**
 •, ÅCfifu fWfFfNfgftfB [f<fh, l, ©, í, è, ÉfAfNfZfXf ffbfh, ðŽw'è, Å, <, Ü, ·Bfvf fpfefB, l **read**
 •, Æ **write** •, º, Ç, Ì, æ, x, ÉŽw'è, º, è, Ä, ç, éèè±, Å, àC, »), ÌŽÀ'•, í **private** ,É, µ, Ä, ¾, º, çB
 %ºº^ÉfRf“f [flf“fg, ©, ç, »), Ìfvf fpfefB, ðfAfNfZfX, ·, éèè±, É, íC•K, , Çep¾, µ, ½, »), Ìfvf fpfefB, ðŽg
 —p, ·, é, æ, x, É, µ, Ü, ·B, ±, è, É, æ, èCfv fpfefB, ÌŽÀÜ, ÌŽÀ'••û-
 @, º•íX, º, è, Ä, àCfv fpfefB, ð“ , ¶, æ, x, ÉÇp'±, µ, ÄŽg—p, Å, <, é, ±, Æ, º•ÜØ, º, è, Ü, ·B
 , Ü, ½CfAfNfZfXf ffbfh, ðvf%ofCfx [fg, É, ·, é, ±, Æ, ÅCfRf“f [flf“fgft [fU [º, »), è, ç, Ìf ffbfh, ð<ô'R, ÉÇÄ, Ño, µ, ÅCfv fpfefB, ð•s—p^Ó, É•íX, µ, Ä, µ, Ü, x, æ, x, ÈŽ-Ó, Í<N, <, È, , È, è, Ü, ·B

read ffbfh

fvf fpfefB, l **read** ffbfh, íCfpf
 %of [f^, ð1, Å, àŽæ, ç, É, çŠÖ, ÅC, »), Ìfvf fpfefB, Æ“ , ¶Ç^, l'í, ð•Ô, µ, Ü, ·B-½-¼<K'¥
 , É, æ, Ä, ÅC, ±, ÍŠÖ, ·, Ì-¼'O, Ìfvf fpfefB-¼, íæ“º, ÉuGetv, ð%Å, l, ½-
 ¼'O, É, µ, Ü, ·B, ½, Æ, l, íCCount , Æ, ç, x-¼'O, Ìfvf fpfefB, l **read** ffbfh, í GetCount , Æ-½-
 ¼, µ, Ü, ·B
 “z—ñfvf fpfefB, l **read** ffbfh, íCfpf%of [f^, ÉŠÖ, µ, Ä—áŠO, Å, ·B, ±, ÍŠÖ, ·, Ìfpf
 %of [f^ , Æ, µ, Ä“z—ñ, ÌfCf“ffbfNfX, ðŽó, ~Žæ, è, Ü, ·B

read ffbfh, í“à•”<L%~ff [f^, É'í, µ, Ä•K—v, È^—
 [, ðs, Å, ÅC“KØ, ÈÇ^, Ìfvf fpfefB'l, ð¶ [, µ, Ü, ·B

read ffbfh, ðéCE¾, µ, È, ·, è, íC, »), Ìfvf fpfefB, íC, «ž, Ýè—p, É, È, è, Ü, ·B, «ž, Ýè—
 pfvf fpfefB, ºŽg—p, º, è, é, ±, Æ, í, Ü, Æ, ñ, Ç, È, íC, Ü, ½^è”É, ÉŽÀ—p“l, Å, í, , è, Ü, ·, ñB

write ffbfh

fvf fpfefB, l **write** ffbfh, íC•K, , »), Ìfvf fpfefB, Æ“ , ¶Ç^, l1, Å, Ìfpf%of [f^, ðŽæ, éŽè'±
 , <, Å, ·B, ±, Ìfpf%of [f^, íCŽQÆ“n, µ, Æ'l“n, µ, l, ç, , , è, Ì•û-@, Å, àŽó, ~Žæ, é, ±
 , Æ, º, Å, <C, Ü, ½, Ç, Ì, æ, x, È-¼'O, Å, à•t, ·, ç, è, Ü, ·B-½-¼<K'¥, É, æ, Ä, ÅC, ±, ÌŽè'±, <, Ì-
 ¼'O, Ìfvf fpfefB-¼, íæ“º, ÉuSetv, ð%Å, l, ½-¼'O, É, µ, Ü, ·B, ½, Æ, l, íCCount , Æ, ç, x-
 ¼'O, Ìfvf fpfefB, l **write** ffbfh, í SetCount , Æ-½-¼, µ, Ü, ·B
 fpf%of [f^, É“n, º, è, ½'l, íC, »), Ìfvf fpfefB, ÉÝ'è, ·, éV, µ, ç'l, Æ, µ, ÄŽg—p, º, è, Ü, ·B**write** ffbfh
 ffbfh, íC'l, ð“KØ, É“à•”<L%~ÉŠi“[, ·, é, ½, ß, É•K—v, È, ·, x, Å, íC^— [, ðs, ç, Ü, ·B

write ffbfh, ðéCE¾, µ, È, ·, è, íC, »), Ìfvf fpfefB, í“Ç, Ýo, µè—p, É, È, è, Ü, ·B

write ffbfh, Å, íCv, µ, Ý'è, ·, é'l, æ»Ý'l, Æ^Ü, È, Å, Ä, ç, é, ©, Ç, x, ©, ðÇÝ, , ·, é, ±, Æ, º, æ, -
 , , è, Ü, ·BŽÝ, Ì—á, Å, íC [“fvf fpfefB Count , l **write** ffbfh, ºftfB [f<fh Fcount
 , É'l, ðŠi“[, µ, Ä, ç, Ü, ·B

```

procedure TMyComponent.SetCount (Value: Integer);
begin
  if Value <> FCount then
    begin
      FCount := Value;
      Update;
    end;
end;

```

ŽQÆ14166

fvf[]pfefB[]éCE^{3/4}

“à•”“l,Èff[]f^<l%o~

'¼[]ÚfAfNfZfX

fftfHf<fg.}fvf[]pfefB'!

ffftfHf<fg,lfvf[]pfefB'!4167

ŽQ[]Æ —á

fvf[]pfefB,đ[]éCE¾,·,é[]ê[]#[]CflfvfVf#f" ,Æ,μ,Ä[]C,» ,lfvf[]pfefB,lffftHf<fg'l,đ[]éCE¾,Ä,« ,Ü,·[]BfR
f"[]f[]l[]f"fg,lfvf[]pfefB,lffftHf<fg'l,í[]CfRf"[]l[]l[]f"fg,lfRf"[]fXfgf
%ofNf^ ,Ä[]Ý'è,³,ê,é'l,Ä,·[]B,½,Æ,!,í[]CfRf"[]l[]l[]f"fgf[]pfCEfbfg,©,çfRf"[]l[]l[]f"fg,đftfH[]l[]f€
,É"z'u,·,é,Æ[]CDelphi ,lfRf"[]l[]l[]f"fgfRf"[]fXfgf%ofNf^ ,đCEÄ,Ñ[]o,μ,Ä,» ,lfRf"[]f
[]l[]f"fg,đ[]i[]¬,μ,Ü,·[]B,±,ì[]ê[]#[]C,±,lfRf"[]l[]l[]f"fg,lfvf[]pfefB,ì[]%Šú'l,í[]CfRf"[]f
[]l[]f"fgfRf"[]fXfgf%ofNf^ ,É,æ,Ä,Ä[]Ý'è,³,ê,Ü,·[]B

,Ü,½[]C[]éCE¾,³,ê,½ffftfHf<fg'l,É,æ,Ä,Ä[]Cfvf[]pfefB,đftfH[]l[]f€tf@fCf<,É•Ü'¶,·,é,©,Ç,κ
,©,ªCE'^è,³,ê,Ü,·[]Bfvf[]pfefB,ì•Ü'¶,ÆffftfHf<fg'l,ìŠÖEW,É,Ä,ç
,Ä,ì[]Ú× ,lfvf[]pfefB,ì•Ü'¶,Æ"Ç,Ý[]ž,Ý,đŽQ[]Æ,μ,Ä,-
,¾,³,ç[]Bfvf[]pfefB,ÉffftfHf<fg'l,đŽw'è,μ,È,©,Ä,½[]ê[]#,É,í[]C,» ,lfvf[]pfefB,í[]í,É•Ü'¶,³,ê,Ü,·[]B

fvf[]pfefB,lffftHf<fg'l,đ[]éCE¾,·,é,É,í[]Cfvf[]pfefB,ì[]éCE¾ (,Ü,½,í[]Ä[]éCE¾) ,É **default** Žw—
ß,đ'Ç%oÄ,μ,Ä[]C,» ,ìCEä,ÉffftfHf<fg'l,đ<L[]q,μ,Ü,·[]B

f[]f.:

fvf[]pfefB[]éCE¾,ÄffftfHf<fg'l,đ[]éCE¾,μ,Ä,à[]CŽÄ[]Ü,Éfvf[]pfefB,ª,» ,ì'l,É[]Ý'è,³,ê,é,í,
,Ä,í, ,è,Ü,¹,ñ[]BfRf"[]l[]l[]f"fgfRf"[]fXfgf%ofNf^ ,ªŽÄ[]Ü,Éfvf[]pfefB,đ,» ,ì'l,Ä[]%Šú
%o»,·,é,æ,κ,Éfvf[]f[]of~f"fo,·,é,ì,lfRf"[]l[]l[]f"fgš"ŽÖ,ì-đŠ,,Ä,·[]B

ffftfHf<fg'l,đŽw'è,μ,È,ç•û-@

fvf[]pfefB,đ[]Ä[]éCE¾,·,é[]ê[]# ,í[]CCEp³ ,μ,½fvf[]pfefB,ªffftfHf<fg'l,đŽ[] ,Ä,Ä,ç
,½,Æ,« ,Ä,à[]C,» ,lfvf[]pfefB,ªffftfHf<fg'l,đŽ[],½,È,ç,æ,κ,ÉŽw'è,Ä,« ,Ü,·[]B

fvf[]pfefB,ªffftfHf<fg'l,đŽ[],½,È,ç,æ,κ,ÉŽw'è,·,é,É,í[]C,» ,lfvf[]pfefB,ì[]éCE¾,É **nodefault** Žw—
ß,đ'Ç%oÄ,μ,Ü,·[]B

, ,Éfvf[]pfefB,đ[]%o,ß,Ä[]éCE¾,·,é[]ê[]# ,í **nodefault** ,đŽw'è,·,é•K—
v,í, ,è,Ü,¹,ñ[]BffftfHf<fg'l,đ"Ä,É[]éCE¾,μ,È,ç,¾, ,ÄCE<%oÉ,í" ,¶,±,Æ,É,È,è,Ü,·[]B

—á14168

fRf"j|[]lf"fgéCE¾,ìŽÿ,ì—á,í[]CfftfHf<fg'l True ,ðŽ,Â~_—CE^fvf[]fpfefB IsTrue
,Æ[]CfftfHf<fg'l,ðŽÄ[]Ü,É[]Ý'è,·,éfRf"fXfgf%ofNf^,ðŽ!,μ,Ä,ç,Ü,·[]B

type

TSampleComponent = class(TComponent)

private

FIsTrue: Boolean;

public

constructor Create(AOwner: TComponent); override;

published

property IsTrue: Boolean read FIsTrue write FIsTrue default True;

end;

...

constructor TSampleComponent.Create(AOwner: TComponent);

begin

inherited Create(AOwner); { []í,ÉCEp[]³,μ,½fRf"fXfgf%ofNf^,ðCEÄ,Ñ[]o,· }

FIsTrue := True; { ffftfHf<fg'l,ð[]Ý'è,·,é }

end;

ŽÄ[]Ü,É,í[]CIsTrue ,lfftfHf<fg'l,ð False ,É,·,é[]ê[]‡,í[]C,±,ì'l,ðfRf"fXfgf%ofNf^,Ä-
¾Ž! "l,É[]Ý'è,·,é•K—v,í, ,è,Ü,¹,ñ[]B,·,x,Ä,ìfufWfFfNfg (, ,æ,Ñ,·,x,Ä,ìfRf"fj|[]lf"fg)
,Ä,í[]C[]í,É,·,x,Ä,ìftfB[]lf<fh,âf[]f[],É[]%Šú%»³,ê,Ü,·[]B~_—[]'l,ì[]ê[]‡[]Cf[]f[],í False ,É'Š"-
,μ,Ü,·[]B

ŽQÆ14169

fvf[]pfefB[]éCE^{3/4}

“à•”“l,Èff[]f^<l%o~

'¼[]ÚfAfNfZfX

fAfNfZfXf[]fbfh

"z—ñfvf[]pfefB,ì[]ì—14170

ŽQ[]Æ —á

fvf[]pfefB,ì†,É,íC"z—ñ,Æ"—I,ÉfCf"fffbfNfX•t,¯,³,ê,½fvf[]pfefB,ª, ,è,Ü,·[]B,Â,Ü,è[]C,±,α
,μ,½fvf[]pfefB,ífCf"fffbfNfX'ì,É'í%ž,·,é•;[]",ì'ì,ðŽ[],,Ü,·[]B•W[]€fRf"f|[]f|f"fg,Â,ì,æ,ç—
á,íCf[]f,fRf"f|[]f|f"fg,ì Lines fvf[]pfefB,Â,·[]B Lines ,íf[]f,,ìfefLfxfg,ð[]\
[]—,·,éCf"fffbfNfX•t,¯,³,ê,½•¶Žš—ñ,ífŠfxfg,Â[]C•¶Žš—ñ,ì"z—ñ,Æ,μ,Â^μ,ì,Ü,·[]B,±,ì"z—
ñfvf[]pfefB,É,æ,Â,Ä[]Cf†[]fU[][,í'á,«,Éff[]f^ (f[]f,fefLfxfg) ,ì†,ì"Á'è,ì—v'f (•¶Žš—ñ)
,ÉŠÈ'P,ÉfAfNfzfx,Â,«,Ü,·[]B

"z—ñfvf[]pfefB,í,Ü,©,ìfvf[]pfefB,Æ"—,¶,æ,α,É<@"\\,μ[]C[]éC¾,à,Ü,Ú"—,¶•û-@,Â[]s,ç,Ü,·[]B"z
—ñfvf[]pfefB,ì[]éC¾,ª,Ü,©,ìfvf[]pfefB,ì[]éC¾,Æ^á,α,ì,í^È%ž,ì"¾,¯,Â,·[]B

- fvf[]pfefB,ì[]éC¾,É[]CCE^,ðŽ[],ÂfCf"fffbfNfX,ª 1
,Â,Ü,½,í•;[]"CEÁŠÜ,Ü,è,é[]BfCf"fffbfNfX,É,í"C^Ó,ìCE^,ªžw'è,Â,«,é
- fvf[]pfefB,ì[]éC¾,É **read •**,Æ **write •**,ð<L[]q,·,é[]é[]¶,íCf[]f\fbfh,ðžw'è,μ,É,¯,è,ì,É,ç,É,ç[]BfífufWfFfNfgftfB[]f<fh,ìžw'è,Â,«,É,ç
- fvf[]pfefB'ì,ì"C,Y[]o,μ,Æ[]',«[]ž,Y,ì,½,β,ífAfNfzfxf[]f\fbfh,íCfCf"fffbfXfx,ðž!,· 1
,Â,Ü,½,í•;[]",ífpf%of[]f^,ð'Ç%ž"ì,ÉŽó,¯žæ,é[]B,±,ífpf%of[]f^,ì[]¶[]~,íCfvf[]pfefB[]éC¾,Âžw'è,ª,é,½fCf"fffbfNfX,Æ"—,¶[]¶[]~[]C"—,¶CE^,Â,È,¯,è,ì,È,ç,É,ç

"z—ñfvf[]pfefB,Æ"z—ñ,í,Ü,Æ,ñ,Ç"—,¶,æ,α,ÉCE@,ì,Ü,·,ª[]C—¼ŽÒ,ìŠÒ,É,í,ç,,Â,©'Š^á"¾,ª,è,Ü
,·[]B"z—ñfvf[]pfefB,ífCf"fffbfNfX,ìCE^,íC"z—ñ,ífCf"fffbfNfX,Æ^á,Â,Ä[]C[]@[]"CE^,É,·,é•K—
v,ª, ,è,Ü,¹,ñ[]B,½,Æ,ì,íCfvf[]pfefB,ð•¶Žš—ñ,É,æ,Â,ÂfCf"fffbfNfX•t,¯,ð,·,é,±
,Æ,ª,Â,«,Ü,·[]B,Ü,½[]C"z—ñfvf[]pfefB,Â,íCEÂ[]X,ì—
v'f,ªŽQ[]Æ,Â,«,é,¾,¯,Â[]Cfvf[]pfefB,ì'S"í'í,ìŽQ[]Æ,Â,«,Ü,¹,ñ[]B

—á14171

ŽŸ,ì—á,Å,íC□®□"fCf"fffbfNfX,É,æ,Á,Ä•¶Žš—ň,ð•Ô,·fvf□pfefB,ìéĚ¼,ðŽ!,μ,Û,·□B

```
type
  TDemoComponent = class(TComponent)
  private
    function GetNumberName(Index: Integer): string;
  public
    property NumberName[Index: Integer]: string read GetNumberName;
  end;
...
function TDemoComponent.GetNumberName(Index: Integer): string;
begin
  Result := 'Unknown';
  case Index of
    -MaxInt..-1: Result := 'Negative';
    0: Result := 'Zero';
    1..100: Result := 'Small';
    101..MaxInt: Result := 'Large';
  end;
end;
```

ŽQÆ14172

fvf[]pfefB,ð[][]-.:é-[]-R

fvf[]pfefB,ìCE^

CEp³fvf[]pfefB,ìCEöŠ]

fRf“f[][]f“fgfvf[]pfefB,ì'è<`

fvf[]pfefBfGfffBf^,Å,ìŠj”

fvf[]pfefBfGfffBf^,Á,İšJ"14173

ŽQ[]Æ

flfufWfFfNfgfCf"fxfyfNf^,Á,í[]C,;,x,Ä,ìCE^,İfvf[]pfefB—p,ÉffftfHf<fg,ì•Ò[]W<@"\,ª—
p^Ó,³,ê,Ä,ç,Û,;ª[]Cfvf[]pfefBfGfffBf^,ð<L[]q,µ,Ä"o~^,;ê,í[]C"Á'è,İfvf[]pfefB,É'İ
%ož,µ,½fGfffBf^,ðŽg—p,Ä,«,Û,·[]BŠJ",µ,½fRf"f[]f[]f"fg,İfvf[]pfefB,É"K—
p,;éfvf[]pfefBfGfffBf^,ð"o~^,;é,±,Æ,ª,Ä,«[]C,Û,½[]C, ,éCE^,ì,;,x,Ä,İfvf[]pfefB,É"K—
p,;é,éGfffBf^,ð[]ì—,;é,±,Æ,à,Ä,«,Û,·[]B

[]Á,àŠÈ'P,ÈfCEfxf<,Á,í[]Cfvf[]pfefBfGfffBf^,İŽŸ,ì 2 ,Ä,ì•û-@,ÄŽg—
p,³,ê,Û,·[]B,Ä,Û,è[]CCE»[]Ý'İ,ðfefLfxfg•¶Žš—ñ,Æ,µ,Ä•\Žì,µ,Äft[]fU[][,É•Ò[]W,³,¹,é•û-
@,Æ[]C,ç,;,Ä,à,ì•Ò[]W<@"\,ð"ð,ì,½f_fCfAf[]fOf{fbfNfX,ð•\Žì,;é•û-@,ì 2 ,Ä,Ä,·[]BŠJ"-
ŽÒ,í[]C•Ò[]W,;éfvf[]pfefB,É,Æ,Á,Ä,Ç,ì•û-@,ª•Ö—~ ,Ä, ,é,©"»'f,µ,Ä[]C,Ç,ì,ç,ì•û-@,ðŽg—
p,;é,©CE^è,µ,Û,·[]B

fvf[]pfefBfGfffBf^,İšJ",í^È%oº,ì 5 ,Ä,İfxfefbfv,Ä[]s,ç,Û,·[]B

- fvf[]pfefBfGfffBf^flfufWfFfNfg,ð"h[]¶,³,¹,é
- fvf[]pfefB,ðfefLfxfg,Æ,µ,Ä•Ò[]W,;é
- fvf[]pfefB,ð'S'İ,Æ,µ,Ä•Ò[]W,;é
- fGfffBf^'@[]«,ðŽw'è,;é
- fvf[]pfefBfGfffBf^,ì"o~^,;é

ŽQÆ14174

fvf[]pfefB,ð[][],:é—[]—R

fvf[]pfefB,[]^

Ep³fvf[]pfefB,[]öŠ]

fRf“f[][]f“fgfvf[]pfefB,[]è<`

”z—ñfvf[]pfefB,[][]

fvf[]pfefBfGfffBf^flfufWfFfNfg,ð”h[]¶,³,¹,é14175

ŽQ[]Æ —á

DsgnIntf ftffjfbfg,É,Í[]Ží—p,lfvf[]pfefBfGfffBf^,á’è< ,³,é,Ä,ç,Ü,.,ª[]C,±,é,ç,lfGfffBf^,í,.,x,Ä[]CTPropertyEditor

,ðCep[]³,.,éflfufWfFfNfg,Ä,·[]Bfvf[]pfefBfGfffBf^,ð[]í—,.,é[]ê[]‡,Í[]CTPropertyEditor,©,ç’¼[]Úfvf[]pfefBfGfffBf^flfufWfFfNfg,ð”h[]¶,³,¹,é•û—@,Æ[]C %oo²,ì•\,ÉŽ!,·fvf[]pfefBfGfffBf^CE^,ì 1 ,Ä,©,ç”h[]¶,³,¹,é•û—@,ì,ç,.,é,©,ðŽg—p,μ,Ü,·[]B

fvf[]pfefBfGfffBf^flfufWfFfNfg,ð[]í—,.,é,É,Í[]CSù’¶,lfvf[]pfefBfGfffBf^CE^,ì 1 ,Ä,©,ç[]V,μ,çflfufWfFfNfgCE^,ð”h[]¶,³,¹,Ü,·[]B

DsgnIntf ftffjfbfg,Ä,Í[]CfRf”f[]flf”fg—¼,É,Ç,ì”ÁŽê,lfvf[]pfefB,É’í,μ,ÄŽg—p,.,é,ç,-,Ä,©,ì”ÁŽê,Éfvf[]pfefBfGfffBf^,à’è< ,³,é,Ä,ç,Ü,·[]BŽŸ!,ì•\,É[]Cft[]fU[]l’è< fvf[]pfefB,É,Æ,Á,Ä—L—p,ÈfGfffBf^,ðŽ!,μ,Ü,·[]B

CE^	•Ò[]W,Ä,«,éfvf[]pfefB
TOrdinalProperty	,.,x,Ä,ì[]‡[]~CE^ ([]®[]”CE^[]C•¶ŽšCE^[]C—ñ<“CE^) ,lfvf[]pfefB,ì,½,ß,lfvf[]pfefBfGfffBf^,Í[]CTOrdinalProperty ,ðCep[]³,.,é
TIntegerProperty	,.,x,Ä,ì[]®[]”CE^[]B’è< []İ,Ÿ,ì•”•ª”í^íCE^,Æft[]fU[]l’è< ,ì•”•ª”í^í CE^,ðŠÜ,b
TCharProperty	Char CE^,Æ[]CChar ,ì•”•ª”í^íCE^ ('A'..'Z',É,Ç)
TEnumProperty	,.,x,Ä,ì—ñ<“CE^
TFloatProperty	,.,x,Ä,ì•,”®[]—[]”“ _[]”
TStringProperty	•¶Žš—ñ[]Bstring[20] ,ì,æ,æ,È“Á’è,ì’•,³,ì•¶Žš—ñ,ðŠÜ,b
TSetElementProperty	[]W[]‡,ìCEÄ[]X,ì—v’f[]B~—[]l,Æ,μ,Ä•\Ž!,³,é,é
TSetProperty	,.,x,Ä,ì[]W[]‡[]B[]W[]‡,í’¼[]Ú,É,í•Ò[]W,Ä,«,È,ç,ª[]C[]W[]‡—v’ffvf[]pfefB,lfŠfXfg,É“WŠJ,Ä,«,é
TClassProperty	flfufWfFfNfg[]BflfufWfFfNfgCE^,ì—¼’O,ð•\ Ž!,μ[]C,» ,lfufWfFfNfg,lfvf[]pfefB,ð“WŠJ,Ä,«,é
TMethodProperty	f[]\fbfhflfCf”f^[]B“Á,É[]CfCxf”fg,ð^μ,æ
TComponentProperty	“ ,¶ftfH[]f€[]ă,lfRf”f[]flf”fg[]Bft[]fU[]l,lfRf”f[]flf”fg,lfvf[]pfefB,ð•Ò[]W,Ä,«,È,ç,ª[]CCEŸŠ,ì, ,éCE^,ì“Á’è,lfRf”f[]flf”fg,ðŽwŽ!,Ä,«,é
TCaptionProperty	flfffvfVf‡f”,ÆfefLfXfg— p,lfGfffBf^[]Bfvf[]pfefB,ª•İ[]X,³,é,é,½,Ñ,ÉŽÀ[]Ú,lfvf[]pfefB,ìl,ð []X[]V,.,é
TComponentNameProperty	fRf”f[]flf”fg—¼[]B•i[]”,lfRf”f[]flf”fg,ª’l’ð,³,é,Ä,ç,é,Æ,«,É[]C•\ Ž!,³,é,é—¼’Ofvf[]pfefB,ð[]ŠCEÄ,.,é
TCursorProperty	f[]l[]f<[]BŠŸ“—,.,é[]ê[]‡,í cIXXX ’l,Ä,»,ì[]F,ð•\Ž!,μ[]CŠŸ“— ,μ,É,ç[]ê[]‡,í 16 []i’l,Ä•\Ž!,.,é[]BfŠfXfg,©,ç cIXXX ’l,ð’l’ð,.,é,± ,Æ,à,Ä,«,é

TShortcutProperty fL[]f{[]fhfVf#[]fgfjfbfg[]BfVf#[]fgfjfbfg'l,đ"ü—
 Í,·,é,©[]CfŠfXfg,©,çfVf#[]fgfjfbfg'l,đ'l'đ,Å,«,é

TMPFilenameProperty f[]ffBfAftf@fCf<,l-¼'O[]Bf[]ffBfAftf@fCf<,l-
 ¼'O,đŠÜ,p[]mftf@fCf<,đŠj,[]nf_fCfAf[]fOf{fbfNfX,đ•\Ž|,·,é

TTabOrderProperty f^fu[]#[]B•i[],lRf"f|[]lf"fg,ª'l'đ,ª,é,Ä,ç,é,Æ,«,É•\Ž|,ª,é,éfRf"f|
 []lf"fg,l•\Ž|,đ[]\$CEÀ,·,é

TColorProperty fRf"f|[]lf"fg[]F[]B[]F'è[]",ÉŠY"-,·,é,î,»,é,đ•\Ž|,μ[]C,»,x
 ,Ä,È,ç[]é[]#,í 16 []i[]",Ä•\
 Ž|,·,é[]Bfhf[]fbvf_fEf"fŠfXfg,É,í[]F'è[]",ª"ü,Ä,Ä,ç
 ,é[]Bf_fuf<fNfŠfbfN,·,é,Æ[]F'l'đ_fCfAf[]fOf{fbfNfX,ªŠj,

TFontNameProperty ftfHf"fg-¼[]Bfhf[]fbvf_fEf"fŠfXfg,É,íCE»[]ÝfCf"fxfg[]f<,ª,é,Ä,ç
 ,é,·,x,Ä,lftfHf"fg,ª•\Ž|,ª,é,é

TFontProperty ftfHf"fg[]BftfHf"fgf_fCfAf[]fOf{fbfNfX,ÉfAfNfzfX,Å,«[]C,Ü,½[]CCE
 Â[]X,lftfHf"fgfvf[]fpfefB,đ"WŠj,Å,«,é

—á14176

□Á,à'P□f,Èfvf□pfefBfGfffBf^,ì 1 ,Á,í□C•,“®□¬□”“_□”,lfvf□pfefB—p,ì TFloatProperty
,Á,□B,»,ì□é☒¾,ì—á,đŽŸ,ÉŽ!,μ,Û,□B

type

TFloatProperty = **class**(TPropertyEditor)

public

function AllEqual: Boolean; **override**;

function GetValue: **string**; **override**;

procedure SetValue(**const** Value: **string**); **override**;

end;

ŽQÆ14177

fvf[]pfefB,ðfefLfxfg,Æ,μ,Ä•Ò[]W, :.é

fvf[]pfefB,ð'S'ì,Æ,μ,Ä•Ò[]W, :.é

fGffBf^'®[]«,ìŽw'è

fvf[]pfefBfGffBf^,ì"o~^

fvf[]pfefB,ðfefLfXfg,Æ,μ,Ä•Ö[]W,-,é14178

ŽQ[]Æ —á

,,x,Ä,lfvf[]pfefB,É,í[]CflfufWfFfNfgfCf“fXfyfNf^,Ä•\Ž!,,é,½,β,É[]C'l,ì•¶Žš—ñ•\CE»,ð—
 p^Ó,μ,É,~,é,î,È,è,Û,¹,ñ[]B,Û,½[]C,Û,Æ,ñ,Ç,lfvf[]pfefB,Ä,í[]Cft[]fU[],í,»,lfvf[]pfefB,É[]V,μ,ç'l,ð
 “ü—í,Ä,«,Û,·[]Bfvf[]pfefBfGfffBf^flfufWfFfNfg,ì%¼'z[]f[]fbfh,ðf[]fo[]f%[]Cfh,,é,±
 ,Æ,Ä[]C•¶Žš—ñ•\CE»,ÆŽÄ[]Û,ì'l,Æ,ð•İŠ,μ,Û,·[]B

f[]fo[]f%[]Cfh,,é[]f[]fbfh,ì-¼'Ö,í[]CGetValue ,Æ SetValue
 ,Ä,·[]Bfvf[]pfefBfGfffBf^,í,Û,½[]CŽÿ,ì•\,ÄŽ!,,æ,κ,É[]C,³,Û,´,Û,ÈCE^,ì'l,ì'ã“ü,Æ“Ç,Ý[]o,μ,ÉŽg—
 p,³,é,é[]f[]fbfhEQ,ðCEp[]³,μ,Û,·[]B

fvf[]pfefB,ìCE^	uGet[]vf[]fbfh	uSet[]vf[]fbfh
•,“@[]-[]“[]_”	GetFloatValue	SetFloatValue
f[]fbfhf[]fCf“f^ (fCxf“fg)	GetMethodValue	SetMethodValue
[]#~CE^	GetOrdValue	SetOrdValue
•¶Žš—ñ	GetStrValue	SetStrValue.

'Èí[]CGetValue f[]fbfh,ðf[]fo[]f%[]Cfh,,é[]V,μ,ç[]f[]fbfh,à[]C[]uGet[]vf[]f[]
 fbfh,ì1,Ä,ðCEÄ,Ñ[]o,μ,Û,·[]BSetValue f[]fbfh,ðf[]fo[]f%[]Cfh,,é[]f[]fbfh,í[]C[]uSet[]vf[]f[]
 fbfh,ì1,Ä,ðCEÄ,Ñ[]o,μ,Û,·[]B

fvf[]pfefB'l,ì\Ž!

fvf[]pfefBfGfffBf^,ì GetValue f[]fbfh,í[]C,»,lfvf[]pfefB,ìCE»[]Ý'l,ð•\,•¶Žš—
 ñ,ð•Ö,μ,Û,·[]BflfufWfFfNfgfCf“fXfyfNf^,í[]C,±,ì•¶Žš—ñ,ð,»,lfvf[]pfefB,ì'l—ñ,É•\
 Ž!,μ,Û,·[]BffftfHf<fg,Ä,í[]CGetValue ,í*(Unknown)* ,ð•Ö,μ,Û,·[]B

“ÆŽ©,lfvf[]pfefB,ì•¶Žš—ñ•\CE»,ð—p^Ó,,é,É,í[]Cfvf[]pfefBfGfffBf^,ì GetValue f[]f[]
 fbfh,ðf[]fo[]f%[]Cfh,μ,Û,·[]B

fvf[]pfefB'l,³•¶Žš—ñ,Ä,È,ç[]ê[]#,í[]CGetValue ,í,»,ì'l,ð•¶Žš—ñ•\
 CE»,É•İŠ,μ,È,~,é,î,È,è,Û,¹,ñ[]B

fvf[]pfefB'l,ìÝ'è

fvf[]pfefBfGfffBf^,ì SetValue f[]fbfh,í[]Cft[]fU[],³flfufWfFfNfgfCf“fXfyfNf^,Ä“ü—í,μ,½•¶Žš
 —ñ,ðŽó,~Žæ,è[]C,»,ì•¶Žš—

ñ,ð“K[]Ø,ÈCE^,É•İŠ,μ[]Cfvf[]pfefB,ì'l,ð[]Ý'è,μ,Û,·[]BŽó,~Žæ,Ä,½•¶Žš—
 ñ,³fvf[]pfefB,ì“K[]³,É'l,ð•\,μ,Ä,ç,È,©,Ä,½[]ê[]#[]CSetValue ,í—áŠÖ,ð[]¶[]-,μ,Û,·[]B

•¶Žš—ñ'l,ðfvf[]pfefB,É[]Ý'è,,é,É,í[]Cfvf[]pfefBfGfffBf^,ì SetValue f[]fbfh,ðf[]fo[]f%
 %[]Cfh,μ,Û,·[]B

—á14179

TIntegerProperty ,ì GetValue f[]\fbfh,Æ SetValue f[]\fbfh,ì—á,ðŽŸ,ÉŽ!,μ,Û,·BInteger ,í[]#~Æ^,É,ì,Ä[]CGetValue ,í GetOrdValue ,ðÆÄ,Ñ[]o,μ,Ä[]C'l,ð•¶Žš— ñ,É•İŠ•,μ,Û,·BSetValue ,í,±,ì•¶Žš—ñ,ð[]@[]",É•İŠ•,μ[]C'l,ì"í^í,ðÆŸ[],,μ,Ä,©,ç SetOrdValue ,ðÆÄ,Ñ[]o,μ,Û,·B

```
function TIntegerProperty.GetValue: string;
begin
  Result := IntToStr(GetOrdValue);
end;

procedure TIntegerProperty.SetValue(const Value: string);
var
  L: Longint;
begin
  L := StrToInt(Value);    { •¶Žš—ñ,ð[]"l,É•İŠ• }
  with GetTypeData(GetPropType) ^ do    { ,±,±,Ä Integer Æ^,ìfRf"fpfCf
%off[]f^,²Žg—p,³,é,é }
    if (L < MinValue) or (L > MaxValue) then { "í^í"à,É, ,é,±,Æ,ðŠm"F... }
      raise EPropertyError.Create(    { ..."í^í"à,É,É,ç[]é[]#,í—áŠO,ð[]¶[]— }
        FmtLoadStr(SOutOfRange, [MinValue, MaxValue]));
  SetOrdValue(L);    { "í^í"à,É, ,é,î^—[],ð'±[]s,μ,Ä'l,ð[]Ÿ'è }
end;
```

"Á'è,ì—á,ð[]x,©,Ž!,μ,Û,μ,½,²[]CCE'¥,íŽŸ,ì,Æ,"è,Ä,·BGetValue ,í'l,ð•¶Žš— ñ,É•İŠ•,μ[]CSetValue ,í•¶Žš—ñ,ð'l,É•İŠ•,μ[]CÆŸ[]Ø,μ,Ä,©,ç[]uSet[]vf[]\fbfh,ì 1 ,Ä,ðÆÄ,Ñ[]o,·C,Æ,ç,±,±,Æ,Ä,·B

ŽQÆ14180

fvf[]pfefBfGfffBf^flfufWfFfNfg,đ”h[]1,3,1,é

fvf[]pfefB,đ’S’ì,Æ,μ,Ä•Ò[]W,.:é

fGfffBf^’@[]«,ìŽw’è

fvf[]pfefBfGfffBf^,ì”o~^

fvf[]pfefB,ð'S'ì,Æ,μ,Ä•Ò[]W,-,é14181

ŽQ[]Æ —á

flfvfvf#f“ ,Æ,μ,Ä[]Cft[]fU[][,ârfWf...fAf<,Éfvf[]pfefB,ð•Ò[]W,Ä,«,éfcfAf[]fOf{fbfNfX,ð—
p^Ó,Ä,«,Ü,·[]Bfvf[]pfefBfGfffBf^,â[]Ä,à,æ,Zg—p,³,é,é,ì,í[]C,»,èŽ©[]g,âfufWfFfNfg,Ä, ,éfvf[]f
pfefB,É'í,μ,Ä,Ä,·[]B,»,ì,æ,ç—á,ª Font fvf[]pfefB,Ä,·[]B,±
,ìfvf[]pfefB,ìê[]#[]Cft[]fU[][,ìftfHf“fgf_fcFaf[]fOf{fbfNfX,ðŠJ,ç
,Ä[]C“Á'è,ìftfHf“fg,ì,·,x,Ä,ì'®[]«,ð^ê“x,ÉŽw'è,·,é,±,Æ,ª,Ä,«,Ü,·[]B

fvf[]pfefB'S'ì,ð•Ò[]W,-,éGfffBf^f_fcFaf[]fOf{fbfNfX,ð—
p^Ó,·,é,É,í[]Cfvf[]pfefBfGfffBf^flfufWfFfNfg,ì Edit f[]f\fbfh,ðf[]fo[]f%ofCfh,μ,Ü,·[]B

Edit f[]f\fbfh,í[]CGetValue f[]f\fbfh,Æ SetValue f[]f\fbfh,ð<L[]q,·,é[]Ü,ÉŽg—
p,μ,½,ì,Æ“~,¶[]uGet[]vf[]f\fbfh,Æ[]uSet[]vf[]f\fbfh,ðŽg—p,μ,Ü,·[]B Edit f[]f\fbfh,í[]uGet[]vf[]f\fbfh,Æ[]uSet[]vf[]f\fbfh,ì—¼•ù,ðCEÄ,Ñ[]o,μ,Ü,·[]B,±,ìfGfffBf^,í“Á'è,ìCE^,ð^μ,κ
,ì,Ä[]C'É[]í,ìfvf[]pfefB'ì,ð•¶Žš—ñ,É•İŠ,·,é•K—v,ì, ,è,Ü,¹,ñ[]B,±
,ìfGfffBf^,í^è”É,É[]C'ì,ð[]uŽæ,è[]o,³,é,½[]ó'Ò,ì,Ü,Ü[]v[]^—[],μ,Ü,·[]B

ft[]fU[][,âfvf[]pfefB,ì—x,ì[]m...[]nf{f^f“ ([]È—âf{f^f“),ðfNfŠfbfN,·,é,©[]C'ì—
ñ,ðf_fuf<fNfŠfbfN,·,é,Æ[]CflfufWfFfNfgfCf“fXfyfNf^,âfvf[]pfefBfGfffBf^,ì Edit f[]f\fbfh,ðCEÄ,Ñ[]o,μ,Ü,·[]B

—á14182

,Ù,Æ,ñ,Ç,lfRf“f|[]f|f“fg,ªŽ,Â Color fvf[]pfefB,Í[]CWindows
,ì[]m[]F,ì[]Ý’è[]nfRf,f“f_fCfA[]f[]Of{fbfNfX,ðfvf[]pfefBfGfffBf^,Æ,μ,ÄŽg—
p,μ,Û,·[]BTColorProperty ,ì Editf[]f\fbfh,ì—á,ðŽÝ,ÉŽ!,μ,Û,·[]B,±,ìf[]\
fbfh,ì[]m[]F,ì[]Ý’è[]nf_fCfA[]f[]Of{fbfNfX,ðCEÄ,Ñ[]o,μ,Ä[]C,»,ìCE<%oÊ,ðŽg—p,μ,Û,·[]B

```
procedure TColorProperty.Edit;  
var  
    ColorDialog: TColorDialog;  
begin  
    ColorDialog := TColorDialog.Create(Application); { fGfffBf^,ð[]\z }  
    try  
        ColorDialog.Color := GetOrdValue; { Šù‘¶,ì'l,ðŽg—p }  
        if ColorDialog.Execute then {  
f[][]fU[][,ª,»,ìf_fCfA[]f[]Of{fbfNfX,ÄOK,ð'l'ð,μ,½[]é[]#,ì... }  
            SetOrdValue(ColorDialog.Color); { ...,»,ìCE<%oÊ,ðŽg—p,μ,Ä'l,ð[]Ý’è }  
        finally  
            ColorDialog.Free; { fGfffBf^,ð"pŠü }  
        end;  
    end;  
end;
```


ŽQÆ14183

fvf[]pfefBfGfffBf^flfufWfFfNfg,đ”h[]1,3,1,é

fvf[]pfefB,đfefLfXfg,Æ,μ,Ä•Ò[]W,.:é

fGfffBf^’@[]«,lŽw’è

fvf[]pfefBfGfffBf^,l”o~^

fgffBf^'®◻◻◻,İžw'è14184

ŽQ◻Æ —á

fIfufWfFfNfgfCf"fxfyfNf^,ª"K◻Ø,Èfc◻[f<,đ•\Ž!,Å,«,é,æ,æ,É◻Cfvf◻fpfefBfGffBf^,Í,ç,-,Å,©,ì◻î•ñ,đ'É'm,μ,È,̄,ê,Î,È,è,Û,¹,ñ◻B,½,Æ,!,Í◻Cfvf◻fpfefB,ÉfTfufvf◻fpfefB,ª, ,é,ì,©,Ç,æ,©◻C%oÅ"\,É'l,İfŠfXfg,đ•\Ž!,Å,«,é,ì,©,Ç,æ,©◻C,È,Ç,Å,◻B

fGffBf^'®◻◻◻,đŽw'è,·,é,É,Í◻Cfvf◻fpfefBfGffBf^,ì GetAttributes f◻f◻fbfh,đfI◻[fo◻[f%ofCfh,μ,Û,◻B

GetAttributes ,Í TPropertyAttributes
 CE^,ì'l,ì◻W◻±,đ•Ô,·ŠÖ◻",Å,◻B•Ô,³,ê,é'l,ì◻W◻±,Í◻CŽŸ,ì•\,ÉŽ!,·'l,ì'g,Ý◻±,í,¹,Å,◻B

ftf%ofO	ŠÜ,Ü,ê,Ä,ç,é◻é◻±,ì^Ó-i	ŠÖ~ Af◻f◻fbfh
paValueList	,±,İfGffBf^,Í—ñ<"'l,İfŠfXfg,đ—^,!,é,±,Æ,ª,Å,«,é	GetValues
paSubProperties	,±,İfvf◻fpfefB,É,Í•\Ž!,Å,«,ÉfTfufvf◻fpfefB,ª, ,é	GetProperties
paDialog	,±,İfGffBf^,İfvf◻fpfefB,đ'S'ì,Æ,μ,Ä•Ò◻W,·,é,½,ß,İf_fCfAf◻fOf{fbfNfX,đ•\Ž!,Å,«,é	Edit
paMultiSelect	,±,İfvf◻fpfefB,Í◻Cft◻[fU◻[,ª2,Å^È◻ä,İfRf"fj◻[fIf"fjg,đ'l'đ,μ,½,Æ,«,ì,Ý•\Ž!,·,é	,È,μ
paAutoUpdate	'l,ì"ž'... ,đ'Ò,Å,©,í,è,É◻C•İ◻X,ªs,í,ê,é,½,Ñ,ÉfRf"fj◻[fIf"fjg,đ◻X◻V,·,é	SetValue
paSortList	fIfufWfFfNfgfCf"fxfyfNf^,ª,»,'l'fŠfXfg,đ•À, x'Ò,!,ç,ê,é	,È,μ
paReadOnly	ft◻[fU◻[,Í,»,İfvf◻fpfefB'l,đ•İ◻X,Å,«,È,ç	,È,μ

—á14185

Color

fvf[]fpfefB,í[]C,Ù,©,ìfvf[]fpfefB,Æ"ä,x,Ä,©,È,è_“î,Ä,·[]Bft[][fU[][,ílfufWfFfNfgfCf“fXfyfNf^,Ä
[]C“ü—í[]CfŠfXfg,©,ç,í'l'ð[]CfjffXf^f}fCfY,³,é,½fGfffBf^,É,æ,éŽw'è,È,Ç[]C,ç,,Ä,©,ì•û-
@,É,æ,Ä,Ä,±,ìfvf[]fpfefB,ð•í[]X,Ä,«,Ü,·[]B,±,ì,½,ß[]CTColorProperty ,ì GetAttributes f[]\f
fbfh,ì-ß,è'l,É,í[]CŽŸ,ì,æ,æ,É,ç,,Ä,©,ì'®[]«,^aü,Ä,Ä,ç,Ü,·[]B

```
function TColorProperty.GetAttributes: TPropertyAttributes;  
begin  
    Result := [paMultiSelect, paDialog, paValueList];  
end;
```

ŽQÆ14186

fvf[]pfefBfGfffBf^flfufWfFfNfg,ð”h[]1,3,1,é

fvf[]pfefB,ðfefLfXfg,Æ,μ,Ä•Ò[]W,,:.é

fvf[]pfefB,ð’S’l,Æ,μ,Ä•Ò[]W,,:.é

fvf[]pfefBfGfffBf^,ì“o~^

fvf[]pfefBfGfffBf^,ì“o~^14187

ŽQ[]Æ —á

fvf[]pfefBfGfffBf^,đ[]i[]¬,μ,½,ç[]CŽŸ,É,»,,ê,đ Delphi

,É“o~^,μ,Û,·[]Bfvf[]pfefBfGfffBf^,đ“o~^,·,é,Æ[]CŽw'è,μ,½fvf[]pfefB,ìCE^,Æfvf[]pfefBfGfffBf^,Æ,ªŠÖ~A•t,¬,ç,ê,Û,·[]BfGfffBf^,ì“o~^,Ä,í[]C“Á'è,ìCE^,đŽ[],Ä,·,×,Ä,ìfvf[]pfefB,đŽw'è,·,é,±,Æ,à,à,Ä,«,,Û,·[]B

fvf[]pfefBfGfffBf^,đ“o~^,·,é,É,í[]CŽè'±,« RegisterPropertyEditor ,đCEÄ,Ñ[]o,μ,Û,·[]B

RegisterPropertyEditor ,íŽŸ,ì 4 ,Ä,ìfpf%of[]f^,đŽó,¬Žæ,è,Û,·[]B

- •ò[]W,·,éfvf[]pfefB,ìCE^,đŽ!,·CE^í•ñf[]fCf“f^,±,ê,í[]í,É[]CTypelInfo(TMyComponent) ,È,Ç[]CTypelInfo 'g,Ÿ[]ž,ŸŠÖ[]",É'í,·,éCEÄ,Ñ[]o,μ,É,μ,Û,·[]B
- fGfffBf^,ª“K—p,³,ê,éRf“f[]f[]f“fg,ìCE^,±,ìfpf%of[]f^,ª nil ,ìê[]#,É,í[]C,±,ìfGfffBf^,ìŽw'è,ìCE^,ìfvf[]pfefB,·,×,Ä,É“K—p,³,ê,Û,·[]B
- fvf[]pfefB,ì-¼'O,±,ìfpf%of[]f^,í[]C¼'O,ìfpf%of[]f^,É,æ,Á,Ä“Á'è,ìCE^,ìRf“f[]f[]f“fg,ªŽw'è,³,ê,½[]ê[]#,É,ì,Ÿ—LCEø,Ä,·[]B,±,ìê[]#,É,í[]C,±,ìfGfffBf^,ª“K—p,³,ê,éRf“f[]f[]f“fgCE^,ì“Á'è,ìfvf[]pfefB,ì-¼'O,đŽw'è,Ä,«,,Û,·[]B
- Žw'è,ìfvf[]pfefB,ì•ò[]W,ÉŽg—p,³,ê,éfvf[]pfefBfGfffBf^,ìCE^

—á14188

fRf“f|□[f|f“fgfpfCefbfg,ì•W□€fRf“f|□[f|f“fg—p,ìfGfffBf^,ð“o~^,·,éŽè±,«,ì^ê•”,ð—
á,Æ,μ,ÄŽÿ,ÉŽ!,μ,Û,·□B

```
procedure Register;
begin
  RegisterPropertyEditor (TypeInfo (TComponent), nil, '',
  TComponentProperty);
  RegisterPropertyEditor (TypeInfo (TComponentName), TComponent, 'Name',
  TComponentNameProperty);
  RegisterPropertyEditor (TypeInfo (TMenuItem), TMenu, '',
  TMenuItemProperty);
end;
```

,±,ìŽè±,«,ì 3 ,Ä,ì•¶,í□CŽÿ,ì,æ,α,É 3 'Ê,è,ì RegisterPropertyEditor ,ìŽg—p•û-@,ð<L□q,μ,Ä,φ
,Û,·□B

- □Å□%o,ì•¶,í□C□Å,à^è"Ê"l,È"o~^,ð□s,Á,Ä,φ,Û,·□B,±,ì•¶,Ä,í□CTcomponent
 C^,Æ□C"o~^□ì,ÿ,ì"ÆŽ©,ìfGfffBf^,ðŽ□,½,È,φ Tcomponent ,ì
 %o°ÊfìfufWfFfNfgC^,ìfvf□pfefB,·,x,Ä,É'í,μ,Ä□Cfvf□pfefBfGfffBf^ TComponentProperty
 ,è"o~^,³,è,Ä,φ,Û,·□B'½,,ìê□#□Cfvf□pfefBfGfffBf^,ì"o~^,Ä,í□C,·,é"Á'è,ìC^,ì,½,ß,ìfGfffBf^,ð□
 —,μ□C,»,ìfGfffBf^,ð,»,ìC^,ì,·,x,Ä,ìfvf□pfefB,É'í,μ,ÄŽw'è,μ,Û,·□B,±,ì,½,ß□C2 "Ö-Ú,Æ 3 "Ö-
 Ú,ìfpf%of□[f^,è,»,è,¼,è nil ,Æ<ó•¶Žš—ñ,É,È,Á,Ä,φ,Û,·□B
- 2 "Ö-Ú,ì•¶,í□C□Å,àCÈÀ'è"l,È"o~^,ð□s,Á,Ä,φ,Û,·□B,±,ì•¶,Ä,í□CŽw'è,ìC^,ìfRf“f|
 □[f|f“fg,ìŽw'è,ìfvf□pfefB—p,ÉfGfffBf^,ð“o~^,μ,Ä,φ,Û,·□B,±,ì—á,Ä,í□C,·,x,Ä,ìŠY“-·,éRf“f|
 □[f|f“fg,ì Name fvf□pfefB—p,ÉfGfffBf^,ð“o~^,μ,Ä,φ,Û,·□B
- 3 "Ö-Ú,ì•¶,É,í□C1 "Ö-Ú,ì•¶,æ,è,ìCÈÀ'è"l,Ä□C2 "Ö-Ú,ì•¶,æ,è,ì^è"Ê"l,È"o~^,ð□s,Á,Ä,φ
 ,Û,·□B,±,ì•¶,Ä,í□CTmenu C^,ìfRf“f|□[f|f“fg,ì TMenuItem C^,ì,·,x,Ä,ìfvf□pfefB—
 p,ÉfGfffBf^,ð“o~^,μ,Ä,φ,Û,·□B

ŽQÆ14189

fvf[]pfefBfGfffBf^flfufWfFfNfg,đ"ħ[]1,3,1,é

fvf[]pfefB,đfefLfXfg,Æ,μ,Ä•Ò[]W,,:.é

fvf[]pfefB,đ'S'ì,Æ,μ,Ä•Ò[]W,,:.é

fGfffBf^'®[]«,ìŽw'è

fcxf"fg,ìì-14190

ŽQÆ

'ÊíCfRf"fi[fif"fgš]"Žò,ífCxf"fg,É,í¼ÚšÖÆW,µ,Û,¹,ñ,ªCfRf"fi
[fif"fg,É,Æ,Á,ÄfCxf"fg,í d—v,É—
v'f,Å,·BfCxf"fg,Æ,íCft[fU[fAfNfVf#f" ,âtfH[fjX,ì•ìX,È,Ç,ìfRf"fi[fif"fg,^a
%ž"š,µ,È,¯,ê,î,È,ç,È,çfVfXfef€,ìo—^Ž-,ÆC,»,ìo—^Ž-,É
%ž"š,·,éR[fh,Æ,ÌŠÒ,ÌŠÖ~A•t,¯,ì,±,Æ,Å,·B,±,ì%ž"šfR[fh,afCxf"fgfnf"fhf%
,ÅC,Ù,Æ,ñ,Ç,ìê#fRf"fi[fif"fgft[fU[.É,æ,Á,Ä<Lq,³,ê,Û,·B

fAfvšP[fVf#f"š]"Žò,íCfCxf"fg,ðŽg—p,·,é,±,Æ,ÅflufWfFfNfg,»,ì,à,ì,ð•ìX,·,é,±,Æ,È,fRf"fi
[fif"fg,ì"®ì,ðjfxf^f}fCfY,Å,«,Û,·BfRf"fi[fif"fgš]"Žò,ì•ú,íCfAfvšP[fVf#f"š]"Žò,afRf"fi
[fif"fg,ì"®ì,ðjfxf^f}fCfY,Å,«,é,æ,æ,ÉfCxf"fg,ðŽg—p,µ,Û,·B

f}fEfxAfNfVf#f" ,È,ÇC,æ,"¶,·,éft[fU[fAfNfVf#f" ,É'í,·,éCxf"fg,íC,·,x,Ä,ì•W€ Delphi
fRf"fi[fif"fg,É'g,Ýž,Û,ê,Ä,ç
,Û,·B,µ,©,µCft[fU[fAfNfVf#f" ,É'í,·,é"ÆŽ©,ífCxf"fg,àìì-,Å,«,Û,·B,±,ìí,Å,íCfRf"fi
[fif"fg,ífCxf"fg,ììì-,É,Ä,ç,Ä^È%º,ì,±,Æ,ðà-¾,µ,Û,·B

- fCxf"fg,Æ,ì%½,©
- •W€fCxf"fg,ìŽÆ»
- "ÆŽ©,ífCxf"fg,ì'è`

Delphi ,Å,íCfCxf"fg,ífvf#f#fB,Æ,µ,ÄŽÆ»,³,ê,Û,·B,±,ì,½,ßCfRf"fi
[fif"fg,ífCxf"fg,ðìì-¶E•ìX,·,é,É,íCfvf#f#fB,ììì-,ð,Û,·, "Ç,ñ,Å,,¾,³,çB

ŽQÆ14191

fRf“f|□[flf“fg□ì□□□,ìŠT—v

fRf“f|□[flf“fgŠ]”ŽÒ,ì,½,β,ì OOP

fvf□fpfefB,ì□ì□□□

f□\fbfh,ì□ì□□□

fRf“f|□[flf“fg,É,“,□,éOf%oftfBfbfN,ìŽg,ç•û

f□fbfZ□[fW,ì□^—□

fRf“f|□[flf“fg,ì“o~^

fCxf"fg,Æ,í%½, © 14192

ŽQÆ

fCxf"fg,Æ,íCŠÈ'P,É'è<` , ,é,ÆC, ,éo—^Ž-,ÆfR[fh,ðŠÖ~A•t, ,éfffjYf€,ì,±
,Æ,Å,·B,æ,è<í"l,É,íCfCxf"fg,íf\fbfhf]

fCf" f^ ,Å,·B,Å,Ü,èC"Á'è,ífufWfFfNfgfCf" fXf^ f" fX,ì"Á'è,íf\fbfh,ðŽw,·f|fCf" f^ ,Å,·B

fRf" f| f| f" fgt fU[,É,Æ,Á,Ä,ífCxf" fg, íCfVfXfefCfxf" fg, ÉŠÖ~A•t, ,ç,è,½ OnClick ,È,Ç,ì-
¼'O,ÅŽ|,³,è,Ü,·Bft fU[,ífCxf" fg, ðCEÄ,Ño,·f\fbfh,ðŽw'è,Å,«,Ü,·B,½,Æ,ì,íCButton1
,Æ,ç,¼'O,ì%ÿ,µ{f^f" ,íCOnClick f\fbfh,ð"º,Á,Ä,ç,Ü,·BfftfHf<fg,Å,í Delphi ,íC,±
,f{f^f" ,ì ,éftH[f€,É Button1Click ,Æ,ç,¼'O,ífCxf" fgfnf" fhf%º,ð¶¶-,µCOnClick
,ÉŠÖ~A•t, ,Ü,·B,±,íf{f^f" ,ÅfNfŠfbfNfCxf" fg,º¶¶, ,é,ÆCf{f^f" ,í OnClick ,íf\fbfh
fbfhC,Å,Ü,è,±,ìé¶,í Button1Click ,ðCEÄ,Ño,µ,Ü,·B

,Å,Ü,èCfRf" f| f| f" fgt fU[,É,Æ,Á,Ä,ífCxf" fg, íC"Á'è,ìo—^Ž-,º" -
¶¶,µ,½,Æ,« ,ÉCEÄ,Ño,·ft fU[<L¶¶R[fh,ðŽw'è, ,é,µ, ,ÿ,Å,·B

fRf" f| f| f" fgŠJ" ŽÒ,É,Æ,Á,Ä,íCfCxf" fg,É,í,» ,è,æ,è'½, ,ì,±,Æ,ºŠÖCEW,µ,Å,ç,Ü,·Bd—
v,É" ,íCfCxf" fg,ífRf" f| f| f" fgt fU[,ÉŠÖ~A•t, ,ð—p^Ó, ,é,Æ,ç,±,±
,Æ,Å,·B,Å,Ü,èCfCxf" fg,í ,éo—^Ž-,É%ž"š, ,éfR[fh,ðfA^fbf` , ,é,½,ß,ì,µ, ,ÿ,ð—
p^Ó,µ,Ü,·Bft fU[,ºR[fh,ðfRf" f| f| f" fg,Éu¶,µž,¶v,½,ß,ífRf" fZf" fg,ð—p^Ó, ,é,í, ,Å,·B

fCxf" fg,ð<L¶¶, ,é,½,ß,ÉC^È%º,ì,±,Æ,É,Å,ç,Äà-¾,µ,Ü,·B

- fCxf"fg,íf\fbfhf|fCf" f^ ,Å, ,é
- fCxf"fg,ífvf¶pfefB,Å, ,é
- fCxf"fgfnf"fhf%º,ìC^
- fCxf"fgfnf"fhf%º,íf\vf¶¶f" ,Å, ,é

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•WÆfCxf“fg,lžÀE»

“ÆŽ©,lfCxf“fg,l’è<

fCxf"fg,lf\fbfh|fCf"f^,Á, ,é14194

ŽQÆ —á

fCxf"fg,lf\fbfh|fCf"f^,Æ,μ,ÄŽÀÆ»,³,è,Ü,·Bf\fbfh|
fCf"f^,íC"Á'è,ìfufWfFfNfgfCf"fXf^f"FX,ì"Á'è,lf\fbfh,ðŽw,·f|fCf"f^Æ^,Á,·BfRf"fl
[lf"fgš]"ŽÖ,lf\fbfh|fCf"f^,ðvfÆ[fXzf<f_,Æ,μ,Ä^μ,ì,Ü,·B,Á,Ü,èCfRf"fl
[lf"fg,lfR[fh,³fCxf"fg,ðÆÿo,μ,½ê#Cft[fU[,³,»,lfCxf"fg,É'í,μ,ÄŽw'è,μ,Ä,ç,éf\A
fbfh,³, ,è,ìC,»,lf\fbfh,ðÆÄ,Ño,μ,Ü,·B

f\fbfh|fCf"f^,í,Ü,©,ìžè'±,«Æ^,Æ"-,¶,æ,α,É"®ì,μ,Ü,·,³CŽè'±
,«Æ^,Æ^á,Á,ÄfufWfFfNfgfCf"fXf^f"FX,Ö,ì%B,³,è,½f|fCf"f^,ð•ÜŽ,μ,Ä,ç
,Ü,·Bft[fU[,³fRf"fl[lf"fg,lfCxf"fg,Éfnf"fhf%o,ðŽw'è,μ,½ê#C,±
,ìŽw'è,ì"Á'è,ìfufWfFfNfgfCf"fXf^f"FX,ì"Á'è,lf\fbfh,É'í,·éŽw'è,Á, ,Á,ÄC'P,É"Á'è,ì-¼'O,lf\A
fbfh,É'í,μ,ÄŽw'è,μ,½,í, ,Ä,í, ,è,Ü,¹,ñB,±,lfCf"fXf^f"FX,í'ÉíC,»,lfRf"fl
[lf"fg,³š'®,·,éftfH[f€,Á,·,³C,»,α,Ä,É,çê#à, ,è,Ü,·B

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,: ,x ,Ä, ðfRf“fgf□□[f<, í□CfNfŠfbfNfCfxf“fg, ð□^—□, : ,é“@“lf□f\fbfh Click , ð□Ep□³, μ, Ü, ·□BClick
, í□Cf†□[fU□[, ðfNfŠfbfNfCfxf“fgfnf“fhf%o, ³“¶□Ý, : ,é□ê□‡, í, » ,ê, ð□Ā, Ñ□o, · ,æ, x, ÉŽĀĀ» , ³, ê, Ä, ç
, Ü, ·□B

```
procedure TControl.Click;  
begin  
  if Assigned(OnClick) then FOnClick(Self);  
end;
```

fRf“fgf□□[f<, ³“¶NfŠfbfN, ³, ê, é, Æ□Cf†□[fU□[, ³“¶Rf“fgf□□[f<, ð OnClick fCfxf“fg, Éfnf“fhf%o
, ðŽw’è, μ, Ä, ç, é□ê□‡, É, í□C, » , ðf□f\fbfh, ³□Ā, Ñ□o, ³, ê, Ü, ·□Bfnf“fhf%o, ðŽw’è, μ, Ä, ç
, È, ©, Ä, ½□ê□‡, É, í%o½, à<N, ±, è, Ü, ¹, ñ□B

ŽQÆ14196

fCxf"fg.lfvf"fpfefB,Å, .é

fCxf"fgfnf"fhf%o,`CE^

fCxf"fgfnf"fhf%o,lfvfvf#",Å, .é

fCxf“fg,lfvf[]pfefB,Å, ,é14197

ŽQ[]Æ

fRf“fj

[]lfj“fg,lfvf[]pfefB,É,æ,Á,ÄfCxf“fg,ðŽÀÆ»,μ,Ü,·[]B,Ù,©,lfvf[]pfefB,Æ,Í^Ù,È,è[]CfCxf“fg,lf[]\fbfh,ðŽg—p,μ,Ä **read** •”,Æ **write**

•”,ðŽÀÆ»,·,é,í,¯,Å,Í, ,è,Ü,¹,ñ[]B,»,ì,©,í,è,É[]CfCxf“fgfvf[]pfefB,Í“¯,¶[]Æ^,lfvf

%[]Cf[]x[]lf[]g,ÈflfufWfFfNfgftfB[]lf<fh,ðfvf[]pfefB,Æ,μ,ÄŽg—p,μ,Ü,·[]B

,±,lf[]fB[]lf<fh,ì-¼’O,í[]C’Èí[]Cfvf[]pfefB,ì-¼’O,ì[]æ“^a,É•¶ŽšF,ð%Á,ì,½-

¼’O,Æ,μ,Ü,·[]B,½,Æ,ì,î[]COnClick f[]f[]fbfh,lf[]fCf“f^,í TNotifyEvent []Æ^,ì FOnClick ,Æ,ç,±-

¼’O,lf[]fB[]lf<fh,ÉŠ“[³,è,Ü,·[]BOnClick fCxf“fgfvf[]pfefB,ì[]é[]Æ¾,ðŽÿ,ÉŽì,μ,Ü,·[]B

type

TControl = **class** (TComponent)

private

FOnClick: TNotifyEvent; { f[]f[]fbfhf[]fCf“f^,ðŽÛ—e,;éftfB[]lf<fh,ð[]é[]Æ¾ }

...

protected

property OnClick: TNotifyEvent **read** FOnClick **write** FOnClick;

end;

TNotifyEvent ,»,ì¹¼,lfCxf“fg[]Æ^,É,Å,ç,Ä,í[]CfCxf“fgfnf“fhf%oo,ì[]Æ^,ðŽQ[]Æ,μ,Ä,,¾,¾,ç[]B

,Ù,©,lfvf[]pfefB,ì[]é[]±,Æ“¯,¶,æ,±

,É[]CfCxf“fg,ì’l,íŽÀ[]sŽž,É[]ÿ’è,Ü,½,í•î[]X,Å,«,Ü,·[]B,½,¾,μ[]CfCxf“fg,ðfvf[]pfefB,Æ,·,éŽå—

v,È—~“_í[]CfRf“fj[]lf[]fgft[]lfU[][,^aÿ[]ÆvŽž,ÉflfufWfFfNfgfCf“fXfyfNf^,ÅfCxf“fg,Éfnf“fhf%oo

,ðŽw’è,Ä,«,é,±,Æ,Å,·[]B

ŽQÆ14198

fCxf"fg.lf[]fbfhf|fCf"f^,Å, .é

fCxf"fgfnf"fhf%o, \CE^

fCxf"fgfnf"fhf%o, |f|fvfvf#", Å, .é

fCxf"fgfnf"fhf%,ìCE^14199

žQ□Æ

fCxf"fg,lfCxf"fgfnf"fhf%,É'í,·,é|fCf"f^,È,ì,Å□CfCxf"fgfvf□fpfefB,ìCE^,í□□f□bfhf|
fCf"f^CE^,Å,È,·,ê,î,È,è,Û,¹ñ□B"~—l,É□CfCxf"fgfnf"fhf%,Æ,μ,ÄŽg—
p,³,ê,·,x,Ä,lfR□[fh,í□C"K□Ø,ÉCE^,ðŽ□,Åf|fufWfFfNfgf□f□bfh,Å,È,·,ê,î,È,è,Û,¹ñ□B

fCxf"fgfnf"fhf%,í,·,x,ÄŽè'±,«,Å,·□BCEÝŠ·□«,ì,½,β□C'è<,·,é|fCxf"fgfnf"fhf%
·,íffftfHf<fg,lfCxf"fgfnf"fhf%,Æ"~,¶□"□C"~,¶CE^,lfpf%□□[f^,ð□C"~,¶□#□~□C"~,¶·ú-
@,ÄŽó,~Žæ,ç,È,·,ê,î,È,è,Û,¹ñ□B

Delphi ·,·,x,Ä,ì·W□€fCxf"fg,É'í,μ,Äf□f□bfhCE^,ð'è<,μ,Ä,ç
·,Û,·□B"ÆŽ©,lfCxf"fg,ð□□~·,·,é□ê□#,í□CSù'¶,ìCE^,ª"K□Ø,È,ç,î,»,ê,ðŽg—p,Å,«,Û,·□B,»,ª
·,Ä,È,·,ê,î"ÆŽ©,ìCE^,ð'è<,μ,Û,·□B

fCxf"fgfnf"fhf%CE^,íŽè'±,«,Å, ,é

ŠÖ□",lf□□f□bfhf|fCf"f^CE^,ð□éCE¾,μ,Ä,àfRf"fpfCf%□,lfGf%□□[,ð"-
□¶,μ,Û,¹ñ,ª□CSÖ□",Å,lfCxf"fg,ð□^—□,μ,È,ç,Ä,-
,¾,³,ç□BSÖ□",ª<ó,í□ê□#□C·Ö,³,ê,éCE<%□È,í·s'è,È,ì,Å□C<ó,ìŠÖ□",Å, ,é,æ,ª,ÉfCxf"fgfnf"fhf%
·,í—LCEø,Æ,íCEÄ,è,Û,¹ñ□B,»,ì,½,β□C,·,x,Ä,lfCxf"fg,ÆfCxf"fgfnf"fhf%,íŽè'±,«,É,μ,Û,·□B

fCxf"fgfnf"fhf%,ðŠÖ□",É,·,é,±,Æ,í,Ä,«,Û,¹ñ,ª□Cvar fpf%□□[f^,ðŽg—
p,·,ê,íft□[fU□[,lfR□[fh,©,ç□î·ñ,ðŽæ"¾,Å,«,Û,·□B,±,ì□ê□#,í□C·K,·,fpf%□□[f^,É—
LCEø,É'í,ð'ä"ü,μ,Ä,©,ç,»,lfnf"fhf%,ðCEÄ,Ñ□o,·,æ,ª,É,μ,Ä,,¾,³,ç□B,»,ª,μ,È,ç
·,Æ□Cft□[fU□[,ª□í,É'í,ð□Ý'è,μ,È,·,ê,î,È,è,Û,¹ñ□B

fL□[,ª%□ÿ,³,ê,½,Æ,«,É□^—□,ð□s,ª TKeyPressEvent CE^,lfCxf"fgfnf"fhf%,Å,í□Cvar fpf
%□□□[f^,ðŽg—p,μ,Û,·□BŽŸ,ì,æ,ª,É TKeyPressEvent
·,Ä,í□C,ç,lf|fufWfFfNfg,ª,»,lfCxf"fg,ð□¶□~·,μ,½,©,ðŽ!,·,fpf%□□[f^,Æ□C,ç,lfL□[,ª
%□ÿ,³,ê,½,©,ðŽ!,·,fpf%□□[f^,ì 2 ,Å,ª'è<,³,ê,Ä,ç,Û,·□B

type

TKeyPressEvent = **procedure** (Sender: TObject; **var** Key: Char) **of object**;

'É□□CKey fpf%□□[f^,íft□[fU□[,ª%□ÿ,μ,½·¶Žš,ðŽ!,μ,Û,·□B,½,¾,μ□C□ê□#,É,æ,Å,Ä,lfRf"fl
□[f"fgft□[fU□[,ª,»,ì·¶Žš,ð·í□X,·,é,±,Æ,ª,·,è,Û,·□B,½,Æ,ì,í□CfGfffBf^,ì"ü—
í,Å,·,x,Ä,ì·¶Žš,ð'ä·¶Žš,É·íŠ,·,é□ê□#,Å,·□B,»,ê,É,í□CŽŸ,ì,æ,ª,ÉfL□["ü—í—p,lfnf"fhf%
·,ð'è<,Å,«,Û,·□B

procedure TForm1.Edit1KeyPressed (Sender: TObject; **var** Key: Char);

begin

Key := UpCase (Key);

end;

·,Û,½□Cvar fpf%□□[f^,É,æ,Å,Äft□[fU□[,ªffftfHf<fg,ì□^—□,ðf□[fo□[f%□Cfh,Å,«,·,é,æ,ª
·,É□ÝCEv,·,é,±,Æ,à%□Ä"\\,Å,·□B

ŽQÆ14200

fCxf“fg.Íf□fVbfhf|fCf“f^,Å, .é

fCxf“fg.Ífvf□fpfefB,Å, .é

fCxf“fgfnf“fhf‰,Íf|fvVf†f“,Å, .é

fCxf"fgfnf"fhf%o,lfvfVf" ,A, ,é14201

ŽQAE

fRf"fl[f]f"fg,lfCxf"fg,đ[]-.,é[]Ú,É[]CfRf"fl[f]f"fgft[]fU[][,afCxf"fg,Éfnf"fhf%o
,đCE<,Ñ•t, ,É,ç,±,Æ,ª, ,é,Æ,ç,±, ,đ[]-[]μ,È, ,é,Í,É,è,Û,¹,ñ[]B,Ä,Û,è[]CfRf"fl
[]f]f"fg,lf[]fU[][,ª"Á'è,lfCxf"fg,Éfnf"fhf%o,đCE<,Ñ•t, ,é,ì,đ-Y,è,½[]ê[]±,Ä,à[]CfRf"fl
[]f]f"fg,ª[]áŠQ,đ<N,±,μ,½,èfGf%o[],đ[]o,μ,½,è,μ,È,ç,æ,±,É, ,é•K-v,ª, ,è,Û,·[]B

fnf"fhf%o,ìCEÄ,Ñ[]o,μ,Æ[]Cfnf"fhf%o,ªCE<,Ñ•t, ,ç,è,Ä,ç,È,çfCxf"fg,ì[]^ -[],lf[]fjYf€É,Ä,ç
,Ä,Í[]CfCxf"fg,ìCEÄ,Ñ[]o,μ,Ä[]à-¾,μ,Û, ,ª[]C[]ä,ìCE'¥,lfRf"fl[f]f"fg,ÆfCxf"fg,ìYCEv,É, ,ç,Ä[]d
-v,È^Ó-i,đŽ[],Ä,Ä,ç,Û,·[]B

fCxf"fgfnf"fhf%o,ªlfvfVf" ,A, ,é,Æ,ç,±,Æ,É,Í[]C^È%o,ì 2 ,Ä,ì'±-È,ª, ,è,Û,·[]B

- fRf"fl[f]f"fgft[]fU[][,lfCxf"fg,đ[]^ -[], ,é•K-v,ª,È,ç
Windows fAfVfŠfP[]fVf" ,Ä,Í[]í,ÉfCxf"fg,ª[][]μ,Ä,ç,Û,·[]BfRf"fl[f]f"fg,đ%o;[]Ø,Ä,Äf}fEfXf|
fCf" f^ ,đ^Ú" @ ,³,¹,é,¾, ,Ä[]CWindows ,lfRf"fl[f]f"fg,É-³[] ,lf}fEfX^Ú" @f[]fbfZ[]fW,đ'—
,è[]o,μ[]CfRf"fl[f]f"fg,Í,» ,lf[]fbfZ[]fW,đ OnMouseMove fCxf"fg,É•İŠ ,μ,Û,·[]B,μ,©,μ'½,-
,ì[]ê[]±[]CfRf"fl[f]f"fgft[]fU[][,lf}fEfX^Ú" @fCxf"fg,đ[]^ -[],¹, ,C,» ,è,Ä-à'è,ª[][] ,é,±,Æ,à,
,è,Û,¹,ñ[]BfRf"fl[f]f"fg,lf}fEfXfCxf"fg,ª[]^ -[],³,è,é,±,Æ,đ"- ,Ä,É,μ,Ä,Í,ç,È,ç,©,ç,Ä,·[]B
" -—l,É[]C[]-., ,éRf"fl[f]f"fg,Ä,Í[]C[]-.,³,è,½fCxf"fg,ª•K, ,μ,àft[]fU[][,É[]^ -[],³,è,È,ç,±
,Æ,đ[]-[]μ,Û,·[]B
- fRf"fl[f]f"fgft[]fU[][,ÍŽ © —R,ÉfCxf"fgfnf"fhf%o,lfR[]fh,đ<L[]q,Ä,« ,é
^è"É,É[]Cft[]fU[][,afCxf"fgfnf"fhf%o,É<L[]q,Ä,« ,éR[]fh,É[]s-ñ,Í, ,è,Û,¹,ñ[]BDelphi fRf"fl
[]f]f"fgf%ofCuf%ofŠ,lfRf"fl[f]f"fg,lfCxf"fgfnf"fhf%o,Í[]Cft[]fU[][,lfR[]fh,É,æ,Ä,Ä
—\zŠO,lfGf%o[],ª"[] , ,é,æ,±,ÈŽ-Ô,ª,È,é,x,<N,« ,È,ç,æ,±,É<L[]q,³,è,Ä,ç
,Û,·[]BŠm,©,É[]Cft[]fU[][,fR[]fh,ì~ —[]Gf%o[],Í
%oñ"đ,Ä,« ,Û,¹,ñ[]B,μ,©,μ,½,Æ,Í,Í[]CfCxf"fg,ªCEÄ,Ñ[]o,³,è,é' O,É, ,x,Ä,lf[]f^[]'ç,ª[]%Šú
%o»,³,è,é,æ,±,É<L[]q,μ[]Cft[]fU[][,ª-³CEø,É[]i•ñ,đŽQAE,μ,È,ç,æ,±,É"z-[] , ,é,±,Æ,Í%oÄ\
,Ä,·[]B

ŽQÆ14202

fCxf“fg.Íf[]fbfhf|fCf“f^,Á.,é

fCxf“fg.Ífvf[]pfefB,Á.,é

fCxf“fgfnf“fhf%oo,ìE^

• Windows Firewall » 14203

ŽQAE

Delphi ,l, , x ,Ä, lRf"fgf[f<, íC, æ, Žg—p, ³, ê, é Windows fCxf"fg, ðE p³, µ, Ä, ç, Ü, ·B, » ,l, æ, x ,ÉfCxf"fg, ð•WfCxf"fg, ÆEÄ, Ñ, Ü, ·B•WfCxf"fg, l, , x, Ä, í•WfRf"fgf[f<, É'g, Ýž, Ü, ê, Ä, ç, Ü, , ³CffftfHf<fg, Å, í•WfCxf"fg, í **protected** ,É, É, Ä, Ä, ç ,é, ì, ÅCft[fU[, í•WfCxf"fg, Éfnf"fhf% , ðE<, Ñ•t, , ç, ê, Ü, ¹, ñB, µ, ©, µfRf"fgf[f<, ð[- , , éê[, íC, » , lRf"fgf[f<, lft[fU[, ³fAfNfZf X, Å, «, é, æ, x, É, , é, ±, Æ, í%oÅ" \, Å, ·B

•WfCxf"fg, ðfRf"fgf[f<, Å^— , , éê[, ÍŽŸ, ì 3 " _ , É, Ä, ç, Ä|—¶, µ, Ü, ·B

- •WfCxf"fg, Æ, í%o½, ©
- fCxf"fg, ðEöŠ], , é•û-@
- •WfCxf"fg, l^—•û-@, ì•iX

ŽQÆ14204

fCxf“fg,Æ,Í%½,©

“ÆŽ©,lfCxf“fg,l’è<

• Windows 14205

ŽQAE

Windows Windows
Windows Windows

Windows

Windows
Windows

OnClick OnDragDrop OnEndDrag OnMouseMove

OnDbClick OnDragOver OnMouseDown OnMouseUp

Windows
Windows

Windows

Windows
Windows

OnEnter OnKeyDown OnKeyPress

OnKeyUp OnExit

Windows
Windows

ŽQÆ14206

•W€fCxf“fg,ì^—•û-@,ì•ïX

fCxf“fg,ìEöŠ]

fCxf“fg,ì€öŠJ14207

ŽQÆ —á

•W€fCxf“fg,ì€^{3/4},íC,»è,É‘í%ž,;éfffbfh,Æ“—l,É **protected** ,É,È,Á,Ä,ç
,Ü,·BŽÄsŽž,Ü,½,íŸvŽž,É•W€fCxf“fg,đft[fU[,^afAfNfZfX,Å,«é,æ,æ
,É,·é,É,íC,»ìfCxf“fgfvfppfefB,đ **public** ,Ü,½,í **published** ,Æ,μ,ÄÄé^{3/4},μ,Ü,·B
fvfppfefB,đŽÀ€»•û-@,ìžw’è,È,μ,ÄÄé^{3/4},·é,ÆCfbbfh,ì•ŸifCxfç (fAfNfZfX\$€ä)
,^{3/4},^a•ìX,³,è,Ü,·B,±,ì•û-@,ÅCTcontrol ,Å’è<`³,è,Ä,ç,éft[fU[,É•\
Ž!,³,è,È,çfCxf“fg,đÄé^{3/4},μCft[fU[,^aŽg—p,Å,«é,æ,æ,É•ìX,Å,«Ü,·B

—á14208

fRf“f|[]f|f“fg,ì OnClick fCfxf“fg,ð[]ÝCEvŽž,ÉfAfNfzfx,Á,«,é,æ,α,É,·,é,É,í[]CfRf“f|
[]f|f“fg,ìCE^[]éCE¾,ÉŽŸ,ífR[]f|fh,ð<L[]q,μ,Û,·[]B

type

 TMyControl = **class** (TCustomControl)

 ...

published

property OnClick; { OnClick,ðf|fufWfFfNfgfCf“fXfyfNf^,Á[]^—[]%oÁ“\
 ,É,·,é }

end;

ŽQÆ14209

•W€fCxf“fg,Æ,í%½,©

•W€fCxf“fg,ì^–•û-@,ì•ïX

•W□€fCxf“fg,ì□^—□•û-@,ì•ï□X14210

ŽQ□Æ —á

fRf“fj□□lf“fgft□□fU□□,²fCxf“fg,Ö,ì
%ož“š,ð•ï□X,·,é,Æ,«,í□C<L□q,μ,½fR□□fh,ð,»),lfCxf“fg,ÉCE<,Ñ•t,¯,Ü,·□B,μ,©,μ□CfjXf^f€fRf“fj
□□lf“fg,ð□i□¬,μ,Ä,ç,é□ê□‡,í□C,±,ì•û-@,íŽg—p,Ä,«,Ü,¹,ñ□B,È,º,È,ç□CfRf“fj
□□lf“fgft□□fU□□[,ª,»),lfCxf“fg,ð□^—□,Ä,«,é,æ,α,É,μ,Ä,¨,•K—v,ª, ,é,©,ç,Ä,·□B

•W□€fCxf“fg,ì,»),ê,¼,ê,ª protected ,Æ,μ,Ä□éCE¾,³,ê,½f□□fbfh,ÄŽÀCE»,³,ê,Ä,ç,é,ì,±
,ì,½,β,Ä,·□B,±,lf□□fbfh,ðf□□fo□□f%ofCh,·,ê,í□C“à”,lfCxf“fg□^—□•û-@,ð•ï□X,Ä,«,Ü,·□B,»,±
,ÄCEp□³,μ,½f□□fbfh,ðCEÄ,Ñ□o,¹,í□CCE³,ì•W□€fCxf“fg□^—□,âft□□fU□□fR□□fh,Ä<L□q,³,ê,½□^—
□,ðŽÀ□s,Ä,«,Ü,·□B

CEp□³,μ,½f□□fbfh,ðCEÄ,Ñ□o,·□‡□~,ª□d—v,Ä,·□B^ê”Ê,É,í□CCEp□³,μ,½f□□fbfh,ð□Ä□%o
,ÉCEÄ,Ñ□o,μ,Ä□CfjXf^f}fCfY,ì‘O,Éft□□fU□□,lfCxf“fgfnf“fhf
%ofR□□fh,ðŽÀ□s,μ,Ü,·□BCEp□³,μ,½f□□fbfh,ìŽÀ□sCE<%oÊ,É,æ,Á,Ä,í□CfjXf^f}fCfY□^—
□,ðŽÀ□s,μ,È,ç,±,Æ,à,Ä,«,Ü,·□B,½,¾,μ□CCEp□³,μ,½f□□fbfh,ðCEÄ,Ñ□o,‘O,ÉfjXf^f}fCfY□^—
□,ðŽÀ□s,μ,½,ç□ê□‡,à, ,è,Ü,·□B,½,Æ,¡,í□CCEp□³,μ,½fR□□fh,²fRf“fj□□lf“fg,ì□ó‘Ô,É^Ê‘¶,μ,Ä,ç
,é□ê□‡,É□CfjXf^f}fCfY,μ,½fR□□fh,Ä□ó‘Ô,ð, ,ç,©,¶,β•ï□X,μ,Ä,¨,±,Æ,ª, ,è,Ü,·□B,±,ì,æ,α
,È□ê□‡,í□C□ó‘Ô,ð•ï□X,μ,½CEã,Éft□□fU□□fR□□fh,ðŽÀ□s,μ,Ä□Cft□□fU□□fR□□fh,ª•ï□X□ï,Ý,ì□ó‘Ô,ðŽ
Q□Æ,Ä,«,é,æ,α,É,μ,Ü,·□B

—á14211

ŠJ""t, ìfRf"fj[]fj"fg, Å[]CfNfŠfbfN, É%ž"š, , é•û-@, ð•ï[]X, , é, Æ, μ, Û, ·[]BfRf"fj
[]fj"fgft[]fU[][, Æ" , ¶•û-@, Å OnClick fCxf"fg, Éfnf"fhf%o, ðCE<, Ñ•t, , é, ©, í, è, É[]CŽÿ, ì, æ, x, É
Click fvf[]fefNfgf[]fbfh, ðfi[]fo[]f%ofCfh, μ, Û, ·[]B

```
procedure TMyControl.Click;  
begin  
  inherited Click; { fnf"fhf%o, ìCEÄ, Ñ[]o, μ, È, Ç•W[]€"l, È[]^—[], ðŽÀ[]s }  
  { , ±, ±, ÉfRf"fj[]fj"fgŠJ"ŽÖ, ìjfxf^f}fCfyfR[]fh, ð<L[]q }  
end;
```

ŽQÆ14212

•WÆfCxf“fg,Æ,Í%½,©

fCxf“fg,ÌEöŠ]

“ÆŽ©,lfCxf“fg,ì’è` 14213

ŽQÆ

,Ü,Á,½,□V,μ,†fCxf“fg,đ’è` , ,é,±,Æ,í□C,»,é,Ù,Ç’½,,í ,è,Ü,¹,ñ□B,æ,, ,é,ì,í□CŠù’¶,lfCxf“fg,ì^
—□•û-@,đ%ü—Ç, ,éfP□[fX,Å,·□B,μ,©,μ□C, ,éfRf“f□[flf“fg,É,Ù,©,lfRf“f□[flf“fg,Æ,í,Ü,Á,½,-
^Ù,È,é“@□,đ—^ , ,é□ê□‡,à ,è□C,»,ì□ê□‡,É,lfRf“f□[flf“fg,lfCxf“fg,đ□V,μ,’è` ,μ,Ü,·□B

fCxf“fg,đ’è` , ,éŽè□‡,ÍŽŸ,ì,Æ, ,è,Å,·□B

- fCxf“fg,ì”□¶
- fnf“fhf%oCE^,ì’è`
- fCxf“fg,ì□éCE³/₄
- fCxf“fg,ìCEÄ,N□o,μ

ŽQÆ14214

fCxf“fg,Æ,Í%½,©

•W€fCxf“fg,lŽÀE»

fCxf“fg,ì”□¶14215

ŽQ□Æ —á

,Ü, □C%½, fCxf“fg, ð”□¶, ³, ¹, é, ì, ©, Æ, ç, x-â'è, ð, , è, Ü, ·□B, ±, ì-â'è, í□C•W□€fCxf“fg, ì□^ —
□, Ā, ÍŠŒW, , è, Ü, ¹, ñ, Ā, μ, ½, ð□C“ÆŽ ©, ìfCxf“fg, ð'è<` , , é□ê□‡, É, í□|—¶, ·, é•K—v, ð, , è, Ü, ·□BfCxf
f“fg, É, æ, Ā, Ā, í“š, ì, í-¾””, Ā, ·□B, ½, Æ, ì, í□Cf}fEfXf{f^f“, ð%Ÿ, ³, è, ½, ±
, Æ, ðŽ|, ·fCxf“fg, í□Cf†□[fU□[. ðf}fEfX, ì□¶f{f^f“, ð%Ÿ, μ, Ā□CWindows , ðfAfvfŠfP□[fVf‡“, É
WM_LBUTTONDOWN f□fbfZ□[fW, ð'—, Á, ½, Æ, «, É”□¶, μ, Ü, ·□BfRf“f□[f“fg, í, ±
, ìf□fbfZ□[fW, ðŽó, ~Žæ, é, Æ MouseDown f□f\fbfh, ðÆĀ, Ñ□o, μ, Ü, ·□B MouseDown f□f\
fbfh, í□Cf†□[fU□[. ð OnMouseDown fCxf“fg, ÉÆ<, Ñ•t, ~, ½fR□[fh, ðÆĀ, Ñ□o, μ, Ü, ·□B
, μ, ©, μ□C, » , è, Ü, Ç-¾Šm, ÉŠO•”, ìŽ-□Ů, ÆÆ<, Ñ•t, ç, Ā, ç, È, çfCxf“fg, à, , è, Ü, ·□B, ½, Æ, ì, í□CfXfNf□
□[f◊o□[. ì OnChange fCxf“fg, í□CfL□[“ü—
í□Cf}fEfXfNfŠfbfN□C, Ü, ½, ì, Ü, ©, ìfRf“fgf□□[f◊, ì•ì□X, È, Ç, ³, Ü, ´, Ü, È□o—^Ž-, É, æ, Ā, Ā”-
□¶, μ, Ü, ·□BfCxf“fg, ð'è<` , , é□Ů, É, í□C, » , è, ¼, è, ì□o—^Ž-, ð“K□Ø, ÈfCxf“fg, ðÆĀ, Ñ□o, ·, æ, x, É”z—
¶, μ, Ü, ·□B

—á14216

ŽŸ,É□CWindows,ì WM_LBUTTONDOWN f□fbfZ□[fW,ð□^—□,·,é Tcontrol f□f\fbfh,ìŽg—p—
á,ðŽ!,μ,Ü,·□BDoMouseDown ,ífvf%ofCfx□[fg,É□éCE¾,¾,¾,¾f□f\fbfh,Á□C□¶□C%oE□C†
%o>,ìŠef{f^f“fNfŠfbfN,É‘í%ž,μ,Ä,ç,Ü,·□B,±,íf□f\fbfh,í Windows f□fbfZ□[fW,ífpf%of□□[f^,ð
MouseDown f□f\fbfh,É“K,μ,½‘l,É•İŠ·,μ,Ü,·□B

type

```
TControl = class (TComponent)
private
  FOnMouseDown: TMouseEvent;
  procedure DoMouseDown (var Message: TWMMouse; Button: TMouseButton;
    Shift: TShiftState);
  procedure WMLButtonDown (var Message: TWMLButtonDown); message
WM_LBUTTONDOWN;
protected
  procedure MouseDown (Button: TMouseButton; Shift: TShiftState;
    X, Y: Integer); dynamic;
end;
...
procedure TControl.MouseDown (Button: TMouseButton; Shift: TShiftState; X,
Y: Integer);
begin
  if Assigned (FOnMouseDown) then
    FOnMouseDown (Self, Button, Shift, X, Y); { CE<,Ñ•t,~ç,é,Ä,ç,éfnf“fhf%o
,ä,·,é□é□#,É,Í,»é,ðCEÄ,Ñ□o,· }
end;
```

```
procedure TControl.DoMouseDown (var Message: TWMMouse; Button:
TMouseButton;
  Shift: TShiftState);
begin
  with Message do
    MouseDown (Button, KeysToShiftState (Keys) + Shift, XPos, YPos); {
“@“lf□f\fbfh,ðCEÄ,Ñ□o,· }
end;
```

```
procedure TControl.WMLButtonDown (var Message: TWMLButtonDown);
begin
  inherited; { ffftfHf<fg,ì□^—□,ðŽÀ□s }
  if csCaptureMouse in ControlStyle then MouseCapture := True;
  if csClickEvents in ControlStyle then Include (FControlState,
csClicked);
  DoMouseDown (Message, mbLeft, []); { f}fEfXf{f^f“,¾%Ÿ,¾,¾,¾,Æ,«,ì“Ä—pf□A
fbfh,ðCEÄ,Ñ□o,· }
end;
```

2 Ží—p,ìfCxf“fg

□ó‘Ô,ì•ì□X,Æft□[fU□[,ì‘€□ì,Æ,ç,α 2 Ží—p,ì□o—^Ž—,É‘í,μ,ÄfCxf“fg,ð—p^Ó,μ,Ü,·□B,±,ì 2 Ží—
p,ì□o—^Ž—,ð□^—□,·,éŽd‘g,Ý,Í“~,¶,Ä,·,¾□C,»·,ì^Ó—;í□,μ^Ü,È,è,Ü,·□B

ft□[fU□[‘€□ì,É,æ,éfCxf“fg,í□CWindows ,©,ç,ìf□fbfZ□[fW,É,æ,Ä,Ä“¶,μ,Ü,·□B,±

,lfCfxf“fg,í^{1/2},,ìê□#□CfRf“fj□[lf“fg,°%ž“š,μ,È, -,ê,Î,È,ç,È,ç,æ,κ,Èft□[fU□[‘€□,°□s,í,ê,1/2,±
,Æ,đŽ!,μ,Ü,·□B,±,ê,É‘í,μ,Ä□C□ó‘Ô,ì•ï□X,É,æ,éfCfxf“fg,í□CftfH□[fjX,ì•ï□X,ì,æ,κ,È Windows
,©,ç,lf□fbfZ□[fW,É,æ,Á,Ä,à”□¶,μ,Ü,·,°□Cfvf□fpfefB,âfR□[fh,É,æ,é•ï□X,É,æ,Á,Ä,à”-
□¶,μ,Ü,·□B,ç,ì,æ,κ,ÈfCfxf“fg,đ‘è<` ,·,é,©,í□C‘S-Ê“l,ÉŠJ”ŽÒ,É,Ü,©,³,ê,Ä,ç,Ü,·□BfRf“fj
□[lf“fgft□[fU□[,°fCfxf“fg,ìŽg—p•û-@,đ,æ,—□%đ,Å,«,é,æ,κ,É^èŠÑ,μ,1/2“K□Ø,È‘è<` ,đ□s,Á,Ä,-
,^{3/4},³,ç□B

ŽQÆ14217

fnf"fhf%oCE^,l'è<`

fCxf"fg,ìéCE¾

fCxf"fg,ìCEÄ,Ño,μ

fnf“fhf%œ^,ì'è` 14218

žQ□Æ

fCxf“fg,ì”□¶•û-@,É,Á,ç,ÄCE^'è,μ,½,ç□CŽŸ,É,»,ìfCxf“fg,ì□^—□•û-
@,đ'è` ,μ,Ü,·□B,Ä,Ü,è□CfCxf“fg,ìCE^,đCE^'è,μ,Ü,·□B'½,,ì□ê□#□CSj”-
ŽÖ,â'è` ,μ,½fCxf“fg,ìfnf“fhf%œ,ì□CSÈ'P,È'É'm,đ□s,π
,à,ì,©fCxf“fg“ÆŽ©,ìCE^,đŽ□,Ä,à,ì,Ä,·□B,Ü,½□Cfnf“fhf%œ,©,ç□î•ñ,đŽæ“¾,·,é,±
,Æ,à,Ä,«,Ü,·□B

'P□f,È'É'm

'É'mfCxf“fg,Æ,ì□C“Á'è,ìfCxf“fg,â”□¶,μ,½,±,Æ,đ□□,°,é,¾,¯,ìfCxf“fg,Ä□C”-
□¶,μ,½Žžšú,â□ê□S,È,Ä,ç,Ä,ì'î'ì,È□î•ñ,Í”e,ç,Ü,¹,ñ□B'É'mfCxf“fg,É,Í TNotifyEvent CE^,đŽg—
p,μ,Ü,·□B TNotifyEvent ,ì□C—B^è,ìfpf%œ□□f^ ,Æ,μ,ÄfCxf“fg,ì”□¶CE³,đŽ□,Ä,¾,¯,Ä,·□B,±
,ì,½,β□C'É'mfCxf“fg,ìfnf“fhf%œ,â,»,ìfCxf“fg,©,ç“¾,ç,è,é□î•ñ,ì□C”□¶,μ,½fCxf“fg,ìŽí—
p,Æ□C,»,ìfCxf“fg,ì,ç,ìfRf“f□□f“fg,Ä”□¶,μ,½,ì,©,Æ,ç,π,±
,Æ,¾,¯,Ä,·□B,½,Æ,ì,ì□CfNfšfbfNfCxf“fg,ì'É'mfCxf“fg,Ä,·□BfNfšfbfNfCxf“fg,ìfnf“fhf%œ,Ä—
—p,Ä,«,é□î•ñ,ì□CfNfšfbfN,â”□¶,μ,½,Æ,ç,π,±,Æ,Æ□C,ç,ìfRf“f□□f“fg,âfNfšfbfN,¾,è,½,©,Æ,ç
,π,±,Æ,¾,¯,Ä,·□B

'É'm,ì'è•û'É'É's,Ä,·□B,½,Æ,ì,ì□CftfB□fhhfobfN,đ'ñ'Ÿ,μ,½,è□C'É'mfCxf“fg,ì,»,è^É□ä,ì□^—□,đ-
hž~ ,¾,¹,é,æ,π,Èf□fjfyf€,ì”ö,ì,Ä,ç,Ü,¹,ñ□B

fCxf“fg“ÆŽ©,ìfnf“fhf%œ

□ê□# ,É,æ,Ä,Ä,ì□C,ç,ìfCxf“fg,â,ç,ìfRf“f□□f“fg,É'í,μ,Ä”□¶,μ,½,©,Æ,ç,π□î•ñ,¾,¯,Ä,ì□
•â,Ä,ì,È,ç,±,Æ,â, ,è,Ü,·□B,½,Æ,ì,ì□CfL□[,â%œŸ,¾,è,½,±,Æ,đŽ!,·fCxf“fg,ì□ê□#□C,“,»,ç,fnf“fhf
%œ,ìft□fU□[,â,ç,ìfL□[,đ%œŸ,μ,½,ì,©'m,è,½,ç,ì, ,Ä,·□B,±,ì,æ,π,È□ê□# ,É,ì□CfCxf“fg,ÉŠÖ,·,é•K
—v,È□î•ñ,đfpf%œ□□f^ ,Æ,μ,ÄŠÜ,πfnf“fhf%œ,â•K—v,Ä,·□B

f□fbfZ□fW,É,æ,Ä,ÄfCxf“fg,â”□¶,μ,½□ê□# ,É,ì□C'½,,ì□ê□#f□fbfZ□fW,ìfpf
%œ□□f^ ,â,»,ì,Ü,ÜfCxf“fg,ìfnf“fhf%œ,É“n,¾,è,Ü,·□B

fnf“fhf%œ,©,ç,ì□î•ñ,đ•Ö,·•û-@

,·,×,Ä,ìfCxf“fgfnf“fhf%œ,ìžè±,«,È,ì,Ä□Cfnf“fhf%œ,©,ç□î•ñ,đ•Ö,·□ê□# ,ì var fpf%œ□□f^ ,đŽg
—p,μ,Ü,·□Bft□fU□[,ìfnf“fhf%œ,đŽÄ□s,μ,½CEä□C•Ö,¾,è,½□î•ñ,É,æ,Ä,Ä□CfCxf“fg,đ□^—
□,·,é•û-@,âfCxf“fg,đ□^—□,·,é,©,ç,π,©,đCE^'è,Ä,«,Ü,·□B

,½,Æ,ì,ì□C,·,×,Ä,ìfL□fCxf“fg (OnKeyDown, OnKeyUp, OnKeyPress) ,ì□Cvar fpf%œ□□f^
Key ,ÉfL□[,đŽ!,·'l,đ“n,μ,Ü,·□BfCxf“fgfnf“fhf%œ,Ä Key
,đ•í□X,·,é,Æ□CfAvfšfP□fVfšf“,ì,»,ì•í□X,¾,è,½'l,đŽó,¯žæ,è,Ü,·□B,±,ì,æ,π,È•û-
@,Ä□C,½,Æ,ì,ì“ü—ì,¾,è,½•¶žš,đ'â•¶žš,É•íš,Ä,«,Ü,·□B

ŽQÆ14219

fCxf“fg.ì”¶¶

fCxf“fg.ìéÆ¾

fCxf“fg.ìÆÄ,Ñ¶o,µ

fcxf“fg,ìéĒ¾14220

ŽQÆ

fcxf“fgfnf“fhf%o,ìĒ^,ðĒ^'è,μ,½,çCŽŸ,É,»|fcxf“fg,ìf\fbfhf|
fcf“f^,Æfvf\fpfefB,ðéĒ¾,μ,Û,·Bft[fU[,É,í,©,è,â,·,ç,æ,α,ÉCfcxf“fg,É,í,»|<@”\,ð·\
·,æ,α,Éà-¾“l,È-¼‘O,ð·t,·,Û,·B,È,é,×,·C“·,¶,æ,α,Éfcxf“fg,É,í^êŠÑ«|, ,é-
¼‘O,ð·t,·,Û,·B

uOnv,Ăžn,Û,éfcxf“fg-¼

Delphi ,ì·W€fcxf“fg,ì-¼‘O,í,·,×,ĂuOnv,Ăžn,Û,è,Û,·,ªC,±,ê,ìfRf“fpfCf%o
,É,Æ,Á,Ă·K{,Ă,í, ,è,Û,¹,ñBflfufWfFfNfgfCf“fXfyfNf^,íCfvf\fpfefB,ìĒ^,É,æ,Á,Ă,»|fvf\fpfef
B,ªfcxf“fg,©,Ç,α,©,ð”»'f,μ,Û,·B,·,×,Ă,ìf\fbfhf|
fcf“f^fvf\fpfefB,ìfcxf“fg,Æ,Ý,È,³,èCmEventsnfy[fW,É·Ž!,³,è,Û,·B
,½,¾,μCfRf“f|f|f“fgft[fU[,ìfcxf“fg,ÉuOnv,Ăžn,Û,éfAf<ftf@fxfbfg,ì-¼‘O,^a·t,ç,Ă,ç,é,±
,Æ,ÉŠμ,è,Ă,ç,Û,·B,»è^ÈŠO,ì-¼‘O,ðŽg—p,·,é,Æft[fU[,ª¬—,·,é%oA”\«,^a, ,è,Û,·B

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fCxf“fg.ì”□¶

fnf“fhf%oCE^,ì'è<`

fCxf“fg.ìCEÄ,Ñ□o,μ

fCxf“fg,ìĀÄ,Ñ□o,μ14222

ŽQ□Æ

^è”Ê,É□CfCxf“fg,ìĀÄ,Ñ□o,μ,í,Â,«,é,¾,¬□W’†,³,¹,Ü,·□B,Â,Ü,è□C%¼’zf□f\fbfh,đ 1
,Â□ì□¬,μ,Â□Cf†□[fU□[.ìfCxf“fgfnf“fhf%o,ª’¶□Ý,·,é□ê□‡,í,» ,ê,đĀÄ,Ñ□o,μ□C•K—
v,ËffftfHf<fg,ì□^—□,đ□s,ç,Ü,·□B

fCxf“fg,ìĀÄ,Ñ□o,μ,ª 1 %óÓŠ,Â□s,í,ê,Â,ç,ê,î□CŠJ” ,μ,½fRf“f|□[f|f“fg,©,ç□V,μ,çfRf“f|
□[f|f“fg,đ”h□¶,³,¹,é□ê□‡□CfCxf“fg,đĀÄ,Ñ□o,·□ê□Š,đ’T,·•%’S,ªĀyĀ,³,ê,Ü,·□B1 ,Â,ìf□f\
fbfh,đf|□[fo□[f%ofCfh,·,é,ê,î□CfCxf“fg,ì□^—□,đffXf^f}fCfY,Â,«,é,©,ç,Â,·□B

fCxf“fg,đĀÄ,Ñ□o,·□ê□‡,í□CŽŸ,ì 2 ,Â,ì,±,Æ,É,Â,ç,Ä,à□|—¶,μ,Ü,·□B

- <ó.ìfnf“fhf%o,à—LĀø,Â, ,é,±,Æ
- f†□[fU□[.ªffftfHf<fg,ì□^—□•ú-@.đf|□[fo□[f%ofCfh,Â,«,é,±,Æ

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fCxf“fg.ì”□¶

fnf“fhf%oCE^,ì'è<`

fCxf“fg.ì□éCE¾

<ó,lfnf“fhf%o,à—LCEø,Á, ,é,±,Æ14224

ŽQ□Æ —á

<ó,lfCxf“fgfnf“fhf%o,É,æ,Á,ÄfGf%o□[,a”□¶,·,é,±,Æ,ì,È,ç,æ,κ,É,μ,Ä,,¾,¾,ç□B,Ä,Ü,è□CfRf“fj
□[fj“fg,ì”@□ì,³ft□[fU□[.lfCxf“fgfnf“fhf%o,©,ç,ì“Á’è,ì%ž“š,É^É’¶,μ,È,ç,æ,κ,É,μ,Ä,-
,¾,¾,ç□B<ì“l,É,í□C<ó,lfnf“fhf%o,lfnf“fhf%o
,a,à,Æ,à,Æ’¶□Y,μ,È,ç□ê□‡,Æ“~,¶CE<%oÉ,ð,à,½,ç,·,æ,κ,É,μ,Ü,·□B
fRf“fj□[fj“fg,³ft□[fU□[,É’î,μ,Ä□C“Á’è,ì•û-@,Ä,ìŽg—p,ð—v<□,μ,È,ç,æ,κ,É,μ,Ü,·□BfRf“fj
□[fj“fgft□[fU□[,í□CfCxf“fgfnf“fhf%o,ì^—□,É,í□S-ñ,a,È,ç,à,ì,Æ□l,ì,Ä,ç,é,í,¯,Å,·□B

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<ó,lfnf“fhf%oo,íCfnf“fhf%oo,â,È,çêþ,Æ“~—l,É“®i,·,é,æ,æ,É,µ,Ü,·Bft[fU[,lfnf“fhf%oo,ðĀ,Ño,·fR[fh,íCŽŸ,ì,æ,æ,É,È,è,Ü,·B

```
if Assigned(OnClick) then OnClick(Self);  
{ ffftfHf<fg,ì^—,ðŽÀs }
```

ŽŸ,ì,æ,æ,ÈfR[fh,í<Lq,µ,È,ç,Å,,¾,¾,çB

```
if Assigned(OnClick) then OnClick(Self)  
else { ffftfHf<fg,ì^—,ðŽÀs };
```

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f†[fU[.³fftfHf<fg.ì^—•û-@,ðfi[fo[f%ofCfh,Å,«,é,±,Æ

ft [fU [, a f f t f H f < f g , i ^ - - • u - @ , ð f l [f o [[f % o f C f h , Å , « , é , ± , Æ 1 4 2 2 7

Ž Q Æ — á

, , é Ž í , l f C f x f “ f g , Å , í C f t [f U [, a f f t f H f < f g , i ^ - - • u - @ , ð ’ u , « Š , l , ½ , è C , · , x , Ä , l % o ž “ š , ð
— } Ž ~ , · , é é ê ÷ , a , , è , Ü , · B , » , è , ð % o Å “ \ , É , · , é , ½ , ß , É , í C f n f “ f h f % o , É **var** f p f
% o f [f ^ , ð “ n , μ , Ä C f n f “ f h f % o , © , ç • Ö , ³ , è , ½ ’ l , ð Æ Ÿ [, , μ , Ü , · B

, ± , l • u - @ , í C < ó , l f n f “ f h f % o , l f n f “ f h f % o , a ’ ¶ [Y , μ , È , ç [ê [÷ , Æ “ ^ , ¶ Æ < % o É , ð , à , ½ , ç , · , Æ , ç , x • u [j , Æ -
μ [, , μ , Ü , ¹ , ñ B < ó , l f n f “ f h f % o , Å , í **var** f p f % o f [f ^ , l ’ l , í • i [X , ³ , è , È , ç , ì , Å C < ó , l f n f “ f h f % o
, a Æ Ä , Ñ [o , ³ , è , ½ Æ ä , í C [í , É f f t f H f < f g , i ^ - - , a [s , í , è , Ü , · B

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fL[,ª%Ÿ,³,ê,½,±,Æ,ðŽ!,·fCxf“fg,ì^—□,Å,í□Cft□[fU□[,í var fpf%of□□[f^ Key ,Éfkf<•¶Žš
(#0) ,ðŸ'è,·,é,±,Æ,Å□CfRf“f|□[flf“fg,ìffftfHf<fg,ìfL□[“ü—í^—□,ð—}Ž~,Å,«,Ü,·□B,±
,ê,ðŽÀÆ»,·,éfR□[fh,íŽŸ,ì,Æ,“,è,Å,·□B

```
if Assigned(OnKeyPress) then OnKeyPress(Self, Key);  
if Key <> #0 then { ffftfHf<fg,ì^—□,ðŽÀ□s };
```

Windows f□fbfZ□[fW,ð^—□,·,é•K—v,ª, ,é,½,ß□CŽÀ□Ü,ìfR□[fh,í,±,ê,Æ,í□,μ^Ù,È,è,Ü,·,ª□CŠî-
{“l,È~_—□,í“~,¶,Å,·□BffftfHf<fg,Å,í□CfRf“f|□[flf“fg,ìft□[fU□[,ìfnf“fhf%o,ð (“¶Ÿ,·,é□ê□#,í)
CEÄ,Ñ□o,μ,Ä,©,ç□C•W□€,ì^—□,ðŽÀ□s,μ,Ü,·□Bft□[fU□[,ìfnf“fhf%o,ª Key
,Éfkf<•¶Žš,ðŸ'è,μ,½□ê□#,É,í□CfRf“f|□[flf“fg,í,»,ìffftfHf<fg^—□,ð□s,ç,Ü,¹,ñ□B

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ó,lfnf“fhf‰,à—LCEø,Å, ,é,±,Æ

fbfh, i - 14230

ŽQAE

fRf"fi"lfi"fg,lf"fbfh,íC,Ù,©,lfifufWfFfNfg,lf"fbfh,Æ"~,¶,Å,·BfRf"fi"lfi"fgf"fbfh,Æ,íCfRf"fi"lfi"fgfifufWfFfNfg,ì\`ç,É'g,Ýž,Û,è,½Žè±,«,âŠÖ",Å,·BSî-{"i,É,íCfRf"fi"lfi"fgf"fbfh,Ås,¡,é,±,Æ,É,Í%½,ìš-ñ,à, ,è,Û,¹ñB,½,¾,μCDelphi ,Å,Í•W€"i,Éf"fbfh,ðì-,·,é,½,ß,ì•û-@,^a,ç,,Å,©'è,ß,ç,è,Å,ç,Û,·B

fRf"fi"lfi"fgf"fbfh,ìŠ",É,Å,ç,Ä^È%º,ì,±,Æ,ðà-¾,μ,Û,·B

- 'ŠCEÝ^È'¶,ð"ð,_,é
- fbfh,ì-½-¼
- fbfh,ì•ÛCEì,ìY'è
- %¼'zf"fbfh,ìì-
- fbfh,ìéCE¾

^è"È,ÉCfRf"fi"lfi"fg,ðŽg—p,·,é,½,ß,Éft[fU[,ªCEÄ,Ño,³,È,~,è,Î,È,ç,È,çf"fbfh,ì",íC,Å,«,é,¾,_,È,,μ,Û,·B,Û,½CSJ"ŽÖ,ªf"fbfh,Æ,μ,ÄŽÀCE»,μ,æ,α,Æì,¡,é<@"\,ì'½,-,íC,½,ç,Å,ç,ìê"fvf"pfefB,Éjfvfzf<%º»,Å,«,Û,·Bfvf"pfefB,ðŽg—p,·,è,Î Delphi ŠÂ<«,É"K,μ,½fCf"fi"lfi"fgf"fbfh,ìì-,³,èCft[fU[,ìYCEvŽž,Éfvf"pfefB,ð'€ì,Å,«,Û,·B

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fRf“f|□[flf“fg□i□□□,ìŠT—v

fRf“f|□[flf“fgŠ]”ŽÒ,ì,½,β,ì OOP

fvf□fpfefB,ì□i□□□

fCxf“fg,ì□i□□□

fRf“f|□[flf“fg“à,ìfOf%oftfBfbfN,ìŽg,ç•û

f□fbfZ□[fW,ì□^—□

fRf“f|□[flf“fg,ì“o~^

'ŠŒÝ^Ě'ŋ,đ"đ,~,é14232

ŽQÆ

fRf"j[f]f"fg,đŽg—p,·,éŮ,ì'O'ňđŒ,ª½,,È,é,ÆŮCfRf"j[f]f"fgft[f]Ů[,É•
%oS,ª,©,©,è,Û,·BfRf"j[f]f"fgft[f]Ů[,ªRf"j[f]f"fg,É'í,μ,ÄŮC,ç,Ä,Ä,à,ç,ì,æ,π,È,±
,Æ,Ä,à[s,ì,é,æ,π,ÉfRf"j[f]f"fg,đŮÝŒv,μ,Û,·B,±,ìŒ'¥,ÉŮ],ì,È,çŮêŮ,à, ,è,Û,·ªŮC,Ä,«,é,¾,~
,±,ìŒ'¥,É<β,Ä,,±,Æ,đ-Ú•W,Æ,μ,Û,·B

'ŠŒÝ^Ě'ŋ,đŮμ,,æ,π,ÈfŮfŮbfh,đ,·,x,Ä'ňŽì,·,é,±,Æ,í•s%oÄ"Ů,Ä,,ªŮC'ã•\“l,È—á,đ^Ě
%oº,ÉŽì,μ,Û,·B

- ft[f]Ů[,ªRf"j[f]f"fg,đŽg—p,·,é,Æ,«,É•K,ŮŒÄ,ŮŮo,ª,È,~,è,ì,È,ç,È,çfŮfŮbfh
- "Á`è,ìŮŮ~,ÄŒÄ,ŮŮo,ª,È,~,è,ì,È,ç,È,çfŮfŮbfh
- , ,éfCxf"fg,âfŮfŮbfh,ª-ªŒø,É,È,éŮó'Ů,âf,Ůfh,đŮμ,fŮfŮbfh

'ŠŒÝ^Ě'ŋ,ª, ,éŮêŮŮC•s"KŮø,ÈŮó'Ů,©,çŠmŽÄ,É"²,ŮŮo,¹,é•û-@,đ—p^Ó,μ,Û,·B,½,Æ,ì,îŮC, ,
éfŮfŮbfh,ìŒÄ,ŮŮo,μ,ªRf"j[f]f"fg,ìŮó'Ů,đ•ï%o»ª,¹ŮC,»ìŮó'Ů,Ä,í,Û,©,ìfŮfŮbfh,ìŒÄ,ŮŮo,μ,ª-
ªŒø,Æ,È,é,æ,π,ÈŮêŮŮ,É,ìŮŮó'Ů,đŮŮª,·,é,½,β,ì•É,ìfŮfŮbfh,đ—p^Ó,μ,Ä,~,"«,Û,·BŮ,È,-
,Æ,àŮŮft[f]Ů[,ª-ªŒø,ÈfŮfŮbfh,đŒÄ,ŮŮo,μ,½ŮêŮŮ,É—áŠO,ªŮŮŮ-ª,ª,è,é,æ,π,É,μ,Ä,~,"«,Û,·B
—áŠO,É,Ä,ç,Ä,ìŮwft[f]Ů[,fYfKfCfhŮxæ,VìŽQÆ,μ,Ä,,¾,ª,çŮB

,Ä,Û,èŮŮŮfŮfh,ìŠe•"ª,ª'ŠŒÝ,É^Ě'ŋ,·,éŮêŮŮ,É,ìŮC,»ìfŮŮfh,ªŠÔ^á,Ä,½•û-@,ÄŽg—
p,ª,è,Ä,àŮŮft[f]Ů[,ª-ª`è,đ•ø,ìŮž,Û,È,ç,æ,π,É"z—Ů,μ,Û,·Bft[f]Ů[,ªRf"j
ŮŮf"fg,ì'ŠŒÝ^Ě'ŋŠŒŒW,É"z—Ů,μ,È,©,Ä,½ŮêŮŮ,Ä,àŮŮŮf%oŮbŮfŮf...·,é,ì,Ä,í,È,-
ŒxŮŮŮfŮbŮfŮŮŮŮŮŮ,đ•\Žì,·,é,È,ç,ì•û-@,đŮì,è,Û,·B

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f\bfbfh,ì-½-¼

f\bfbfh,ì•ÚĈì,ìŸ'è

%o¼'z\bfbfh,ìi-

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fbfbfh, i-1/2-1/4 14234

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Delphi ,Ä, íCf\fbfh,âfpf%of[f^,É•t,¯,é-¼'O,Éš-ñ,í, ,è,Ü,¹,ñB,µ,©,µC,ç,,Ä,©,ì-½-¼<K'¥,É],,íCfRf"f[fif"fgft[fU[,É,Æ,Ä,Ä,í,©,è,â,·,çfbfbfh,ðì¬,Ä,«,Ü,·BŠJ",µ,½fRf"f[fif"fg,³L,Žg-p,³,è,é,©,Ç,κ,©,íCfRf"f[fif"fg,ìÝÆv,É,©,©,Ä,Ä,ç,Ü,·B

Ž©•Ž©g,â¬,³,ÉfOf<[fv"à,ÄŽg-p,·,éfR[fh,ðŠJ",·,éê±,íC-½-¼•û-@,É,Ä,ç,Ä,í,»,è,Ü,Çl-¶,µ,É,ç,©,à,µ,ê,Ü,¹,ñB,µ,©,µC,»,ìfR[fh,É•s^Ä"à,ÈC,Ü,½,í,»,à,»,àfR[fffBf"foŽ©'ì,É•s^Ä"à,Èft[fU[,É,æ,Ä,ÄŽg-p,³,è,éfRf"f[fif"fg,ðŠJ",·,éê±,íCf\fbfh,É-¾Šm,È,í,©,è,â,·,ç-¼'O,ð•t,¯,é,±,Æ,²â∅,Ä,·B

fbfbfh,É,í,©,è,â,·,ç-¼'O,ð•t,¯,é•û-@,ð^È%º,ÉŽ,µ,Ü,·B

- à-¾"l,È-¼'O,É,·,é
PasteFromClipboard ,ì,æ,κ,È-¼'O,íCPaste ,â PFC ,ì,æ,κ,È'Z,ç-¼'O,æ,è,à,í,é,©,É,í,©,è,â,·,ç-¼'O,Ä,·B
- Žè'±,«,É,í"®ì,ð•\,·-¼'O,ð•t,¯,é
Žè'±,«,ì-¼'O,É,íC"®ì,ð•\,·"®ŽÆ,ðŽg-p,µ,Ü,·B,½,Æ,í,íCReadFileNames ,í DoFiles ,æ,è,í,é,©,É,í,©,è,â,·,ç-¼'O,Ä,·B
- ŠÖ",É,í•Ö,·l,ð•\,·-¼'O,ð•t,¯,é
fvf[fOf%of}-{[l,É,Æ,Ä,Ä,íCX ,Æ,ç,κ-¼'O,ìŠÖ",³...½•ûÆü,ì^É'u,ð•Ö,·,±,Æ,í-¾'",©,à,µ,ê,Ü,¹,ñ,³CGetHorizontalPosition ,ì,æ,κ,È-¼'O,É,·,é,íC,·,×,Ä,ìft[fU[,³-¼%ð,Ä,«,Ü,·B

ÄÆä,ÉC,»,ìfbfbfh,³-{ "-,É•K-v,©,Ç,κ,©Äl,µ,Ü,·Bfbfbfh-¼,É"®ŽÆ,³ü,Ä,Ä,ç,é,©,Ç,κ,©,ÄC,»,ì"»'f,³%Ä"\,Ä,·B-¼'O,É"®ŽÆ,³ü,Ä,Ä,ç,É,çfbfbfh,ð"½,-ì¬,µ,½ê±,íC,»,ìfbfbfh,ðfvf\pfefB,ÄŽÀÆ»,Ä,«,È,ç,©,Ç,κ,©l-¶,µ,Ü,·B

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‘ŠCEÝ^Ě“ŕ,đ”đ,-,é

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%o¼‘zfñfbfh,ìiñ-

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ftfB [f<fh C f

fbfh Cfvf p p f e f B, È, Ç, ð Š Ü, ß C f i f u f W f F f N f g, ð Š e • " • a, É, Í • Ú C e i f C e f x f <, ð Ý' è, Å, «, Ü, · B, ±, ð, É, Å, ç, Ä, Í C f A f N f Z f X, ð S C E ä, Å à - 3/4, µ, Å, ç, Ü, · B, , é f f f b f h, É' Í, µ, Å • Ú C e i f C e f x f <, ð' ð, ·, é, ð, Í — e ^ Ö, Å, · B

^ è " È, É, Í C f R f " f | [f l f " f g, É < L q, ·, é f f f b f h, Í **public** , © **protected** , ð, Ç, ç, ©, É, µ, Ü, · B, 1/2, 3/4, µ — á Š O, Æ, µ, Ä C f v f p p f e f B, ð Ž Å C e >, ·, é f f f b f h, Í, É **private** , É, µ, Ü, · B, ±, è ^ È Š O, Å, Í C f f f b f h, ð **private** , É, ·, é, ±, Æ, Í, Ü, Æ, ñ, Ç, , è, Ü, 1, ñ B **private** , É, ·, é, ð, Í C f f f b f h, a, » , ð R f " f | [f l f " f g, É " Á — L, ð, à, ð, Å C " h q, µ, 1/2 f R f " f | [f l f " f g, ©, ç, ð f A f N f Z f X, 3, ! < Ö Ž ~, ·, é, æ, x, È è è †, Å, · B

f f : ^ è " È, É C f C f x f " f g f n f " f h f % o ^ È Š O, ð f f f b f h, ð **published** , Æ, µ, Ä é C E 3/4, ·, é — — R, Í, , è, Ü, 1, ñ B f t [f U [, É, Æ, Å, Ä, Í C **published** , Æ, µ, Ä é C E 3/4, µ, 1/2 f f f b f h, Í **public** , Æ, µ, Ä é C E 3/4, µ, 1/2 f f f b f h, Æ " ~ , q, Å, · B

public , É, ·, é f f f b f h

protected , É, ·, é f f f b f h

private , É, ·, é f f f b f h

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‘ŠCEÝ^Ě‘ŕ,đ”đ,̄,é

fñfbfh,ì-½-¼

%o¼‘zfñfbfh,ìiñ

fñfbfh,ìéCE¾

public ,É,·,éf fbfh14238

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fRf“f|□[f|f“fgft□[fU□[,ªCEÄ,Ñ□o,·f□\fbfh,í,·,×,Ä public ,Æ,μ,ÄéCE¾,μ,Ü,·□Bf□\fbfhCEÄ,Ñ□o,μ,ì¹²,,ÍfCxf“fgfnf“fhf%o,Å”□¶,μ,Ü,·□B,μ,½,ª,Á,Ä□Cf□\fbfh,ªfVfXfefēfŠf□[fX,ð“Æ□è,μ,½,è□CWindows ,ðft□[fU□[,É%ož“š,Å,«,È,ç,æ,π,È□ó’Ô,É,·,é,±,Æ,í“K□Ø,Å,í, ,è,Ü,¹,ñ□B

f□f,: fRf“fXfgf%ofNf^,ÆfffXfgf%ofNf^,í□C□í,É public ,É,μ,Ü,·□B

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protected ,É, :éf\fbfh

private ,É, :éf\fbfh

protected ,É,·,éf□f\fbfh14240

ŽQ□Æ

fRf“f|□[flf“fg,ì“à•”,ÅŽg—p,·,éf□f\fbfh,í□C,·,×,Ä **protected** ,É,μ,Ü,·□B,»
,·,ê,í□Cft□[fU□[^aCEè,Á,Ä,»^a,ìf□f\fbfh,ðCEÄ,Ñ□o,·,±,Æ,ð-hŽ~^a,Ä,«^a,Ü,·□B**protected**
,Æ,μ,Ä□éCE^{3/4},μ,½f□f\fbfh,í□Cft□[fU□[fR□[fh,©,ç,íCEÄ,Ñ□o,¹,Ü,¹,ñ,^a□C
%oo^a^ÊflfufWfFfNfg,©,ç,íCEÄ,Ñ□o,¹,Ü,·□B

,½,Æ,ì,í□C^è'è,ìff□[f^^a□Ý'è,³,ê,Ä,ç,é,±,Æ,ð'O'ñ,Æ,·,éf□f\fbfh,^a, ,é,Æ,μ,Ü,·□Bf□f\fbfh,
ðfpfufŠfbfN,É□Ý'è,μ,½□ê□#,í□Cff□[f^^a□Ý'è,³,ê,é'O,Éft□[fU□[^a,»^a,ìf□f\fbfh,ðCEÄ,Ñ□o,
%ooÄ“\□«^a, ,è,Ü,·□B,±,ê,É'í,μ,Ä□Cf□f\fbfh,ðfvf□fefNfg,É□Ý'è,μ,½□ê□#,í□Cft□[fU□[^a,í,»^a,ìf□f\fbfh,
ð'¼□ÚCEÄ,Ñ□o,¹,Ü,¹,ñ□B“Á'è,ì□ó'Ô,ð'O'ñ,Æ,·,éf□f\fbfh,ífvf□fefNfg,Æ,μ,Ä□éCE^{3/4},μ□C,Ü,©,ìfpfufŠfbfN,Éf□f\fbfh,Å, ,ç,©,¶,ßff□[f^^a,ð□Ý'è,μ,Ä,©,ç,
»^a,ìfvf□fefNfgf□f\fbfh,ðCEÄ,Ñ□o,·,æ,α,É,μ,Ü,·□B

ŽQÆ14241

public .É.éf\fbfh

private .É.éf\fbfh

private ,É,·,éf ffbfh14242

ŽQÆ

fvf fpfefB,đŽÀ'•,·,éf ffbfh,íCí,Évf
%ofCfx ffg,ÉY'è,μ,Ä,¨,«,Ü,·Bfvf fpfefB,ìff f^,đ'€ì,·,éf f
fbfh,íCft fU[,É,æ,Ä,ÄĀ,Ño,³,ê,é,±,Æ,í,È,ç
,©,ç,Å,·Bft fU[,íCfvf fpfefBŽ©'ì,Ö,ìfAfNfZfX,đ,Æ,¨,μ,Ä,ì,ÝCfvf fpfefB,ìff f^,đ'€ì,Å,«,
Ü,·Bfvf fpfefB,đpfufŠfbfN,É,μCfvf fpfefB,ìŽÀ'•f ffbfh,đfvf%ofCfx ffg,É,·,é,±
,Æ,ÅC,»,ê,^a·UØ,³,ê,Ü,·B
,»,ê,Å,àC%o^ÊfufWfFfNfg,^a,±,μ,½f ffbfh,ìŽÀ'•,đf fof f%ofCfh,·,é,±
,Æ,í,Å,«,Ü,·B,»,ìê f,íCfvf fpfefB,đŽÀ'•,·,éf ffbfh,đf fof f%ofCfh,·,é,ì,Å,í,È,-
CCep³,μ,½fvf fpfefB,ì'í,Éfvf fpfefBŽ©'ì,đ,Æ,¨,μ,ÄfAfNfZfX,·,é,æ,μ,É,μ,Ü,·B

ŽQÆ14243

public ,É, :éf\fbfh

protected ,É, :éf\fbfh

¼'zfbfh,ìì-14244

ŽQÆ

Delphi fRf“f|□[f|f“fg,ì¼'zfbfh,íC,Ù,©,ìfufWfFfNfg,ì¼'zfbfh,Æ““,¶,Á,·B
¼'zfbfh,Á,íC“^è,ìfbfhÆÄ,Ño,μ,É,æ,Á,ÄC,³,Ü,‘,Ü,ÈfufWfFfNfgÆ^,ÉÆÄ—
L,ìR□[fh,ðŽÄs,³,¹,é,±,Æ,ª,Á,«,Ü,·B

ft□[fU□[.É,æ,Á,Ä¼ÚŽg—p,³,è,éfRf“f|□[f|f“fg,Á,íC,½,ç,Ä,ç,ìè±,·,×,Ä,ìfbfh,íÄ“lf□
fbfh,ÄŽÀ‘•,Á,«,Ü,·B,μ,©,μCfRf“f|□[f|f“fgŠj”ŽÒ,É,æ,Á,Ä”h□¶C³,Æ,μ,ÄŽg—p,³,è,éfRf“f|
□[f|f“fg,ì,æ,π,É,æ,è’S□Ú“l,ÈfRf“f|□[f|f“fg,Á,íCf□fbfh,ð¼'zfbfh,Æ,μ,ÄŽÀ‘•,·,é,±,Æ,ð□
—¶,μ,Ü,·B¼'zfbfh,ðŽg—p,·,é,íC,»,ìfRf“f|□[f|f“fg,©,ç”h□¶,³,é,½fRf“f|
□[f|f“fg,ÁCCEp³,μ,½¼'zfbfh,ðf□[fo□[f%fcfh,Á,«,Ü,·B

ŽQÆ14245

‘ŠŒÝ^Ě“ŕ,đ”đ,̄,é

f∏\fbfh,ì-½-¼

f∏\fbfh,ì•ŪŒì,ìŕÝ’è

f∏\fbfh,ìŕéŒ¾

fjfbfh, àé¾14246

ŽQÆ —á

fRf“f|f|f“fgfjfbfh, àé¾•û-@, íC^è”Ê, lfufWfFfNfgfjfbfh, àé¾•û-@, Æ“”, ¶, Å, ·B

fRf“f|f|f“fg, ÉV, µ, çfjfbfh, ðé¾, ·, éŽè‡, ÍŽŸ, ì, Æ, “, è, Å, ·B

- fRf“f|f|f“fg, lfufWfFfNfg^é¾, Éé¾, ð’Ç%Á, ·, é
- fRf“f|f|f“fg, lftfjfbfg, l**ŽÆ**»•”, Åfjfbfh, ðŽÀ’•, ·, é

—á14247

2 ,Á,ì□V,μ,¢f□f\fbfh (□Ã“lfvf□fefNfgf□f\fbfh,Æ%¼'zfpufŠfbfNf□f\fbfh) ,ð'è<' ,.éRf“f|
□[ff“fg,lfR□[fh—á,ðŽŸ,ÉŽ!,μ,Û,:□B

type

TSampleComponent = **class**(TControl)

protected

procedure MakeBigger; { □Ã“lfvf□fefNfgf□f\fbfh,ð□éÉ¾¾¾¾ }
}

public

function CalculateArea: Integer; **virtual**; { %¼'zfpufŠfbfNf□f\fbfh,ð□éÉ¾¾¾¾ }
}

end;

...

implementation

...

procedure TSampleComponent.MakeBigger; { □Ã“lfvf□fefNfgf□f\fbfh,ðŽÀ'• }
}

begin

Height := Height + 5;

Width := Width + 5;

end;

function TSampleComponent.CalculateArea: Integer; { 2 "Ô-Û,lf□f\fbfh,ðŽÀ'• }
}

begin

Result := Width * Height;

end;

ŽQÆ14248

‘ŠŒÝ^Ě“ŕ,đ”đ,̄,é

f∏∆fbfh,ì-½-¼

f∏∆fbfh,ì•ŪŒì,ìŶ’è

%o¼’z∏∆fbfh,ìi∏-

fRf“fj□[fjf“fg,É,“, -,éfof%oftfBfbfN,ìŽg,č•û14249

ŽQ□Æ

Windows ,Á,í□CfffofCfX,É^È‘¶,μ,È,čfof%oftfBfbfN,đ□□□-,·,é,½,β,É□C<-í,Èfof
%oftfBfbfNfffofCfXfCf“f^□[ftfF□[fX (GDI) ,ª’ñ<Ÿ,³,è,Ä,č,Ü,·□B,½,¾,μ□Cfvf□fof%of},ª GDI ,đŽg
-p,·,é□è□‡,í□Cfof%oftfBfbfNfŠf□[fX,ìŠÇ-□,È,Ç□□“½,,ì□ì<Æ,ª”º,č,Ü,·□B,» ,ìCE<%oÉfvf□fof%of}
,í□C-{ -^ ,ì-U“l,Á, ,éfof%oftfBfbfN,ì□□□-,Á,í,È,č□ì<Æ,É’½,,ìŽŽŠÔ,đ”i,â,·,±,Æ,É,È,è,Ü,·□B

Delphi ,íŠj”ŽÒ,É,©,í,Á,Ä□CGDI ,ìŽg-p,É”º,ª’p<ü,È□ì<Æ,đ,·,×,Ä□s,č,Ü,·□B,» ,ì,½,βŠj”-
ŽÒ,í□CCE©Ž, ,Á,½fnf“fhf<,â-č%ođ•ú,ìfŠf□[fX,È,Ç,É,í, ,ç,í,³,è,é,±,Æ,à,È,-
□C□¶ŽY“l,È□ì<Æ,ÉŽŽŠÔ,đ”i,â,¹,Ü,·□BDelphi ,ª-³-;Š£‘‡,È□ì<Æ,đ□^ -□,·,é,ì,Á□CŠj”-
ŽÒ,í□¶ŽY“l,Á’n’č“l,È□ì<Æ,É□è”O,Á,« ,Ü,·□B

•K-v,È,ç,í□CDelphi fAfvfŠfP□[fvf‡f“ ,í Windows API ,ì,Ç,ì GDI
ŠÖ□” ,Á,à’¼□ÚCEÄ,Ñ□o,¹,Ü,·□B,μ,© ,μ□CDelphi ,ífof
%oftfBfbfNŠÖ□” ,đjfvfZf<%o» ,μ□C,í,é,© ,É□¶ŽY“l,Èfof%oftfBfbfN□□□-•û-@,đ’ñ<Ÿ,μ,Ü,·□B

Delphi ,Á,ífof%oftfBfbfN□^ -□,É,Á,č,Ä□d-v,È□€-Ú,đ^È%oº,ÉŽ!,μ,Ü,·□B

- [Delphi fOf%oftfBfbfN,ìŠT-v](#)
- [fLfff“fofX,ìŽg.č•û](#)
- [%oæ’oe,ìŽg.č•û](#)
- [fiftfXfNfŠ□\[f“frfbfgf}fbfv](#)
- [•í□X,Ö,ì%oŽ“š](#)

ŽQÆ14250

fRf“f|□[f|f“fg□ì□□¬,ìŠT—v

fRf“f|□[f|f“fgŠ]”ŽÒ,ì,½,β,ì OOP

fv□fpfefB,ì□ì□□¬

fCxf“fg,ì□ì□□¬

f□f□bfh,ì□ì□□¬

f□fbfZ□[fW,ì□^—□

fRf“f|□[f|f“fg,ì“o~^

Delphi fOf%oftfBfbfN,iŠT—v14251

ŽQAE —á

Delphi ,Á,íCWindows GDI ,ª,ç,,Á,©,lfCfxfç,ÁfjfvfZfç%o»ª,è,Ä,ç,Ü,·BfRf“f|[]f|f“fgŠJ”-
ŽÖ,É,Æ,Á,Äd—v,È,ì,íCfRf“f|[]f|f“fg,ª,ç,ì,æ,æ,É,µ,Ä%æ-É,ÉfCf[]fW,ð·\Ž!,·,é,©,Æ,ç,æ,±
,Æ,Á,·BGDI ŠÖ”,ð¼ÜCEÄ,Ño,·ê#É,íC,Ü,·ffofCfXfRf“fefLfxfg,lfnf“fhfç,ª•K—
v,Á,·BffofCfXfRf“fefLfxfg,É,íCfyf“Cfuf%ofV[]CftfHf“fg,È,ç,ì½—l,È·`
%æfc[]fç,ð'í'ð,µ,Ä,“,«,Ü,·BfOf%oftfBfbfNfCf[]fW,ð·`
%æ,µ,½CEä,íC”jŠü,·,é'Ö,ÉffofCfXfRf“fefLfxfg,ðCE³,ìó'Ö,É•æCE³,µ,Ä,“,©,È,·,é,Î,È,è,Ü,¹,ñ
B

Delphi ,Á,íC,»æ,µ,½x,©,ç^—,í•K—v, ,è,Ü,¹,ñBDelphi ,lfRf“f|[]f|f“fg,É,íCfOf
%oftfBfbfN—p,ì'P[]f,ÁŠ®”ö,µ,½fCf“f^[]ftfF[]fX[]C,Ä,Ü,è Canvas
fvf[]fpfefB,ª, ,è,Ü,·BfLfff“fofX,íC—LCEø,ÈffofCfXfRf“fefLfxfg,ð—p^Ó,µCŽg—
pCEä,É,í,»,lfffofCfXfRf“fefLfxfg,ð%ð•ú,µ,Ü,·B,Ü,½fLfff“fofX,íCCE»Ý,lfyf“Cfuf
%ofV[]CftfHf“fg,ðŽ!,·ÆŽ©,lfvf[]fpfefB,ðŽ,Á,Ä,ç,Ü,·B

fLfff“fofX,ª,·, x,Ä,lfŠf[]fX,ðŠJ”ŽÖ,É,©,í,Á,ÄŠç—,·,é,ì,Á[]CSJ”-
ŽÖ,lfyf“fnf“fhfç,È,ç,ì[]—[]C'I'ð[]C%ð•ú,É<C,ðŽg,æ•K—v,ª,È,,È,è,Ü,·BŽg—p,·,éfyf“ ,ìŽí—
p,ðfLfff“fofX,ÉŽwŽ!,µ,Ä,“,·,îC,»,ìCEä,ì[]æ,lfLfff“fofX,ª^—,µ,Ü,·B

Delphi ,lfŠf[]fX,ðCEä,ìŽg—p,É”ö,!,ÄfLffbfVf...,É“ü,é,Ä,“,·,ì,Á[]CCEJ,è•Ö,µ[]s,æ^—
[],lfXfs[]fh,ª'á,«,CEü[]ä,µ,Ü,·B,±,è,à[]CfOf%oftfBfbfNfŠf[]fX,ìŠç—,ð Delphi ,É”C,¹,é,±
,Æ,ìCEø%é,Á,·B,½,Æ,!,îC, ,éfyf“fc[]fç,ðCEJ,è•Ö,µ[]—,µCŽg—p,µC”jŠü,·,éfvf[]fOf%of€
,ì[]ê#[]C,»,lfç[]fç,ðŽg—p,·,é,½,Ñ,É““,¶Žè[]#,ðCEJ,è•Ö,µ,Ü,·B^è•ú[]CDelphi
,Á,íCCEJ,è•Ö,µŽg—p,ª,è,éfc[]fç,lfLffbfVf...,É, ,éCEöŽZ,ª[],ç,½,ß[]CDelphi
,lfç[]fç,ðÄ[]—,·,é,©,í,è,ÉŠù'¶,lfç[]fç,ðÄ—~—p,Á,«,Ü,·B

—á14252

^È%~ , Ì 2 , Á, Ì Š È ' P, È f R [f h — á, Í C D e l p h i , Ì f O f % o f t f B f b f N f R [f h , Ç, è, Ù, Ç ' P [f, È, à, Ì, ©, ð Ž ! , μ, Ä, ç , Û, · B [Á [% o , Ì f R [f h , Í C O b j e c t W i n d o w s , ð Ž g — p , μ, Á Š j " , μ, ½ f A f v f Š f P [f v f f j " , Á, · B · W [€ , Ì G D I Š Ö [" , È, æ, Á, Á [C [Á [F , Ì ~ g, ð Ž [, Á % o © [F , Ì ' È % o ~ , ð f E f B f " f h f E, È · ` % o æ , μ, Ä, ç, Û, · B 2 " Ö - Û, Ì f R [f h , Í C D e l p h i , ð Ž g — p , μ, Á Š j " , μ, ½ f A f v f Š f P [f v f f j " , Á, · B f l f f f " f o f X, ð Ž g — p , μ, Á [C " - , ¶ ' È % o ~ , ð · ` % o æ , μ, Ä, ç, Û, · B

```
procedure TMyWindow.Paint(PaintDC: HDC; var PaintInfo: TPaintStruct);
var
  PenHandle, OldPenHandle: HPEN;
  BrushHandle, OldBrushHandle: HBRUSH;
begin
  PenHandle := CreatePen(PS_SOLID, 1, RGB(0, 0, 255)); {
  [ Á [ F , Ì f y f " , ð [ ] [ - }
  OldPenHandle := SelectObject(PaintDC, PenHandle); { DC
  , È [ Á [ F , Ì f y f " , ð Ž g — p , ; , é , æ , x , È Ž w Ž ! }
  BrushHandle := CreateSolidBrush(RGB(255, 255, 0)); { % o © [ F , Ì f u f
  % o f V , ð [ ] [ - }
  OldBrushHandle := SelectObject(PaintDC, BrushHandle); { DC, È % o © [ F , Ì f u f
  % o f V , ð Ž g — p , . , é , æ , x , È Ž w Ž ! }
  Ellipse(HDC, 10, 10, 50, 50); { ' È % o ~ , ð · ` % o æ }
  SelectObject(OldBrushHandle); { Ç È³ , Ì f u f % o f V , ð · æ Ç È³ }
  DeleteObject(BrushHandle); { % o © [ F , Ì f u f % o f V , ð [ ] [ æ }
  SelectObject(OldPenHandle); { Ç È³ , Ì f y f " , ð · æ Ç È³ }
  DeleteObject(PenHandle); { [ Á [ F , Ì f y f " , ð " p Š ü }
end;
```

```
procedure TForm1.FormPaint(Sender: TObject);
begin
  with Canvas do
  begin
    Pen.Color := clBlue; { f y f " , ð [ Á [ F , È , ; , é }
    Brush.Color := clYellow; { f u f % o f V , ð % o © [ F , È , ; , é }
    Ellipse(10, 10, 50, 50); { ' È % o ~ , ð · ` % o æ }
  end;
end;
```

ŽQÆ14253

fLfff"fofX,ìŽg,ç•û

%oæ'œ,ìŽg,ç•û

f|ftfXfNfŠ[f"frfbfgf}fbfv

•iX,Ö,ì%ž"š

flfff“fofX,ìŽg,ç•û14254

ŽQ□Æ

flfff“fofXflfufWfFfNfg,í□C,ç,,Á,©,ìfCEfxfç,Á Windows fOf%oftfBfbfN,ðfjvfZfç%o»,μ,Ä,ç
 ,Ü,·□B□ü□C%oæ‘œ□CfefLfXfg,ð•`%oæ,·,é,½,β,ì□,fCEfxfç,ÈŠÖ□”,©,ç□Cflfff“fofX,ì•`%oæ<@”\
 ,ð□Y‘è,·,é,½,β,ì‘tŠÔfCEfxfç,ìfvf□pfefB□C,³,ç,É Windows GDI ,Ö,ì‘áfCEfxfç,ÈfAfNfZfX•û-
 @,Ü,Á, ,è,Ü,·□B

^È%o°,ì•\,É□Cflfff“fofX,ì•`%oæ<@”\,ð—v-ñ,μ,ÄŽì,μ,Ü,·□B

fCEfxfç	“®ì	fc□lfç
□,fCEfxfç	□ü,â□}CE`,ì•`%oæ	<u>MoveTo</u> , <u>LineTo</u> , <u>Rectangle</u> , <u>Ellipse</u> ,È,Ç,ìf□f□fbfh
	fefLfXfg,ì•\Žì,Æ□i-@,ìŽæ“¾	<u>TextOut</u> , <u>TextHeight</u> , <u>TextWidth</u> , <u>TextRect</u> ,ìŠef□f□fbfh
	—ì^æ,ì“h,è,Á,Ô,μ	<u>FillRect</u> f□f□fbfh,Æ <u>FloodFill</u> f□f□fbfh
‘tŠÔfCEfxfç	fefLfXfg,ÆfOf%oftfBfbfN,ìfjXf^f}fCfY	<u>Pen</u> , <u>Brush</u> , <u>Font</u> ,ìŠefvf□pfefB
	fsfNfZfç,ì‘€□ì	<u>Pixels</u> fvf□pfefB
	fCf□□[fW,ìfRfs□[□Cf}□[fw	<u>Draw</u> , <u>StretchDraw</u> , <u>BrushCopy</u> , <u>CopyRect</u> ,ìŠef□f□fbfh□CCopyMode fvf□pfefB
‘áfCEfxfç	Windows GDI ŠÖ□”,ìCEÄ,Ñ□o,μ	<u>Handle</u> fvf□pfefB

ŽQÆ14255

Delphi fOf%oftfBfbfN,İŠT—v

%oæ'œ,İŽg,ç•û

fİftfXfNfŠ[f“frfbfgf}fbfv

•İX,Ö,İ%ž“š

%œ'œ,İŽg,ç•û14256

ŽQÆ

Delphi ,Ås,œOf%ftfBfbfNî<Æ,ì,Ù,Æ,ñ,Ç,íCfRf“f[]f[]fg,âftfH[]f€,ìfLfff“fofX,Ö'¼Ú“l,É•`
%œ,·,é[]<Æ,Å,·B,μ,©,μ Delphi

,Å,íCfRfbfgf}fbfv[]Cf[]^ftf@fCf<[]CfAfCfRf“,È,Ç,ìXf^f“fhfAf[]f“fOf%ftfBfbfNfCf[][]fW,à^—
[]Å,«,Û,·B,±,ìê[]#[]CfpfÆfbfg,íŽ©“®“l,ÉŠÇ—[]Å,«,Û,·B

Delphi ,ì%œ'œ[]^—[],É,Å,ç,Ä^È%œ°,ì 3 ,Å,ì€-Ú,ðà-¾,μ,Û,·B

- %œ'œ, fOf%ftfBfbfN, fLfff“fofX
- ftf@fCf<,ÉŠi“l,³,è,½fOf%ftfBfbfN
- fOfÆfbfg,İŽg,ç•û

ŽQÆ14257

Delphi fOf%oftfBfbfN,ìŠT—v

fLfff“fofX,ìŽg,c•ù

f|ftfXfNfŠ□[f“frfbfgf}fbfv

•ì□X,Ö,ì%ž“š

‰œ‘œ, fOf‰ftfBfbfN, fLfff“fofX14258

ŽQÆ

^È‰œ,ÉŽ,·,æ,α,ÉCDELphi,É,ÍfOf‰ftfBfbfN,ð^μ,α 3 Ží—p,ÍfIfufWfFfNfg,^a,è,Ü,·B

- fLfff“fofX□BftfH□[f€□CfOf‰ftfBfbfNfRf“fgf□□[f<□Cfrfbfgf}fbfv□CfvfŠf“f^,ÍfRfbfgf}fbfv·`
‰œ·\-É,ð·\,μ,Ü,·BfLfff“fofX,ÍfXf^f“fhfAf□f“,ÍfIfufWfFfNfg,Á,Í,É,-
□CÍ,É,Ü,©,ÍfIfufWfFfNfg,Ífvf□fpfefB,Æ,μ,Á‘¶□Y,μ,Ü,·B
- fOf‰ftfBfbfN□Bfrfbfgf}fbfv□CfAfCfRf“□Cf□f^ftf@fCf<,È,Ç□C‘É□í,Íftf@fCf<,©fŠ\
□[fX,ÉŠi”[,³,è,Á,ç,éOf‰ftfBfbfNfCf□□[fW,ð·\,μ,Ü,·BŠefCf□□[fW,É‘Í‰Ž,μ,Á□CTBitmap,
TIcon, Tmetafile,ÍŠefIfufWfFfNfgCE^,^a,è,Ü,·B±,ì 3 ,Á,ÌCE^,Í,Æ,à,É Tgraphic
CE^,©,ç“h□¶,μ,Á,ç,Ü,·B,Ü,½□C ŠJ”ŽÖ,Í“ÆŽ©,ÍfOf‰ftfBfbfNfIfufWfFfNfg,ð‘è<` ,Á,«,Ü,·BfOf
‰ftfBfbfN,É□Á‘áCEÁ<α‘É,ì·W□€“Í,ÉfCf“f^□[ftfF□[fX,^a Tgraphic ,É‘è<`³,è,Á,ç
,é,Í,Á□CfAfvfŠfP□[fvf#f“,©,ç,Í,³,Ü,´,Ü,ÉŽí—p,ÍfOf‰ftfBfbfN,ð—eˆÖ,ÉŽg—p,Á,«,Ü,·B
- ‰œ‘œ□BfOf‰ftfBfbfN,ÍfRf“fefi,Á,·BfOf‰ftfBfbfN,ÍfRf“fefi,Í□C,·,x,Á,ÍfOf
‰ftfBfbfNfIfufWfFfNfgCE^,ð,»,ì‘t,ÉŠi”[,Á,«,Ü,·Bfrfbfgf}fbfv□CfAfCfRf“□Cf□f^ftf@fCf<□Cf□[fU
□[‘è<`fOf‰ftfBfbfNCE^,Í□C,·,x,Á Tpicture CE^,ÍftfB□[f<fh,ÉŠi”[,Á,«,Ü,·BfAfvfŠfP□[fvf#f“,Í□C
‰œ‘œfIfufWfFfNfg,ÉŠi”[,³,è,½,³,Ü,´,Ü,ÉfOf‰ftfBfbfNCE^,ð□C““è,ì·û-
@,Á‘€□ì,Á,«,Ü,·B,½,Æ,ì,Í□CfCf□□[fWfRf“fgf□□[f<,Í Picture ,Æ,ç,α Tpicture
CE^,Ífvf□fpfefB,ðŽ□,Á,Á,“ ,è□C,»,è,É,æ,Á,Á,³,Ü,´,Ü,ÉfOf‰ftfBfbfNCE^,ÍfCf□□[fW,ð·\Ž,μ,Ü,·B

‰œ‘œfIfufWfFfNfg,Í□í,ÉfOf‰ftfBfbfNfIfufWfFfNfg,ðŠÜ,ñ,Á,“ ,è□C,Ü,½□CfOf
‰ftfBfbfNfIfufWfFfNfg,ÍfLfff“fofXfIfufWfFfNfg,ðŠÜ,þ□è□‡,^a,è,Ü,· (Tbitmap
,Í□CfLfff“fofXfIfufWfFfNfg,ðŠÜ,þ—B^è,ì·W□€fOf‰ftfBfbfNfIfufWfFfNfg,Á,·)□B‘É□□C
‰œ‘œfIfufWfFfNfg,ð^μ,α□è□‡,Í□CfOf‰ftfBfbfNfIfufWfFfNfg,ì,α,¿ Tpicture
,ð,Æ,“ ,μ,Á‘€□ì,Á,«,é·”·^a,³/₄,“ ,ðŽg—p,μ,Ü,·BfOf‰ftfBfbfNfIfufWfFfNfgCEÁ—
L,ì□×·”,ð‘€□ì,·,é□è□‡,É,Í□C,»,ì□}CE`fIfufWfFfNfg,ì Graphic fvf□fpfefB,ðŽg—p,μ,Ü,·B

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ftf@fCf<,ÉŠi”l,³,ê,½fOf%oftfBfbfN

fpfCEfbfg,ÌŽg,č•û

ftf@fCf<,ÉŠi"l,³,ê,½fOf%oftfBfbfN14260

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Delphi ,ì,·,x,Ä,ì%œ'œ,ÆfOf

%oftfBfbfN,íCftf@fCf<,©,çfCf□□[fW,ð"Ç,Ý□ž,ñ,¾,è□C□Ä"x,»,ìftf@fCf< (,Ü,½,í,Ù,©,ìftf@fCf<),É•Û'¶,·,é,±,Æ,³,Å,«,Ü,·□B%œ'œ,ìfCf□□[fW,ì"Ç,Ý□ž,Ý,Æ•Û'¶,í,ç,Â,Å,à□s,ì,Ü,·□B

fCf□□[fW,ðftf@fCf<,©,ç%œ'œ,É"Ç,Ý□ž,Þ,É,í□C,»,ì%œ'œfufWfFfNfg,ì LoadFromFile f□\fbfh,ðÆÄ,Ñ□o,μ,Ü,·□B

fCf□□[fW,ð%œ'œ,©,çftf@fCf<,É•Û'¶,·,é,É,í□C,»,ì%œ'œfufWfFfNfg,ì SaveToFile f□\fbfh,ðÆÄ,Ñ□o,μ,Ü,·□B

LoadFromFile ,Æ SaveToFile ,í□C—B^è,ìfpf%of□□[f^,Æ,μ,Äftf@fCf<-¼,ðŽó,~Žæ,è,Ü,·□BLoadFromFile ,í□Cftf@fCf<-¼,ìŠg'£Žq,É,æ,Á,Ä"Ç,Ý□ž,ÞfOf%oftfBfbfNfufWfFfNfg,ìŽí—Þ,ð"»'è,μ,Ü,·□BSaveToFile ,í□C•Û'¶,·,é,éOf%oftfBfbfNfufWfFfNfgÆ^,É□#,í,¹,Äftf@fCf<,ìŽí—Þ,ðÆ^'è,μ,Ü,·□B

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```
frfbf}fbfv,đCf[fWfRf“fgf[f<,ì%æ’œ,É“Ç,Ýž,Þ,É,ÍCŽÿ,ì,æ,æ  
,ÉCfrfbf}fbfvtf@fCf<,ì¼‘O,đ%æ’œlfufWfFfNfg,ì LoadFromFile f\fbfh,É“n,μ,Ü,·B  
  procedure TForm1.LoadBitmapClick(Sender: TObject);  
  begin  
    Image1.Picture.LoadFromFile('RANDOM.BMP');  
  end;  
%æ’œlfufWfFfNfg,ÍC.BMP ,đfrfbf}fbfvtf@fCf<,ìŠg’£Žq,Æ,μ,Ä”FŽ~,μCfOf%oftfBfbfN,đ  
Tbitmap ,Æ,μ,Äì¬,μ,Ä,©,çC,»,ìfOf%oftfBfbfN,ì LoadFromFile f\fbfh,đCEÄ,Ño,μ,Ü,·B,±  
,ìfOf%oftfBfbfN,ìfrfbf}fbfv,È,ì,ÄCLoadFromFile f\  
fbfh,ìCf[fW,đfrfbf}fbfv,Æ,μ,Ätf@fCf<,©,ç“Ç,Ýž,Ý,Ü,·B
```


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%æ'œ, fOf%ftfBbfN, fLfff"fofX

fpfCEfbfg, ðŽg.ç•û

fpfCEfbfg,ìŽg,ç•û14263

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Delphi ,í□CfpfCEfbfg,ðŽg—p,·,éfffofCfX,Å,í□CŽ©“®“l,ÉfpfCEfbfg,ìŽÀCE»,ðfTfj
□[fg,μ,Û,·□BfpfCEfbfg,ðŽ□,ÅfRf“fgf□□[f<,Å,í□CTcontrol ,©,çCEp□³,μ,½ 2 ,Å,ìf□f\
fbfh,É,æ,Å,Å□CWindows ,^a,».,ìfpfCEfbfg,ð^μ,π•û-@,ð§CEä,Å,«.,Û,·□B

fRf“fgf□□[f<,ìfpfCEfbfg,É,Å,ç,Å□C^È%°²,ì 2 ,Å,ì□€-Û,ð□à-¾,μ,Û,·□B

- fRf“fgf□□[f<-p,ìfpfCEfbfg,ðŽw'è,·,é•û-@
- fpfCEfbfg,ì•í□X,É'í%°ž,·,é•û-@

,Û,Æ,ñ,ç,ìfRf“fgf□□[f<,ìfpfCEfbfg,Æ,íŠÖCEW, ,è,Û,¹,ñ□B,μ,©,μ□CfCf□□[fWfRf“fgf□□[f<,É,ç□C, ,
éŽí,ìfOj%°ftfBfbfNfCf□□[fW,ðŽ□,ÅfRf“fgf□□[f<,í□CŠmŽÀ,É“K□Ø,ÈŠOŠí,Å•\Ží,³,é,é,æ,π
,É□CWindows ,âfXfNfŠ□[f“fffofCfXfhf%°fCfo,Æ,â,èžæ,è,·,éê□‡,^a, ,è,Û,·□BWindows ,Å,í□C,±
,ì□^—□,ðfpfCEfbfg,ì□užÀCE»□v,ÆCEÄ,Ñ,Û,·□B

fpfCEfbfg,ìŽÀCE»,Å,í□C□Å'O-Ê,ìfEfBf“fhfE,ì,·,×,Ä,ìfpfCEfbfg□F,í,»,ì,Û,Û•\Ží,³,é,Û,·□B“w-
Ê,ìfEfBf“fhfE,ìfpfCEfbfg□F,à%°Å“\,ÈCEÀ,è,»,ì,Û,Û•\Ží,³,é,Û,·,°□C•\Ží,Å,«,È,©,Á,½□F,É,Å,ç
,Å,í□C□užÀ□Û,ì□vfpfCEfbfg,ì□Å,à<ß,ç□F,Éfj}fbfsf“fO,³,é,Û,·□BWindows ,í□CfEfBf“fhfE,^aCEÝ,ç
,É'°CEä,É^Û“®,·,·,é,ì,É%°ž,¶,Å□CCEp'±“l,ÉfpfCEfbfg,ìŽÀCE»□^—□,ð□s,Á,Å,ç,Û,·□B

f□f,: Delphi Ž©□g,í□CfRfBfgf}fbfv^ÈŠO,É,Å,ç,Ä,í□CfpfCEfbfg,ì□ì□¬,â'€□ì,É'í,·,éfTfj
□[fg,ð'ñ<ÿ,μ,Å,ç,Û,¹,ñ□B,μ,©,μ□CfpfCEfbfgfnf“fhf<,ðŽæ“¾,·,é,í Delphi
fRf“fgf□□[f<,^a,»,é,ðŠÇ—□,Å,«,Û,·□B

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%æ'œ, fOf%ftfBfbfN, fLfff"fofX

ftf@fCf<,ÉŠi"l,³,ê,½fOf%ftfBfbfN

fRf“fgf□□[f<—p,ìfpfCEfbfg,ìŽw’è14265

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fRf“fgf□□[f<,É,í□CfpfCEfbfg,đŠ,,è“-,Ä,é,±,Æ,^aÄ,«,Ü,·□B

fRf“fgf□□[f<,ÉfpfCEfbfg,đŽw’è,·,é,É,í□C,»,ìfRf“fgf□□[f<,ì GetPalette f□\fbfh,đf□□[fo□□[f
%ofCfh,μ,Ä□CfpfCEfbfg,ìfnf“fhf<,đ•Ô,μ,Ü,·□B

fRf“fgf□□[f<,ÉfpfCEfbfg,đŽw’è,·,é,Æ□C^È%oo^o,ì 2 ,Ä,ì□^—□,^a□s,í,é,Ü,·□B

1. fAfvfŠfP□□[fvf#f“,É□CfRf“fgf□□[f<,ìfpfCEfbfg,ìŽÀCE»,ì•K—v,^a ,é,±,Æ,đ’É’m,·,é
2. ,»,ìfpfCEfbfg,đŽÀCE»,ÉŽg—p,·,éfpfCEfbfg,Æ,μ,ÄŽw’è,·,é

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fRf“fgf□□[f<,lfpfCEfbfg,đŽg—p,·,é—á,Æ,μ,Ä□CfCf□□[fWfRf“fgf□□[f< Timage ,è,·Ü,·□B,±
,lfCf□□[fWfRf“fgf□□[f<,l□C,»,±,ÉŠi”[,³,ê,Ä,ç,é
%œ’œ,³fpfCEfbfg,đŽ□,Ä□ê□‡,l□C,»,ê,đŽæ“¾,μ,Ü,·□BTimage ,l GetPalette ,đfl□[fo□[f
%ofCfh,μ,Ä□C%œ’œ,lfpfCEfbfg,đ•Ö,μ,Ü,·□B

```
type
  TImage = class(TGraphicControl)
  protected
    function GetPalette: HPALETTE; override; { f□\fbfh,đfl□[fo□[f%ofCfh }
    ...
  end;
...
function TImage.GetPalette: HPALETTE;
begin
  Result := 0; { ffftfHf<fg,l-B,è'l,l□CfpfCEfbfg,È,μ,đŽl,· }
  if FPicture.Graphic is TBitmap then { frfbfgf}fbfv,¾,~,³fpfCEfbfg,đŽ□,Á }
    Result := TBitmap(FPicture.Graphic).Palette; { Žg—p%œ’Ä”l
,É□ê□‡,l,»,ê,đŽg—p }
end;
```

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fpfCEfbfg•iX,Ö,ì%ž“š

fpfCEfbfg•ïX,Ö,ì%ž“š14268

ŽQAE

fRf“fgf□□[f<,ª GetPalette ,đfi□[fo□[f%ofCfh,μ,ÄfpfCEfbfg,đŽw’è,μ,½□è□#□C Delphi
,ÍŽ©“®“l,É□CWindows ,©,ç,lfpfCEfbfgf□fbfZ□[fW,É’í,μ,Ä
%ž“š,μ,Ü,·□BfpfCEfbfgf□fbfZ□[fW,đ□^—□,·.éf□f□fbfh,í PaletteChanged
,Ä,·□B’É□í,í□CPaletteChanged ,lffftfHf<fg,ì“®□ì,đ•í□X,·,é•K—v,í, ,è,Ü,¹,ñ□B

PaletteChanged

,í□CfRf“fgf□□[f<,lfpfCEfbfg,đ’OCEi,Æ”wCEi,ì,Ç,¿,ç,ÅŽÀCE»,·,é,©,đCE^’è,μ,Ü,·□BWindows
,É,æ,éfpfCEfbfg,ìŽÀCE»,Ä,í□C’OCEifpfCEfbfg,đ□Å’O—É,lfEfBf“fhfE,ªŽg—
p,μ□C”wCEifpfCEfbfg,í,Ü,©,lfEfBf“fhfE,ªŽg—p,μ,Ü,·□B,μ,©,μ□CDelphi ,í,»,ì,æ
,l,É□CfRf“fgf□□[f<,lfpfCEfbfg,đ1,Ä,lfEfBf“fhfE“à,Åf^fu□#,ÉŽÀCE»,μ,Ü,·□Bf^fu□#,ì□æ“ª,É,È,çfR
f“fgf□□[f<,É’OCEifpfCEfbfg,đŽg—p,³,¹,é□è□#,¾,~□CffftfHf<fg,ì“®□ì,đfi□[fo□[f%ofCfh,μ,Ü,·□B

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fR"fgf[f<-p,lfpfEfbfg.lŽw'è

flftXfNfŠ[f“frfbfgf}fbfv14270

ŽQÆ

• ;ŽG,ÈfOf%oftfBfbfNfCf[fW,ð•` ,Ú,É Windows fvfOf%of~f“fO,Å,æ,Žg—
p,³,è,éfefNfjfbfN,Æ,μ,ÄCflftXfNfŠ[f“frfbfgf}fbfv,ðìï¬,μC,»,ìfrfbfgf}fbfvã,ÉfCf[fW,ð•
`%œ,μ,Ä,©,çCŠ®¬,μ,½fCf[fW,ðÄï-U•W,Å, ,é%œ-Ê,ÉfRfs[,·,é•ù-@,^a, ,è,Ü,·B
%œ-Ê,É'¼Ú•`%œ,·,é,Æ%œ-Ê,^a,ç,Ä,ê‡,^a, ,è,Ü,·^aCflftXfNfŠ[f“fCf[fW,ðŽg—
p,·,ê,î,±,ì,ç,Ä,«,ÍE,μ,Ü,·B

,Ü,½CDelphi ,ìfrfbfgf}fbfvlfufWfFfNfg,ÍC'ÉíŠf[X,âftf@fCf<,ìfrfbfgf}fbfvfCf[fW,ð•\
,μ,Ü,·^aCflftXfNfŠ[f“fCf[fW,Æ,μ,Ä,àŽg—p,Å,«,Ü,·B

flftXfNfŠ[f“frfbfgf}fbfv,ðŽg—p,μ,Äs,æì<Æ,É,Â,ç,ÄCŽÿ,ì 2 ,Ä,ì€-Ú,ðà-¼,μ,Ü,·B

- flftXfNfŠ[f“frfbfgf}fbfv.ììï¬,ÆŠÇ—
- frfbfgf}fbfvfCf[fW.ìfRfs

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Delphi fOf%oftfBfbfN,İŠT—v

fLfff“fofX,İŽg,ç•û

%oæ’œ,İŽg,ç•û

•İX,Ö,İ%ž”š

flftXfNfŠ[f“frfbfgf}fbfv,ììì¬,ÆŠÇ—□14272

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• ;ŽG,ÈfOf%oftfBfbfNfCf□□[fW,ð□ì□¬,·,é□ê□‡,í'É□□C%œ-Ê,É•\Ž!,³,ê,Ä,ç,éfLfff“fofX,É¹/₄□Ú•`
 %œ,·,é•û-@,í□ì,è,Û,¹,ñ□BftfH□[f€,âfRf“fgf□□[f<,ìfLfff“fofX,É•`
 %œ,·,é,©,í,è,É□Cfrfbfgf}fbfvflfufWfFfNfg,ð□ì□¬,μ□C,» ,ìfLfff“fofX,É•`
 %œ,μ,Ä,©,ç□CŽd□ã,³,Á,½fCf□□[fW,ðfif“fXfNfŠ□[f“,ìfLfff“fofX,ÉfRfs□[,μ,Û,·□B
 flftXfNfŠ□[f“frfbfgf}fbfv,í□CfOf%oftfBfbfNfRf“fgf□□[f<,ì Paint f□\fbfh,Ä,æ,Žg—
 p,³,é,Û,·□B,Û,©,ì^êŽžflfufWfFfNfg,Æ“~—l□Cfrfbfgf}fbfv,ðŽÿ,ì,æ,π,É **try..finally**
 fuf□fbfN,Ä•ÛCèì,μ,Û,·□B

```

type
  TFancyControl = class (TGraphicControl)
  protected
    procedure Paint; override; { Paint f□\fbfh,ðfif□[fo□[f%ofCfh }
  end;

procedure TFancyControl.Paint;
var
  Bitmap: TBitmap; { flftXfNfŠ□[f“frfbfgf}fbfv—p,ì^êŽž•ì□ }
begin
  Bitmap := TBitmap.Create; { frfbfgf}fbfvflfufWfFfNfg,ð□ì□¬ }
  try
    { frfbfgf}fbfv□ã,É•`%œ }
    { C<%œÉ,ðfRf“fgf□□[f<,ìfLfff“fofX,ÉfRfs□[ }
  finally
    Bitmap.Free; { frfbfgf}fbfvflfufWfFfNfg,ð”pŠü }
  end;
end;

```

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f|ftfXfNfŠ[f“frfbfgf}fbfv,É•;ŽG,ÈfCf[fW,ð•`%œ,·,é—á,É,Â,ç,Ä,ÍCfRf“f|
|[f|f“fgfpfÆfbfg,|mSamples[nfy|[fW,ì Gauge fRf“fgf|[f<,ì\|[fXfR|[fh,ðŽQ[Æ,μ,Ä,-
,¾,³,ç[B,±,ìQ|[fWfRf“fgf|[f<,ÍCf|ftfXfNfŠ[f“frfbfgf}fbfv,É,³,Ü,´,Ü,È}[Æ`âfefLfXfg,ð•`
%œ,μ,Ä[C%œ-È,ÉfRfs|[,μ,Ü,·BfQ|[fWfRf“fgf|[f<,ì\|[fXfR|[fh,ÍCfTfufffBfÆfNfgfŠ
SOURCE\SAMPLES ,ìftf@fCf< GAUGES.PAS ,É, ,è,Ü,·[B

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frfbfgf}fbvfCf[]fW.lfRfs[]

frfbfgf}fbfvfCf[]fW,ìRfs[]14275

ŽQÆ

, ,éLfff“fofX, ©,ç,Ù, ©,ìLfff“fofX,ÖfCf[]fW,ðfRfs[], ,éèè#C4 ,À,ì•û-@,ª, ,è,Û,·BŠe•û-
@,É%ž,¶,ÄC,» ,è,¼,è,ìf\fbfh,ðCEÄ,Ño,μ,Û,·B

^È%º,ì•\,ÉCfLfff“fofXfìufWfFfNfg,ìfCf[]fWfRfs[]f\fbfh,ì—v-ñ,ðŽ!,μ,Û,·B

^—	f\fbfh
fOf%ftfBfbfN‘S‘ì,ðfRfs[]	<u>Draw</u>
fOf%ftfBfbfN,ðfRfs[],μ,ÄTfCfY•ïX	<u>StretchDraw</u>
fLfff“fofX,ì^è•”,ðfRfs[]	<u>CopyRect</u>
f%ofXf^[]%º%žž,ð“K—p,μ,Äfrfbfgf}fbfv,ðfRfs[]	<u>BrushCopy</u>

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f|ftfXfNfŠ[f“frfbfgf}fbfv,ìì-.,ÆŠÇ—

• ěX, Ö, ì%ž“š14277

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fLfff“fofX,âCfLfff“fofX,Š—L,;élfufWfFfNfg (fyf“Cfuf%oV□CftfHf“fg),È,Ç□C,·,×,Ä,lfOf
%oftfBfbfNfufWfFfNfg,É,íCfufWfFfNfg,ì•X,É%ž“š,·,é,½,ß,lfCxf“fg,^a,è,Ü,·□B,±
,lfCxf“fg,žg—p,·,ê,íCfRf“f□[f]f“fg (,Ü,½,íRf“f□[f]f“fg,žg—p,μ,Ä,ç,éAfvfŠfP□[fvf#f“)
,đ•X,É’í,μ,ÄfCf□□[fW,ì□□Ä•`%œ,É,æ,Á,Ä%ž“š,³,¹,é,±,Æ,^a,Á,«,Ü,·□B

fOf%oftfBfbfNfufWfFfNfg,³Rf“f□[f]f“fg,ìYvžžfCf“f^□[ftfF□[fX,ì^è•”,Æ,μ,ÄfpufŠfbfVf...
,ÉéÉ³/₄,³,ê,Ä,ç,éê±,íC,»),lfufWfFfNfg,ì•X,É%ž“š,·,é,±,Æ,^a“Á,É□d—v,Á,·□B,»,α,μ,È,ç
,Æ□CfRf“f□[f]f“fg,ìYvžž,ìŠOšì,³lfufWfFfNfgfCf“fXfyfNf^,lfvf□pfefB,Æ^è’v,μ,Ü,¹,ñ□B

fOf%oftfBfbfNfufWfFfNfg,ì•X,É%ž“š,·,é,É,íCfufWfFfNfg,ì OnChange fCxf“fg,Éf□f
fbfh,žw’è,μ,Ü,·□B

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ŽŸ,ÉŽ!,·}CE`fRf"f|f|f"fg,Á,íC}CE`,ð·`%æ,·,éfyf",âfuf%V,ð·\
,·fvf|fpfefB,íCfpfufŠfbfVf...,ÉY'è,³,ê,Ä,ç,Û,·BfRf"f|f|f"fg,íRf"fXfgf
%Nf^,íCŠefvf|fpfefB,ì OnChange fCxf"fg,Éf|fbfh,ðŽw'è,μCfyf",âfuf
%V,ª·ïX,³,ê,½,Æ,«,ÉCf|fW,ðXV,·,é,æ,π,É,μ,Ä,ç,Û,·B

```

type
  TShape = class (TGraphicControl)
  public
    procedure StyleChanged (Sender: TObject);
  end;
...
implementation
...
constructor TShape.Create (AOwner: TComponent);
begin
  inherited Create (AOwner);      { ·K,CEp³,μ,½fRf"fXfgf%Nf^,ðCEÄ,Ño,·| }
  Width := 65;
  Height := 65;
  FPen := TPen.Create;           { fyf",ð|ï¬ }
  FPen.OnChange := StyleChanged; { OnChange fCxf"fg,Éf|fbfh,ðŽw'è }
  FBrush := TBrush.Create;      { fuf%V,ð|ï¬ }
  FBrush.OnChange := StyleChanged; { OnChangefCxf"fg,Éf|fbfh,ðŽw'è }
end;

procedure TShape.StyleChanged (Sender: TObject);
begin
  Invalidate; { fRf"f|f|f"fg,ðÁ<Ž,μ,ÄÄ·`%æ }
end;

```

ŽQÆ14279

Delphi fOf%oftfBfbfN,ìŠT—v

fLfff“fofX,ìŽg,ç•û

%oæ’œ,ìŽg,ç•û

f|ftfXfNfŠ[f“frfbfgf}fbfv

fbfZ[fW,ì^—14280

ŽQÆ

]—^,ì Windows fvffOf%of~f“fO,Å,íCWindows ,áfAvfšfP[fVf+f“,É‘—,Á,Ä,,éffbfZ[fW,ì^
—,ªd—v,Å,µ,½BDelphi ,ÍŠ”ŽÒ,É,©,í,Á,ÄC^ê”É“l,ÈfbfZ[fW,ì’â”¼,ð^—
µ,Û,·B,½,¾,µCfRf“f[fj“fg,ðì—,·,éè#CDelphi ,ª^—,µ,È,çfbfZ[fW,ð^µ,æ
,Æ,«,íCŠJ”ŽÒ,ª,» ,ìfbfZ[fW,ð^—,µ,È,·,ê,Î,È,è,Û,¹,ñB,Û,½CŠJ”-
ŽÒ,ª“ÆŽ©,ìfbfZ[fW,ðì—,µ,Ä^—,·,éè#à, ,è,Û,·B

,±,ìí,Å,íCfbfZ[fW,É,Â,ç,Ä^È%º,ì 3 €—Ú,ðà-¾,µ,Û,·B

- fbfZ[fW^—<@
- fbfZ[fW^—•û-@,ì·ìX
- V,µ,çfbfZ[fWfnf“fhf%o,ìì—

ŽQÆ14281

fRf“f|□[flf“fg□ì□□→,ìŠT→v

fRf“f|□[flf“fgŠ]”ŽÒ,ì,½,β,ì OOP

fvf□fpfefB,ì□ì□□→

fCxf“fg,ì□ì□□→

f□f□bfh,ì□ì□□→

fRf“f|□[flf“fg,É,¨,¨,éOf%oftfBfbfN,ìŽg,č•û

fRf“f|□[flf“fg,ì“o~^

Delphi 14282

ŽQÆ

, , x, Ä, ì Delphi fufWfFfNfg, íCfbfZ[fW^—f\fbfh, Ü, ½, ífbfZ[fWfnf“fhf%
, ÆCEÄ, í, è, éCfbfZ[fW^—, ì, ½, ß, ífjfyf€„ö, !, Ä, ç, Ü, ·BfbfZ[fWfnf“fhf%
{“l, È\‘ç
, íŽÿ, ì, Æ, ¨, è, Å, ·B, Ä, Ü, èCfufWfFfNfg, ðfbfZ[fW, ðŽó, ¯Žæ, é, ÆC, »
%, ž, ·, éf\fbfh, ðCEÄ, Ño, ³, è, é, ±, Æ, ÅCfbfZ[fW, ðffBfXfpbf`
fbfh, ð‘Ÿ, µ, È, çfbfZ[fW, È, Ä, ç, Ä, íCfftfHf·fg, ìfnf“fhf%
Žÿ, ì}, íCfbfZ[fWffBfXfpbf` <@\, ðŽ!, µ, Ü, ·B



Delphi fRf“f[fif“fgf%ofCfuf%ofŠ, ìfbfZ[fWffBfXfpbf` <@\
, íC“Á’è, ìfufWfFfNfg, ÉCEü, ¯, ç, è, ½, ·, x, Ä, ì Windows ffbfZ[fW
(ft[fU[‘è` ffbfZ[fW, ðŠÜ, p), ðf\fbfhCEÄ, Ño, µ, È·İŠ·, µ, Ü, ·BŠJ”-
ŽÖ, ífbfZ[fWffBfXfpbf` <@\Ž©‘ì, ð·íX, ·, é·K—v, í, , è, Ü, ¹, ñB·K—v, È, ì, íCfbfZ[fW^—
f\fbfh, ði□→, ·, é, ±, Æ, ¾, ¯, Å, ·B

ŽQÆ14283

fZ[fW^—•û-@.i•iX

V,u.cfZ[fWfn“fhf%o,ii

Windows ffbfZ[fW,ì“à—e14284

ŽQÆ

Windows ,ìfbfZ[fW,íC,ç,,Á,©,ìftB[f<fh,ðŽ,Áff[f^fCFR[fh,Á,·BÁ,àd—
v,ÈftB[f<fh,íCfbfZ[fW,ðŽ·É,·é,½,ß,ì@””l,ìftB[f<fh,Á,·BWindows ,Á,í½,-
,ìfbfZ[fW,ªè<³,ê,Ä,ç,Ü,·,ªCMessages ftjfbfg,É,í,»,ì,·,x,Á,ìŽ·ÉŽq,ªéCE¾,³,ê,Ä,ç
,Ü,·BfbfZ[fW,É,íC,Ü,©,É 2 ,Á,ìpf%of[f^ftB[f<fh,Æ1,Á,ìCE<%ÉftB[f<fh,ª, ,è,Ü,·B

,±,ì 2 ,Á,ìpf%of[f^,É,íC,»,è,¼,ê 16 frfbg'l,“,æ,Ñ 32 frfbg'l,ª“ü,è,Ü,·BWindows
,ìR[fh,Á,í½,,ìê#CŠepf%of[f^,ì-¼'O,í,»,è,¼,êuword parameter[v,ð^Ó-i,·,é
wParam ,ÆCulong parameter[v,ð^Ó-i,·,é IParam ,Á,·B1,Á,ìpf%of[f^,ª 2
,Á^Èã,ìî•ñ,ðŽ,Á,±,Æ,à, ,é,ì,ÁC,½,Æ,!,ìCIParamHi ,É,æ,Á,Ä IParam fpf
%of[f^,ìã^Êf[fh,ðŽæ“¾,·,éC,Æ,ç,x,æ,x,È^—,ªs,í,è,é,±,Æ,à, ,è,Ü,·B

—^CWindows fv[fOf%of},É,ìpf%of[f^,ì“à—e,É,Á,ç,Ä,ìmŽ,ª•K—
v,Á,µ,½BÁ<ß,É,È,Á,ÄCf}fCfNf\ftfgŽĐ,ìpf%of[f^,É-¼'O,ð•t,·,Ü,µ,½B,±,ì,ç
,í,ä,éuffbfZ[fWfNf%ofbfLf“fO[v,É,æ,Á,ÄC,»,è,¼,ê,ìfbfZ[fW,ª”º,xfpf%of[f^,ì“à—e,ª
—%ø,µ,â,·,È,è,Ü,µ,½B,½,Æ,!,ìCWM_KEYDOWN ffbfZ[fW,ìpf%of[f^,íCE»Y,Á,í
VKey,âKeyData ,Æ•\,³,ê,Ä,“,èCwParam ,â IParam ,Æ•\,·,æ,è,à,í,©,è,â,·,È,è,Ü,µ,½B

Delphi ,Á,íCfbfZ[fW,ìŽí—p,É'í%ž,·,éCFR[fhCE^,ð,»,è,¼,ê'è<`,·,é,±,Æ,É,æ,èCŠepf
%of[f^,É,í,©,è,â,·,ç-¼'O,ð•t,·,Ä,ç
,Ü,·B,½,Æ,!,ìCf}fEfXfbfZ[fW,Á,íCf}fEfXfCxf“fg,ì”¶,µ,½ x Å•W,Æ y Å•W,ª IParam
,É“ü,è,Ü,·B,Á,Ü,èC^ê•û,ìÅ•W,ªã^Êf[fh,ÉC'¼•û,ìÅ•W,ª%º^Êf[fh,É“ü,Á,Ä,ç
,Ü,·B,µ,©,µCf}fEfXfbfZ[fWfCFR[fh,ðŽ—p,·,è,ìCŠeÅ•W,ª,ç,ç,ìf[fh,É“ü,Á,Ä,ç
,é,ì,©,ðl,!,é•K—v,í, ,è,Ü,¹,ñB,È,º,È,çCIParamLo ,Æ IParamHi ,ì,©,í,è,ÉCXpos ,Æ Ypos
,Æ,ç,x-¼'O,ÁŠeÅ•W,ðŽQÆ,Á,«,é,©,ç,Á,·B

ŽQÆ14285

f[]bfZ[][fWfpf%of[][f^,iŽg,č•û

f[]bfZ[][fW,ðffBfXfpbf`,.:é•û-@

fbfZ[fW,dfBfXfpbf` ,.é•û-@14286

ŽQAE

fAfvfŠfP[fVf#f“,əfEfBf“fhfE,đŋŋ, ,.éŋŋ, íCWindows
fŋ[fŋf<,ÉfEfBf“fhfEfVfŋVŋ[fWff,đ“o~^,μ,Û,·B,±
,İfEfBf“fhfEfVfŋVŋ[fWff,íCfEfBf“fhfE,É’í,μ,Ä—,ç,è,éfŋfbfZ[fW,đŋ^—
ŋ,.,éf<ŋf“f“,Ä,·BfEfBf“fhfEfVfŋVŋ[fWff,í’ÉíŋC,»),İfEfBf“fhfE,əŋ^—
ŋ,.,éŠefŋfbfZ[fW,đfGf“fgfŠ,Æ,.,é<ŋ’â,È **case** ·ŋ,É,È,è,Û,·BŋV,μ,çŽí—
p,İfEfBf“fhfE,đŋŋ, ,.é,½,Ñ,ÉŋCS@‘S,ÉfEfBf“fhfEfVfŋVŋ[fWff,đŋŋ,μ,È,¯,è,İ,È,è,Û,¹,ñŋB,È,“
ŋC,±,±,Ä,İufEfBf“fhfEŋv,Æ,ç,x—pCè,ÄŋCfEfBf“fhfEŋCfRf“fgfŋŋ[f<,È,çŋC%œ-È,É·\
Žŋ,³,è,é,³,Û,´,Û,È,à,İ,đ·\,μ,Ä,ç,Û,·B

Delphi ,Ä,íC^È%º,ÉŽŋ,·•û-@,ÄfŋfbfZ[fW,İffBfXfpbf` ,əPŋ%º»³,è,Ä,ç,Û,·B

- ,x,Ä,İfRf“fŋ[fŋf“fg,íCŠ@‘S,ÉfŋfbfZ[fWffBfXfpbf` <@ŋ\,đCepŋ³,.,é
 - fffBfXfpbf` <@ŋ,É,İfftfHf<fg,İŋ^—ŋ•û-@,ª, ,éŋB“ÆŽŋ,İŋ^—
- ŋ,đŋs,xfŋfbfZ[fW,É’í,μ,Ä,İ,ÝŋV,μ,çfnf“fhf%º,đ’è< ,.é
- fŋfbfZ[fWŋ^—ŋ,đŋ,μ,¾,¯·İŋX,μ,Äžc,è,İŋ^—ŋ,đCepŋ³fŋfbfh,É,Û,©,¹,é,±,Æ,ª,Ä,«.,é
- ,±,İfŋfbfZ[fWffBfXfpbf` <@ŋ,Ä,íC“C^Ó,İfŋfbfZ[fW,đ“C^Ó,İfRf“fŋ
ŋ[fŋf“fg,É”C^Ó,İžž“_,Ä^Ä’S,É—,é,±,Æ,ª,Ä,«.,Û,·BfRf“fŋ[fŋf“fg,əfnf“fhf%º,đžŋ,Ä,Ä,ç
,È,çfŋfbfZ[fW,İfftfHf<fg,İ•û-@,Äŋ^—ŋ,³,è,Û,·B

fbfZ[fWCEo~H,İfgfCE[fX

Delphi ,Ä,íCfAfvfŠfP[fVf#f“,İSefRf“fŋ
ŋ[fŋf“fgC^ ,İfEfBf“fhfEfVfŋVŋ[fWff,Æ,μ,ÄŋCMainWndProc ,Æ,ç,x-¼‘O,İfŋf
fbfh,ə“o~^ ,³,è,Û,·BMainWndProc ,É,İ—áŠŋŋ^—ŋfufŋfbfN,ª, ,è,Û,·B,±,±,ÄŋCWindows
,©,ç,İfŋfbfZ[fWfCEfRŋ[fh,đ WndProc ,Æ,ç,x%º¼‘zfŋf
fbfh,É“n,μ,Û,·B,Û,½ŋCfAfvfŠfP[fVf#f“fŋfufWfFfNfg,İ HandleException ffbfh,đCÄ,Ñŋo,.,±
,Æ,Ä,·,x,Ä,İ—áŠŋ,đŋ^—ŋ,μ,Û,·B

MainWndProc ,İŋÄ“İfŋfbfh,ÄŋC“Á’è,İfŋfbfZ[fW,É’í,.,éŋ^—ŋ,đŋs,ç,Û,¹,ñŋBSefRf“fŋ
ŋ[fŋf“fgC^ ,İ,±,İfŋfbfh,đfŋŋ[fŋ%ºfCfh,Ä,«.,é,İ,ÄŋCfjfxf^f}fCfY,İ WndProc ,Äŋs,İ,è,Û,·B

WndProc fŋfbfh,İŋCŋ^—ŋ,É%ºe<ž,.,é,æ,x,Èŋó‘Ô,É,Ä,ç,ÄCÿŋ, ,μŋC·s—v,ÈfŋfbfZ[fW,đŋufgf
%ºfbfvŋv,μ,Û,·B,½,Æ,İ,İŋCfRf“fŋ[fŋf“fg,İf}fEfX,İfhf%ºfbfO’tŋCfLŋ[f{ŋ[fhfCxf“fg,đ-
³ž<,μ,Û,·B,».,İ,½,ßŋCTWinControl.WndProc ,İfRf“fŋ[fŋf“fg,əfhf%ºfbfO,³,è,Ä,ç,È,ç
,Æ,«.,É,İ,ÝŋCfLŋ[f{ŋ[fhfCxf“fg,đžŸ,É“n,μ,Û,·BŋÄŋI,É WndProc ,İŋCtObject
,©,çCepŋ³,μ,½ŋÄ“İfŋfbfh Dispatch ,đCÄ,Ñŋo,μ,Û,·BDispatch fŋfbfh,İŋCfŋfbfZ[fW,đŋ^—
ŋ,.,éfŋfbfh,đCè^è,μ,ÄCÄ,Ñŋo,μ,Û,·B

Dispatch ,İŋCfŋfbfZ[fW,đfffBfXfpbf` ,.é•û-@,đCè^è,.,é,İ,ÉŋCfŋfbfZ[fWfCEfRŋ[fh,İ Msg
ftfBŋ[f<fh,đžg—p,μ,Û,·BfRf“fŋ[fŋf“fg,ª,»),İfŋfbfZ[fW,É’í,.,éfnf“fhf%º,đ’è< ,μ,Ä,ç
,éŋŋ,É,İŋCDispatch ,İ,»),İfŋfbfh,đCÄ,Ñŋo,μ,Û,·BfRf“fŋ
ŋ[fŋf“fg,ª,»),İfŋfbfZ[fW,É’í,.,éfnf“fhf%º,đ’è< ,μ,Ä,ç,È,çŋŋ,É,İŋCDispatch ,İ DefaultHandler
,đCÄ,Ñŋo,μ,Û,·B

ŽQÆ14287

f\bZ[fW^—<@

Windows f\bZ[fW,ì“à—e

f[]fbfz[][fW[]^—[]•û-@,ì•ï[]X14288

ŽQ[]Æ

fRf“f|[][f|f“fg,ì[]fbfz[][fW[]^—[]•û-@,đ•ï[]X,·,é’O,É[]C-{-,É•ï[]X,·,é•K—v,^a, ,é,ì,©,Ç,⌘
,©,đŠm”F,μ,Ä,,^{3/4},³,ç[]BDelphi ,í’â•”•^a,ì Windows f[]fbfz[][fW,đ[]CfRf“f|[][f|f“fgŠj”ŽÒ,ÆfRf“f|
[][f|f“fgft[][fU[][,ì—^{1/4}•û,^a^—[],Å,«,éfCxf“fg,É•İŠ·,μ,Û,·[]B,^{1/2},ç,Ä,ç,ìèè[]‡,í[]Cf[]fbfz[][fW[]^—
[],ì“@[]ì,đ•ï[]X,·,é,æ,è,à[]CfCxf“fg[]^—[],ì“@[]ì,đ•ï[]X,·,é•û,^a“K[]Ø,Å,·[]B

f[]fbfz[][fW[]^—[]•û-@,đ•ï[]X,·,é,É,í[]Cf[]fbfz[][fW[]^—[]f[]f[]b[]f[]h,đf|[][fo[][f
%[]of[]Cfh,μ,Û,·[]B,Û,^{1/2}[]Cf[]fbfz[][fW,đfgf%[]of[]bfv,·,é,±,Æ,É,æ,è[]C“Á’è,ì[]ó<μ%°°,Å,íRf“f|
[][f|f“fg,^af[]fbfz[][fW,đ[]^—[],μ,È,ç,æ,⌘,É,·,é,±,Æ,à,Å,«,Û,·[]B

ŽQÆ14289

f\bZ[fW^—<@\

V,u.c\bZ[fWf“fhf%o,i`̀=

fnf“fhf%of\fbfh,ìfì[fó[f%ofCfh14290

ŽQÆ —á

fRf“fì[fìf“fg,²fñfbfZ[fW,ð^—,·,é•û-@,ð•ïX,·,é,É,íC,»,ìfñfbfZ[fW,É'í
%ož,·,éfñfbfZ[fW^—ñfñfbfh,ðfì[fó[f%ofCfh,μ,Û,·ñBfRf“fì[fìf“fg,²,»,ìfñfbfZ[fW,É'í
%ož,·,éfñfbfh,ðŽ,Á,Ä,ç,È,çê‡,É,íCfñfbfZ[fW^—ñfñfbfh,ðV,μ,éCE¾,μ,Û,·ñB

fñfbfZ[fW^—ñfñfbfh,ðfì[fó[f%ofCfh,·,é,É,íCfì[fó[f%ofCfh,·,éfñf
fbfh,Æ“~ ,ñfñfbfZ[fWfCf“ffbfNfX,ðŽ,ÁV,μ,çñfbfh,ðfRf“fì
[fìf“fg,ÁéCE¾,μ,Û,·ñB **Override** Žw—ß,Á,Í,È, **message** Žw—ß,ðŽg—
p,μC^è'v,·,éfñfbfZ[fWfCf“ffbfNfX,ðŽw'è,μ,Û,·ñB

fñfbfh,ì-¼'O,à **var** fpf%of[f^,ìC^,àCfì[fó[f%ofCfh,³,è,éfñfbfh,Æ^è'v,³,¹,é•K—
v,í, ,è,Û,¹,ñB^è'v,³,¹,é,ì,íCfñfbfZ[fWfCf“ffbfNfX,¾,~,Á,·ñB,½,¾,μCfñfbfZ[fW^—ñfñf
fbfh,ì-¼'O,ðC,»,è,²^—,·,éfñfbfZ[fW,ð·\,·,æ,π,É•t,~,è,íCfR[fh,²,í,©,è,â,·,È,è,Û,·ñB

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,½,Æ,¡,î□CfRf“f□□[f]f“fg,ì WM_PAINT f□fbfZ□[fW,ì□^—□,ðfI□[fo□[f%ofCfh,·;é,É,Í□CŽŸ,ì,æ,α,É
WMPaint f□f\fbfh,ð□Ä□éÆ¾,μ,Ü,·□B

type

```
TMyComponent = class(...)
```

```
...
```

```
  procedure WMPaint(var Message: TWMPaint); message WM_PAINT;
```

```
end;
```

ŽQÆ14292

f̄bfZ[fWpf%of[f^,iŽg,č•û

f̄bfZ[fW.lfgf%ofbfv

fbfZ[fWfpf%o[f^,iŽg,ç•û14293

ŽQÆ

f f b f Z [f W ^ — f f f b f h , i Ž Å s ' t C f R f " f [f l f " f g , í , » , l f f b f Z [f W f C e f R [f h , ì , , x , Ä , l f p f % o f [f ^ , É f A f N f Z f X , Å , « , Ü , · B f f b f Z [f W , í , í , É **var** f p f % o f [f ^ , È , Ì , Å C f n f " f h f % o , Í • K — v , È é ê ÷ , É p f % o f [f ^ , ì ' l , ð • Ì X , Å , « , Ü , · B R e s u l t f t f B [f < f h , í C • Ì X , · , é , ± , Æ , ì ' ½ , ç f p f % o f [f ^ , Å , · B R e s u l t , í C f f b f Z [f W , ð ' — , Å , ½ S e n d M e s s a g e , © , ç • Ô , ³ , ê , é ' l , Å C W i n d o w s , l f } f j f ... f A f < , Å , l f f b f Z [f W , ì u - ß , è ' l v , Æ E Ä , Ì , ê , Ä , Ü , · B

f f b f Z [f W ^ — f f f b f h , ì M e s s a g e f p f % o f [f ^ , ì C E ^ , í C f f b f Z [f W , È , æ , Á , Ä • Ì % o » , µ , Ü , · B C E Ä X , l f p f % o f [f ^ , ì - ¼ ' O , Æ ^ Ó - j , È , Å , ç , Ä , í C W i n d o w s f f b f Z [f W , É Š Ö , · , é f } f j f ... f A f < , ð Ž Q Æ , µ , Ä , , ¾ , ³ , ç B

, È , ñ , ç , © , ì — — R , Å C f f b f Z [f W f p f % o f [f ^ , ð < C E Ž ® , ì - ¼ ' O (w P a r a m , I P a r a m , È , Ç) , Å Ž Q Æ , · , é é ê ÷ , í C M e s s a g e , ð T m e s s a g e , É C E ^ f L f f f X f g , µ , Ü , · B T m e s s a g e C E ^ , Å , í C f f b f Z [f W f p f % o f [f ^ , ì < C E Ž ® , ì - ¼ ' O , Å Ž Q Æ , ³ , ê , Ü , · B

ŽQÆ14294

Windows ffbfZ[fW.ì“à—e

fnf“fhf%of\fbfh.ìf[f%ofCfh

fbfZ[fW.ìgf%ofbfv

fbfZ[fW,ìfgf%fbfv14295

ŽQÆ —á

, ,éfRf“f|f|f“fg,É,Á,ç,ÄC“Á’è,ìó<μ%º,Á,í“Á’è,ìf|fbfZ[fW,ð-³Ž<³,¹,½,çê±,ª, ,è,Ü,·B,Á,Ü
,èCfRf“f|f|f“fg,ª,» ,ìf|fbfZ[fW,ðfnf“fhf%º,ÉffBfXfpfbf` ,μ,É,ç,æ,κ,É,·,é,í,¯,Ä,·B,±,ì,æ,κ
,ÉCf|fbfZ[fW,ðfgf%fbfv,·,é,É,íCWndProc ,Æ,ç,κ%¼‘zf|fbfh,ðf|fo[f%ofCfh,μ,Ü,·B

WndProc f|fbfh,íCf|fbfZ[fW,ðftfBf<f^,É,©,¯,Ä’I”²,μ,Ä,©,ç Dispatch f|fbfh,É“n,μ,Ü,·B,» ,ìæãCDispatch f|fbfh,ªf|fbfZ[fW,ð^—,·,éf|fbfh,ðÆ^`è,μ,Ü,·BWndProc ,ðf|fo[f%ofCfh,·,é,É,íCffBfXfpfbf` ,³,è,é‘O,Éf|fbfZ[fW,ð’I”²,Á,« ,Ü,·B

WndProc ,ðf|fo[f%ofCfh,·,é^è”É“l,ÈfR[fh,íŽÿ,ì,Æ,¯ ,è,Á,·B

```
procedure TMyControl.WndProc (var Message: TMessage);  
begin  
  { ^—,ìæp±,ðÆ^`è,·,é,½,β,ìðæ }  
  inherited WndProc (Message); { ‘É,ì,ìffBfXfpfbf` }  
end;
```

—á14296

ŽŸ,lfR[fh,íCTControl,ìWndProc f\fbfh,ì^ê•"•ª,Å,·BTcontrol
,Å,íCf+[fU[,ªfRf"fgf[f<,ðfhf%fbfOfAf"fhfhf[fbfv,µ,Å,ç
,é,Æ,«,íC,·,x,Ä,lf}fEfxfbfZ[fW,ÉftfBf<f^,ð,©,·,Ä"Á•É,É^—,ðs,ç,Ü,·BWndProc
,ðf[f%ofCfh,·,é•û-@,É,íC^È%º,ì 2 ,Ä,ì~"·,ª, ,è,Ü,·B

- fnf"fhf%o,ðCEÁ•É,ÉŽw'è,·,é,©,í,è,ÉCf[fbfZ[fW,ì, ,é"í^í'S'ì,É'í,µ,ÄftfBf<f^,ð,©,·,ç,é,é
- f[fbfZ[fW,ªfffBfXfpfbf` ,ª,é,È,ç,ì,ÅCfnf"fhf%o,í,Ü,Á,½,CEÄ,Ño,ª,é,È,ç

```

procedure TControl.WndProc(var Message: TMessage);
begin
  ...
  if (Message.Msg >= WM_MOUSEFIRST) and (Message.Msg <= WM_MOUSELAST)
  then
    if Dragging then { fhf%fbfo,ð"Á•É,É•û-@,Å^— }
      DragMouseMsg(TWMMouse(Message))
    else
      ... { ,» ,é^ÈŠO,í•É,É^— }
    end;
  ... { ,» ,é^ÈŠO,í•É,É^— }
end;

```

ŽQÆ14297

fnf“fhf%of\fbfh,ìfi[[fo[[f%ofCfh

f[fbfZ[[fWfpf%of[[f^,ìŽg,č•ù

V,μ,ϕf fbfZ fWfnf“fhf%o,ìì-14298

ŽQÆ

Delphi ,Å,íC,æ,Žg—p,³,ê,é Windows f fbfZ fW,ì,Ù,Æ,ñ,Ç,É'í,μ,Äfnf“fhf%o,^a—p^Ó,³,ê,Ä,ϕ
,Û,·B,μ,©,μC“ÆŽ©,ìf fbfZ fW,ð'è<` ,μ,½,Æ,<,íCŠJ”ŽÒŽ©g,^aV,μ,ϕf fbfZ fWfnf“fhf%o
,ðì- ,μ,É, ,ê,Î,È,è,Û,¹,ñB

f fU['è<` f fbfZ fW,É,Â,ϕ,ÄC^È%o^o,ì2€-Ú,ðà-³/₄,μ,Û,·B

- “ÆŽ©,ìf fbfZ fW,ì'è<`
- V,μ,ϕf fbfZ fW^—f fbfh,ìéE³/₄

ŽQÆ14299

f̄fbfZ̄[fW̄^—̄:̄@̄

f̄fbfZ̄[fW̄^—̄•û-@,ì•īX

“ÆŽ ©, ìf fbfZ [fW, ì'è` 14300

ŽQ Æ

‘½,, ì•W €fRf“f [fif“fg, Å, íC“à•”, ÅŽg—p, ·, é, ½, ß, ìf fbfZ [fW, ð'è` , ³, ê, Ä, ç
, Ü, ·B f fbfZ [fW, ð'è` , ·, é^ê”Ê“ì, Ê-Ú“ì, íC•W € Windows f fbfZ [fW, Å, Í^μ, í, ê, Ä, ç
, È, çî•ñ, âC ó‘Ô, ì•ïX, ð'Ê'm, ·, é, ±, Æ, Å, ·B

f fbfZ [fW, ð'è` , ·, éŽè` , íŽÿ, ì, Æ, ”, è, Å, ·B

- f fbfZ [fW Ž` •ÊŽq, ìéCE¾
- f fbfZ [fW fCEfR [fhCE^, ìéCE¾

ŽQÆ14301

V,μ,cfbfZ[fW^—f\bfh,iéE¾

f[]fbfZ[]fWŽ`•ÊŽq,ìéCE¾14302

ŽQ[]Æ —á

f[]fbfZ[]fWŽ`•ÊŽq,í[]@[]",ì'è[]",Å,·[]BWindows ,Å,íVfXfef€—p,É 1024 -ç-
ž,ìf[]fbfZ[]fWŽ`•ÊŽq,ª—\—ñ,³,è,Ä,ç,é,ì,Å[]CŠj"-

ŽÒ,ª"ÆŽ©,ìf[]fbfZ[]fW,ð[]éCE¾,·,é[]ê[]‡,í[]C,»,é^È[]ã,ì"Ò[]t,ð•t,·,Ü,·[]B

'è[]" WM_USER ,í[]Cf+[]fU[]['è<' f[]fbfZ[]fW,ìŠjŽn"Ò[]t,ð•\,μ,Ä,ç

,Ü,·[]Bf[]fbfZ[]fWŽ`•ÊŽq,ð'è<' ,·,é[]ê[]‡,í[]CWM_USER ^È[]ã,ì"Ò[]t,ðŽg—p,μ,Ü,·[]B

,½,¾,μ[]C, ,éŽí,ì•W[]€ Windows fRf"f[]g[]f[]f<,í[]Cf+[]fU[]['è<' —p,ì'í,ì"Ò[]t,ðŽg—p,·,é,±

,Æ,ª, ,è,Ü,·[]B,»,ì,æ,α

,ÈfRf"f[]g[]f[]f<,Æ,μ,Ä,í[]CfŠfXf[]g[]f{fbfNfX[]CfRf"f{f{fbfNfX[]C•Ò[]Wf{fbfNfX[]CfRf}f"f[]h[]f{f^f",ª,

,è,Ü,·[]B,±,ì,æ,α,ÈfRf"f[]g[]f[]f<,©,ç"[]h[]¶,³,¹,½fRf"f[]

[]f[]f"f[]g,Å[]V,μ,çf[]fbfZ[]fW,ð'è<' ,·,é[]ê[]‡,É,í[]C•K, , Messages ftj[]f[]b[]f[]g,Å Windows

,ª,»,ìfRf"f[]g[]f[]f<,É'í,μ,Ä'è<' ,μ,Ä,ç,éf[]fbfZ[]fW,ì"Ò[]t,ðŠm"[]F,μ,Ä,,¾,³,ç[]B

—á14303

ŽŸ,ìfR[]fh—á,í[]C2 ,Â,ìft[]fU[]['è<`f[]bfZ[]fW,ì'è<` ,đŽ!,μ,Ä,ç,Ü,·[]B

const

WM_MYFIRSTMESSAGE = WM_USER + 0;

WM_MYSECONDMESSAGE = WM_USER + 1;

ŽQÆ14304

f[]b[]fZ[][]fW[]f[]R[][]fh[]^,.)[]é[]¾

fbfZ[fWfCFR[fhCE^,ìéCE¾14305

ŽQÆ —á

fbfZ[fW,ìpf%o[f^,É-

¼'O,ð•t,¯,éê‡,É,íC,»),ìfbfZ[fW,ìCFR[fhCE^,ðéCE¾,μ,Û,·BfbfZ[fWfCFR[fhCE^,í
CfbfZ[fW^—f\fbfh,É“n,³,è,épf%o[f^,ìCE^,·BfbfZ[fW,ìpf%o[f^,ðŽg—
p,μ,È,çê‡,âC<Ž®,ìpf%o[f^•\L•û-@ (wParam, IParam,É,Ç) ,ðŽg—
p,·,éê‡,É,íCfftfHf<fg,ìfbfZ[fWfCFR[fh,Å, ,é Tmessage ,ðŽg—p,μ,Û,·B

fbfZ[fWfCFR[fhCE^,ðéCE¾,·,é,Æ,«,íŽŸ,ì-½-¼<K'¥,É],ç,Û,·B

- 1 fCFR[fhCE^,ì-¼'O,íC,»),ìfbfZ[fW,ì-¼'O,ìæ“ª,É T ,ð%Á,ì,½,à,ì,É,·,é
- 2 ,Û,·CÁ%o,ìtfB[f<fh,Æ,μ,Ä TMsgParam CE^,ì Msg ,ð'è<` ,·,é
- 3 ŽŸ,ì 2 foJfg,íCfpf%o[f^ wParam ,É'í%ž,·,é,æ,α,É'è<` ,·,é
- 4 ŽŸ,ì 4 foJfg,íCfpf%o[f^ IParam ,É'í%ž,·,é,æ,α,É'è<` ,·,é
- 5 ÅÆä,ÉCLongInt CE^,ìtfB[f<fh Result ,ð'è<` ,·,é

—á14306

,½,Æ,¡,íC,;,x,Ä,í}fEfXf[]fbfZ[]fW—p,íf[]fbfZ[]fWf[]EfR[]f[]h TWMMouse ,í—
á,ðŽÝ,ÉŽ!,μ,Û,·[]B

type

TWMMouse = **record**

Msg: TMsgParam; { []Á[]%,íftfB[]f<fh,íf[]fbfZ[]fW ID }

Keys: Word; { ,±,ê,^a wParam }

case Integer **of** { lParam,ðŽQ[]Æ,;é,É,í2,Ä,í•ú-@,^a, ,é }

0: (

XPos: Integer; { x []Á•W,Æ y []Á•W,©... }

YPos: Integer);

1: (

Pos: TPoint; { ... 1 ,Ä,í“_ }

Result: Longint); { []ÁÆã,í Result ftfB[]f<fh }

end;

TWMMouse ,Ä,íC%oÄ•íf[]EfR[]f[]h,ðŽg—p,μ,Ä 1 ,Ä,íf[]pf%oof[]f^,É 2 ‘g,íftfB[]f<fh,ð’è<’,μ,Ä,ç
,Û,·[]B

ŽQÆ14307

f̂fbfẐ[fWŽ̂•ÊŽq,ìéĈ^{3/4}

V,μ,ϕ fbfz [fW^—f\fbfh,ì éCE¾14308

ŽQÆ —á

V,μ,ϕ fbfz [fW^—f\fbfh,ì éCE¾,ª•K—v,É,È,é,ì,í^È%º,ì 2 ,À,ìé±,Á,·B

▪ •W€Rf“f [flf“fg,ª^—,Á,«,È,ϕ Windows fbfz [fW,ðCSJ”,·,éRf“f [flf“fg,Á^—
·,·,éé±

▪ ŠJ”,·,éRf“f [flf“fg,ÅŽg—p,·,é,½,β,É“ÆŽ©,ì fbfz [fW,ð`è<,μ,½é±
fbfz [fW^—f\fbfh,ð éCE¾,·,éŽè±,í^È%º,ì,Æ,“,è,Á,·B

1 Rf“f [flf“fg,ìNf%ofX éCE¾,ì **protected •**,Áf\fbfh,ð éCE¾,μ,Ü,·B

2 f\fbfh,ðŽè±,«,É,μ,Ü,·B

3 ^—,·,éfbfz [fW,ì-¼’O,ÉŠî,Ã,ϕ,Äf\fbfh,ð-½-¼,μ,Ü,·B,È,“CfAf“f_ [f%ofCf“•¶Žš,ª, ,
è,ìC,»,è,ðŽæ,èœ,«,Ü,·B

4 —B^è,ìpf%of [f^,Æ,μ,ÄCfbfz [fWfCEfR [fhCE^,ì Message ,ðŽw’è,μ,Ü,·B

5 Rf“f [flf“fg“ÆŽ©,ì^—fR [fh,ð<Lq,μ,Ü,·B

6 CEp³fbfz [fWfnf“fhf%º,ðCEÄ,Ño,μ,Ü,·B

—á14309

ft[]fU[]'è<`f[]fbfZ[]fW CM_CHANGECOLOR ,ì,½,ß,ìf[]fbfZ[]fWfnf“fhf%oo,ìéCE¾—
á,ð[]CŽŸ,ÉŽ!,μ,Û,·[]B

type

 TMyComponent = **class**(TControl)

 ...

procedure CMChangeColor(**var** Message: TMessage); **message**
CM_CHANGECOLOR;
 end;

procedure TMyComponent.CMChangeColor(**var** Message: TMessage);

begin

 Color := Message.lParam; { fpf%oo[]f^ lParam,É,æ,Á,Ä[]F,ð[]Ÿ'è }

inherited; { Cp[]³fnf“fhf%oo,ðCEÄ,Ñ[]o,· }

end;

ŽQÆ14310

“ÆŽ©.ìfbfZ[fW.ì'è<`

ClassInfo f\fbfh14311

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ÌfufWfFfNfg)

é¾

```
class function ClassInfo: Pointer;
```

à-¾

ClassInfo f\fbfh, ÌfufWfFfNfg^, ÌŽÀsŽž^ (RTTI) fe[fuf<, ðŽw, ·f]

fC“f^, ð·Ö, µ, Ü, ·BRTTI

fe[fuf<, É, ÌfufWfFfNfg^C, »), Ìä^ÊfufWfFfNfg^CpfufŠfbVf...

, ÉÝ'è, ¾, ·, ×, Ä, ÌvfpfefB Cfbfh Cxf“fg, É, Ä, ç, Ä, Ì·ñ, “ü, Ä, Ä, ç, Ü, ·B

RTTI , í Delphi ŠÀ<<, Ì“à·”, ÅŽå, ÉŽg, α, ½, ß, Ì, à, Ì, Å, ·BRTTI fe[fuf<, Ì“à—e, É, Ä, ç, Ä, ÌÚ×, í

TypeInfo ftfjfbfg, ðŽQÆ, µ, Ä, ¾, ¾, çB

ŽQÆ14312

ClassName ffbfh

ClassParent ffbfh

ClassType ffbfh

ClassName f\fbfh14313

ŽQÆ —á

“K—p

TObject (, ·, ×, Ä, ðfufWfFfNfg)

éÆ¾

class function ClassName: ShortString;

à-¾

ClassName f\fbfh, ðfufWfFfNfg, ðŽÀÛ, ðÆ^, ð-¼'O, ðŠÛ, p·ŕŽš—

ñ, ð·Ô, µ, Û, ·B, ½, Æ, !, ÎCTObject Æ^, ð·Ï”, É, Í, Ç, ð, æ, æ, ÈÆ^, ðfufWfFfNfg, àŠ,,, è“-

, Ä, Å, «, Û, ·BŽŸ, É, »), ð·Ï”, ð ClassName f\fbfh, ðÆÄ, Ño, ·, ÆCCClassName , Í TObject , Å, Í, È,-
CfufWfFfNfg, ÉŠ,,, è“-, Ä, ç, è, ½ŽÀÛ, ðÆ^, ð·Ô, µ, Û, ·B

, Û, Æ, ñ, Ç, ðé#CfufWfFfNfgÆ^, ð-¼'O, ð·K—v, É, È, é, ±, Æ, Í, , è, Û, ð, ñBfufWfFfNfg, ðÆ^, ðŠ
m”F, µ, È, , Ä, Í, È, ç, È, ç, é#Ï”, ðCis %%%ŽŽŽq, Û, ½, Í ClassType f\fbfh, ð·ù, ð ClassName , æ, è—
LÆø, ÈÏ·ñ, ð’ñ<Ÿ, µ, Û, ·B

-á14314

ŽŸ,lfR[fh,íC,Ç,lfufWfFfNfg,lfhf[fbfv,ð,àŽó,~“ü,ê,éftfH[f€,É, ,éfŠfXfgf{fbfNfX,ì
OnDragDrop fCxf“fgfnf“fhf%o,ðŽ!,μ,Û,·B,±,lfnf“fhf%o,lfhf%ofbfO,³,ê,Ä,«,^{1/2}€-
Ú,ìCE³,lfufWfFfNfgCE^,ì-^{1/4}‘O,ðC,»»,ê,^a,Ç,ìCE^,Ä, ,Ä,Ä,àCfŠfXfgf{fbfNfX,É‘Ç
%oÁ,μ,Û,·BSource fpf%of[f^,í Tobject CE^,É,È,Ä,Ä,ç
,Û,·,^aCŽÄÛÛ,É,í,»»,ê,^a,Ç,ìCE^,lfufWfFfNfg,ðŽQ[Æ,·,é,©,^aFŽ⁻,³,ê,Ä,ç,é,±,Æ,É’-Ú,μ,Ä,-
,^{3/4},³,çB

```
procedure TForm1.ListBox1DragOver(Sender, Source: Tobject; X, Y: Integer;  
State: TDragState; var Accept: Boolean);
```

```
begin  
Accept := True; { .Ç,lfufWfFfNfgCE^,Ä,àŽó,~“ü,ê,Û,· }  
end;
```

```
procedure TForm1.ListBox1DragDrop(Sender, Source: Tobject; X, Y:  
Integer);
```

```
begin  
ListBox1.Items.Add(Source.ClassName);  
end;
```

ŽQÆ14315

ClassInfo ffbfh

ClassParent ffbfh

ClassType ffbfh

ClassNames f\fbfh14316

ŽQÆ

“K—p

Object (,·,×,Ä,lfufWfFfNfg)

é¾

```
class function ClassNameIs(const Name: string): Boolean;
```

à-¾

ClassNames f\fbfh,íCName fpf%o[f^,É“n,μ,½·,ç•¶Žš—ň,afNf%ofX-
¼,Æ^ê'v,·,éê¶,É True ,đ•Ô,μ,Ü,·B,».,ê^ÈŠO,ìê¶,íCFalse
,đ•Ô,μ,Ü,·B'Éí,íCClassName fvf\fpfefB,ì'l,đf`fFbfN,·,é•û,²ŠÈ'P,Å,·,²C•Ê,ìf,fWf...
[f<“à,lfufWfFfNfg,đ-â,ç¶,í,¹,éê¶,íCClassNames ,ì•û,²CEø—!‘l,Å,·B

ŽQÆ14317

ClassName ffbfh

ClassParent f\fbfh14318

ŽQÆ

“K—p

TObject (., ×, Ä, ðfufWfFfNfg)

é¾

class function ClassParent: TClass;

à-¾

ClassParent f\fbfh, ðfufWfFfNfg[^], ð 1, Ä[^]Ä[^]Ê, ðfufWfFfNfg[^], ð•Ö, µ, Ü, ·BClassParent, ðŽg, x, ÄC, , éfufWfFfNfg, Ü, ½, ðfufWfFfNfg[^], a'¼, Ä'ä"üCEÝŠ, Ä, , é, ©, ð"»'è, Ä, «, Ü, ·BClassParent, Í Tobject CE[^], É'í, µ, Ä, Í **nil**, ð•Ö, µ, Ü, ·B

ClassParent f\fbfh, Í InheritsFrom f\fbfh, Ä%%ŽŽŽq, ð **is**, â **as**, ÄŽg, ç, Ü, , aC, ±, ðf\fbfh, ðCEÄ, Ño, •K—v, í, Ü, Ä, ñ, Ç, , è, Ü, ¹, ñB

ŽQÆ14319

ClassInfo ffbfh

ClassName ffbfh

ClassType ffbfh

ClassType f\fbfh14320

ŽQÆ —á

ftfjfbfg

System

“K—p

TObject (., ×, Ä, ðfufWfFfNfg)

é¾

function ClassType: TClass;

à¾

ClassType f\fbfh, ðfufWfFfNfg, ð•Ô, µ, Ü, ·BClassType f\fbfh, ðŽg, x, ÆC—
íÜfufWfFfNfg, ði“i, ÈÉ^, ðfR[fh, Å“@“i, ÉŠm“F, Å, «, Ü, ·Bis %%%ŽŽŽq, Å, à““, fl, æ, x
, Èí•ñ, ð¾, é, ±, Æ, ð, Å, «, Ü, ·, ðC, , éfufWfFfNfg, ð“Á’è, ðÉ^, Å, , é, ©““üÉÝŠ·, ðÉ^, Å, , é, ©, à’²,
x, ç, è, Ü, ·BClassType f\fbfh, í is , â as , ð%%ŽŽŽq, ÅÉÄ, Ño, ³, è, Ü, ·B

f\fbf: fufWfFfNfgÉ^, É, Å, ç, Ä, ðí•ñ, ð•Ô, ·¾, ðf\fbfh (ClassInfo, ClassName,
ClassParent) , Æ, í^á, çCClassType , ðfNf%ofXf\fbf
fbfh, Å, í, , è, Ü, ¹, ñB, Å, Ü, èCClassType
, ðfCf“fXf^f“fX, ðÉ^, ð’², x, é, ½, ß, ¾, , ÈÉÄ, Ño, ·, à, ð, ÅCfufWfFfNfgÉ^ŽQÆ, É, Å, ç
, Ä’², x, é, ±, Æ, í, Å, «, Ü, ¹, ñB

-á14321

ŽŸ,lfR[]fh,Á,í[]CfŠfXfgf{fbfNfX,ì OnDragOver fCxf"fgfnf"fhf%,É"n,· Sender fpf
%of[]f^,ìCE^,đ`fFbfN,·,é•û-@,đ 2 ,ÁŽ!,μ,Ü,·[]B[]Á[]%,lfnf"fhf%,Á,í[]Cft[]fU[],í TLabel
CE^,ì[]€-Ú,©,çhf%fbfO,³,ê,½[]€-Ú,μ,©fhf[]fbfv,Á,«,Ü,¹,ñ[]B2 "Ö-Ú,lfnf"fhf%,Á,í TLabel
CE^,Æ,»,ì%^o^ÊfufWfFfNfgCE^,ì[]€-Ú,©,çhf%fbfO,³,ê,½[]€-Ú,çhf[]fbfv,Á,«,Ü,·[]B

```
procedure TForm1.ListBox1DragOver(Sender, Source: TObject; X, Y: Integer;  
  State: TDragState; var Accept: Boolean);  
begin  
  if Sender.ClassType = TLabel then Accept := True;  
end;
```

```
procedure TForm1.ListBox1DragOver(Sender, Source: TObject; X, Y: Integer;  
  State: TDragState; var Accept: Boolean);  
begin  
  if Sender is TLabel then Accept := True;  
end;
```

ŽQÆ14322

ClassInfo ffbfh

ClassName ffbfh

ClassParent ffbfh

CleanupInstance ffbfh14323

ŽQÆ

“K—p

TObject (, , x, Ä, ðfufWfFfNfg)

é¾

procedure CleanupInstance;

à-¾

CleanupInstance ffbfh, íCfNf%ofX“à, ð, ç, ðŽš—ñ, ÆfÆfR[fh, É‘í, , éI—¹^—
ð, ðŽÀs, µ, Ü, ·BFreeInstance ffbfh, í CleanupInstance , ðÆÄ, Ño, µ, Ü, ·B

ŽQÆ14324

Freelance ffbfh

Create f\fbfh14325

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ìfufWfFfNfg)

é¾

constructor Create;

à-¾

Create f\fbfh, íV, µ, çfufWfFfNfgCf“fXf^f“fX, ðì—, µ, Ü, ·BCreate

, íCfOf[fof<fq[fv, ÉŠ,,, è“—

, Ä, ç, è, ½C—, ¾, è, ½É^, ìCf“fXf^f“fX, ð•Ô, µ, Ü, ·B, ·, ×, Ä, ìRf“fXfgf%ofNf^, ìè±, Æ“—, ¶, æ, x

, ÉCCreate , ÌŽ © •ª, ìR[fh, ðŽÀ[s, ·, é’O, É NewInstance f\fbfh

f\fbfh, ðCEÄ, Ño, µ, ÄfCf“fXf^f“fX, ðf, fŠ, ÉŠ,,, è“—, ÄCInitInstance f\fbfh, ðCEÄ, Ño, µ, ÄŠ,,, è“—

, Ä, ç, è, ½f, fŠ, ð%Šú%», µ, Ü, ·B

fftfHf<fg, Ä, íCCreate , í InstanceSize f\fbfh, É, æ, Ä, Ä•Ô, ¾, è, ½fofCfg, ðŠ,,, è“—, ÄCŠ,,, è“—

, Ä, ½f, fŠ, ð 0 , É%Šú%», µ, Ü, ·B

V, µ, çRf“f[fif“fgÉ^, ðé¾, ·, é, Æ, «C—V, µ, çRf“f[fif“fg,ª Create f\fbfh

f\fbfh, ðé¾, ·, éè±, í•K, , **override** Žw—ß, ð’Ç%Á, µ, Ü, ·BComponent , ì Create f\fbfh, í

%¼’zf\fbfh, È, ì, ÄCft[fU[,ªRf“f[fif“fg, ðftfH[f€, Éfhf\fbfv, µ, ½, Æ, «, É Delphi

, Ä³, µ, çRf“fXfgf%ofNf^,ªCEÄ, Ño, ¾, è, é, ±, Æ, ð•ÛØ, ·, é, É, íCCreate f\fbfh, ðf[fof[f

%ofCfh, µ, È, , Ä, í, È, è, Ü, ¹, ñB

f\fbfh: %o^ÊfufWfFfNfgÉ^, Ä Create fRf“fXfgf%ofNf^, ðf[fof[f

%ofCfh, ·, éè±, íCCÉp³, ¾, è, ½ftfB[f<fh, âfvf\pfefB, ì%Šú%», ðŠ®—

¹, ·, é, ½, ß, ÉCCÉp³, ¾, è, ½ Create f\fbfh, ðCEÄ, Ño, µ, Ü, ·BÉp³, ¾, è, ½ Create

, ðCEÄ, Ño, ·, Æ, «, É, íC•K, , **inherited** fL[f[fh, ðŽg, çCAncestorType

, ðCEÄ, Ño, ·, È, Çã^Ê, ìÉ^, ìŽw’è, í, µ, Ü, ¹, ñBCreate

, í, » , ìã^Ê, ìÉ^, ìCf“fXf^f“fX, ðŽÀÛ, É’Ç%Áì—, µ, Ü, ·B

ŽQÆ14326

Destroy ffbfh

NewInstance ffbfh

InitInstance ffbfh

InstanceSize ffbfh

DefaultHandler f\fbfh14327

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ìfufWfFfNfg)

é¾

procedure DefaultHandler(**var** Message); **virtual**;

à-¾

DefaultHandler f\fbfh, íCfufWfFfNfg, ì“Á’è, ìfnf“fhf%o, ðŽ, ½, È, çf\fbfZ[fW, ð^—
·, μ, Ü, ·BTObject , Á’è<` , ¾, é DefaultHandler f\fbfh, í%o½, à, μ, Ü, ¹, ñB, Ä, Ü, èCMessage fpf
%of[f^, Á“n, ¾, é, ½f\fbfZ[fWfçfR[fh, É’î, μ, Ä^—, ð, μ, Ü, ¹, ñB

f\fbfZ[fW^—f\fbfh, Á **inherited** , ðÄ, Ño, μ, ½é#C^—îÚf\fbfZ[fW, ìfnf“fhf%o
, ðã^ÉfufWfFfNfg, ÄŽw’è, ¾, é, Ä, ç, È, ç, ÆCã^ÉfufWfFfNfg, ì DefaultHandler f\fbfh,
æÄ, Ño, ¾, é, Ü, ·B

TControl ,Æ TWinControl , Ä, íC, ·, ×, Ä, ì%o^ÉÇ^, ìf\fbfZ[fW, ì^—, Ä DefaultHandler
, ðf[f%ofCfh, μ, Ü, ·BControl.DefaultHandler , íCfRf“fgf[f<, ìfefLfxfg, ð\$Çä, ·, é, ½, B, É
Windows , ©, ç’—, ç, é, éf\fbfZ[fW (WM_GETTEXT, WM_SETTEXT, WM_GETTEXTLENGTH)
, ð^—, μ, Ü, ·BWinControl.DefaultHandler , í CallWindowProc API ŠÖ”, ðÄ, Ño, ·, ±
, Æ, É, æ, èC, ±, ìŠÖ”, ðÄ, Ño, ¾, È, çÄ, è^—
¾, ¾, é, È, çf\fbfZ[fW, ðRf“fgf[f<, ìfEfBf“fhfEfvfV[fWff, É“n, μ, Ü, ·B

ŽQÆ14328

Dispatch ffbfh

Destroy f\fbfh14329

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ÌfufWfFfNfg)

é¾

destructor Destroy; **virtual**;

à-¾

Destroy f\fbfh, ÌfufWfFfNfgfCf“fXf^f“fX, ð”pŠü, µC”jŠü, µ, Ü, ·B¼Ú Destroy
, ðÄ, Ño, ·, ±, Æ, Í, Ù, Æ, ñ, Ç, È, C, » , Ì, ©, Í, è, É Free , ðÄ, Ño, µ, Ü, ·BFree , Í Destroy
, ðÄ, Ño, ·O, ÉfufWfFfNfgfCf“fXf^f“fX, ð **nil** , Ä, È, ç, ±, Æ, ðŠm”F, µ, Ü, ·B

f\fbfh : fufWfFfNfgÆ^, Ä Destroy f\fbfh, ðé¾, ·, é, Æ, «, É, Í•K, , **override** Žw—ß, ð’Ç
%oÁ, µCCEp³, è, ½ Destroy , ðÄé¾, µ, ½f\fbfh
fbfh, ÌÄæã, Ì•¶, Æ, µ, ÄÄ, Ño, µ, Ü, ·BDestroy , Í¼’zf\fbfh, È, Ì, ÄCCEp³, è, ½“ @ Ì, ð³, µ, ŽÄs, è, é, æ, æ, É, ·, é, É, Í, » , è, ðf\fo\ff
%ofCfh, µ, Ü, ·B

ŽQÆ14330

Create ffbfh

Free ffbfh

FreeInstance ffbfh

Dispatch f\fbfh14331

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ðlfufWfFfNfg)

éÆ¾

procedure Dispatch (var Message) ;

à-¾

Dispatch f\fbfh, í Message fpf%of^, ð—e, ÉŠî, Ä, ç, ÄlfufWfFfNfg, ðfbfZ[fW^—f\fbfh (ufnf“fhf%ov), ðÆÄ, Ño, µ, Ü, ·BMessage, íÆ^, È, µ, È, ð, ÄCDispatch, É, í, Ç, ð, æ, x, ÈÆ^, ðff[f^, à“n, ð, ·, ·C’Éí, í TMessage, È, Ç, ðfbfZ[fWfÆfR[fh, à“Á’è, ðfbfZ[fWfÆfR[fhÆ^, ð, Ç, è, ©, ð“n, µ, Ü, ·B

Message, ðff[f^, É, Ä, ç, Ä Dispatch, à—B^ê•K—v, Æ, ·, é, ð, ðCÄ%, ð 2 fofCfg, ÉfbfZ[fW ID, à“ü, Ä, ç, è, ±, Æ, Ä, ·BfbfZ[fW ID, ðCDispatch, àfbfZ[fW, ð—

·, ·, é, ½, ß, ÉÆÄ, Ño, ·fbfZ[fWfnf“fhf%o, ðŽ!, ·@“Æ^, ð“l, Ä, ·BlfufWfFfNfg, ð“Á’è, ðfbfZ[fW, É, Ä, ç, Äfnf“fhf%o, àŠ,, è—, Ä, ç, è, Ä, ç, È, çê±, ðCDispatch, í, ©, í, è, É DefaultHandler, ðÆÄ, Ño, µ, Ü, ·B

“Á’è, ðfbfZ[fW, ðfffBfXfpfbf` , ·, é, É, ðCDispatch, í, Ü, ·fbfZ[fW, ðfffBfXfpfbf` , ·, é, ½, ß, ÉÆÄ, Ño, ³, è, Ä, ç, élfufWfFfNfg, ðfbfZ[fWfnf“fhf%o, ðŠfXfg, ð’², x, Ü, ·BfbfZ[fW, à, » , ðlfufWfFfNfg, Ä^—, ³, è, È, çê±CDispatch, ðfnf“fhf%o, ðÆ©, Ä, ¯, é, Ü, ÄC, Ü, ½, í, ðã^ÉlfufWfFfNfgÆ^, à, È, - , È, é, Ü, ÄC, » , ðã^É, ðlfufWfFfNfgÆ^, ðfbfZ[fWfnf“fhf%ofŠfXfg, ð’², x, Ü, ·Bã^ÉlfufWfFfNfgÆ^, à, È, , È, é, Ü, ÄfbfZ[fWfnf“fhf%o, àÆ©, Ä, ©, ç, È, çê±, í DefaultHandler, ðÆÄ, Ño, µ, Ü, ·B

ŽQÆ14332

DefaultHandler.f\fbfh

Perform.f\fbfh

FieldAddress f\fbfh14333

ŽQÆ

“K—p

TObject (., ×, Ä, ðfufWfFfNfg)

é¾

```
function FieldAddress(const Name: ShortString): Pointer;
```

à-¾

FieldAddress f\fbfh, í Name fpf

%f[f^, ÅŽw'è, ¾, ðfufWfFfNfgftfB[f<fh, ðfAfhfX, ð•Ö, µ, Ü, ·BfufWfFfNfg, ÉŽw'è, ¾, ½

-¼'O, ðpfufŠfbfVf...ftfB[f<fh, È, ÷, ê, ðfFieldAddress , í nil , ð•Ö, µ, Ü, ·B

ŽQÆ14334

MethodAddress ffbfh

Free f\bfbfh14335

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ÌfufWfFfNfg)

é¾

procedure Free;

à-¾

Free f\bfbfh, ÌCfufWfFfNfgfC“fXf^f“fX,^a **nil**, Å, È, çê‡, É Destroy f\bfbfh, ðÄ, Ño, µ, Ü, ·B'Éí, Í Destroy , ð¼ÚÄ, Ño, ·, æ, è, Í Free , ðÄ, Ño, µ, Ü, ·B

ŽQÆ14336

Destroy ffbfh

FreeInstance f\fbfh14337

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ÌfufWfFfNfg)

é¾

procedure FreeInstance; **virtual**;

à-¾

FreeInstance f\fbfh, í NewInstance f\fbfh, É, æ, éf, fš, Ìš,, è“-, Ä, ð
%ø, µ, ·BNewInstance ,Æ FreeInstance , í—¼•û, Æ, àCš,, è“-, Ä, é, Ü, ½, Íš,, è“-, Ä, ð
%ø, ·, éf, fš, Ì—É, ðÉ^, ß, é, ½, ß, É InstanceSize , ðÉÄ, Ño, µ, Ü, ·B
FreeInstance , í NewInstance , ðf[f%ofCfh, µ, ½, Æ, «, É, ¾, f[f%ofCfh, µ, Ü, ·B

ŽQÆ14338

NewInstance ffbfh

InstanceSize ffbfh

InheritsFrom f\fbfh14339

ŽQÆ —á

“K—p

TObject (,·,×,Ä,lfufWfFfNfg)

é¾

class function InheritsFrom(AClass: TClass): Boolean;

à-¾

InheritsFrom f\fbfh,íCAClass fpf

%f[f^,ÉŽw'è,³,ê,½lfufWfFfNfgCE^,³lfufWfFfNfgCE^,ìä^Ê,ìCE^,Å, ,é,©lfufWfFfNfgCE^,
»,ì,à,ì,Å, ,éê±,É True ,ð•Ô,μ,Û,·B,»,é^ÊŠO,ìê±,Í False ,ð•Ô,μ,Û,·BInheritsFrom
,í,»,ìŽÀCE»,ìÛ,É is ,â as ,ì%%ŽŽžq,Åžg,í,é,Û,·B

InheritsFrom ,lfNf%ofXf\fbfh,È,ì,ÅC2

,Å,lfufWfFfNfgCE^,ìŠÖCEW,ð'²,×,é,Æ,«,Éžg,ì,Û,·Bis %%
%%ŽŽžq,lfCf“fXf^f“fX,ìCEp³ŠÖCEW,μ,©'²,×,é,±,Æ,í,Å,«,Û,¹,ñB

—á14340

ŽŸ,ì•Ò□Wf{fbfNfX,lfNfŠfbfNfCfxf“fg,lfCfxf“fgfnf“fhf%o,É,Í□C““,¶'€□ì,ð,·,é•¶,ª 2 ,Â“ü,Á,Ä,ç
,Ü,□B

```
procedure TForm1.Edit1Click(Sender: TObject);  
begin  
  if Sender is TEdit then TEdit(Sender).Color := clGreen;  
  if Sender.InheritsFrom(TEdit) then TEdit(Sender).Color := clGreen;  
end;
```

ŽQÆ14341

ClassParent.f\fbfh

InitInstance f\fbfh14342

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ð, ÷, ÷, ÷, ÷)

é¾

class procedure InitInstance(Instance: Pointer): TObject;

à-¾

InitInstance f\fbfh, íV, µ, Š,, è“-Ä, ç, ê, ½f\fbfhfNfgfCf“fXf^f“fX, ð, ·, ×, Ä 0 , É%Šú
%»µ, Ü, ·BInitInstance , í%¼‘zf\fbfh, Å, Í, È, ç, ð, ÅCfI[f%ofCfh, ·, é, ±, Æ, Í, Å, «, Ü, ¹, ñB

ŽQÆ14343

Create ffbfh

NewInstance ffbfh

InstanceSize f\fbfh14344

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ðfufWfFfNfg)

é¾

class function InstanceSize: Longint;

à-¾

InstanceSize f\

fbfh, ðfufWfFfNfgÆ^, ðefCf“fXf^f“fX, ðfTfCfY, ðfofCfYg”, Å•Ô, µ, Ü, ·B InstanceSize

, ðfufWfFfNfg, ðv[f<, ðŠ,,, è“-Ä, éf, fŠ, ð—Ê, ðÆ^, ð, é, ½, ð, ÉÆÄ, Ño, µ, Ü, ·B

NewInstance f\fbfh, íC“Á’è, ðfCf“fXf^f“fX, É’í, µ, Äfq[fv, ©, ç, Ç, è, ¾, ðf, fŠ, ðŠ,,, è“-

, Ä, é, ©, ðÆ^, ð, é, ½, ð, É InstanceSize, ðÆÄ, Ño, µ, Ü, ·B FreeInstance f\

fbfh, ðfufWfFfNfg, ðf, fŠ, ðŠ,,, è“-Ä, ð%ðœ, ·, é, ½, ð, É InstanceSize, ©, ç•Ô, ¾, é, é’l, ðŽg, ç

, Ü, ·B

f\: InstanceSize, í%¾’zf\fbfh, Å, í, È, ç, ð, ð, ÄCf[f[f%ofCfh, ·, é, ±

, Æ, í, Å, <, Ü, ¾, ðBfCf“fXf^f“fX, ÉŠ,,, è“-Ä, ç, è, ½f, fŠ, ð—Ê, ð•íX, ·, é, ½, ð, É

NewInstance, ðf[f[f%ofCfh, µ, ½é#C“”, ¶—Ê, ðf, fŠ, ð%ð•ú, ·, é, É, í

FreeInstance, àf[f[f%ofCfh, µ, Ä, , ¾, ¾, çB

ŽQÆ14345

NewInstance ffbfh

FreeInstance ffbfh

MethodAddress f\fbfh14346

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ðfufWfFfNfg)

é¾

class function MethodAddress(**const** Name: ShortString): Pointer;

à-¾

MethodAddress f\fbfh, í Name fpf%of[]f^, ÅŽw'è,³ê,^{1/2}CfpfufŠfbfVf...f\fbfh, ð•Ô, µ, Ü, ·BŽw'è,³ê,^{1/2-1/4}O, ðfufŠfbfVf...f\fbfh, ðfufWfFfNfg, É, È, ¯, ê, îCMethodAddress, í **nil**, ð•Ô, µ, Ü, ·B

ŽQÆ14347

MethodName f\fbfh

FieldAddress f\fbfh

MethodName f\fbfh14348

ŽQÆ

“K—p

TObject (, , ×, Ä, ðfufWfFfNfg)

é¾

class function MethodName (Address: Pointer): ShortString;

à-¾

MethodName f\fbfh, í Address , É, , éf\fbfh, ð¼‘O, ð•Žš—ñ, ð•Ô, µ, Ü, ·BAddress
, ðfufWfFfNfg, ðpfufŠbfVf...f\fbfh, ðŽw, ¾, È, çé#CMethodName , íó, ð•Žš—
ñ, ð•Ô, µ, Ü, ·B

ŽQÆ14349

MethodAddress ffbfh

NewInstance f\fbfh14350

ŽQÆ

“K—p

TObject (, ·, ×, Ä, ÌfufWfFfNfg)

é¾

class function NewInstance: TObject; **virtual**;

à-¾

NewInstance f\fbfh, ÌfufWfFfNfgÆ^, ÌŠefCf“fXf^f“fX, Éf, fŠ, Š,, è“ -
, ÄC, » , ÌV, µ, çfCf“fXf^f“fX, ŠŽw, ·fCf“f^, Š•Ö, µ, Ü, ·BNewInstance , Í¼ÚCEÄ, Ño, ³, È, ç, Å, -
, ¾, ¾, çB, ·, ×, Ä, ÌRf“fXfg%ofNf^, Í NewInstance , ŠŽ“@“@“l, ÉCEÄ, Ño, µ, Ü, ·B

, ½, ¾, µC“Á“è, ÌCE^, Ìf, fŠ, ÌŠ,, è“ - , Ä•û-@, Š•ÌX, ·, é, ½, ß, É NewInstance , Šf[f]fo[f
%ofCfh, ·, é, ±, Æ, Í, Å, «, Ü, ·B, ½, Æ, !, ÌC“Žž, Éf, fŠ, É, È, -
, Ä, Í, È, ç, È, ç“^è, ÌfufWfFfNfg, Š½“f, fŠ, ÉŠ,, è“ -
, Ä, ééêC, » , ÌfufWfFfNfgEQ‘S‘Í, É‘Í, µ, Ä‘å, «, Éf, fŠfufbfN, ŠŠ,, è“ - , ÄCNewInstance
, Šf[f]fo[f%ofCfh, µ, ÄŠefCf“fXf^f“fX, É, Ä, ç, Ä, » , Ì‘å, «, ÈfufbfN, Ì^è•“ , ŠŽg, æ, æ, É, Å, «, Ü, ·B

f\fbfh: f\fbfhÆ^, Ìf, fŠŠ,, è“ - , ÄŽè-@, Š•ÌX, ·, é, ½, ß, É NewInstance , Šf[f]fo[f
%ofCfh, µ, ½, Æ, «, ÍC, » , Ìf, fŠ, ÌŠ,, è“ - , Ä, Š%Šœ, ·, é, Æ, «, É, Í FreeInstance , àf[f]fo[f
%ofCfh, µ, È, , Ä, Í, È, ç, È, çêC, a, , è, Ü, ·B

NewInstance , Æ FreeInstance , Í¼•û, Æ, àCŠ,, è“ - , Ä, é, Ü, ½, ÌŠ,, è“ - , Ä, Š%Šœ, ·, éf, fŠ, Ì—
È, ŠCE^, ß, é, ½, ß, É InstanceSize , @, ç•Ö, ³, é, é‘l, ŠŽg, ç, Ü, ·B

ŽQÆ14351

FreeInstance ffbfh

InstanceSize ffbfh

TClass Ć^14352

ŹQĀ

ftfjfbfg

System

ĀéĆ¾

type

TClass = class of TObject;

Āà¾

TClass Ć^, ĩNf%ŃXŹQĀ, ĩ"Ä—pĆ^, Å, ·BObject

, ā, Ć, ĩĆ^, ĩĩfufWfFfNfg, Ā, à'ă"üĆÝŠ·, Å, , é, æ, ı, ÉĀCTClass , ĩ, Ć, ĩNf

%ŃXŹQĀĆĆ^, Ā, à'ă"üĆÝŠ·, Å, ·BTClass , đŹg, ı, ĩ, ĩCVCL , ĩĩfufWfFfNfg, âfRf"fi

Ā[ĩf"fg, ÅfvfĀpfefB, É, Ć, ĩĆ^, ĩNf%ŃXĆ^ŹQĀ, àŹó, ~"ü, é, È, , Ä, ĩ, È, Ć, È, Ć, Ā, «, Å, ·Ā

ŽQÆ14353

TObject flfufWfEfNfg (fvf fefNfg)

TObject fIfufWfFfNfg (fvf fefNfg) 14354

žQ AE f fbfh fIfufWfFfNfg

ftfjfbfg

System

à-¾

TObject fIfufWfFfNfg CE^, í Delphi, ì, ·, ×, Ä, ìfIfufWfFfNfg (,», μ, Ä, ·, ×, Ä, ìfRf“f] [fIf“fg, ì) ÌÅ ã Ê, ìfIfufWfFfNfg CE^, Å, · B V, μ, çfIfufWfFfNfg CE^, ð é CE¾, ·, é, AE, «, Ê ã Ê, ì CE^, ð Žw'è, μ, Ê, ç ê ð ÷ CDelphi, Å, Ì Ž © “ “ Ì, Ê TObject, ð ã Ê, ì CE^, AE, μ, Ä Žg, ç, Û, · B

TObject, Ì, ·, ×, Ä, ìfIfufWfFfNfg, æ CE p¾, Û, ½, Ì f f f f f % of Cf h, ·, é f f f b f h, ð é CE¾, μ, Û, · B

- Ì Ì ¬, AE” pŠü
·, Ç, ìfIfufWfFfNfg, Ê, à C NewInstance, ð CE Ä, Ñ o, μ, Ä f Cf “ fXf^f” fX, É f f, fŠ, ð Š,,, è “-
·, Ä C InitInstance, ð CE Ä, Ñ o, μ, Ä Š,,, è “- , Ä, ½ f f, fŠ, ð 0, Å-,,, ß, é, ±
·, AE, Ê, æ, è, » , ìfIfufWfFfNfg, ð % s ú % » , ·, é C Create, AE, ç, ç f Rf “ fXfgf % of Nf ^ , æ , é
·, ±, Ì, Û, © C Destroy, AE, ç, æ % ¼ ‘ z f f Xfgf % of Nf ^ , à , é B f Cf “ fXf^f” fX, æ **nil**, Å, Ê, ç ê ð ÷, É, ¾, -
Destroy, ð CE Ä, Ñ o, · Free, AE, ç, ç f f f b f h, à , é
Destroy, Ì FreeInstance, ð CE Ä, Ñ o, μ, Ä C NewInstance, æ Š,,, è “- , Ä, ½ f f, fŠ, ð
% o ð • ú, μ, Û, · B FreeInstance, Ì C f f, fŠ, Ì Š,,, è “- , Ä, æ % o ð ç æ, æ, é, é ‘ O, Ê CleanupInstance,
ð CE Ä, Ñ o, μ, Ä C ‘ ·, ç • ¶ Ž š — ñ, AE, » , Ì ‘ ¼, Ì f f f f f ^ ç, Ì Å f f f ^ — , ð Ž Å s, μ, Û, · B
- CE ^ Ì • ñ f f f b f h
ClassInfo, ClassName, ClassNamels, ClassParent, ClassType, InheritsFrom, InstanceSize,
· Ì Sef f f f b f h, ìfIfufWfFfNfg CE^, Û, ½, Ì, » , Ì f Cf “ fXf^f” fX, Ê, Å, ç, Ä — L CE ø, Ê Ì • ñ, ð ‘ ñ < Ÿ, ·, é
fIfufWfFfNfg, Ì f p f u f Š f b f V f ... • ”, Ì Ž Å s Ž Ž CE ^ Ì • ñ (RTTI), Ì FieldAddress, MethodAddress,
MethodName, ð Žg, Å, Ä Ž æ “¾, ·, é
- f f f b f Z [f W ^ — f f f b f h
·, Ç, ìfIfufWfFfNfg, Å, à C Dispatch, AE DefaultHandler, Ì Sef f f f b f h, ð Žg, Å, ½ f f f b f Z [f W ^ —
f f f f [f g, æ “ à ‘ , æ, Ä, ç, é

fifbfh14355

ClassInfo

ClassName

ClassNamels

ClassParent

ClassType

CleanupInstance

Create

DefaultHandler

Destroy

Dispatch

FieldAddress

Free

FreeInstance

InheritsFrom

InitInstance

InstanceSize

MethodAddress

MethodName

NewInstance

ŽQÆ14356

TClass Ć^

ActivateHint f\fbfh14357

ŽQÆ

“K—p

THintWindow

é¾

procedure ActivateHint (Rect: TRect; **const** AHint: **string**); **virtual**;

à-¾

ActivateHint f\fbfh, íqf“fgfEjBf“fhfE, ðfAfNfefBfu, É, µCqf“fgfEjBf“fhfE, ð AHint
, Å“n, ¾, é, ½ • qŽš—ñ, ÉC«ŠE, Æ, È, éŽİSpCE` , ð Rect , ÉÝ’è, µ, Û, ·BfftfHf<fg, Å, í ActivateHint
, íqf“fgfEjBf“fhfE, ð Žİ, ·, é, ½, ß, É SetWindowPos API ŠÖ”, ðCEÄ, Ño, µ, Û, ·B
fAfNfefBfu%»», ÌCEãC, ·, x, Ä, ðfAvfŠfP[fVf#f“f\fbfZ[fW, íqf“fgfEjBf“fhfE, ð IsHintMsg f\fbfh, ð’É, èCİsHintMsg f\fbfh, qf“fgfEjBf“fhfE, ð”ñfAfNfefBfu, É, ·, é, ©, Ç, x, ©, ðCE^, ß, Û, ·B
fqf“fgfEjBf“fhfE, ðŠOŠİ, ð•İX, ·, é, É, íCqf“fgfEjBf“fhfE, ð Paint f\fbfh, ðf\fo[f
%ofCfh, µ, Û, ·Bfqf“fgfEjBf“fhfE, í Rect
, Å“n, ¾, é, ½ ŽİSpCE` , ð•İX, µ, Û, ¹, ñBfAvfŠfP[fVf#f“ , a, » , ðŽİSpCE` , ð-¾Žİ“İ, ÉÝ’è, µ, ½, ©, Ç, Å, ·B

ŽQÆ14358

IsHintMsg ffbfh

Paint ffbfh

AlignControls f\fbfh14359

ŽQÆ

“K—p

TWinControl

é¾

procedure AlignControls(AControl: TControl; **var** Rect: TRect); **virtual**;

à-¾

AlignControls f\fbfh, í Rect

, Å“n, ¾, ê, ½ŽiŠpĀ, ` , '†, Å, » , ìfRf“fgf[]f<, ìŽq, Å, , é, ·, x, Ä, ìfRf“fgf[]f<, ì^Ê'u, ð[]#, í, 1, Ü, ·BAAlignCon
trols , íĀX, ìŽqfRf“fgf[]f<, ì Align fvfpfjB'l, ðŽg, Å, ÄŽqfRf“fgf[]f<, ì^Ê'u[]#, í, 1, ì•û-
@, ðĀ^, ß, Ü, ·BAControl fpf%of[]f^, í **nil** , Å, à, ©, Ü, ç, Ü, 1, ñBAControl
, ÉfRf“fgf[]f<, ðŽw'è, ·, é, ĀC, » , ìfRf“fgf[]f<, í¼, ì“—l, É^Ê'u[]#, í, 1, ¾, é, éfRf“fgf[]f<, æ, è—
D[]æ, ¾, è, Ü, ·B

ŽQÆ14360

Align fvfpfefB

Broadcast f\fbfh14361

ŽQÆ

“K—p

TWinControl

é¾

procedure Broadcast (**var** Message) ;

à¾

Broadcast f\fbfh,í Message fpf

%f^,Å“n,³,ê,½fbfZ[fW,ðfEfBf“fhfEfRf“fgf[f<,ìĒÂX,ìŽqfRf“fgf[f<,Ö‘—,è,Û,·B

ŽQÆ14362

NotifyControls.fbfh

CancelModes f\fbfh14363

“K—p

TControl

☐é☐^{3/4}

procedure CancelModes;

☐à-^{3/4}

CancelModes f\fbfh,í^{1/4},ì[^]—☐,đ-WŠQ,·,é%oÂ”\

☐«,³, ,éf,☐[fh•t,«☐ó’Ô,ìfRf“fgf☐☐[f<,đ’É☐í,ì☐ó’Ô,É-β,μ,Û,·☐B,»,ì,æ,α

,Èf,☐[fh•t,«☐ó’Ô,Æ,í☐CfŠfXfg,³fhf☐fbfvf_fEf“,³,è,Ä,ç,é☐Cf☐ffj...☐[,³Š],ç,Ä,ç

,é☐Cf}fEfX,³fLfffvf`ff,³,è,Ä,ç,é,È,Ç,Å,·☐BCancelModes

,đ☐Ä,Ñ☐o,·,Æ☐CfRf“fgf☐☐[f<,í•Ê,ìf,☐[fh•t,«☐ó’Ô,đŠŽn,Å,«,é☐ó’Ô,É,È,è,Û,·☐B

Canvas fvf[]fpfefB14364

ŽQ[]Æ

“K—p

TGraphicControl, TCustomControl

□é☒¾

property Canvas: TCanvas;

□à-¾

fOf%oftfBfbfNfRf“fgf[][]f<,Ü,½,ÍjffXf^f€fRf“fgf[][]f<,ì Canvas
fvf[]fpfefB,ÍŽÀ[]sŽž,ÉfRf“fgf[][]f<,ì•\-É,Ö,ì•`%œæ,ð,“,±,È,κ,½,ß,ì“Ç,Ý[]o,μ[]ê—
p,ìfvf[]fpfefB,Å,·[]BCanvas ,Í Paint f[]\fbfh,Å,ì—p“r,ª[]Å,à[]d—v,Å,·[]B

ŽQÆ14365

Paint ffbfh

ChangeScale f\fbfh14366

ŽQÆ

“K—p

Control

é¾

procedure ChangeScale (M, D: Integer); **dynamic**;

à-¾

ChangeScale f\fbfh,íRf“fgf[f<,ìÊ’u,ÆfTfCfY,ð M/D ,ìŠ,,ñ,Å•íX,μ,Ü,·BScaleBy f\fbfh,íXfP[f<•íX,ðŽÀs,·,é,½,ß,É ChangeScale ,ðCEÄ,Ño,μ,Ü,·BTWinControl,íRf“fgf[f<,ðfXfP[f<•íX,·,é’O,ÉC,»,ìRf“fgf[f<,ìŽqfRf“fgf[f<,ðfXfP[f<•íX,·,é,½,ß,É ChangeScale ,ðf[f%ofCfh,μ,Ü,·BTForm ,à•K—v,É%ž,¶,ÄfNf%ofCfAf“fg—ì^æ,ÆfTfHf“fgfTfCfY,ð’²® ,·,é,½,ß,É ChangeScale ,ðf[f%ofCfh,μ,Ü,·B

ŽQÆ14367
ScaleBy_ffbfh

Click f\fbfh14368

“K—p

TControl, TMediaPlayer

à-¾

Click ,Æ,ç,xf\fbfh,í 2 Ží—p, ,è,Ü,·B1 ,Â,í,·,x,Ä,lfRf“fgf[f<,Å,ì OnClick
fCxf“fg,ì,½,ß,lfvf\fefNfgf\fbfh,Å, ,èCTControl ,É,æ,Á,Ä“±“ü,³,ê,Ü,·B,à,x 1 ,Â,í Media
Player fRf“f|f“fg“à,lfNfŠfbfN%ž“šfv\fefNfgf\fbfh,Å,·B

,·,x,Ä,lfRf“fgf[f<,ì Click f\fbfh

MediaPlayer fRf“f|f“fg,ì Click f\fbfh

Click f\fbfh14369

ŽQÆ

“K—p

TControl

é¾

procedure Click; dynamic;

à-¾

Click f\fbfh,íRf“fgf[f<,ì OnClick fCxf“fg,ì,½,β,ívf□fefNfgf□\fbfh,Å,·□BTControl
,ì†,Á'è<` ,³,ê,Ä,ç,é Click f\fbfh,í OnClick fCxf“fg,ÉfA^fbf` ,³,ê,½fCxf“fgfnf“fhf%
,ðÆÄ,Ñ□o,·^ÈŠO,Í%½,à,μ,Ü,¹,ñ□BClick ,ðf□[fo□[f%ofCfh,·,ê,ì□CÆp□³,³,ê,½fCxf“fgfnf“fhf
%oÆÄ,Ñ□o,μ,ì,Ü,©,É,à%ž“š,ª,Ä,«,Ü,·□B

fRf“fgf□□[f<,í□¶f{f^f“f}fEfXfAfbfvf□fbfZ□[fW (WM_LBUTTONDOWN)

,ðŽó,~Žæ,Ä,½□ê□□C,» ,í}fEfXfAfbfv,ª,» ,ê,É'í%ž,·,éf}fEfXf_fEf“ ,ì<β,,Ä<N,« ,½,È,ç,î Click
,ðÆÄ,Ñ□o,μ,Ü,·□B“Á'è,íRf“fgf□□[f<,ì'½,-
,í□C,» ,ì'¼,ìó<μ□C,½,Æ,ì,íft□[fU□[,ªf{f^f“ ,Ü,½,í□fjf...□[□€-Ú,ívf□□[fgf]fbfgfL□[.ð“ü—
Í,μ,½,Æ,« ,È,Ç,É,à Click ,ðÆÄ,Ñ□o,μ,Ü,·□B

fNfŠfbfNfCxf“fg,ª”□¶,·,é,·, x,Ä,ìŽ—á,í OnClick fCxf“fg,ìà-¾,ì†,ÉŽ!,μ,Ä, ,è,Ü,·□B

ŽQÆ14370

OnClick_fCxf_fg

Windows 14371

ŽQÆ

Delphi ,Á,í½,,ìföfZ[fW,à'è<`³,è,Ä,¨,èC,»è,ç,ìföfZ[fW,í¼,ìRf“f[]f“fg,ì%ž“š,ª•K—v,Æ,È,é%Ä“\«,ª, ,éó'Ô•íX,ðŽ!,·½,ß,ÉfRf“f[]f“fgŠÖ,ÅŽó,~“n,³,è,Ü,·BfRf“f[]f“fg,í,±,è,ç,ìföfZ[fW,ð Windows föfZ[fW,Æ,Ü,Á,½,“~,¶,æ,æ,É^—,Å,«,Ü,·B

fRf“f[]f“fgföfZ[fW,ì,Ü,Æ,ñ,Ç,í•W€ Windows

föfZ[fW,ðf}fbfv,µ¼,µ,½,à,ì,Å,·B'ÉíC Delphi fRf“f[]f“fg,í Windows

föfZ[fW,ðŽó,~Žæ,é,ÆC,»ìföfZ[fW,ðŽ©•ª,ªŠ—L,·,éfRf“f[]f“fg,Ö“n,·•K—v,ª, ,è,Ü,·B,µ,©,µ“~,¶föfZ[fW,ð“n,·,ì,Å,È,C,»ìföfZ[fW,É'í%ž,·,éfRf“f[]f“fgföfZ[fW,ð'—,é,ì,ª•É,Å,·B Delphi ,í Windows ,ªŽg,Á,Ä,ç,È,ç“í^í,ÖföfZ[fW,ðf}fbfv,·,é,ì,ÅCfRf“f[]f“fg,©,ç<U,ì%ž“š,ðÆ^,µ,ÅŽó,~Žæ,è,Ü,¹,ñB

ŽŸ,ì\,í Delphi ,Á'è<`³,è,Ä,ç,éfRf“f[]f“fgföfZ[fW,ìfšfXfg,Å,·B

CM_ACTIVATE	CM_ENTER	CM_PARENTCTRL3DCHANGE D
CM_APPKEYDOWN	CM_EXIT	CM_PARENTFONTCHANGED
CM_APPSYSCOMMAND	CM_FOCUSCHANGED	CM_PARENTSHOWHINTCHAN GED
CM_BASE	CM_FONTCHANGE	CM_RELEASE
CM_BUTTONPRESSED	CM_FONTCHANGED	CM_SHOWHINTCHANGED
CM_CANCELMODE	CM_GOTFOCUS	CM_SHOWINGCHANGED
CM_COLORCHANGED	CM_HITTEST	CM_SYSCOLORCHANGE
CM_CTL3DCHANGED	CM_ICONCHANGED	CM_TABFONTCHANGED
CM_CURSORCHANGED	CM_INVOKEHELP	CM_TEXTCHANGED
CM_DEACTIVATE	CM_LOSTFOCUS	CM_TIMECHANGE
CM_DESIGNHITTEST	CM_MOUSEENTER	CM_VISIBLECHANGED
CM_DIALOGKEY	CM_MOUSELEAVE	CM_WANTSPECIALKEY
CM_DIALOGCHAR	CM_MENUCHANGED	CM_WINDOWHOOK
CM_ENABLEDCHANGED	CM_PARENTCOLORCHANGE D	CM_WININICHANGE

ŽQÆ14372

fRf“f|□[f|f“fg’Ê’mf□fbfZ□[fW

fRf“f|[]f|f“fg’É’m14373

ŽQ[]Æ

fRf“f|[]f|f“fg’É’mf[]fbfZ[]fW,í“ÁŽè,ÈfRf“f|[]f|f“fgf[]fbfZ[]fW,Å,·[]BfRf“f|
[]f|f“fg’É’mf[]fbfZ[]fW,í[]fbfZ[]fW,ì“ÁŽè,È”í^í“à,É’è<`,³,è,Ä,“,è[]C•W[]€ Windows
f[]fbfZ[]fW,Æ[]Ö“È,μ,Û,¹,ñ[]BfRf“f|[]f|f“fg’É’mf[]fbfZ[]fW,í[]í,É[]e,©,çŽq,Ö’—
,ç,è,éf[]fbfZ[]fW,Å,·[]B

ŽŸ,ì•\,í Delphi ,Å’è<`,³,è,Ä,ç,éfRf“f|[]f|f“fg’É’mf[]fbfZ[]fW,ìfŠfXfg,Å,·[]B

CN_BASE	CN_DELETEITEM	CN_PARENTNOTIFY
CN_CHAR	CN_DRAWITEM	CN_SYSKEYDOWN
CN_CHARTOITEM	CN_HSCROLL	CN_SYSCHAR
CN_COMMAND	CN_KEYDOWN	CN_VKEYTOITEM
CN_COMPAREITEM	CN_KEYUP	CN_VSCROLL
CN_CTLCOLOR	CN_MEASUREITEM	

ŽQÆ14374

fR“f□[f“fgf□fbZ□[fW

Control fvf fpfefB14375

“K—p

TControlCanvas

□éĒ¾

property Control: TControl;

□à-¾

Control

fvf fpfefB, íRf“fgf□□[f<fLfff“fofXfIfufWfFfNfg, ÖŠÖ~A•t, ¯, ç, ê, ½fRf“fgf□□[f<, Å, ·□BfRf“fgf□□[f<fLfff“fofXfIfufWfFfNfg, í Control fvf fpfefB, ðŽg, Á, ÅŠÖ~AfRf“fgf□□[f<, ©, ç□î•ñ, ðŽæ“¾, μ, Û, ·□B

ControlState fvf[]pfefB14376

ŽQ[]Æ

“K—p

TControl

□é€¾

property ControlState: TControlState;

□à-¾

ControlState

fvf[]pfefB, ÍŽÀ[]sŽž, ÉfRf“fgf[][]f<, ì€»[]Ý, ì[]ó‘Ô, ðŽ!, ·! , ì[]W[]‡, ð•ÚŽ[], μ, Ü, ·[]BControlState

fvf[]pfefB“à, ì, ¾, Ü, ‘, Ü, Èftf%ofO, Ì[]CfNfŠfbfN, ¾, è, ½, ©[]C^Ê‘u[]‡, í, 1, a•K—

v, ©, È, Ç, ì[]ð€[], ðŽ!, μ, Ü, ·[]B

ControlState “à, ì, ·, x, Ä, ì[]€-Ú, ÌfRf“fgf[][]f<€Å—L, ì[]€-Ú, Å, , è[]C, ·, x, Ä, ÌfRf“f[][]f“fg, É“K—
p, ¾, è, é ComponentState fvf[]pfefB“à, ì[]ó‘Ôftf%ofO, É‘Ç%oÁ, ¾, è, é[]€-Ú, Å, ·[]B

ŽQÆ14377

TControlState Ć^

ControlStyle fvfpfefB14378

ŽQÆ

“K—p

TControl

é¾

property ControlStyle: TControlStyle;

à-¾

ControlStyle fvfpfefB,É,íRf“fgf[f<Æ^,ì“Á’è,ì’@«,đŽ!,·^ê~A,ìfXf^fCf<ftf%ofo,ª“ü,Á,Ä,đ
,Ü,·B,±,ê,ç,ìftf%ofo,íRf“fgf[f<ªf}fEfXfCfxf“fg,đfLffvf`ff,·,é,©,Ç,ª
,©CfRf“fgf[f<,ªÆÁ’èfTfCY,©,Ç,ª,©,È,Ç,ìfXf^fCf<,đŽ!,μ,Ü,·B

^ê”Ê,ÉC,±,ê,ç,ìftf%ofo,í“~,ŕŽí—p,ìRf“fgf[f<,ìCf“fXf^f“fXŠÔ,Á,í“~,ŕ,Á, ,èCŽÀsŽž,É,à•í
%o»,μ,Ü,¹,ñB•í%o»,·,éđÆ,í ControlState fvfpfefB,É,æ,Á,ÄŽ!,³,ê,Ü,·B

ŽQÆ14379

TControlStyle Ć^

CreateHandle f\fbfh14380

ŽQÆ

“K—p

TWinControl, TControlCanvas, TCanvas

é¾

procedure CreateHandle; **virtual**;

à-¾

CreateHandle f\fbfh,ífnf“fhf<,ª,È,çfífufWfFfNfg,ì Handle fvfpfefB,Éfnf“fhf<,ð¶ï¬,µ,Û,·B

▪ fEfBf“fhfEfRf“fgf¶¶[f<,ìê¶¶CCreateHandle ,ífEfBf“fhfEffnf“fhf<,ð¶ï¬,·,é,½,ß,É

CreateWnd f\fbfh,ðÆÄ,Ñ¶o,·

▪ fLfff“fofXfífufWfFfNfg,ìê¶¶CCreateHandle ,í%½,à,µ,È,ç

▪ fRf“fgf¶¶[f<fLfff“fofXfífufWfFfNfg,ìê¶¶CCreateHandle ,ífLfff“fofX,ÖŠÖ~A•t,¯,ç,ê,Ä,ç
,éfRf“fgf¶¶[f<,©,çfffofCfXfRf“fefLfXfgfnf“fhf<,ðŽæ“¾,·,é

ŽQÆ14381

Handle_fvf\pfefB

HandleNeeded_f\bfh

WndProc_f\bfh

CreateParams f\fbfh14382

ŽQÆ —á

“K—p

TWinControl

é¾

procedure CreateParams (**var** Params: TCreateParams); **virtual**;

à-¾

CreateParams f\fbfh, í Params fpf%of[f^, Å“n,³, ê, ½fEfbf“fhfEi—pfpf%of[f^, ì“à—
e, ð%Šú%» , μ, Ü, ·BTWinControl , Å, í Params
, ì, ·, x, Ä, ìftfB[f<fh, ð^ê“Ê“l, ÈffftfHf<fg'l, ÉÝ'è, ·, é CreateParams 'ñ<ÿ, μ, Ü, ·B, ç, -
, Å, ©, ì•W€fRf“fgf[f<, Å, í Params “à, ì, ç, , Å, ©, ìffftfHf<fg'l, ð•ïX, ·, é, ½, ß, É CreateParams
, ðf[f%ofCfh, μ, Ü, ·B

CreateWnd f\fbfh, í CreateWindowHandle , Ö“n, ·fpf%of[f^, ð%Šú%» , ·, é, ½, ß, É
CreateParams , ðÆÄ, Ño, μ, Ü, ·BCreateParams , ðf[f%ofCfh, ·, é, ìCfRf“f[fj“fg, ÉÆÄ—
L, ìCE`ó, ðŽw'è, ·, é, ±, Æ, ð, Å, <, Ü, ·BCreateParams , ðf[f%ofCfh, ·, éé±, ìCÅ%
, Ép³f\fbfh, ðÆÄ, Ño, μ, ÄffftfHf<fg'l, ðÝ'è, μC, » , ìCEã, Å•K—v, È'²@ , ð%Á, ì, é, æ, x
, É, μ, Ü, ·B

—á14383

ŽŸ,ì TNoteBook fRf“f]

□[f]f“fg,ífRf“fgf□□[f<,ª•K,„fm□[fgfufbfN,ì<<ŠE,ÅŽqfRf“fgf□□[f<,đfNfŠfbfsf“fO,·,é,æ,α

CreateParams ,đf□[fo□[f%ofCfh,μ,Ü,·□B

```
procedure TNotebook.CreateParams (var Params: TCreateParams);
```

```
begin
```

```
    inherited CreateParams (Params);           { □Á□%o,ÉCEp□³f□fjfbfh,đCEÄ,Ñ□o,μ,Ü,· } }
```

```
    with Params do Style := Style or WS_CLIPCHILDREN;      { fXf^fCf<ftf
```

```
%ofO,đ‘Ç%oÁ,μ,Ü,· } }
```

```
end;
```

ŽQÆ14384

CreateWnd ffbfh

CreateWindowHandle ffbfh

CreateSubClass f\fbfh14385

ŽQÆ —á

“K—p

TWinControl

é¾

```
procedure CreateSubClass(var Params: TCreateParams; ControlClassName: PChar);
```

à-¾

```
CreateSubClass f\fbfh,ÍŠù‘¶,ì Windows fEjBf“fhfEfNf%ofX,©,ç”h¶,μ,½ Delphi fRf“f|  
¶[fj“fg,ð¶¶¬,μ,Ü,·BCreateSubClass ,ÍEp³,μ,½ CreateParams ,ðÆÄ,Ñ¶o,μ,½Æã,É  
%o^ÊfNf%ofXfRf“fgf¶¶[f<,ì CreateParams f\fbfh,ì‘†,ÅÆÄ,Ñ¶o,μ,Ü,·BDelphi ,í  
CreateSubClass ,ðŽg,Á,Ä•W¶€ Windows fRf“fgf¶¶[f<,Ö,ìfAfNfZfX,ð’ñ<ÿ,μ,Ü,·B
```

—á14386

•W€ Delphi f{f^f“fRf“f|[]|f|“fg TButton —p,ì CreateParams f[]f\fbfh,đŽŸ,ÉŽ!,μ,Ü,·□B,±,ìf□\fbfh,í BUTTON ,Æ,ç,±fEfBf“fhfEfNf%ofX,ì%o°^ÊfNf%ofX,đì□¬,μ,Ü,·□B

```
procedure TButton.CreateParams (var Params: TCreateParams);
const
  ButtonStyles: array[Boolean] of Longint = (BS_PUSHBUTTON,
  BS_DEFPUSHBUTTON);
begin
  inherited CreateParams(Params);           { ffftfHf<fg'l,đ<L“ü,μ,Ü,· }
  CreateSubClass(Params, 'BUTTON');        { BUTTON ,©,ç,ì%o°^ÊfNf%ofX }
  with Params do Style := Style or ButtonStyles[FDefault] { Default
  fvf[]pfefB,àŽg,ç,Ü,· }
end;
```

ŽQÆ14387

CreateParams.f\fbfh

CreateWindowHandle f\fbfh14388

ŽQÆ

“K—p

TWinControl

é¾

procedure CreateWindowHandle (**const** Params: TCreateParams); **virtual**;

à-¾

CreateWindowHandle f\fbfh,ÍfEfBf“fhfEfnf“fhf<,ðì¬,·,é,½,ß,É CreateWindowEx API
ŠÖ”,ðÆÄ,Ño,μCPParams ,Å“n,³,ê,½fÆfR[h,É“ü,Á,Ä,ç,épf%of[f^,ð^ø,«“n,μ,Û,·B

ŽQÆ14389

CreateWnd ffbfh

DestroyWindowHandle ffbfh

CreateWnd f\fbfh14390

ŽQÆ

“K—p

TWinControl

é¾

procedure CreateWnd; **virtual**;

à-¾

CreateWnd f\fbfh, íEfbf“fhfErf“fgf[fRf“f[fif“fg, É‘í%ž, , é Windows
fRf“fgf[f<, ðì-, μ, Ü, ·B

CreateWnd , íÅ%o, ÉfEfbf“fhfEì- fpf%o[f^, ð%Šú%o», , é, ½, ß, É CreateParams f\fbfh, ðÄ, Ño, μC, », ìEã, ÉfRf“fgf[f<, ìEfbf“fhfEfnf“fhf<, ðì-, , é, ½, ß, É

CreateWindowHandle , ðÄ, Ño, μ, Ü, ·BCreateWnd , íV, μ, -

ì-, μ, ½fEfbf“fhfE, ìTfCfY, ð²® , μ, ½EãCfRf“fgf[f<, ìtfHf“fg, ðÝ’è, , é, ½, ß, É Perform f\fbfh, ðÄ, Ño, μCWM_SETFONT f\fbfZ[fW, ð“n, μ, Ü, ·B

ŽQÆ14391

RecreateWnd ffbfh

DestroyWnd ffbfh

CursorToIdent ŠÖ"14392

ŽQÆ

ftfjfbfg

Controls

é¾

```
function CursorToIdent(Cursor: Longint; var Ident: string): Boolean;
```

à-¾

```
CursorToIdent ŠÖ", í Cursor ,Á"n,³,ê,½fj[f<'l,đŽ-•ÊŽq•¶Žš-ñ,É•İš·,μC,»),ì•¶Žš-ñ,đ  
Ident ,É•Ô,μ,Û,·BCursorToIdent ,í Cursor ,ª TCursor Ą^,İŽ-•ÊŽq,É,æ,Á,Ä·\  
,³,ê,é•W€fVfXfef€fj[f<,ì 1 ,Á,É'í%ž,·,éê¶,í True ,đ•Ô,μCIdent ,đ,»),lfj[f<-  
¼,ª"ü,Á,½•¶Žš-ñ,ÉÝ'è,μ,Û,·BCursor ,ª,»),ì,æ,¼,Èfj[f<,ì 1 ,Á,Ä,È,¢ê¶CCursorToIdent  
,í False ,đ•Ô,μCIdent ,í'íX,³,ê,Û,¹,ñB
```

ŽQÆ14393

TCursor Ć^

IdentToCursor ŠÖ”

CursorToString ŠÖ"14394

ŽQÆ

ftfjfbfg

Controls

é¾

function CursorToString(Cursor: TCursor): **string**;

à-¾

CursorToString ŠÖ",Í Cursor fpf%of[f^,Å“n,³,ê,^{1/2}fj[f\<'l,ð•\,•¶Žš—
ñ,ð•Ô,μ,Û,·BCursorToString ,Í•W€fj[f\<CE^,ì-^{1/4}'O,ðŽæ“^¾,·,é,^{1/2},ß,É CursorToIdent
,ðCEÄ,Ño,μ,Û,·BCursorToIdent ,Å“KØ,Ë-^{1/4}'O,^¾CE©,Â,©,ç,È,©,Á,^{1/2}ê#CCursorToString
,Í Cursor ,ì"l,ð•¶Žš—ñ•\CE»,É•İŠ,μ,Û,·B

ŽQÆ14395

CursorToIdent ŠÖ

StringToCursor ŠÖ

DbClick f\fbfh14396

ŽQÆ

ftjfbfg

Controls

“K—p

TControl

□éÆ¾

procedure DbClick; **dynamic**;

□à-¾

DbClick f\fbfh,íRf“fgf□□[f<,ì OnDbClick fCxf“fg,ì,½,ß,ìvf□fefNfgf\fbfh,Å,·□BControl
,©,çÆp□³,³,ê,½ DbClick f\fbfh,í OnDbClick fCxf“fg,ÉfA^fbf` ,³,ê,½fCxf“fgfnf“fhf%
,ðÆÄ,Ñ□o,·^ÈŠO,Í%½,à,μ,Ü,¹,ñ□BDblClick ,ðf□[fo□[f
%ofCfh,·,ê,î□CÆp□³,³,ê,½fCxf“fgfnf“fhf%oÆÄ,Ñ□o,μ,ì,Ü,©,É,à%ž“š,ª,Å,«,Ü,·□B

fRf“fgf□□[f<,í Windows ,©,ç,ì□¶f{f^f“f_fuf<fNfŠfbfNf□fbfZ□[fw (WM_LBUTTONDOWNBLCLK) ,Ö,ì
%ož“š,Æ,μ,Å DbClick f\fbfh,ðÆÄ,Ñ□o,μ,Ü,·□B

ŽQÆ14397

OnDbClick_fCxf“fg

DefWndProc fvf[]fpfefB14398

ŽQ[]Æ

“K—p

TWinControl

□é☒¾

property DefWndProc: Pointer;

□à-¾

DefWndProc

fvf[]fpfefB,lfEfBf“fhfEfRf“fgf[][]f<,lfHfHf<fgfEfBf“fhfEfVf[]fV[]fWff,ðŽw’è,μ,Ü,·□B□%Šú,ì

DefWndProc ,í CreateParams ,Á’è<` ,³,ê,½EfBf“fhfE[]ì□~fpf%of[]f^,ì’t,É’è<` ,³,ê,Ä,ç

,éffftfHf<fg,lfvf[]fV[]fWff,ðf[]fCf“fg,μ,Ü,·□B—

LCø,ÈEfBf“fhfEfRf“fhf<,ðŽ□,ÁEfBf“fhfEfRf“fgf[][]f<,í□CDefaultHandler f[]\

fbfh“à,ì,·,x,Ä,lf[]fbfZ[]fW,ð□^—□,·,é,½,ß,ÉffftfHf<fg,lfEfBf“fhfEfVf[]fV[]fWff,ðCEÄ,Ñ□o,μ,Ü,·□B

f[]fbfZ[]fW,ð□^—□,·,é,½,ß,ì DefWndProc ,ìCEÄ,Ñ□o,μ,í□C,» ,lf[]fbfZ[]fW,ì•W□€ Windows □^—

□,ì—v<□,Æ—{Ž;“l,É“~ ,¶,Ä,·□BDefWndProc ,í DefaultHandler ,³,·,x,Ä,ì Delphi

flfufWfFfNfg,É’î,μ,Ä%øÊ,½,·-ðŠ,,ðfEfBf“fhfEfRf“fgf[][]f<,É’î,μ,Ä%øÊ,½,μ,Ü,·□B

ŽQÆ14399

CreateParams ffbfh

WndProc ffbfh

DestroyHandle ffbfh14400

ŽQÆ

“K—p

TWinControl

é¾

procedure DestroyHandle;

à-¾

DestroyHandle ffbfh

fbfh,ífEfBf“fhfEfRf“fgf[]f<,ífEfBf“fhfEfRf“fhf<,đ”pŠü,μ,Ü,·,ªCfRf“fgf[]f<Ž©‘ì,í”pŠü,μ,Ü,¹,ñ
BfRf“fgf[]f<,í•K—v,Å, ,ê,ÎĒă,Åfnf“fhf<,đÄî→,Å,«,Ü,·BDestroyHandle ,í CreateHandle
,ì<t,ì^—,Å,·B^ê”Ê,É CreateWnd ,â DestroyWnd ,È,Ç,ì’áfĒxf<f[]f
fbfh,đĒÄ,Ño,³, ,ÉC, fĒxf<,ì CreateHandle ,Æ DestroyHandle ,đĒÄ,Ño,·,ì,ªÄ‘P,ì•û-
@,Ä,·B

fRf“fgf[]f<,ªfEfBf“fhfEfRf“fgf[]f<,đŽqfRf“fgf[]f<,Æ,μ,ÄŽ,Á,Ä,ċ,éê#CDestroyHandle
,íŽ©•ªŽ©g,ífRf“fhf<,đ”pŠü,·,é DestroyWnd ,đĒÄ,Ño,·O,ÉCĒÄX,ìŽqfRf“fgf[]f<,ì
DestroyHandle ,đĒÄ,Ño,μ,Ü,·B

ŽQÆ14401

CreateHandle ffbfh

ŽQÆ14403

CreateWindowHandle_f\fbfh

DestroyWnd_f\fbfh

DestroyWnd f\fbfh14404

ŽQÆ

“K—p

TWinControl

é¾

procedure DestroyWnd; **virtual**;

à-¾

DestroyWnd f\fbfh, íEfbf“fhfEfrf“fgf[f<, ìEfbf“fhfEfnf“fhf<, ð”pŠü, ·, é, ½, ß, ÉCÅ%
, Éfrf“fgf[f<, ìfefLfxfg, ìfrfs[, ð“à•”<L% ^æ, É•Ú‘¶, μCŽŸ, ÉfffofCfxfrf“fefLfxfg, ð
%ø•ú, μCÅě, É DestroyWindowHandle , ðĀ, Ño, μ, Ü, ·B

DestroyWnd , í CreateWnd f\fbfh, ì<t, ì^—, Å, ·B

ŽQÆ14405

CreateWnd ffbfh

DestroyWindowHandle ffbfh

DisableAlign f\fbfh14406

ŽQÆ

“K—p

TWinControl

é¾

procedure DisableAlign;

à-¾

DisableAlign f\fbfh,ÍEjBf“fhfEjRf“fgf[f<“à,ìfRf“fgf[f<,ì^Ê‘u[í,¹,ð^êžž“l,Éžg—p•s
%oÂ,É,µ,Ü,·BftfH[f€ftf@fCf<,ì“Ç,Ýo,µ,âfXfP[f<•ïX,È,ÇCfRf“fgf[f<,É‘í,µ,Ä•i“,ì‘€ì,ðž
À[s,·,éšÔ,Í^Ê‘u[í,¹,ðžg—p•s%oÂ,É,·,é,Æ•Ö—~ ,Å,·BDisableAlign ,ìCEÄ,Ño,µ,í
EnableAlign ,ìCEÄ,Ño,µ,ð 1 ‘í 1 ,Å”º,Á,Ä,ç,È,,Ä,í,È,è,Ü,¹,ňB

DisableAlign ,ìŽQÆfjEjEj“fg,ðfCf“fNfšf“fg,µC,» ,ìŽQÆfjEjEj“fg,í EnableAlign
,æEä,ÅfffNfšf“fg,µ,Ü,·BŽQÆfjEjEj“fg,²f[f,É,È,Á,½žž“_,Ä EnableAlign ,í•K—
v,Ê^Ê‘u[í,¹,ðžÀ[s,µ,Ü,·B

ŽQÆ14407

EnableAlign_fbfh

DoEnter f\fbfh14408

ŽQÆ

“K—p

TWinControl

é¾

procedure DoEnter; dynamic;

à-¾

DoEnter f\fbfh,ífEfBf“fhfEfRf“fgf[f<,ì OnEnter fCxf“fg,ì,½,ß,ífvfífefNfgf\fbfh,Å,·BTWinControl ,ì†,Á'è<`³,ê,Ä,ç,é DoEnter f\fbfh,í OnEnter fCxf“fg,ÉfAf^fbf`³,ê,½fCxf“fgfnf“fhf%o,ðÄ,Ño,·^ÈŠO,í%½,à,μ,Ü,¹,ñBDoEnter ,ðf[f%ofCfh,·,ê,îCCEp³,³,ê,½fCxf“fgfnf“fhf%oÄ,Ño,μ,ì,Ù,©,É,à%ž“š,ª,Å,«,Ü,·B

ŽQÆ14409

OnEnter fCxf"fg

DoExit f\fbfh

DoExit f\fbfh14410

ŽQÆ

“K—p

TWinControl

é¾

procedure DoExit; dynamic;

à-¾

DoExit f\fbfh, íE fBf“fhfE fRf“fgf [f<, ì OnExit fCxf“fg, ì, ½, ß, ìfvf [fefNfgf [f\fbfh, Å, ·BTWinControl , ì’t, Å’è<` , ¾, ê, Ä, ç, é DoExit f\fbfh, í OnExit fCxf“fg, ÉfA f^fbf` , ¾, ê, ½fCxf“fgfnf“fhf%o, ðÄ, Ño, ·^ ÈŠO, í%½, à, µ, Ü, ¹, ñBD oExit , ðf [fo [f% fCfh, ·, é, î [CCEp [¾, ¾, ê, ½fCxf“fgfnf“fhf%oÄ, Ño, µ, ì, Ù, ©, É, à%ž“š, º, Å, «, Ü, ·B

ŽQÆ14411

OnExit fCxf“fg

DoEnter f\fbfh

DoKeyDown f\fbfh14412

ŽQÆ

“K—p

TWinControl

é¾

procedure DoKeyDown (**var** Message: TWMKey): Boolean;

à-¾

DoKeyDown f\fbfh, í OnKeyDown fCxf“fg, ì, ½, ß, ì KeyDown f\fbfh, ðCEÄ, Ño, ‘O, É
%½, ©, ìŽ-‘O—, ðŽÄs, , évf\fefNfgf\fbfh, Å, ·B, ±, ìf\fbfh, ìf\fbfZ[fW, ðftfBf<f^, É, ©, , ÄfRf“fgf[f<, ðŽÄÛ, Éf\fbfZ[fW, ð^—, µ, È, , Ä, Í, È, ç, È, ç
, ©, Ç, x, ©, ð’m, é, ì, ðŽà, È-Ú“l, È, ì, ÅC, Û, Æ, ñ, Ç, ìé#CDoKeyDown , ðf\fo[f%ofCfh, , é•K—
v, í, , è, Û, ñB

DoKeyDown , ì-ß, è‘l, í Message fpf%of[f^, Å“n, ð, è, ½fL[f_fEf“f\fbfZ[fW, ì^—
, ðfAfvfŠfP[fVf#“ , ð±s, µ, È, , Ä, Í, È, ç, È, ç, ©, Ç, x, ©, ðCE^, ß, Û, ·B-ß, è‘l, ð True
, È, ç, ìfL[f_fEf“f\fbfZ[fW, ì^—, ìŠ@‘S, ÉÛ, ñ, Å, , èC, » , è^Èã, ì^—, í•K—v, , è, Û, ñB-
ß, è‘l, ð False , È, ç, ìCfAfvfŠfP[fVf#“ , íCep³^—, ð’É, ¶, ÄfL[f_fEf“f\fbfZ[fW, ð^ø, «“n, ð, È, -
, Ä, Í, È, è, Û, ñB

DoKeyDown , ðŽg, Á, ½é#CffftfHf<fg, Å, í KeyPreview fvf\fpfefB, ð True
, ÉY‘è, ð, è, ½eftfH[f€ , ð—Dæ“l, ÉfL[f_fEf“f\fbfZ[fW, ð^—, Å, «, Û, ·BftfH[f€
, ðf\fbfZ[fW, ð^—, µ, È, çé#CDoKeyDown , ìf\fbfZ[fWfpf%of[f^, ð“KØ, ÈCE^, É•İŠ , µ, Ä
KeyDown , ðCEÄ, Ño, µC; “x, í KeyDown , ð OnKeyDown fCxf“fgfnf“fhf% (, à, µ , è, ì)
, ðCEÄ, Ño, µ, Û, ·BKeyDown , ð, » , è^Èã, ì^—, ð—}Ž~ , , é, ÆCDoKeyDown , í F1 fL[, ð
%ÿ, ð, è, ½, ©, Ç, x, ©, ðCEÿ , µC%ÿ, ð, è, Ä, ç, è, ìfAfvfŠfP[fVf#“ , ìfwf<fvfVfXfef€
, ðCEÄ, Ño, µ, Û, ·B

ŽQÆ14413

KeyDown_f\fbfh

OnKeyDown_fCxf“fg

DoKeyPress_f\fbfh

DoKeyUp_f\fbfh

DoKeyPress f\fbfh14414

ŽQÆ

“K—p

TWinControl

é¾

procedure DoKeyPress (**var** Message: TWMKey): Boolean;

à-¾

DoKeyPress f\fbfh, í OnKeyPress fCxf“fg, ì, ½, ß, ì KeyPress f\fbfh, ðĀ, Ño, ‘O, É
%½, ©, ìŽ-‘O^—, ðŽÀs, , évf\fefNfgf\fbfh, Å, ·B, ±, ìf\fbfh, ìf\fbfZ[fW, ðftfBf<f^, É, ©, , ÄfRf“fgf[f<, ðŽÀÛ, Éf\fbfZ[fW, ð^—, µ, È, , Ä, Í, È, ç, È, ç
, ©, Ç, æ, ©, ð’m, é, ì, ðŽà, È-Ú“l, È, ì, ÅC, Û, Æ, ñ, Ç, ìê#CDoKeyPress , ðf[f%ofCfh, , é•K—
v, í, , è, Û, ñB

DoKeyPress , ì-ß, è‘l, í Message fpf%of[f^, Å“n, ð, ½fL[fvf\Xf\fbfZ[fW, ì^—
, ðfAfvfŠP[fVf#“ , ð±s, µ, È, , Ä, Í, È, ç, È, ç, ©, Ç, æ, ©, ðĀ^, ß, Û, ·B-ß, è‘l, ð True
, È, ç, ìfL[fvf\Xf\fbfZ[fW, ì^—, ìŠ@‘S, É, ì, ñ, Å, , èC, » , èÈä, ì^—, í•K—v, , è, Û, ñB-
ß, è‘l, ð False , È, ç, ìCfAfvfŠP[fVf#“ , íCp³^—, ð’É, ¶, ÄfL[fvf\Xf\fbfZ[fW, ð^ø, «“n, ð, È, -
, Ä, Í, È, è, Û, ñB

DoKeyPress , ðŽg, Å, ½ê#CffftfHf<fg, Å, í KeyPreview fvf\fpfefB, ð True
, ÉY‘è, ð, ½eftfH[f€ , ð—Dæ“l, ÉfL[fvf\Xf\fbfZ[fW, ð^—, Å, «, Û, ·BftfH[f€
, ðf\fbfZ[fW, ð^—, µ, È, ç, ê#CDoKeyPress , ìf\fbfZ[fWfpf%of[f^, ð“KØ, ÈĀ^, É•İŠ, µ, Ä
KeyPress , ðĀ, Ño, µC;“x, í KeyPress , ð OnKeyPress fCxf“fgfnf“fhf%o (, à, µ, , è, ì)
, ðĀ, Ño, µ, Û, ·B

ŽQÆ14415

KeyPress ffbfh

OnKeyPress fCxf"fg

DoKeyDown ffbfh

DoKeyUp ffbfh

DoKeyUp f\fbfh14416

ŽQÆ

“K—p

TWinControl

é¾

procedure DoKeyUp (**var** Message: TWMKey): Boolean;

à-¾

DoKeyUp f\fbfh, í OnKeyUp fCxf“fg, ì, ½, ß, ì KeyUp f\fbfh, ðÆÄ, Ño, ‘O, É%½, ©, ìŽ-‘O^—
□, ðŽÄs, ·, évf□fefNfgf\fbfh, Å, ·□B, ±, ìf□
fbfh, ìf□bfZ□[fW, ðftfBf<f^, É, ©, ·, ÄfRf“fgf□[f, ºŽÀÙ, Éf□bfZ□[fW, ð^—□, μ, È, Ä, Í, È, ç, È, ç,
, ©, Ç, x, ©, ð’m, é, ì, ºŽà, È-Ú“l, È, ì, Å□C, Ù, Æ, ñ, Ç, ìé□#□CDoKeyUp , ðf□[fo□[f%ofCfh, ·, é•K—
v, Í, , è, Ù, ¹, ñ□B

DoKeyUp , ì-ß, è‘l, í Message fpf%of□[f^, Å“n, ³, è, ½fL□[fAfbfvf□bfZ□[fW, ì^—
□, ðfAfvfŠfP□[fvf#“ , º±□s, μ, È, , Ä, Í, È, ç, È, ç, ©, Ç, x, ©, ðÆ^, ß, Ù, ·□B-ß, è‘l, º True
, È, ç, ìfL□[fAfbfvf□bfZ□[fW, ì^—□, ÍŠ@‘S, É□í, ñ, Å, “, è□C, » , é^É□ã, ì^—□, Í•K—v , , è, Ù, ¹, ñ□B-
ß, è‘l, º False , È, ç, ì□CfAfvfŠfP□[fvf#“ , íCep³^—□, ð’É, ¶, ÄfL□[fAfbfvf□bfZ□[fW, ð^ø, «“n, ³, È, -
, Ä, Í, È, è, Ù, ¹, ñ□B

DoKeyUp , ðŽg, Å, ½é□#□CfftfHf<fg, Å, í KeyPreview fv□fpfefB, º True , É□Ý’è, ³, è, ½éftfH□[f€
, º—D□æ“l, ÉfL□[fAfbfvf□bfZ□[fW, ð^—□, Å, «, Ù, ·□BftfH□[f€, ºf□bfZ□[fW, ð^—
□, μ, È, ç, é□#□CDoKeyUp , ìf□bfZ□[fWfpf%of□[f^, ð“K□Ø, ÈÆ^, É•İŠ·, μ, Ä KeyUp
, ðÆÄ, Ño, μ□C□;“x, í KeyUp , º OnKeyUp fCxf“fgfnf“fhf%o (, à, μ, , è, Ì) , ðÆÄ, Ño, μ, Ù, ·□B

ŽQÆ14417

KeyUp_f\fbfh

OnKeyUp_fCxf“fg

DoKeyDown_f\fbfh

DoKeyPress_f\fbfh

DragCanceled ffbfh14418

ŽQÆ

“K—p

Control

é¾

procedure DragCanceled; **dynamic**;

à-¾

DragCanceled ffbfh, ífhf%fbfOfAf“fhfhfbfv^—, đŠŽn, μ, ½ (f\fx, đCEÄ, Ño, μ, ½)
fRf“fgf[f<, ÉCft[fU[, ð^—, đLfff“fZf<, μ, ½, Æ, «, É%ž“š, Å, «, é<@%i, đ'ñ<Ÿ, μ, Ü, ·B^—
, đLfff“fZf<, ·, é, É, ÍC€-Ú, đ, »; ð€-Ú, đŽó, ~“ü, ê, È, cfRf“f[f“fg, ðã, Åfhfbfv, ·, é, ©Cfhf
%fbfO't, É Esc , đ%Ÿ, μ, Ü, ·B

Delphi , í OnEndDrag fCxf“fg, đCEÄ, Ño, ·'O, Éf\fxfRf“fgf[f<, ð DragCanceled ffbfh, đCEÄ, Ño, μ, Ü, ·B DragCanceled , ífftfHf<fg, Å, í%½, à, μ, Ü, ¹, ñ, ðCfhf%fbfO, ðLfff“fZf<, É%ž“š, ·, é, æ, xfi[f%ofCfh, Å, «, Ü, ·B

ŽQÆ14419

OnEndDrag_fCxf“fg

EnableAlign f\fbfh14420

ŽQÆ

“K—p

TWinControl

é¾

procedure EnableAlign;

à-¾

EnableAlign f\fbfh,í DisableAlign f\

fbfh,ìĀ,Ño,μ,É,æ,Á,ĀfCf“fNfŠf“fg,³,ê,½ŽQÆfjEj“fg,ðffNfŠf“fg,μ,Ü,·BDisableAlign

,ìĀ,Ño,μ,É,Í•K, EnableAlign ,ìĀ,Ño,μ,âî,É,È,Á,Ā,ç,È,-

,Ā,Í,È,è,Ü,¹,ñBŽQÆfjEj“fg,âf\,É,È,Á,½Žž”_ ,ĀCEnableAlign ,Í-ç^—

□,ì^Ê’u□#,í,¹,ðŽĀ□s,·,é,½,β,É Realign f\fbfh,ðĀ,Ño,μ,Ü,·B

ŽQÆ14421

DisableAlign ffbfh

Realign ffbfh

FindControl ŠÖ"14422

ftfjfbfg

Controls

éĒ¾

function FindControl(Handle: HWND): TWinControl;

à-¾

FindControl ŠÖ",í Handle fpf%of[f^,Å"n,³,ê,½fEfBf"fhfEfnf"fhf<,É'í
%ož,·,éfEfBf"fhfEfRf"fgf[f<,ð•Ô,μ,Û,·BHandle ,³[f,©CHandle ,É'í
%ož,·,éfEfBf"fhfEfRf"fgf[f<,³,È,¢ê#CFindControl ,í **nil** ,ð•Ô,μ,Û,·B

FindDragTarget ŠÖ"1423

ŽQÆ

ftjfbfg

Controls

é¾

```
function FindDragTarget(const Pos: TPoint; AllowDisabled: Boolean):  
    TControl;
```

à-¾

```
FindDragTarget ŠÖ",í Pos ,Å“n,³,ê,½%æ-  
ÉÀ•W,É, ,éfRf“fgf[f<,đ•Ô,μ,Û,·BAllowDisabled fpf%f[f^,ÍŽg—p•s  
%oÁ,É,³,ê,½fRf“fgf[f<,đŸö,ÉŠÛ,ß,é,©,Ç,κ  
,©,đŸ^,ß,Û,·BŽw'è,³,ê,½^Ê'u,ÉfRf“fgf[f<,ª,È,¯,ê,Î (,Û,½,ÍŽg—p•s  
%oÁ,É,³,ê,½fRf“fgf[f<,ª, ,Á,Ä,à AllowDisabled ,ª False ,É,ç,Î)CFindDragTarget ,í False  
,đ•Ô,μ,Û,·B
```

ŽQÆ14424

ControlAtPos.fbfh

FindNextControl f\fbfh14425

ŽQÆ

“K—p

TWinControl

é¾

```
function FindNextControl (CurControl: TWinControl;  
    GoForward, CheckTabStop, CheckParent: Boolean): TWinControl;
```

à-¾

```
FindNextControl f\fbfh,ífEfBf“fhfEfRf“fgf[f<,ìŽqfRf“fgf[f<,ì,¸,¿Cf^fu‡,Å CurControl  
,ì¼Æã,É, ,éŽqfRf“fgf[f<,ð•Ô,µ,Û,·BCurControl  
,áfEfBf“fhfEfRf“fgf[f<,ìŽq,Å,È, -,é,îCFindNextControl ,íf^fu‡,ÅÅ%  
,ìŽqfRf“fgf[f<,ð•Ô,µ,Û,·B
```

```
GoForward fpf%of[f^,íŸð,ì•ûËü,ð$Æä,µ,Û,·BGoForward ,ª True  
,È,ç,îCFindNextControl ,ìŽqfRf“fgf[f<,ðf^fu‡,ì‡•ûËü,ÉŸð,µ,Û,·B
```

```
CheckTabStop fpf%of[f^,Æ CheckParent fpf%of[f^,í FindNextControl  
,ÅŸo,µ,½fRf“fgf[f<,Éí,µ,Ä“Á’è,ìŸ, ,ðŽÀs,·,é,©,Ç,¸,©,ð$Æä,µ,Û,·BCheckTabStop  
,ª True ,È,ç,îC•Ô,3,é,½fRf“fgf[f<,í TabStop fvf\fpfefB,ª True ,ÉŸ’è,3,é,Ä,ç  
,Û,·BCheckParent ,ª True ,È,ç,îC•Ô,3,é,½fRf“fgf[f<,ì Parent  
fvf\fpfefB,ífEfBf“fhfEfRf“fgf[f<,ðŽ!,µ,Ä,ç,Û,·B
```

```
FindNextControl ,íuŽŸv,É,È,è¾,éfRf“fgf[f<,ìŸfXfg,ð\’z,·,é,½,ß,É GetTabOrderList f\fbfh,ðÆÄ,Ño,µ,Û,·B
```

ŽQÆ14426

GetTabOrderList ffbfh

FreeHandle f\fbfh14427

ŽQÆ

“K—p

TControlCanvas

é¾

procedure FreeHandle;

à-¾

FreeHandle f\fbfh,ÍRf“fgf[f<fLfff“fofXfifuWfFfNfg,Žg,fffofCfXfRf“fefLfXfgfnf“fhf<,đ
%ođ•ú,μ,Ü,·B

ŽQÆ14428

CreateHandle ffbfh

GetCaptureControl ŠÖ"14429

ŽQÆ

ftfjfbfg

Controls

é¾

function GetCaptureControl: TControl;

à-¾

GetCaptureControl ŠÖ",íŒ»Ÿf}fEfX,ðufLffvf`ffv,μ,Ä,ç
,éfRf"fgf[f<,ð•Ô,μ,Û,·B,»,ì,æ,æ,ÈfRf"fgf[f<,ª,È,̄,ê,î **nil**,ð•Ô,μ,Û,·B
f}fEfX,ìfLffvf`ff,É,Â,ç,Ä,í MouseCapture fvffpfefB,ìà-¾,ðŽQÆ,μ,Ä,,¾,¾,çB

ŽQÆ14430

MouseCapture_fvf[]pfefB

SetCaptureControl Žè'±,«

GetClientOrigin f\fbfh14431

ŽQÆ

“K—p

TControl, TWinControl

é¾

function GetClientOrigin: TPoint; **virtual**;

à-¾

GetClientOrigin f\fbfh, í ClientOrigin fvf\pfefB—p, ìfvf\fefNfgfAfNfZfXf\fbfh, Å, ·B

GetClientOrigin , ìfRf“fgf\lf<, ì¶ã÷, ìÊ’u, ðŽ|, ·“_ , ð%æ-ÊÀ•W, Å•Ö, μ, Ü, ·BTControl , ì

GetClientOrigin ŽÀ’•, Å, ìfRf“fgf\lf<, ì Left ’l, Æ Top ’l, ðefRf“fgf\lf<, ì ClientOrigin , É

%ÁŽZ, μ, Ä, ç, Ü, ·BTWinControl , í Windows , ì API ŠÖ” ClientToScreen , ð—~—p, ·, ·é, ½, ß, É

GetClientOrigin , ðf\fo\lf%ofCfh, μ, Ü, ·B

ŽQÆ14432

ClientOrigin_fvf\fpfefB

GetClientRect_f\fbfh

GetClientRect f\fbfh14433

ŽQÆ

“K—p

TControl, TWinControl, TForm

é¾

function GetClientRect: TRect; **virtual**;

à-¾

GetClientRect f\fbfh, IClientRect f\fpfB—p, lf\fefNfgfAfNfZfXf\fbfh, Å, ·B

GetClientRect ,ÍRf“fgf[f<,ÍfNf%ofCfAf“fg—ì^æ,ð'è<` ,·,éŽIŠpCE` ,ð•Ô,µ,Û,·BTControl ,ì

GetClientRect ,Å,ÍCTop ftfB[f<fh,Æ Left ftfB[f<fh,ðf[f,ÉCBottom ftfB[f<fh,Æ Right

ftfB[f<fh,²fRf“fgf[f<,ì Height ,Æ Width

,É,»,è,¼,éY'è,³,è,½ŽIŠpCE` ,ð•Ô,µ,Û,·BTWinControl ,í Windows ,ì API ŠÖ” GetClientRect

,ðCEÄ,Ño,·,½,β,É GetClientRect ,ðf[f%ofCfh,µ,Û,·BTFOrm ,àtfH[f€

,ìg“à,ìŽIŠpCE` ,ð•Ô,·,½,β,É GetClientRect ,ðf[f%ofCfh,µ,Û,·B

ŽQÆ14434

GetClientOrigin.fbfh

GetCursorValues Žè'±,«14435

ŽQÆ

ftjfbfg

Controls

é¾

procedure GetCursorValues (Proc: TGetStrProc);

à-¾

GetCursorValues Žè'±,«Í»Ý,ìfAfvfŠfP[fVf+f“,©,çŽg,ì,éfj[fVf<,ì-
¼'O,ìfŠfXfg,ð\z,é,½,ß,ÉCProc ,Å“n,³,ê,½f[fVfbfh,ðfVfXfef€,É“o~^ï,Ý,ìCEÂX,ìfj[fVf
f<,²,Æ,É 1 %ñ,,Âfj[fVf<-¼,ð“n,μ,ÄCEÄ,Ño,μ,Ü,·B

ŽQÆ14436

CursorToString ŠÖ

GetDeviceContext f\fbfh14437

ŽQÆ

“K—p

TControl, TWinControl

é¾

```
function GetDeviceContext (var WindowHandle: HWND): HDC; virtual;
```

à-¾

GetDeviceContext f\fbfh, í WindowHandle fpf%of[f^, Å“n,³,ê,½fEfBf“fhfEfnf“fhf<,ª•\ ,·fRf“fgf[f<,ìfffofCfXfRf“fefLfXfg,đ•Ô,μ,Û,·BTControl ,ì GetDeviceContext ,Å,íCefRf“fgf[f<,ì GetDeviceContext ,©,ç•Ô,³,ê,½fffofCfXfRf“fefLfXfg,đ•Ô,μ,Û,·BTWinControl ,í GetDeviceContext ,ðf[f]fo[f %ofCfh,μ,Ä Windows API ŠÖ“ GetDC ,ðÆÄ,Ño,μC,» ,ìÛ,ÉfEfBf“fhfEfnf“fgf[f<,ì Handle fvf]fpfefB,đ“n,μCWindowHandle ,ð Handle ,ÉY`è,μ,Û,·B

ŽQÆ14438

PaletteChanged_f\fbfh

GetPalette f\fbfh14439

ŽQÆ —á

“K—p

TControl

é¾

function GetPalette: HPALETTE;

à-¾

GetPalette f\fbfh,íRf“fgf[f<—p,ípfÆfbfg,đŽw’è,μ,Û,·BDelphi
,É,ípfÆfbfg,ìì—,â•ÚŽç,đfTf|f[fg,·,é<@“\,í“Á,É, ,è,Û,¹,ñB,μ,©,μpfÆfbfgfnf“fhf<,ª,í,©,ê,î
CfRf“fgf[f<—p,ì GetPalette ,đf|[fo|[f%ofCfh,μ,ÄfRf“fgf[f<,É,»,ípfÆfbfg,đŽg,í,¹,é,±
,Æ,^ª,Å,«,Û,·B

—á14440

ŽŸ, ì Image fRf“f|[] [flf“fg, íŠÖ~Afrfbfgf}fbfv, ìfpfĀfbfg, ð, » , ìfRf“f|
[] [flf“fg, ìfpfĀfbfg, Ā, μ, ĀŠ,,, è“- , Ā, é, ½, β, Ē GetPalette , ðf|[] [fo[] [f%ofCfh, μ, Ü, · []B

```
function TImage.GetPalette: HPALETTE;  
begin  
  Result := 0; { ffftfHf<fg, ìĀ<%Ē, ìfpfĀfbfg, Ē, μ, Ā, · }  
  if FPicture.Graphic is TBitmap then { frfbfgf}fbfv, ¾, ̄, ðfpfĀfbfg, ðŽ[], Ā, Ā, ç  
  , Ü, · }  
  Result := TBitmap(FPicture.Graphic).Palette; { , » , é, ðŽg, |, é, ìŽg, ç, Ü, · }  
end;
```

ŽQÆ14441

PaletteChanged_f\fbfh

GetTabOrderList f\fbfh1442

ŽQÆ

“K—p

TWinControl

é¾

procedure GetTabOrderList (List: TList);

à-¾

GetTabOrderList f\

fbfh,ífRf“fgf[f<,íf^fu#fŠfXfg,ð\‘z,·,é,½,ß,ÉfEfBf“fhfEfRf“fgf[f<,l“à•”,íf^fu#fŠfXfg,ð”½
•œ^—,μCCEÂX,ífRf“fgf[f<,ð,»,ífRf“fgf[f<,É“ü,Á,Ä,ç,éfRf“fgf[f<,àŠÜ,ß,ÄfŠfXfg,É‘Ç
%oÁ,μ,Ü,·B,»,ìC<%oÊC,·,×,Ä,ífRf“fgf[f<,Æ,»,ê,ç,ªŠ—
L,·,éfRf“fgf[f<,íf^fu#fŠfXfg,ª¾,ç,ê,Ü,·B

FindNextControl f\fbfh,ÍuŽŸv,É,È,è¾,éfRf“fgf[f<,lš®‘S,ÉfŠfXfg,ð\‘z,·,é,½,ß,É
GetTabOrderList ,ðCEÄ,Ño,μ,Ü,·B

ŽQÆ14443

FindNextControl ffbfh

IdentToCursor ŠÖ"1444

ŽQÆ

ftfjfbfg

Controls

é¾

```
function IdentToCursor(const Ident: string; var Cursor: Longint): Boolean;
```

à-¾

```
IdentToCursor ŠÖ",íj[f<ž·Êžq,đ'‰ž,·,éj[f\
f<'l,É·İŠ·,·,é,½,ß,ÉCfAfvfŠfP[fVf+f",Åžg,l,éj[f<·,ífŠfXfg,đŸö,µCIdent ,Å"n,³,ê,½·¶Žš
—ñ,É^ê'v,·,é-¼'O,ª•t,ç,½j[f<,đŸö,Å,·,Ü,·BŸö,Å^ê'v,ª¶¬,³,ê,ê,îCIdentToCursor ,Í
Cursor fpf%o[f^,Éj[f<'l,đÝ'è,µCTrue
,đ•Ô,µ,Ü,·BŸö,Å^ê'v,ª¶¬,³,ê,È,·,é,îCIdentToCursor ,Í False ,đ•Ô,µCCursor
,Í·iX,³,ê,Ü,¹,ñB
```

ŽQÆ14445

CursorTolident ŠÖ”

IsControl fvf[]pfefB1446

ŽQ[]Æ

“K—p

IControl

[]éÆ¾

property IsControl: Boolean;

[]à-¾

The IsControl fvf[]pfefB

ŽQÆ14447

TDesigner flfufWfEfNfg

IsControlMouseMsg f\fbfh14448

ŽQÆ

“K—p

TWinControl

é¾

function IsControlMouseMsg(**var** Message: TWMMouse): Boolean;

à-¾

IsControlMouseMsg f\fbfh, í Message fpf

%f^, Å“n, ³, ê, ½f}fEfXfbfZ[fW, ³fEfBf“fhfEfRf“fgf[f<, ðŽqfRf“fgf[f<, ð 1
, Å, ÖÆü, -, ç, ê, Ä, ç, ê, Î True , ð•Ô, µ, Ü, ·BŽqfEfBf“fhfEfRf“fgf[f<, Ö, ðfbfZ[fW, ð—M, í
Windows , ³’S—, µ, Ü, ·, ³C”ñfEfBf“fhfE, ðŽqfRf“fgf[f<, ðê#CWindows
, ðfbfZ[fW, ðefRf“fgf[f<, Ö’—
, èCefRf“fgf[f<, í, Ç, ðŽqfRf“fgf[f<, ³fbfZ[fW, ðŽó, -Žæ, é, ©, ðÆ^, ß, È, , Ä, í, È, è, Ü, ¹, ñB
fEfBf“fhfEfRf“fgf[f<, ð WndProc f\fbfh, íC, » , ðfEfBf“fhfEfRf“fgf[f<, Ö’—
, ç, ê, ½, ·, x, Ä, ðf}fEfXfbfZ[fW, ð^—, ·, é, ½, ß, É IsControlMouseMsg , ðÆÄ, Ño, µ, ·B

ŽQÆ14449

WndProc ffbfh

IsHintMsg f\fbfh14450

ŽQÆ

“K—p

THintWindow

é¾

function IsHintMsg(**var** Msg: TMsg): Boolean; **virtual**;

à-¾

IsHintMsg f\fbfh,Íqf“fgfEfBf“fhfE,æ-Êã,É, ,é,Æ,« (ActivateHint ,ðÄ,Ño,μ,½Eã)
,ÉfAfvfŠfP[fVf†“,ìf\fbfZ[fW,ðEÿ, ,μ,Ü,·BIsHintMsg
,Íf}fEfX\CfL[f{[fh\CfRf}f“fh\CfAfNfefBfu%»»,ì,ç, ,ê,©,ìf\fbfZ[fW,ðEÿo,·,é,Æ True
,ð•Ô,μC,»,ìE<%ÊfAfvfŠfP[fVf†“,Íqf“fgfEfBf“fhfE,ð%B,μ,Ü,·B

ŽQÆ14451

ActivateHint ffbfh

KeyDown f\fbfh14452

ŽQÆ

“K—p

TWinControl

é¾

procedure KeyDown(**var** Key: Word; Shift: TShiftState); **dynamic**;

à-¾

KeyDown f\fbfh,ífEfBf“fhfEfRf“fgf[f<,ì OnKeyDown fCxf“fg,ì,½,ß,ìfvf[fefNfgf\fbfh,Å,·BTWinControl ,©,çEp³,³,ê,½ KeyDown f\fbfh,í OnKeyDown fCxf“fg,ÉfA^fbf` ,³,ê,½fCxf“fgfnf“fhf%o,ðÄ,Ño,·^ÈŠO,í%½,à,μ,Ü,¹,ñBKeyDown ,ðf[f%ofCfh,·,ê,îCEp³,³,ê,½fCxf“fgfnf“fhf%oÄ,Ño,μ,ì,Ù,©,É,à%ž“š,ª,Å,«,Ü,·B fEfBf“fhfEfRf“fgf[f<,í Windows ,©,ç,ìL[f_fEf“fbfZ[fW (WM_KEYDOWN) ,Ö,ì %ž“š,Æ,μ,Ä KeyDown ,ðÄ,Ño,μ,Ü,·BŽÄÜ,ì“@ì,Æ,μ,Ä,íCDoKeyDown f\fbfh,ðÄ,Ño,·fvf%ofCxf[fgf[fZ[fWfnf“fhf%o,Öf[fZ[fW,ª—,ç,ê,Ü,·BDoKeyDown ,ìRf“fgf[f<,ÉŽÄÜ,É,»,ì•¶Žš,ð^—,³,¹,È,,Ä,í,É,ç,È,ç ,Æ”»’f,μ,½ê#CfL[f_fEf“fbfZ[fW,ìfpf%of[f^,ð %ð“Ç,μCfL[fR[fh,ÆfvftfgfL[ó’Ô,ð,»,ê,¼,ê Key fpf%of[f^,Æ Shift fpf%of[f^,ì KeyDown ,É“n,μ,Ü,·B

KeyDown ,Ü,½,í,»,ê,ªÄ,Ño,· OnKeyDown fCxf“fgfnf“fhf%o,í,Ç,¿,ç,à Key fpf %of[f^,ðf[f,ÉÝ’è,·,é,ì,ÅC,»,ê^Èä,ìL[,ì^—,ª—}Ž~ ,³,ê,Ü,·B

ŽQÆ14453

OnKeyDown fCxf“fg

DoKeyDown f\fbfh

KeyPress f\fbfh

KeyUp f\fbfh

KeyPress f\fbfh14454

ŽQÆ

“K—p

TWinControl

é¾

procedure KeyPress (var Key: Word); **dynamic**;

à-¾

KeyPress f\fbfh, íEfbf“fhfEfrf“fgf[]f<, ì OnKeyPress fCxf“fg, ì, ½, ß, ìfvf[]fefNfgf[]f\fbfh, Å, ·BTWinControl , ©, çCEp[]³, ³, ê, ½ KeyPress f\fbfh, ì OnKeyPress fCxf“fg, ÉfA^fbf` , ³, ê, ½fCxf“fgfnf“fhf%o, ðCEÄ, Ñ[]o, ·^ÈŠO, í%o½, à, µ, Ü, ¹, ñ[]BKeyPress , ðf[]fo[]f%ofCfh, ·, ê, ì[]CCEp[]³, ³, ê, ½fCxf“fgfnf“fhf%oCEÄ, Ñ[]o, µ, ì, Ù, ©, É, à%ž“š, ª, Å, «, Ü, ·[]B fEfbf“fhfEfrf“fgf[]f<, ì Windows , ©, ç, ìfL[]fvfCEfXf[]fbfZ[]fW (WM_CHAR) , Ö, ì%ž“š, Æ, µ, Ä KeyPress , ðCEÄ, Ñ[]o, µ, Ü, ·[]BŽÀ[]Ù, ì“®[]ì, Æ, µ, Ä, ì[]CDoKeyPress f\fbfh, ðCEÄ, Ñ[]o, ·fvf %ofCf[]f[]fgf[]fbfZ[]fWfnf“fhf%o, Öf[]fbfZ[]fW, ª—, ç, ê, Ü, ·[]BDoKeyPress , ìfRf“fgf[]f<, ÉŽÀ[]Ù, É, » , ì•¶Žš, ð^—[] , ³, ¹, È, , Ä, í, È, ç, È, ç , Æ”»’f, µ, ½[]ê#[]CfL[]fvfCEfXf[]fbfZ[]fW, ìfpf%of[]f^ , ð%ð“Ç, µ[]CfL[]fR[]fh, ð Key fpf %of[]f^ , ì KeyPress , É“n, µ, Ü, ·[]B

KeyPress , Ü, ½, í, » , è, ªCEÄ, Ñ[]o, · OnKeyPress fCxf“fgfnf“fhf%o, ì, Ç, ÿ, ç, à Key fpf %of[]f^ , ðf[]fo, ÉÝ’è, ·, é, ì, Å[]C, » , è^È[]ä, ì•¶Žš, ì^—[] , ª—}Ž~ , ³, è, Ü, ·[]B

ŽQÆ14455

OnKeyPress fCxf“fg

DoKeyPress f\fbfh

KeyDown f\fbfh

KeyUp f\fbfh

KeyUp f\fbfh14456

ŽQÆ

“K—p

TWinControl

é¾

procedure KeyUp(**var** Key: Word; Shift: TShiftState); **dynamic**;

à-¾

KeyUp f\fbfh, íEfbf“fhfEfrf“fgf[]f<, ì OnKeyUp fCxf“fg, ì, ½, ß, ìvf[]fefNfgf[]\fbfh, Å, ·BTWinControl , ©, çEp³, ³, ê, ½ KeyUp f\fbfh, í OnKeyUp fCxf“fg, ÉfA^fbf` , ³, ê, ½fCxf“fgfnf“fhf%o, ðEÄ, Ño, ·^ÈŠO, í%½, à, µ, Ü, ¹, ñBKeyUp , ðf[]fo[]f%o fCfh, ·, ê, ìCp³, ³, ê, ½fCxf“fgfnf“fhf%oEÄ, Ño, µ, ì, Ù, ©, É, à%ž“š, ª, Å, «, Ü, ·B fEfbf“fhfEfrf“fgf[]f<, í Windows , ©, ç, ìL[]fAfbfvf[]fbfZ[]fW (WM_KEYUP) , Ö, ì%ž“š, Æ, µ, Ä KeyUp , ðEÄ, Ño, µ, Ü, ·BŽÀÜ, ì“©[]ì, Æ, µ, Ä, ìCDoKeyUp f\fbfh, ðEÄ, Ño, :fvf %ofCfx[]fgf[]fbfZ[]fWfnf“fhf%o, Öf[]fbfZ[]fW, ª—, ç, ê, Ü, ·BDoKeyUp , ìRf“fgf[]f<, ÉŽÀÜ, É, » , ì•¶Žš, ð^—, ³, ¹, È, , Ä, í, È, ç, È, ç , Æ”»f, µ, ½ê#[]CfL[]fAfbfvf[]fbfZ[]fW, ìpf%of[]f^ , ð %oð“Ç, µ[]CfL[]fR[]fh, ÆfvftfgfL[]ó’Ô, ð, » , ê, ¼, ê Key fpf%of[]f^ , Æ Shift fpf%of[]f^ , ì KeyUp , É“n, µ, Ü, ·B

KeyUp , Ü, ½, í, » , ê, ªEÄ, Ño, · OnKeyUp fCxf“fgfnf“fhf%o, í, Ç, ÿ, ç, à Key fpf %of[]f^ , ðf[]f, ÉÝ’è, ·, é, ì, ÅC, » , ê^Èä, ìL[], ì^—, ª—}Ž~ , ³, ê, Ü, ·B

ŽQÆ14457

OnKeyUp fCxf“fg

DoKeyUp f\fbfh

KeyDown f\fbfh

KeyPress f\fbfh

MainWndProc f\fbfh14458

ŽQÆ

“K—p

TWinControl

é¾

procedure MainWndProc (**var** Message: TMessage);

à-¾

MainWndProc f\fbfh, íEfbf“fhfEfrf“fgf[f<—
p, ìfCf“fEfbf“fhfEfvfV[fWff, Å, .èCWindows ,ª,» ,ìRf“fgf[f<—p, ìfbfZ[fW, ðŽ, Á, Ä, ç
, é, Æ, «, ÉÆÄ, Ño, .f<[f`f“, Å, ·BMainWndProc , ìfbfZ[fWŽ©`ì, ì^—
 , âffBfXfpbf` , ÍŽÀ[s, µ, Ü, ¹, ñ,ªC, » , è, ðŽÀ[s, , é WndProc f\fbfh, ðÆÄ, Ño, µ, Ü, ·BMainWndProc , Í WndProc , ð^Í, p—áŠO^—
 [fuffbfN, ð`ñ<Ý, µCfAfvfŠfP[fVf#f““à, Å-ç^— , ì—áŠO,ª”[µ, ½è[†, Å, à, » , è, ç, ì—
 áŠO,ªŠmŽÄ, ÉfAfvfŠfP[fVf#f“fìfufWfFfNfg, ì HandleException f\fbfh, Ö“n,³, è, é, æ, x
, É, µ, Ü, ·B

ŽQÆ14459

WndProc ffbfh

DefWndProc fvfpfefB

MouseCapture fvf[]pfefB14460

ŽQ[]Æ

“K—p

TControl

□éÆ¾

property MouseCapture: Boolean;

□à-¾

MouseCapture fvf[]pfefB,lfRf“fgf[]f<,af}fEfXfCxf“fg,ð[]ufLfffvf`ff[]v,μ,½,©,Ç,κ
,©,ðŽ!,μ,Ü,·[]BfRf“fgf[]f<,af}fEfX,ðfLfffvf`ff,·,é,Æ[]C,»,ê^ÈÆã,ì,·,x,Ä,lf}fEfXfCxf“fg,Íft[]fU
[][,af}fEfX,ð%ð•ú,·,é,Ü,Å,»,lfRf“fgf[]f<(fLfffvf`fffRf“fgf[]f<,ÆÆÄ,î,ê,é) ,Ö’—,ç,ê,Ü,·[]B

fRf“fgf[]f<,afLfffvf`fffRf“fgf[]f<,É,È,é,ì,í[]Cft[]fU[][,a,»,lfRf“fgf[]f<,©,ç[]€-Ú,ðfhf
%ofbfO,μ,½,Æ,«,Å,·[]BfRf“fgf[]f<,ì ControlStyle fvf[]pfefB“à,Å csCaptureMouse ftf
%ofO,afY’è,³,è,Ä,ç,é[]ê[]‡,à[]Cft[]fU[][,a,»,lfRf“fgf[]f<[]ä,Å[]¶f}fEfXf{f^f“,ð
%oÿ,·,Æ[]C,»,lfRf“fgf[]f<,Íft[]fU[][,af{f^f“,©,çŽw,ð—f
,·,Ü,Å,ìŠÖ[]CfLfffvf`fffRf“fgf[]f<,É,È,è,Ü,·[]B

MouseCapture ,Í GetCaptureControl ŠÖ[]”,Æ SetCaptureControl Žè’±
,«,ðŽg,Á,ÄŽÀÆ»,³,ê,Ü,·[]B

ŽQÆ14461

GetCaptureControl ŠÖ”

SetCaptureControl Žè’±,«

MouseDown f\fbfh14462

ŽQÆ

“K—p

TControl

é¾

procedure MouseDown(Button: TMouseButton; Shift: TShiftState; X, Y: Integer); **dynamic**;

à-¾

MouseDown f\fbfh,ÍRf“fgf[f<,ì OnMouseDown fCxf“fg,ì,½,ß,Ívf□fefNfgf□\fbfh,Å,·□BTControl ,©,çEp³,³,ê,½ MouseDown f\fbfh,Í OnMouseDown fCxf“fg,ÉfA^fbf` ,³,ê,½fCxf“fgfnf“fhf%o,ðÄ,Ñ□o,·^ÈŠO,í%½,à,μ,Ü,¹,ñ□BMouseDown,ðf□[fo□[f%ofCfh,·,è,î□CEp³,³,ê,½fCxf“fgfnf“fhf%oÄ,Ñ□o,μ,ì,Ù,©,É,à%ž“š,ª,Å,«,Ü,·□BfRf“fgf□[f<,í Windows ,ì,ç,·,è,©,ìf}fEfXf_fEf“f□bfZ□[fW (WM_LBUTTONDOWN,WM_MBUTTONDOWN,WM_RBUTTONDOWN) ,Ö,ì%ž“š,Æ,μ,Å MouseDown,ðÄ,Ñ□o,μ□Cf□bfZ□[fW,ìpf%of□[f^,ðfvftfgfL□[ó’Ô,Æ^Ê’u,É%ð“Ç,μ□C,»è,¼,è Shift, X, Y ,ìšepf%of□[f^,É“n,μ,Ü,·□BButton fpf%of□[f^,ì’l,í,Ç,ì Windows f□bfZ□[fW,ªfCxf“fg,ð“□¶,³,¹,½,©,É,æ,Á,Ä^Ù,È,è,Ü,·□B

ŽQÆ14463

OnMouseDown_fCxf“fg

MouseMove_f\fbfh

MouseUp_f\fbfh

MouseMove f\fbfh14464

ŽQÆ

“K—p

TControl

é¾

procedure MouseMove (Shift: TShiftState; X, Y: Integer); **dynamic**;

à-¾

MouseMove f\fbfh,íRf“fgf[f<,ì OnMouseMove fCxf“fg,ì,½,ß,ífvf[fefNfgf[f\fbfh,Å,·BTControl ,©,çEp³,³,ê,½ MouseMove f\fbfh,í OnMouseMove fCxf“fg,ÉfA^fbf` ,³,ê,½fCxf“fgfnf“fhf%o,ðÄ,Ño,·^ÈŠO,í%½,à,μ,Û,¹,ñBMouseMove ,ðf[f%ofCfh,·,ê,îCp³,³,ê,½fCxf“fgfnf“fhf%oÄ,Ño,μ,ì,Û,©,É,à%ž“š,ª,Å,«,Û,·B fRf“fgf[f<,í Windows ,lf}fE^X^Ú“®f\fbfZ[fW (WM_MOUSEMOVE) ,Ö,ì%ž“š,Æ,μ,Ä MouseMove ,ðÄ,Ño,μCf\fbfZ[fW,ífpf%of[f^,ðVftfgfL[ó‘Ô,Æ^Ê‘u,É %oð“Ç,μC,»,ê,¾,ê Shift, X, Y ,İSefpf%of[f^,É“n,μ,Û,·B

ŽQÆ14465

OnMouseMove_fCxf“fg

MouseDown_f\fbfh

MouseUp_f\fbfh

MouseUp f\fbfh14466

ŽQÆ

“K—p

TControl

□é¾

procedure MouseUp(Button: TMouseButton; Shift: TShiftState; X, Y: Integer);
dynamic;

□à-¾

MouseUp f\fbfh,íRf“fgf□□[f<,ì OnMouseUp fCxf“fg,ì,½,ß,ìvf□fefNfgf□f\fbfh,Å,·BTControl
,©,çEp□³,³,ê,½ MouseUp f\fbfh,í OnMouseUp fCxf“fg,ÉfAf^bf` ,³,ê,½fCxf“fgfnf“fhf%
,ðÆÄ,Ñ□o,·^ÈŠO,í%½,à,μ,Ü,¹,ñ□BMouseUp ,ðf□□[fo□[f
%ofCfh,·,ê,î□CEp□³,³,ê,½fCxf“fgfnf“fhf%oÆÄ,Ñ□o,μ,ì,Ù,©,É,à%ž“š,ª,Å,«,Ü,·□B
fRf“fgf□□[f<,í Windows ,ì,ç,·,ê,©,ìf}fEfXfAfbfvf□fbfZ□[fW (WM_LBUTTONDOWN,
WM_MBUTTONDOWN, WM_RBUTTONDOWN) ,Ö,ì%ž“š,Æ,μ,Å MouseUp
,ðÆÄ,Ñ□o,μ□Cf□fbfZ□[fW,ìpf%of□□[f^ ,ðfVftfgfL□□ó’Ô,Æ^Ê’u,É%øð“Ç,μ□C,» ,ê,¼,ê Shift,
X, Y ,ìSefpf%of□□[f^ ,É“n,μ,Ü,·□BButton fpf%of□□[f^ ,ì’í,í,Ç,ì Windows
f□fbfZ□[fW,ªfCxf“fg,ð“□¶,³,¹,½,©,É,æ,Å,Å^Ù,È,è,Ü,·□B

ŽQÆ14467

OnMouseUp_fCxf“fg

MouseDown_f\fbfh

MouseMove_f\fbfh

NotifyControls f\fbfh14468

ŽQÆ

“K—p

TWinControl

é¾

procedure NotifyControls (Msg: Word);

à-¾

NotifyControls f\fbfh, í Msg fpf% f^, Å“n,³,ê,½f\fbfZ\fw ID

,đŽ,Âf\fbfZ\fw,đfEfBf“fhfEfRf“fgf\<,ì Controls ”z—

ñfv\fpfefB“à,É, .é,.,x,Ä,lfRf“fgf\<,Ö’—,è,Ü,·BDelphi ,íe,ìF,âftfHf“fg,É•ìX,^a, ,Á,½,±
,Æ,È,Ç,đ NotifyControls ,đŽg,Á,ÄftfH\€“à,ì,.,x,Ä,lfRf“fgf\<,Ö’É’m,μ,Ü,·B

NotifyControls ,í”Ä—pf\fbfZ\fwf\€fR\fh,đ\’z,μC,» ,lf\fbfZ\fw ID ftfB\fh,É Msg

,ìl,đ<L“ü,μCfpf

%f^ftfB\fh,Æ<%oÊftfB\fh,đf\,Éý’è,μ,½<äCf\fbfZ\fw,đ,.,x,Ä,ìžqfRf“fgf\<,Ö’—,é,½,ß,É Broadcast f\fbfh,đ<Ä,Ño,μ,Ü,·B

ŽQÆ14469

Broadcast ffbfh

fRf“f“f“fgfbfZ“fW

Paint f\fbfh14470

ŽQÆ

“K—p

TGraphicControl, TCustomControl, TCustomGrid

é¾

procedure Paint; virtual;

à-¾

Paint f\fbfh, fOf%ftfBfbfNfRf“fgf[f<, Ü, ½, fjjXf^f€Rf“fgf[f<, lfCf[fW, ð•`
%æ, µ, Ü, ·BfOf%ftfBfbfNfRf“fgf[f<, ÆfjXf^f€Rf“fgf[f<, í WM_PAINT ffbfZ[fW, Ö, ì
%ž“š, Æ, µ, ÄfRf“fgf[f<, lfLfff“fofX, ð%Šú%»µCPaint , ðÆÄ, Ño, µ, Ü, ·B
fOf%ftfBfbfNfRf“fgf[f<, Ü, ½, fjjXf^f€Rf“fgf[f<, ð`¬, ·, é, ÆCfRf“fgf[f<, lfCf[fW, ð•`
%æ, ·, é, ½, ß, É•K, , Paint , ðf[f%ofCfh, ð, è, Ü, ·B

ŽQÆ14471

OnPaint fCxf“fg

Canvas fvf[]pfefB

PaintControls f\fbfh14472

ŽQÆ

“K—p

TWinControl

é¾

procedure PaintControls(DC: HDC; First: TControl);

à-¾

PaintControls f\fbfh,Í DC fpf

%f[f^,Å“n,³,ê,½fffofCfXfRf“fefLjXfg,ðŽg,Á,ÄfEfBf“fhfEfRf“fgf[f<“à,É, ,éÆÅX,ìŽqfRf“fg

f[f<,ðfyfCf“fg,μ,Û,·BFirst fpf

%f[f^,ífEfBf“fhfEfRf“fgf[f<,ìŽqfRf“fgf[f<fŠfXfg“à,ìfyfCf“fgŠJŽn“_,ðŽ!,μ,Û,·BFirst ,ª

nil, Å, ,é, ©ŽqfRf“fgf[f<,ì 1 ,Å,ðŽ!,μ,Ä,ç,É,çê#CPaintControls

,í,·,x,Å,ìŽqfRf“fgf[f<,ðfyfCf“fg,μ,Û,·B

Repaint f\fbfh,ífRf“fgf[f<,Æ,» ,é,ªÆð·,·,é%oÅ“\

«,ª, ,éfRf“fgf[f<,ðÄfyfCf“fg,·,é,½,ß,ÉfRf“fgf[f<,ìe,É,Å,ç,Ä PaintControls

,ðÆÄ,Ño,μCFirst “à,ífRf“fgf[f<,ð“n,μ,Û,·BPaintHandler ,à PaintWindow

,ðÆÄ,Ño,μ,½Æã,É PaintControls ,ðÆÄ,Ño,μ,Û,·B

ŽQÆ14473

Repaint ffbfh

PainterHandler ffbfh

Paint ffbfh

PainterHandler f\fbfh14474

ŽQÆ

“K—p

TWinControl

é¾

procedure PainterHandler (**var** Message: TWMPaint);

à-¾

PainterHandler f\fbfh,ífEfBf“fhfEfrf“fgf[]f<—p,ì WM_PAINT f\fbfZ[]fW,Ö,ì%ž“š,Æ,μ,Ä API
ŠÖ”,ì BeginPaint ,Æ EndPaint ,đĀ,Ño,μC,±,ì 2
,Ä,ìŠÖ”,ìŠÖ,ÅfRf“fgf[]f<,ì“wĒi,đfyfCf“fg,·,é,½,ß,É PaintWindow
,đĀČqfRf“fgf[]f<,đfyfCf“fg,·,é,½,ß,É PaintControls ,đ,»,ê,¼,êĀ,Ño,μ,Ü,·B

ŽQÆ14475

PaintControls ffbfh

PaintWindow ffbfh

PaintWindow f\fbfh14476

ŽQÆ

“K—p

TWinControl, TCustomControl

é¾

procedure PaintWindow(DC: HDC); **virtual**;

à-¾

PaintWindow f\fbfh,ífEfBf“fhfEfrf“fgf[f<,ì“à—e,ðÄfyfCf“fg,μ,Ü,·B

PaintWindow ,í WM_PAINT f\fbfZ[fW,ðfEfBf“fhfEfrf“fgf[f<,ì DefaultHandler

f\fbfZ[fW,Ö—,è,Ü,·Bf\fbfZ[fWfEfR[fh,ì WParam ftB[f<fh,í DC

,Å“n,¾,è,½'l,ÉC,»,ì¼,ìpf%o[f^ftB[f<fh,ÆCE<%oÉftB[f<fh,íf[f,ÉÝ'è,¾,è,Ü,·B

TCustomControl ,í Canvas fvf\fpfefB,Æ Paint f\fbfh,ðŽg,α,½,β,É PaintWindow ,ðf\fo[f

%oCfh,μ,Ü,·BfLfff“fofXfnf“fhf<,í DC ,Å“n,¾,è,½'l,ÉÝ'è,¾,èC,»,ìCEã,É Paint

,æCEÄ,Ño,¾,è,Ü,·B

ŽQÆ14477

DefaultHandler.fbfh

PaletteChanged f\fbfh14478

ŽQÆ

“K—p

TControl, TWinControl

é¾

function PaletteChanged(Foreground: Boolean): Boolean; **dynamic**;

à-¾

PaletteChanged f\fbfh,ÍVfXfef€,ÍpfCEfbfg,Å,ì•ïX,É

%ž“š,•,é,½,ß,ÉCfRf“fgf[f<,ÍpfCEfbfg,đ GetPalette

,©,ç•Ô,³,ê,½,Æ,“è,ÉŽÀ»»,μ,Û,•BPaletteChanged ,ÍfftfHf<fg“®ì,đ•ïX,•,é•K—v,Í,Û,Á,½,-

, ,è,Û,¹,ñBForeground fpf%of[f^,ÍpfCEfbfg,đŽÀ»»,•,é,Æ,«ÉC,±

,ÍRf“fgf[f<,ÍpfCEfbfg,đ‘OÇi,Æ”wÇi,ì,ç,¿,ç,É, ,é,à,ì,Æ,μ,Ä^—,μ,È,,Ä,Í,È,ç,È,ç

,©,đŽ!,μ,Û,•B

PaletteChanged ,ì-ß,è'l,ÍRf“fgf[f<,ªŽÀÛ,ÉpfCEfbfg,đŽÀ»»,μ,½,©,Ç,ª

,©,đŽ!,μCGetPalette ,ª—LÇø,ÉpfCEfbfg,đ•Û,μ,½ê‡,É,¾,¯ True ,đ•Û,μ,Û,•B

ŽQÆ14479

GetPalette.fbfh

Perform f\fbfh14480

ŽQÆ

“K—p

TControl

é¾

function Perform(Msg, WParam: Word; LParam: Longint): Longint;

à-¾

Perform f\fbfh, Žg, æ, Æ C f R f “ f g f [f < , í Ž © • a Ž © g, Ö f f b f Z [f W, ð ‘ —, é, ±

, Æ, a, Å, «, Ü, · B Perform , í Windows , ì f f b f Z [f W f L f ... [, ð % o l

% o ñ, µ, Ä C f f b f Z [f W, ð f R f “ f g f [f < , ì f E f B f “ f h f E f v f [f V [f W f f, Ö ‘ ¼ Ü ‘ —, è, Ü, · B

f f b f Z [f W f C f R [f h (T M e s s a g e C E ^) , É, í M s g f p f % o f [f ^ , Å “ n, ³, è, ½ f f b f Z [f W I D ,

W P a r a m , Æ L P a r a m , Å “ n, ³, è, ½ f f b f Z [f W f p f

% o f [f ^ C f [f , ì C E < % o Ê f t f B [f < f h, æ < L “ ü, ³, è, Ü, · B Perform , í, ±, ì f f b f Z [f W f C f R [f h, ð WndProc

f\fbfh, Ö “ n, µ, Ä ^ —, ³, ¹, Ü, · B

ŽQÆ14481

WndProc ffbfh

Dispatch ffbfh

Realign f\fbfh14482

ŽQÆ

“K—p

TWinControl

é¾

procedure Realign;

à-¾

Realign f\fbfh,ífEfbf“fhfEfRf“fgf[f<,É,»,ìfRf“fgf[f<“à,ìfRf“f|
[f]f“fg,ì^É’u,đ‡,í,¹,³,¹,Ü,·B,»,ífEfbf“fhfEfRf“fgf[f<,đe,Æ,·,éfRf“fgf[f<,ª,Ç,ê,à alNone
^ĚŠO,ì’l,É’Y’è,³,ê,½ Align fvf\pfefB,đŽ,Á,Ä,ç,È,¯,ê,ÎCRealign ,í<@“\,μ,Ü,¹,ñB
EnableAlign f\fbfh,íŽQÆfjE“fg,ªf[f,É,È,Á,½,Æ,«,É Realign ,đÆÄ,Ño,μ,Ü,·B

ŽQÆ14483

AlignControls ffbfh

DisableAlign ffbfh

EnableAlign ffbfh

RecreateWnd f\fbfh14484

ŽQÆ

“K—p

TWinControl

é¾

procedure RecreateWnd;

à-¾

RecreateWnd f\

fbfh,ífEfBf“fhfEfRf“fgf[]f<,ÖŠÖ~A•t,¯,ç,ê,½fEfBf“fhfEfnf“fhf<,ð”pŠü,μ,½Æã[]C,»,ìfRf“fgf[]f<,ìÆ»[]Ý,ì[]ó’Ó,ð”½%of,μ,½•Ê,ífEfBf“fhfEfnf“fhf<,ð[][]-,μ,Ü,·[]BWindows
,Á,ífRf“fgf[]f<,É’Î,·,é“Á’è,ìŽí—þ,ì•ì[]X,ð”½%of,^{3,1},é,½,ß,ÉfRf“fgf[]f<,ð,ç
,Á,½,ñ”pŠü,μ,Ä[]Ä[]ì[]-,μ,È,,Ä,Í,È,ç,È,ç[]ê[]±,³,è,Ü,·[]B,½,Æ,ì,ì•Ö[]Wf{fbfNfX,ì<<ŠEfXf^fCf<,ì•
ì[]X,ð”½%of,^{3,1},é,É,ì[]CfRf“fgf[]f<,ð[]Ä[]ì[]-,μ,È,,Ä,Í,È,è,Ü,¹,ñ[]B

RecreateWnd ,ífEfBf“fhfEfnf“fhf<,ð”pŠü,·,é,½,ß,É DestroyHandle

,ðÆÄ,Ñ[]o,μ,½Æã[]CfRf“fgf[]f<,ð[]Ä•\Ž!,·,é[]ì<Æ,ì^ê•”,Æ,μ,Äfnf“fhf<,ð[]Ä[][]-,μ,Ü,·[]B

ŽQÆ14485

DestroyHandle f\fbfh

CreateWnd f\fbfh

ReleaseHandle f\fbfh14486

ŽQÆ

“K—p

THintWindow

é¾

procedure ReleaseHandle;

à-¾

ReleaseHandle f\fbfh,Íqf“fgfEfBf“fhfE,ÅŽg,Á,½fEfBf“fhfEfnf“fhf<,ø”pŠü,·,é,½,ß,É
DestroyHandle f\fbfh,øÆÄ,Ño,μ,Û,·B

ŽQÆ14487

DestroyHandle ffbfh

ScaleControls f\fbfh14488

ŽQÆ

“K—p

TWinControl

é¾

procedure ScaleControls (M, D: Integer);

à-¾

ScaleControls f\

fbfh,ífEfBf“fhfEfRf“fgf[f<Ž©‘ì,ìXfP[f<•ïX,¹,,.ÉfEfBf“fhfEfRf“fgf[f<,ìŽqfRf“fgf[f<,ðfX
fP[f<•ïX,µ,Ü,·BScaleControls ,í M fpf%of[f^,Æ D fpf
%of[f^,ð“n,µ,ÄÊÂX,ìŽqfRf“fgf[f<,ì ChangeScale f\fbfh,ðÆÄ,Ño,µ,Ü,·B

ŽQÆ14489

ChangeScale ffbfh

SelectFirst f\fbfh14490

ŽQÆ

“K—p

TWinControl

é¾

procedure SelectFirst;

à-¾

SelectFirst f\fbfh,ífEfBf“fhfEfrf“fgf[f<“à,Å‘I’ð%Å”\,ÈÅ%
,ìRf“fgf[f<,ð©,Å,¯,é,½,ß,ÉCE»Ý,ìRf“fgf[f<,ð **nil** ,ÉŽw’è,μ,Ä FindNextControl
,ðCEÄ,Ño,μ,Ü,·B‘I’ð%Å”\,ÈÅ%,ìRf“fgf[f<,ðfAfNfefBfufRf“fgf[f<,É,μ,Ü,·B

ŽQÆ14491

FindNextControl ffbfh

SelectNext ffbfh

SelectNext f\fbfh14492

ŽQÆ

“K—p

TWinControl

é¾

procedure SelectNext (CurControl: TWinControl; GoForward, CheckTabStop: Boolean);

à-¾

SelectNext f\fbfh,í“ü—ÍftfH[fjfX,đ CurControl ,©,ç Z f[f_[][,ÅŽŸ,É,-
,éfRf“fgf[f<,Ö^Ú“® ,μ,Û,·BFindNextControl f\fbfh,Å (GoForward fpf%of[f^ ,Æ
CheckTabStop fpf%of[f^ ,Å'è<` ,μ,½,Æ,“,è,ì)
“K∅,ÈfRf“fgf[f<,ªÆ© ,Å,© ,ç,È,© ,Á,½ê#CSelectNext ,ÍftfH[fjfX,đ CurControl ,É-
ß,μ,Û,·B

ŽQÆ14493

FindNextControl ffbfh

SetCaptureControl Žè'±,«14494

ŽQÆ

ftfjfbfg

Controls

é¾

procedure SetCaptureControl (Control: TControl);

à-¾

SetCaptureControl Žè'±,«Í Control fpf

%f[f^,Å“n,¾,ê,½fRf“fgf[f<,ðÆ»Ý,lfLfffvf`fffRf“fgf[f<,É,μ,Ü,·B,»}lfRf“fgf[f<,Í•É,lfRf

“fgf[f<,¾}fEfX,ðfLfffvf`ff,·,é,© SetCaptureControl ,Ö nil

,¾“n,¾,ê,Äf}fEfX,¾u”ñfLfffvf`ffvó'Ô,É,È,é,Ü,ÅC,·,x,Ä,lf}fEfXfCxf“fg,ðŽó,~Žæ,è,Ü,·B

MouseCapture fvfppfefB,Í SetCaptureControl ,É,æ,Á,ÄŽÀÆ»,¾,ê,Ä,ç

,Ü,·BGetCaptureControl

ŠÓ”,ðÆÄ,Ño,¹,ÎCÆ»Ý,Ç,lfRf“fgf[f<,¾fLfffvf`fffRf“fgf[f<,©,í,©,è,Ü,·B

ŽQÆ14495

MouseCapture_fvf[]pfefB

GetCaptureControl.ŠÖ”

SetClientSize f\fbfh14496

ŽQÆ

“K—p

TControl

□é¾

procedure SetClientSize(Value: TPoint); **virtual**;

□à-¾

SetClientSize f\fbfh,íRf“fgf□□[f<,ìNf%ofCfAf“fg—ì^æ,ì•□,Æ□,,³,ð Value fpf
%of□□[f^,Å“n,³,ê,½'l,É□Ý'è,μ,Ü,·□BfRf“fgf□□[f<,ìê□#□CfNf%ofCfAf“fg—ì^æ,íRf“fgf□□[f<,ì—
ì^æ'S'ì,Æ“⁻,¶,Å,·□BftfH□[f€,ìê□#□CfNf%ofCfAf“fg—ì^æ,í<«ŠE,ì“à•”,ì—ì^æ,Å,·□B

ŽQÆ14497

GetClientOrigin.f\fbfh

GetClientRect.f\fbfh

SetParent f\fbfh14498

ŽQÆ

“K—p

TControl

é¾

procedure SetParent (AParent: TWinControl); **virtual**;

à-¾

SetParent f\fbfh, í Parent fv\fpfefB—p, ìvf\fefNfgfAfNfZfXf\fbfh, Å, ·B, ·, Å, ÉfRf“fgf\<f<, Ée,ª, ,ê, îCSetParent , íe, ì RemoveControl f\fbfh, ðÆÄ, Ño, ·, ì, ÅCpe, ìfRf“fgf\<f<ŠfXfg, ©, ç, » ìfRf“fgf\<f<,ªŽæ, èœ, ©, ê, Ü, ·BAParent ,ª”ñ **nil** , È, ç, îCSetParent , í, » ìfRf“fgf\<f<, ðfRf“fgf\<f<ŠfXfg, Ö’Ç %oÁ, ·, é, ½, ß, É, » ìfRf“fgf\<f<, ì InsertControl f\fbfh, ðÆÄ, Ño, µ, Ü, ·B
; , x, Ä, ìfRf“fgf\<f<, ì Destroy f\fbfh, ìfRf“f\<f<fg, ð”pŠü, ·, é’O, ÉCfRf“fgf\<f<, ðe, ìfRf“fgf\<f<ŠfXfg, ©, çŽæ, èœ, , ½, ß, É
SetParent(**nil**) , ðÆÄ, Ño, µ, Ü, ·B

ŽQÆ14499

Parent fvfpfefB

SetZOrder f\fbfh14500

“K—p

TControl

□é☒¾

procedure SetZOrder (TopMost: Boolean); **dynamic**;

□à-¾

SetZOrder f\fbfh,ÍfRf“fgf□□[f<,ð□Å□ã^ÊfRf“fgf□□[f< (TopMost fpf%of□□[f^,ª True) ,Ü,½,Í□Å
%oo^ÊfRf“fgf□□[f< (TopMost fpf%of□□[f^,ª False)

,É,;é,½,ß,É□CfRf“fgf□□[f<,ð□e,ÍfRf“fgf□□[f<fŠXfg“à,Å^Ú“®,µ,Ü,·□B□#□~,)•ï□X☒ã□CSetZOrd
er ,Í□ÅfyfCf“fg,Å□V,µ,¢□#□~ ,ªŠmŽÅ,É“½%of,³,ê,é,æ,¤□CfRf“fgf□□[f<,ð-³☒ø,É,µ,Ü,·□B

ShowControl f\fbfh14501

ŽQÆ

“K—p

TWinControl

é¾

procedure ShowControl (AControl: TControl); **virtual**;

à-¾

ShowControl f\fbfh, í AControl , Å“n,³,ê,½fRf“fgf[f<,ªŽÀÛ,É%oÂŽ<,É,È,é,æ,κ
,É,μ,Û,·BShowControl ,í Show f\fbfh,ì,½,ß,ÉŽg,í,ê,éfvf\fefNfgf\fbfh,Å,·BShowControl
,í“Á’è,ìfRf“fgf[f<,ðŠmŽÀ,É•\Ž!,·,é,½,ß,É-{Ž¿“l,É•K—v,È^—
□,ð,μ,Û,·B,½,Æ,¡,ìfXfNf□□[f<f{fbfNfX,ÆftfH□[f€,í□C,»),ìfRf“fgf[f<,ð%oÂŽ<,É,·,é,½,ß,É•K—
v,Å, ,ê,ìfXfNf□□[f<,μ,Û,·Bfm□[fgfufbfN,í,»),ìfRf“fgf[f<,ª“ü,Å,½fy□[fW,ð‘O-Ê,É’u,«),·B

ŽQÆ14502

Show ffbfh

StringToCursor ŠÖ"14503

ŽQÆ

ftjfbfg

Controls

é¾

function StringToCursor(S: string): TCursor;

à-¾

StringToCursor ŠÖ", í S fpf%of[f^, Å"n,³,ê,½•¶Žš—ñ,ðŠî,É,µ,Äfj[f\ f<'l,ð•Ô,µ,Û,·BStringToCursor ,íÅ%o,É IdentToCursor ,ðÆÄ,Ño,µ,ÄŠù'm,lfj[f\ f<- ¼,ð,»,ê,É'S"-.,é'l,É•İŠ,µ,Û,·B•İŠ,ž,"s,.,é,ÆCVal Žè'±,«,ðŽg,Á,Ä S ,ð"l,É•İŠ,µ,æ,x ,Æ,µ,Û,·BfGf%o[,²<N,«,½ê#CStringToCursor ,í—áŠO,ð¶¶¬,µCS ,²"l,Å,È,ç,± ,Æ,ðŽl,.,©CS ,²·\,·"l,²fj[f\ f<,l—LÆø"í^İŠO,Å ,é,±,Æ,ðŽl,µ,Û,·B

ŽQÆ14504

IdentToCursor ŠÖ

CursorToString ŠÖ

TCMActivate Ć^14505

ŹQĀÆ

ftjfbfg

Controls

□éĆ¾

type

TCMActivate = TWMNoParams;

□à-¾

TCMActivate Ć^,í CM_ACTIVATE ffbfZ[]fW,ìfbfZ[]fWfĆfR[]fhĆ^,Å,□B

ŽQÆ14506

fR“f|□[f|f“fgf□fbfZ□[fW

TCMDeactivate CE^14507

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMDeactivate = TWMNoParams;

à¾

TCMDeactivate CE^,í CM_DEACTIVATE fbfZ[fW,ìfbfZ[fWfCEfR[fhCE^,Å,·B

TCMGotFocus CE^14508

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMGotFocus = TWMNoParams;

à¾

TCMGotFocus CE^,í CM_GOTFOCUS ffbfZfW,ìfbfZfWfCEfRfhCE^,Å,·B

TCMLostFocus CE^14509

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMLostFocus = TWMNoParams;

à¾

TCMLostFocus CE^,í CM_LOSTFOCUS ffbfZ[fW,ìfbfZ[fWfCEfR[fhCE^,Å,·B

TCMCancelMode CE^14510

ŽQAE

ftjfbfg

Controls

éCE¾

type

TCMCancelMode = TWMNoParams;

à-¾

TCMCancelMode CE^,í CM_CANCELMODE ffbfZ[fW,ìfbfZ[fWfCEfR[fhCE^,Å,·B

TCMDialogKey ^14511

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMDialogKey = TWMKeyDown;

à¾

TCMDialogKey ^,í CM_DIALOGKEY ffbZfW,ìfbZfWfRfh^,Å,·B

TCMDialogChar Ć^14512

ŹQÆ

ftjfbfg

Controls

éĆ¼

type

TCMDialogChar = TWMSysChar;

à-¼

TCMDialogChar Ć^,í CM_DIALOGCHAR ffbfZ[fW,ìfbfZ[fWfĆfR[fhĆ^,Å,·B

TCMHitTest **CE^14513**

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMHitTest = TWMNCHitTest;

à¾

TCMHitTest CE^,í CM_HITTEST ffbfZ[fW,ìfbfZ[fWfCEfR[fhCE^,Å,·B

TCMEnter CE^14514

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMEnter = TWMNoParams;

à¾

TCMEnter CE^,í CM_ENTER ffbfZ[fW,ìfbfZ[fWfCEfR[fhCE^,Å,·B

TCMExit CE^14515

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMExit = TWMNoParams;

à¾

TCMExit CE^,í CM_EXIT ffbfZfW,ìfbfZfWfRfhCE^,Å,·B

TCMDesignHitTest $\text{CE}^{\wedge}14516$

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMDesignHitTest = TWMMouse;

à¾

TCMDesignHitTest CE^{\wedge} , í CM_DESIGNHITTEST ffbfZfw, ifbfZfwfRfh CE^{\wedge} , Å, B

TCMFocusChanged CE^14517

ŽQÆ

ftjfbfg

Controls

é¾

type

TCMFocusChanged = **record**

Msg: Word

Unused: Word;

Sender: TWinControl;

Result: Longint;

end;

à¾

TCMFocusChanged CE^, í CM_FOCUSCHANGED ffbfZ[fW, iffbfZ[fWfCEfR[fhCE^, Å, ·B

TCMWantSpecialKey $\text{CE}^{\wedge}14518$

žQÆ

ftjfbfg

Controls

é¾

type

TCMWantSpecialKey = TWMKey;

à¾

TCMWantSpecialKey CE^{\wedge} , í CM_WANTSPECIALKEY fZ[fW, ìfZ[fWfR[fh CE^{\wedge} , Å, ·B

TControl fRf“f|□[flf“fg14519

ŽQ□Æ fvf□fpfefB f□\fbfh fCxf“fg fRf“f|□[flf“fg

ftfjfbfg

Controls

□à-¾

TControl fRf“f|□[flf“fg,í,·,×,Ä,lfRf“fgf□□[f<,ìŠ□ÚfRf“f|□[flf“fgĈ^,Å,·□BfRf“fgf□□[f<,lfWf...
fAf<fRf“f|□[flf“fg,É,ì,Å□CŽÀ□sŽž,ÉĈ©,½,è‘€□ì,μ,½,è,Å,«,Ü,·□BTControl
,í,·,×,Ä,lfRf“fgf□□[f<,É•K—v,È,·,×,Ä,lfvf□fpfefB□Cf□\
fbfh□CfCxf“fg,đ’ñ<Ÿ,μ,Ü,·□B,·,×,Ä,lfRf“fgf□□[f<,É•K—v,È□€-Ú,í **public**
,Æ,μ,Ä□éĈ¾,¾,é□C,·,×,Ä,lfRf“fgf□□[f<“à,É•Ž|,¾,é,Ü,·□BfRf“fgf□□[f<,É-đ—š,Å,»,ì‘¼,ì□€-Ú,í
protected ,Æ,μ,Ä□éĈ¾,¾,é,Ü,·□B,Å,Ü,è□C,»,é,ç,ì□€-Ú,í TControl ,©,»,ì%°ĈĈ^,ì 1
,Å,©,ç“h□1,μ,½fRf“f|□[flf“fg,ì†,ĀfpufšfbfVf...,É,Å,«,Ü,·□B

fvf[]pfefB14520

Caption

Color

DragCursor

DragMode

Font

IsControl

MouseCapture

ParentColor

ParentFont

ParentShowHint

PopupMenu

Text

f\bfbh14521

CancelModes

ChangeScale

Click

DbClick

DefaultHandler

DefineProperties

DragCanceled

GetClientOrigin

GetClientRect

GetDeviceContext

GetPalette

HasParent

MouseDown

MouseMove

MouseUp

Notification

PaletteChanged

Perform

ReadState

SetClientSize

SetParent

SetName

SetZOrder

UpdateBoundsRect

VisibleChanging

WndProc

fCxf“fg14522

OnClick

OnDbClick

OnDragDrop

OnDragOver

OnEndDrag

OnMouseDown

OnMouseMove

OnMouseUp

ŽQÆ14523

TControlClass Ć^

TControlCanvas flfufWfFfNfg14524

ŽQÆ fvfpfefB ffbfh

ftfjfbfg

Controls

à-¾

TControlCanvas

flfufWfFfNfg,ífEfbf“fhfEfrf“fgf[š,ÖŠÖ~A•t, ¯,ç,ê,½“ÁŽê,ÈfLfff“fofXflfufWfFfNfg,Å,·B

fvf[]pfefB14525

Control

f\bfbh14526

CreateHandle

Destroy

FreeHandle

ŽQÆ14527

TCanvas flufWfFfNfg

TControlClass Ć^14528

ŹQĀÆ

ftfjfbfg

Controls

□éĆ¾

type

```
TControlClass = class of TControl;
```

□à-¾

TControlClass Ć^,ÍfRf“fgf□□[f<fRf“f|□[flf“fg—p,İflufWfFfNfgĆ^ŹQĀÆ,Å,·□B

ŽQÆ14529

TControl_fRf“f[]lf“fg

TControlState $\mathbb{C}^{\wedge}14530$

ŽQÆ

ftfjfbfg

Controls

é¾

type

```
TControlState = set of (csLButtonDown, csClicked, csPalette,
  csReadingState,
  csAlignmentNeeded, csFocusing, csCreating);
```

à¾

TControlState \mathbb{C}^{\wedge} , í ControlState fvf fpfefB, ÉŽg, l, é' l, l W f, ð' è < ` , μ, Ü, · BŠeftf%ofo, l^Ó-
i, ðŽÿ, l·\, Á à-¾, μ, Ü, · B

ftf%ofo

^Ó-i

csLButtonDown	f f} fE fX f{ f^ f" , ð fN fŠ fB fN, ³, è, ½, ð f{ f^ f" , ©, ç Ž w, ð, Ü, ¾, ú, ³, è, Ä, ç, É, ç B, ±, è, l, ·, x, Ä, l f} fE fX f fE f" fC fX f" fg, É, Ä, ç, Á Y' è, ³, è, é
csClicked	csLButtonDown , Æ" , f, ¾, ð <u>ControlStyle</u> , É csClickEvents , ð" ü, Á, Ä, ç, é f f} fE fX f fE f" fC fX f" fg, ð fN fŠ fB fN, Æ, μ, Ä %oð Ž B, ³, è, é f f} fE fX f, É, ¾, f Y' è, ³, è, é
csPalette	fRf" fg f f f, í Ž Æ » , ð • K — v , Æ , · , é f p f Æ f b f g , ð Ž f , Á, Ä, ç, é
csReadingState	fRf" fg f f f, í Ž © • ð , l ð ó ' Ô , ð f X f g f Š f f f € , © , ç " Ç , Ý f o , μ ' t , Á , , é
csAlignmentNeeded	fRf" fg f f f, í ^ É ' u f f , í , ¹ , ð Ä , Ñ %o Ä "\ , É , É , Á , ½ Ž Ž " _ , Á Ž © • ð Ž © f g , ð ^ É ' u f f , í , ¹ , μ ' ¼ , · • K — v , ð , , é
csFocusing	fA f v f Š f P f V f f " , l f R f " f g f f f, É f t f H f f f X , ð — ^ , l , é , ½ , ß , l f f b f Z f W , ð f — f ' t , Á , , é B f R f " f g f f f, ð f t f H f f f X , ð Ž ó , ~ Ž æ , é , Æ , í • Ü f Ø , ³, è, È, ç , ð C f Ä < A Ç Ä , Ñ f o , μ , í - h Ž ~ , ³, è, é
csCreating	fRf" fg f f f, Ü, ½, l f R f " f g f f f, l f i f i f i (, , é, ç, l, » , l — ¼ • ù) , Æ %o ð ^ É f R f " f g f f f, ð f f f — ' t , Á , , é B, ±, l f t f %o f o , l , · , x , Ä , l f f f — , ð l , í , Á , ½ Ž Ž " _ , Á f N f Š f A , ³, è, é

ŽQÆ14531

ControlState fvfpfefB

TControlStyle Ć^14532

ŽQÆ

ftfjfbfg

Controls

éĆ¼

type

```
TControlStyle = set of (csAcceptsControls, csCaptureMouse,
csDesignInteractive,
csClickEvents, csFramed, csSetCaption, csOpaque, csDoubleClicks,
csFixedWidth,
csFixedHeight);
```

à-¾

TControlStyle Ć^, í ControlStyle fvfpfefB, ÉŽg, , , é' l, lWp, ð'è<` , μ, Ü, · BŠeftf%ofo, ì^Ó- ; , ðŽÿ, ì•\, Åà-¾, μ, Ü, · B

ftf%ofo

^Ó-i

csAcceptControls

fRf“fgf[]f<, íŸĆvŽž, É, » , ìfRf“fgf[]f<, ìã, Öfhf[]fbfv, ³, ê, ½fRf“fgf[]f<, ìe, É, È, é

csCaptureMouse

fRf“fgf[]f<, ìf}fEfXfCfxf“fg, ðfLfffvf`ff, ·, é

csDesignInteractive

fRf“fgf[]f<, íŸĆvŽž, É %oEf}fEfXf{f^f“fNfŠfbfN, ðfRf“fgf[]f<, ð'€ì, ·, , é[]f{f^f“fNfŠfbfN, Éf}fbfv, ·, é

csClickEvents

fRf“fgf[]f<, ìf}fEfXfNfŠfbfN, ðŽó, ~Žæ, Á, Ä%ož“š, Å, «, é

csFramed

fRf“fgf[]f<, ìg, ðŽ, Å

csSetCaption

fRf“fgf[]f<, ìÉ, ìfLfffvfVf+f“, º-¾Žì“l, ÉŽw'è, ³, ê, Ä, ç , È, ~, é, ìCfLfffvfVf+f“, ð Name fvfpfefB, É^è'v, ·, é, æ, x•ïX, ·, é

csOpaque

fRf“fgf[]f<, ìŽ©•ª, ì“wĆä, É, , é€-Ú, ð%B, μC, » , ê, ç, ì€-Ú, ì` %oæ, ð•s-v, É, ·, é

csDoubleClicks

fRf“fgf[]f<, ìf_fuf<fNfŠfbfNf[]fbfZ[]fW, ðŽó, ~Žæ, Á, Ä %ož“š, Å, «, éB, , é, ç, ìf_fuf<fNfŠfbfN, ðfNfŠfbfN, Öf}fbfv, Å, «, é

csFixedWidth

fRf“fgf[]f<, ì•, ì, ì•ïX, ³, ê, È, ç

csFixedHeight

fRf“fgf[]f<, ì, , ³, ì•ïX, ³, ê, È, ç

ŽQÆ14533

ControlStyle_fvf[]pfefB

TCreateParams CE^14534

ŽQAE

ftfjfbfg

Controls

éCE¾

type

```
TCreateParams = record
  Caption: PChar;
  Style: Longint;
  ExStyle: Longint;
  X, Y: Integer;
  Width, Height: Integer;
  WndParent: HWND;
  Param: Pointer;
  WindowClass: TWndClass;
  WinClassName: array[0..63] of Char;
end;
```

à-¾

TCreateParams CE^, í Windows ,ÉfEfBf“fhfEfnf“fhf<,đì-.,é,æ,žwŽ|.,é,Æ,«,É•K—
v,Èí•ñ,đ“ü,ê,Ä,“,ff[f^[\‘ç‘ì,Å,·BTCreateParams fCfR[fh,ìšeftfB[f·fh,í CreateWindowEx
API ŠÖ“,đCEÄ,Ño,·½,β,ìfpf%of[f^,É,È,è,Ü,·B

Delphi fRf“f[f“fg,ÍŽ©•ª,½,¿,ìì-fpf%of[f^,đ CreateParams ffbfh,ì†,Å%Šú
%»μ,Ú,·B

ŽQÆ14535

CreateParams.f\fbfh

TCustomControl fRf“f|□[flf“fg14536

ŽQ□Æ fv□fpfefB f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

Controls

□à-¾

TCustomControl fRf“f|□[flf“fg, í•; ŽG, Èf rfWf... fAf<fCf□□[fW, đŠÈ’P, É•`%œ, Å, «, é, æ, x, É, ., é“ÁŽê, ÈfEfBf“fhfEfRf“fgf□□[f<, Å, ·□B“ÆŽ©, ìfEfBf“fhfEfRf“fgf□□[f<, đ□□-., é□é□‡, í TWinControl , ©, ç’¼□Ú”h□¶, ¾, ¾, é, Ì, Å, È, □CTCustomControl , ©, ç”h□¶, ¾, ¾, Å, , ¾, ¾, ç□B

•W□€fEfBf“fhfEfRf“fgf□□[f<, ÍŽ©•Ž©□g, Ì•\Ž!•û-@, đ, ., Å, É□u’m, Á, Ä□v, ç, Ü, ·□B, »., è, ç, ìfRf“fgf□□[f<, Í Windows , ì^ê•”, ¾, ©, ç, Å, ·□B, μ, ½, º, Å, Äf{f^f“fRf“f|□[flf“fg, Ü, ½, Ìf`fFfbfNf{fbfNfXfRf“f|□[flf“fg, Í TWinControl , đ’¼□ÚÉp□³, μ, Ü, ·□B, μ, ©, μ□C“ÆŽ©, ìfEfBf“fhfEfRf“fgf□□[f<, đ□□-., , é, Æ, «, ÌfRf“fgf□□[f<, ÌŠOŠĭ, đ’è<, μ, È, , Å, Í, È, ç, È, ç, Ì, Å□CTCustomControl , Í TWinControl , ©, çÉp□³, ¾, è, é, , x, Å, Ì<@”\, Ì, Ü, ©, É□C“-Ê, Ö, Ì•`%œ, đŠÈ’P, É, , ±, È, x, ½, ß, Ì Canvas fv□fpfefB, Æ□CWM_PAINT f□fbfz□[fW, É’ì, ., é%ž“š, Æ, μ, ÅCEÄ, Ñ□o, ¾, è, é%¼’z Paint f□\fbfh, à’ñ<Ÿ, μ, Ü, ·□B

ftfH□[fjX, đŽó, -Žæ, é•K—v, º, È, çjXf^f€fRf“fgf□□[f<, Í TCustomControl , Å, È, TGraphicControl , ©, ç”h□¶, ¾, ¾, Å, , ¾, ¾, ç□BfEfBf“fhfEfRf“fgf□□[f<, Ì, ½, ß, É□¶, ¶, éf□[fo□[fwfbfh, Í•K—v, È, ç, ©, ç, Å, ·□B

fvf[]pfefB14537

Canvas

fifbfh14538

Create

Destroy

Paint

PaintWindow

ŽQÆ14539

TWinControl fRf“f|□[f|“fg

TGraphicControl fRf“f|□[f|“fg

TGraphicControl fRf“f|□[flf“fg14540

ŽQ□Æ fv□fpfefB f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

Controls

□à-¾

TGraphicControl fRf“f|□[flf“fg,í”ñfEfBf“fhfEfJfXf^f€fRf“fgf□□[f<,ì□o”“_.,Å,·□BTGraphicControl
,í TControl 'Š□ÛfRf“f|□[flf“fg,©,ç□Ep□³,³,ê,é,·,x,Ä,ì<@”\,ì,Ù,©,É□CfRf“fgf□□[f<,ì•\–É,Ö,ì`
%œ,ðŠÈ‘P,É,“,±,È,x,½,ß,ì Canvas fv□fpfefB,Æ□CWM_PAINT f□fbfZ□[fW,Ö,ì
%ž“š,Æ,μ,ÄCEÄ,Ñ□o,³,ê,é%¼‘z Paint f□\fbfh,à’ñ<ÿ,μ,Û,·□B

ftfH□[fjX,ðŽó,~Žæ,é•K—v,ª, ,éfRf“f|□[flf“fg,í□CTGraphicControl ,Å,È, TCustomControl
,©,ç□Ep□³,³,ê,½fEfBf“fhfEfRf“fgf□□[f<,É,μ,È,,Ä,í,È,è,Û,¹,ñ□B

fvf[]pfefB14541

Canvas

f[]fbfh14542

Create

Destroy

Paint

ŽQÆ14543

TCustomControl fRf“f|[]f|f“fg

TControl fRf“f|[]f|f“fg

THintWindow fRf“f[]lf“fg14544

ŽQAE fvf[]pfefB f[]fbfh fRf“f[]lf“fg

ftfjfbfg

Controls

à-¾

THintWindow fRf“f[]lf“fg, í TCustomControl

, ðEp³, µ, ½'P[]f, Èjfx^f€fRf“fgf[]f<, Å, ·Bfqf“fgfEfbf“fhfE, í ShowHint fvf[]pfefB,ª True, ÉY'è,³, ê, Å, ç, éRf“fgf[]f<, ìã, ÉŽÀsŽž, É·Ž!,³, ê, é-³, ÈjfbfvfAfbfvfEfbf“fhfE, Å, ·B

THintWindow , í TCustomControl , ©, çEp³,³, ê, é, ·, x, Ä, ì<@“\, ì, Ù, ©, É[]C, ç, -

, Å, ©, ìfvf[]pfefB, Æf[]fbfh, ð'ñ<ÿ, µ, Ù, ·Bfqf“fgfEfbf“fhfE, íEp³, µ, ½ Canvas, Caption, Color , ìsefvf[]pfefB, ðpfufŠfbfN, É, µ, Ù, ·BTHintWindow , í CreateParams fvf[]fNfgf[]fbfh, Æ Paint f[]fbfh, ðf[]fo[]f%ofCfh, µ[]C3 , Å, ì[]V, µ, çf[]f

fbfh, ð“±“ü, µ, Ù, ·B, » , ê, ç, ìfAvfŠfP[]fVfþf“ , ðqf“fgfEfbf“fhfE, ì·Ž!, ÉŽg, x ActivateHint

, Æ[]Cqf“fgfEfbf“fhfE, ðfAvfŠfP[]fVfþf“f[]fbfZ[]fW, ðŠÄŽ<, µ, Å·Ž!, ì[]-¹ŽžŠú, ðE^ , ß, ç, ê, é, æ, x

, É, ·, é IsHintMsg , Æ[]Cqf“fgfEfbf“fhfE, ìfEfbf“fhfEfnf“fhf<, ð“pŠü, ·, é ReleaseHandle , Å, ·B

fAvfŠfP[]fVfþf“—p, É[]V, µ, çŽí—p, ìqf“fgfEfbf“fhfEfrf“f[]

[]lf“fg, ð“h[]³,¹, ½, ç[]ê[]þ, íCTHintWindow , ©, ç[]V, µ, çE^ , ð“h[]³,¹[]C·K—v, É%ž, ¶, Äf[]f

fbfh, ðf[]fo[]f%ofCfh, µ[]CfAvfŠfP[]fVfþf“ , ì<N“®Žž, É, » , ì[]V, µ, çE^ , ð HintWindowClass

·ì[]“ , É'ä“ü, µ, Ù, ·B

fvf[]pfefB14545

Canvas

Caption

Color

f\fbfh14546

ActivateHint

Create

CreateParams

IsHintMsg

Paint

ReleaseHandle

ŽQÆ14547

THintWindowClass Ć^

THintWindowClass **CE^14548**

ŽQAE

ftfjfbfg

Controls

éCE¾

type

```
THintWindowClass = class of THintWindow;
```

à-¾

THintWindowClass CE^, í THintWindow fRf“f|“f|f“fg—
p, ì|fufWfFfNfgCE^ŽQAECE^, Å, ·BHintWindowClass ·ï” (THintWindowClass CE^)
, ìfAfvfŠfP“fVf+f“, qf“fg·\Ž!—p, É“i“—, ·, éfRf“f|“f|f“fg, ìCE^, ðCE^, ß, Ü, ·B

ŽQÆ14549

HintWindowClass •i

THintWindow fRf[]f[]fg

TWinControl fRf“f|□[flf“fg14550

ŽQ□Æ fvf□pfefB f□\fbfh fCxf“fg fRf“f|□[flf“fg

ftfjfbfg

Controls

□à-¾

TWinControl fRf“f|□[flf“fg,ÍfEfBf“fhfEfRf“fgf□□[f<-p,ìŠ□ÛfRf“f|□[flf“fgÆ^,Å,·□B,±,ê,ç,lfRf“fgf□□[f<,ÍfEfBf“fhfEfRf“fhf<,đŽ□,¿□C•W□€ Windows fRf“fgf□□[f<,à,±,ê,ÉŠÜ,Ü,ê,Ü,·□B

TWinControl ,©,ç'¼□Ú□V,μ,çfRf“f|
□[flf“fg,đ”h□¶,³,¹,é□ê□#,í,Ù,Æ,ñ,Ç, ,è,Ü,¹,ñ□B'É□í,í□CfLfff“fofX,đfTf|
□[fg,μfyfCf“fgf□fbfZ□[fW,đ□^—□,·,é TCustomControl ,â□C,³,ç,É“ÁŽê
%o»μ,½'Š□ÛfRf“fgf□□[f<,Å, ,é TButtonControl, TCustomComboBox, TCustomEdit,
TCustomListBox ,É,Ç,©,ç”h□¶,³,¹,Ü,·□B

TWinControl ,ÍŠ□ÛfRf“fgf□□[f<Æ^ TControl
,©,çÆp□³,μ,½,·,x,Ä,ì,Ü,©,É□C'½□”,lfvf□pfefB□Cf□fbfh□CfCxf“fg,đ'ñ<ÿ,μ,Ü,·□B,»,ê,ç,ì'½,-
,í,æ,'m,ç,ê,Ä,“,è□C,Ü,Æ,ñ,Ç,ì•W□€ Delphi fRf“fgf□□[f<,ÉÆ©,ç,ê,Ü,·□B,μ,©,μ□CfRf“f|
□[flf“fg,đ□i□-,·,é□l,¾, ,ªŠÖ□S,đŽ□,Âfvf□fefNfgf□fbfh,à'½,, ,è,Ü,·□B

fvf[]pfefB14551

Brush

Controls

ControlCount

Ctl3D

DefWndProc

Handle

HelpContext

ParentCtl3D

Showing

TabOrder

TabStop

WindowHandle

fifbfh14552

AlignControls

Broadcast

CanFocus

ChangeScale

ContainsControl

ControlAtPos

Create

CreateHandle

CreateParams

CreateSubClass

CreateWindowHandle

CreateWnd

DefaultHandler

Destroy

DestroyHandle

DestroyWindowHandle

DestroyWnd

DisableAlign

DoEnter

DoExit

DoKeyDown

DoKeyPress

DoKeyUp

EnableAlign

FindNextControl

Focused

GetClientOrigin

GetClientRect

GetDeviceContext

GetTabOrderList

HandleAllocated

HandleNeeded

InsertControl

Invalidate

IsControlMouseMsg

KeyDown

KeyPress

KeyUp

MainWndProc

NotifyControls

PaintControls

PaintHandler

PaintWindow

PaletteChanged

ReadState

Realign

RecreateWnd

RemoveControl

Repaint

ScaleBy

ScaleControls

ScrollBy

SelectFirst

SelectNext

SetBounds

SetFocus

SetZOrder

ShowControl

Update

WndProc

WriteComponents

fCxf“fg14553

OnEnter

OnKeyDown OnKeyUp

OnExit

OnKeyPress

ŽQÆ14554

frWf...fAf<fRf“f[]lf“fgf%ofCfuf%ofŠ.)fEfBf“fhfEfRf“fgf[]lf<

UpdateBoundsRect f\fbfh14555

ŽQÆ

“K—p

TControl

é¾

procedure UpdateBoundsRect (**const** R: TRect);

à-¾

UpdateBoundsRect f\fbfh,íRf“fgf[f<,ì Left, Top, Width, Height,ìŠefvf\fpfefB,ð R fpf
%of[f^,Å“n,³,ê,½ŽİSpCE`,É†,í,¹,Ä•ïX,μ,Ü,·,ªC%æ-
ÊfCf[fW,íXV,μ,Ü,¹,ñBUpdateBoundsRect ,í Windows ,É,æ,Á,Ä
%oA,ı,ç,ê,½•ïX,Æ“~Šú,ð,Æ,é,½,ß,ÉŽâ,ÉfRf“fgf[f<,ì“à•”,ÅŽg,í,ê,Ü,·B

ŽQÆ14556

BoundsRect fvfpfefB

VisibleChanging f\fbfh14557

ŽQÆ

“K—p

Control

é¾

procedure VisibleChanging; **dynamic**;

à-¾

VisibleChanging f\fbfh,ÍRf“fgf[f<,ª Visible

f\fbfhpfB,ì'ì,ð•ìX,·,é'¼'O,ÉÆÄ,Ño,³,ê,évf\fbfh,Å,·BfRf“f[f“fg,ª%½,ç,©,ì—
—R,Å%Ž<ó'Ô,ð•ìX,Å,«,È,çê‡,Í—áŠ,ª¶¬,³,ê,Ü,·B

ŽQÆ14558

Visible fvfpfefB

WindowHandle fvf[]pfefB14559

ŽQ[]Æ

“K—p

TWinControl

□é☒¾

property WindowHandle: HWnd;

□à-¾

WindowHandle fvf[]pfefB,í Handle

fvf[]pfefB,Æ“~,¶fEfBf“fhfEfnf“fhf<,Ö,lfAfNfZfX,đ’ñ<Ÿ,μ,Ü,.,ª□C,»),lfEfBf“fhfEfnf“fhf<,Í•ÛCEì,³,ê,
Ä,ç,é,ì,ÅfRf“f[]f[]f[]fg,ì“à•”,lfR[]fh,¾,~,ªfAfNfZfX,Å,«,Ü,·□B

WindowHandle ,ì~“_í Handle ,ª“Ç,Ý□o,μ□ê—p,Å, ,é,ì,É’í,μ□C□’,«□ž,Ÿ%oÅ”\,Å, ,é,±

,Æ,Å,·□B,μ,½,ª,Ä,Ä WindowHandle

,đ’É,μ,ÄŠù’¶,lfEfBf“fhfEfRf“fgf[]□[]f<,Ö□V,μ,çfnf“fhf<,ìŠ,,,è“-,Ä,ª,Å,«,Ü,·□BWindowHandle

,ì’l,đ“Ç,Ý□o,μ,Ä,à□C—LCEø,Èfnf“fhf<,ªŽ©“@“l,É□ì□—,³,ê,é,í,~,Å,Í, ,è,Ü,¹,ñ□BHandle

,lfAfNfZfXf[]f[]fbfh,í□C,Ü,¾fnf“fhf<,ª,È,~,ê,î□Cfnf“fhf<,đ□¶□—,·,é,½,β,É•K, , HandleNeeded

,đCEÄ,Ñ□o,μ,Ü,·□BWindowHandle ,ì“Ç,Ý□o,μ,Å,íf[]f[],ì’l,ª•Ö,³,ê,é□ê□‡,à, ,è,Ü,·□B

ŽQÆ14560

CreateWindowHandle f\fbfh

DestroyWindowHandle f\fbfh

WndProc f\fbfh14561

ŽQÆ

“K—p

TControl

é¾

procedure WndProc (**var** Message: TMessage); **virtual**;

à-¾

WndProc f\fbfh, íRf“fgf[f<, É“Á’è, ìfbfZ[fW%ž“š, ð’ñ<ÿ, µ, Ü, ·BDelphi
fRf“fgf[f<, ìê#CWndProc ,^afbfZ[fW, ðŽó, ~Žæ, éÅ%o, ìfbf, Å, ·B

TControl —p, ì WndProc , Íŝî- {“l, ÈfNfŠfbfN, Æfhf%fbfO, É’Î, ·éf} fEfXfbfZ[fW
%ž“š, ð’è<, µ, Ä, “, èC, » , ì¼, ì, ·, x, Ä, ìfbfZ[fW, ð Dispatch f\fbfh, Ö’—, è, Ü, ·BTWinControl
, ìftfH[fjX[Cf} fEfX[CfL[f{ [f, ìŠeffbfZ[fW, É’Î, ·, é%ž“š, ð’è<, ·, é, ½, ß, É WndProc
, ðf[f%ofCfh, µC, » , ì¼, ì, ·, x, Ä, ðEp³, è, ½ WndProc , Ö’—, è, Ü, ·B

fbfZ[fW, Ö, ì“ÁŽê, È%ž“š, ð’ñ<ÿ, ·, é, ½, ß, É“ÆŽ©, ìRf“f|f“fg“à, Å WndProc , ðf[fofCf
%ofCfh, ·, éê# , íCÅã, É¼, ìfbfZ[fW, ðffBfXfpbf` , ·, é, ½, ß, É•K, , Cp³, è, ½ WndProc
, ðÆÄ, Ño, µ, Ä, ,¾,¾, çB

ŽQÆ14562

DefWndProc fvfpfefB

MainWndProc ffbfh

fRf“f|[f|f“fgš]”žòfwf<fv-ÚžŸ14563

☞
 Ú,ìfgfsfbfNfšfXfg,đ“WšJ,Ü,½,íü,è,½,½,Ý,·,é,É,ìftfHf<f_fAfCfRf“,đfNfšfbfN,μ,Û,·BfgfsfbfNfšf
 Xfg,đ•\ž!,·,é,É,Í
 %°ü•t,«•Ÿžš,đfNfšfbfN,μ,Û,·B,·,x,Ä,ìftfHf<f_đ“WšJ,Ü,½,íü,è,½,½,Ý,·,é,É,ìf^fCfjf<,ÅfAf
 CfRf“,đfNfšfbfN,μ,Û,·B

fwf<fv,đ•\ž!,·,é,É,Í F1 ,đ%Ÿ,μ,Û,·B



Delphi fRf“f|[f|f“fg,ìü–,đžn,β,é'O,É'm,Á,Ä,“,•K—
 v,ì, ,éšT”O,Æ—v“ B



fRf“f|[f|f“fg,ìü–,ì,½,β,É—
 p^Ô,·,éfvf□fpfefB□CfCxf“fg□Cf□fbfh,ìü–□CfOf
 %°ftfBfbfN,ìžg,ç•û□Cf□fbfZ□[fW□—□,ÆfRf“f|
 □[f|f“fg,ì“o~^,ìfwf<fv□B



fRf“f|[f|f“fgš]”žòfšftf@fĎf“fX□B

fVf#|[fgj]fbfg: fwf<fv□€-Ú,đ'T,·,É,í□mĎŸ□ö(S)□nf{f^f“,đžg,ç,Û,·□B

fRf“f[]f[]fgŠj”ŽÒfwf<fv-ÚŽŸ14564

€-

Ú,lf gfsfbfNfŠfXfg,đ“WŠj,Ü,½,íÜ,è,½,½,Ÿ,·,é,É,łftfHf<f_fAfCfRf“,đfNfŠfbfN,μ,Ü,·BfgfsfbfNfŠf Xfg,đ•Ž!,·,é,É,Í

%oü•t,«•ŸŽš,đfNfŠfbfN,μ,Ü,·B,·,x,Ä,łftfHf<f_đ“WŠj,Ü,½,íÜ,è,½,½,Ÿ,·,é,É,łf^fCf g f<,ÅfAf CfRf“,đfNfŠfbfN,μ,Ü,·B

fwf<fv,đ•Ž!,·,é,É,Í F1 ,đ%Ÿ,μ,Ü,·B



Delphi fRf“f[]f[]fg,ì[]- ,đŽn,ß,é’O,É’m,Ä,Ä,“,•K— v,ì, ,éŠT”O,Æ—v“_B

- fRf“f[]f[]fg,Æ,Í%½,©
- fRf“f[]f[]fgŠj”,Í%½,á^á,æ,ì,©
- fRf“f[]f[]fg,ì,³,Ü,´,Ü,É’æ-É
- fRf“f[]f[]fgŠj”ŽÒ,ì,½,ß,ì OOP



fRf“f[]f[]fg,ì[]- ,ì,½,ß,É—

p^Ó,·,éfv[]fpfefB[]CfCxf“fg[]Cf[]fbfh,ì[]-[]CfOf %oftfBfbfN,ìŽg,ç•û[]Cf[]fbfZ[]fW^—,ÆfRf“f[] f[]f[]fg,ì“o~^,łfwf<fvB

- fv[]fpfefB,ì[]-
- fCxf“fg,ì[]-
- f[]fbfh,ì[]-
- fRf“f[]f[]fg,É,“,·,éfOf%oftfBfbfN,ìŽg,ç•û
- f[]fbfZ[]fW,ì^—
- fRf“f[]f[]fg,ì“o~^



fRf“f[]f[]fgŠj”ŽÒšftf@fÆf“fXB

- fRf“f[]f[]fg
- fifufWfFfNfg
- VCL Žè’±,«,ÆŠÖ”

fVf‡[]f g f j f b f g: fwf<fv€-Ú,đ’T,·,É,ÍmÆŸðð(S)nf{f^f“,đŽg,ç,Ü,·B

fRf“f|□[flf“fgŠj”ŽÒfwf<fv-ÚŽŸ14565

□€-

Ú,lf gfsfbfNfŠfXfg,đ“WŠj,Ü,½,í□Ü,è,½,½,Ÿ,·,é,É,íftfHf<f_fAfCfRf“,đfNfŠfbfN,μ,Ü,·□BfgfsfbfNfŠfXfg,đ•\Ž!,·,é,É,Í

%o°□ü•t,«•¶Žš,đfNfŠfbfN,μ,Ü,·□B,·,x,Ä,íftfHf<f_đ“WŠj,Ü,½,í□Ü,è,½,½,Ÿ,·,é,É,íf^fCf g f<,ÅfAfCfRf“,đfNfŠfbfN,μ,Ü,·□B

fwf<fv,đ•\Ž!,·,é,É,Í F1 ,đ%Ÿ,μ,Ü,·□B



Delphi fRf“f|□[flf“fg,ì□ì□-,đŽn,ß,é’O,É’m,Á,Ä,“,•K—v,ì, ,éŠT”O,Æ—v“ □B

- fRf“f|□[flf“fg,Æ,Í%½,©
- fRf“f|□[flf“fgŠj”,Í%½,á^á,α,ì,©
- fRf“f|□[flf“fg,ì,³,Ü,´,Ü,É’α-É
- fRf“f|□[flf“fgŠj”ŽÒ,ì,½,ß,ì OOP

▪

fRf“f|□[flf“fg,ì□ì□-,ì,½,ß,É—

p^Ó,·,éfv□fpfefB□CfCxf“fg□Cf□f b f h,ì□ì□-□CfOf

%oftfBfbfN,ìŽg,¢•û□Cf□fbfZ□[fW□^—□,ÆfRf“f|

□[flf“fg,ì“o~^,ífwf<fv□B

▪

fRf“f|□[flf“fgŠj”ŽÒfŠtf@fÆf“fX□B

fVf‡□[fgfJfbfg: fwf<fv□€-Ú,đ’T,·,é,Í□mÆŸ□đ(S)□nf{f^f“,đŽg,¢,Ü,·□B

fRf“f|□[f|f“fgŠj”ŽÒfwf<fv-ÚŽŸ14566

□€-

Ú,lf gfsfbfNfŠfXfg,đ“WŠj,Ü,½,í□Ü,è,½,½,Ÿ,·,é,É,lf tHf<f_fAfCfRf“,đfNfŠfbfN,μ,Ü,·□BfgfsfbfNfŠf Xfg,đ•\Ž!,·,é,É,Í

%o°□ü•t,«•¶Žš,đfNfŠfbfN,μ,Ü,·□B,·,x,Ä,lf tHf<f_đ“WŠj,Ü,½,í□Ü,è,½,½,Ÿ,·,é,É,Íf^fCf g f<,ÅfAf CfRf“,đfNfŠfbfN,μ,Ü,·□B

fwf<fv,đ•\Ž!,·,é,É,Í F1 ,đ%Ÿ,μ,Ü,·□B

- Delphi fRf“f|□[f|f“fg,ì□ì□-,đŽn,β,é’O,É’m,Á,Ä,“,•K— v,ì, ,éŠT”O,Æ—v“ □B



fRf“f|□[f|f“fg,ì□ì□-,ì,½,β,É—

p^Ó,·,éfvf□fpfefB□CfCxf“fg□Cf□f b f h,ì□ì□-□CfOf

%o f t f B f b f N, Ì Ž g, ç • Ÿ □ C f □ f b f Z □ [f W □ ^ — □, Æ f R f “ f |

□ [f | f “ f g, Ì “ o ~ ^ , Ì f w f < f v □ B

- fvf□fpfefB,ì□ì□-
- fCxf“fg,ì□ì□-
- f□f b f h,ì□ì□-
- fRf“f|□[f|f“fg,É,“,·,éOf%o f t f B f b f N, Ì Ž g, ç • Ÿ
- f□f b f Z □ [f W, Ì □ ^ — □
- fRf“f|□[f|f“fg, Ì “ o ~ ^

- fRf“f|□[f|f“fgŠj”ŽÒfŠftf@fCef“fX□B

fVf#□[fgfjfbfg: fwf<fv□€-Ú,đ’T,·,é,ÍmCEŸ□ö(S)□nf{f^f“,đŽg,ç,Ü,·□B

fRf“f|□[flf“fgŠj”Žòfwf<fv-ÚŽŸ14567

□€-

Ú,lf gfsfbfNfŠfXfg,đ“WŠj,Ü,½,í□Ü,è,½,½,Ÿ,·,é,É,íftfHf<f_fAfCfRf“,đfNfŠfbfN,μ,Ü,·□BfgfsfbfNfŠfXfg,đ•\Ž!,·,é,É,Í

%o°□ü•t,«•¶Žš,đfNfŠfbfN,μ,Ü,·□B,·,x,Ä,lf tHf<f_đ“WŠj,Ü,½,í□Ü,è,½,½,Ÿ,·,é,É,íf^fCf g f<,ÅfAfCfRf“,đfNfŠfbfN,μ,Ü,·□B

fwf<fv,đ•\Ž!,·,é,É,Í F1 ,đ%oŸ,μ,Ü,·□B

- Delphi fRf“f|□[flf“fg,ì□ì□-,đŽn,β,é’O,É’m,Á,Ä,“,•K—v,ì, ,éŠT”O,Æ—v“□B
- fRf“f|□[flf“fg,ì□ì□-,ì,½,β,É—
p^Ó,·,éfvf□fpfefB□CfCxf“fg□Cf□f b f h,ì□ì□-□CfOf
%o,ftfBfbfN,ìŽg,č•û□Cf□fbfZ□[fW□^—□,ÆfRf“f|
□[flf“fg,ì“o~^,lf wf<fv□B
- fRf“f|□[flf“fgŠj”ŽòfŠftf@fCef“fX□B
 - fRf“f|□[flf“fg
 - flfufWfFfNfg
 - VCL Žè’±,«,ÆŠÖ□”

fVf†□[fgfJfbfg: fwf<fv□€-Ú,đ’T,·,é,Í□mCÉŸ□đ(S)□nf{f^f“,đŽg,č,Ü,·□B

AllEqual f\fbfh14568

ŽQÆ —á

“K—p

TPropertyEditor

é¾

function AllEqual: Boolean; virtual;

à-¾

AllEqual f\fbfh, í'ð, μ, ½fRf“f|[fj“fgfOj<[fv, ì“Á'è, ìfvf[]pfefB, ì'l, ð, ·, x, Ä“™, μ, ç[]ê[] True
, ð•Ô, μ, Ü, ·[]BfifufWfFfNfgfCf“fXfyfNf^, í AllEqual , ðCEÄ, Ñ[]o, ·, ±, Æ, Á'ð, μ, ½fRf“f|
|[fj“fg, É<κ'É, μ, ½fvf[]pfefB, ì'l, ð•Ž|, ·, é, ©, Ç, κ, ©, ðCE'è, μ, Ü, ·[]B

TPropertyEditor.AllEqual , í PropCount , ð 1 , ì, Æ, «, ì, Ý True , ð•Ô, μ, Ü, ·[]B, ±
, è, ì'ð, ð, è, ½•i[] , ìfRf“f|[fj“fg, ð[]í, É^Ü, È, é, à, ì, Æ, μ, Ä^μ, κ, ±, Æ, ð^Ó-i, μ, Ü, ·[]BAllEqual
, íCEÄ[]X, ìfvf[]pfefBfGffBf^, Ä AllEqual , ðf[]fo[]f%ofCfh, ·, é, ±
, Æ, Ä[]C•Ô[]W, μ, ½, çfvf[]pfefB, ð“ , ¶'l, ðŽ[] , Ä[]ê[] , É True , ð•Ô, ·, æ, κ, É•i[]X, Ä, «, Ü, ·[]B

—á14569

TOrdinalProperty ,Í GetOrdValue f[]f[]fbfh,ª,;,x,Ä“~,¶l,ð•Ô,·[]ê[]#[]CAIIEqual ,ðfI[][fo[][f
%ofCfh,µ,Ä[]#[]~Æ^fvf[]fpfefB,ð“™,µ,[]Ý`è,µ,Û,·[]B

```
function TOrdinalProperty.AllEqual: Boolean;  
var  
  I: Integer;  
  V: Longint;  
begin  
  Result := False; { 'l,ª^Û,È,é,±,Æ,ð'O'ñ,Æ,µ,ÄŠJŽn,µ,Û,· }  
  if PropCount > 1 then { •j[]",ì'l,ª, ,é[]é[]#... }  
  begin  
    V := GetOrdValue; { []Å[]%o,ì'l,ðŽæ,è[]o,µ,Û,· }  
    for I := 1 to PropCount - 1 do { ,»,é^ÈŠO,ì,;,x,Ä,ì'l,Æ"äŠr,µ,Û,· }  
      if GetOrdValueAt(I) <> V then Exit; { ^Û,È,é'l,ª, ,é,î False ,ð•Ô,µ,Û,· }  
    }  
  end;  
  Result := True; { ,;,x,Ä“™,µ,ç[]ê[]#[]C,±,±,É,«,Û,· }  
end;
```

ŽQÆ14570

PropCount_fvffpfefB

Component fvf[]fpfefB14571

ŽQ[]Æ

“K—p

TComponentEditor

□é☒¾

property Component: TComponent;

□à-¾

Component fvf[]fpfefB,lfRf“f[]lf“fgfGfffBf^flfufWfFfNfg,ª☒»□Ý•Ò[]W’t,lfRf“f[]lf“fg,Ö,ì“Ç,Ý[]o,μ[]ê—p,ìŽQ[]Æ,Å,·[]BfRf“f[]lf“fgfGfffBf^,ì Create f[]f[]fbfh,É“n,³,ê,éfpf %of[][]f^,ì 1 ,Å,^a Component ,ì'l,ð[]Ý’è,μ,Ü,·[]B

ŽQÆ14572

Designer fvfpfefB

Copy f\fbfh14573

ŽQAE

“K—p

TComponentEditor

é¼

procedure Copy; virtual;

à-¼

Copy f\fbfh,Í•ÒWCEä,ìRf“f]

[f]“fg,ðfAfvfŠfP[f]f“ ,ñNfŠfbfvf{[fh,ÉfRfs[. ,é,Æ,«,ÉCfRf“f]

[f]“fgfGfffBf^fIfufWfFfNfg,æ`Ž® ,ðfNfŠfbfvf{[fh,É’Ç%Á,Â,«,é,æ,æ,É,μ,Û,·B

ÝEvŽž,ÉfNfŠfbfvf{[fh,ÉfRf“f][f]“fg,ðfRfs[. ,é,ÆCftfB[f<fhfCf[fW (fRf“f][f]“fg,ì

WriteState f\fbfh,ñi—,·,éfCf[fW) ,ñNfŠfbfvf{[fh,ÉŽ©“®“l,É’u,©,êCCopy

,æÄ,Ño,³,è,Û,·BfftfHf<fg,ìè#CCopy f\fbfh,í%½,à,μ,Û,¹,ñBCopy ,ìRf“f]

[f]“fgfGfffBf^æ^ ,Åf[fo[f%ofCfh,Â,«CfNfŠfbfvf{[fh,É•É,ìî•ñ (’Ç%Áî•ñ,È,Ç)

,ð’,«ž,ß,Û,·BDelphi ,í,±,ì,æ,æ,Éî•ñ,ð-³Ž<,μ,Û,·,æC•É,ìfAfvfŠfP[f]f“ ,í,±,ìî•ñ,ðžg,æ,±

,Æ,ª, ,è,Û,·B

ŽQÆ14574

WriteState_f\fbfh

Create f\fbfh14575

ŽQÆ

“K—p

TComponentEditor

é¾

```
constructor Create(AComponent: TComponent; ADesigner: TFormDesigner);  
    virtual;
```

à-¾

```
Create fRf“fXfgf%ofNf^,lfRf“f[flf“fgfGfffBf^flfufWfFfNfg,ðì¬,μ,Ä%Šú  
%o»,μ,Ü,·BÝCEvŽž,ÉfRf“f[flf“fg,ð‘l’ð,·,é,½,Ñ,ÉCDelphi ,Í GetComponentEditor  
ŠÖ”,ðCEÄ,Ño,μ,Ä,»,lfRf“f[flf“fg,lfRf“f[flf“fgfGfffBf^flfufWfFfNfg,ðì¬,μ,Ü,·BfRf“f[  
[flf“fgfGfffBf^flfufWfFfNfg,ìCE^,lfRf“f[  
[flf“fgCE^,É‘l,μ,Ä“o~^,μ,½fGfffBf^,ìCE^,É,æ,Á,ÄCE^,Ü,è,Ü,·B  
Create ,Éžw’è,·,é 2 ,Á,lfpf%of[flf^,l‘l’ð,μ,½fRf“f[flf“fg,ÆCE»ÝŽg—  
p’t,lfUfCfi,ðŽ!,μ,Ü,·B,»,é,¼,êvf[fpfefB Component ,Æ Designer ,l‘l,É,È,è,Ü,·B
```

ŽQÆ14576

GetComponentEditor ŠÖ”

RegisterComponentEditor Žè’±,«

Designer fvf[]pfefB14577

ŽQ[]Æ

“K—p

TPropertyEditor, TComponentEditor

□éÆ¾

property Designer: TFormDesigner;

□à-¾

Designer fvf[]pfefB,í•Ò[]W’t,ìfvf[]pfefB,Ü,½,ÍRf“f[]f[]fg,đŠÜ,ñ,Å,¢

,éftfH[]f€fffUfCfiflfufWfFfNfg,Ö,ì“Ç,Ý[]o,μ[]ê—

p,ìŽQ[]Æ,Å,·[]Bfvf[]pfefBfGfffBf^flfufWfFfNfg,Ü,½,ÍRf“f[]f[]fgfGfffBf^flfufWfFfNfg,ì

Create f[]f[]bfh,ÉŽw’è,·,éfpf%of[]f^,ì 1 ,Â,ª Designer ,ì’l,É,È,è,Ü,·[]B

ŽQÆ14578

TFormDesigner flfufWfFfNfg

Edit f\fbfh14579

ŽQÆ

“K—p

TPropertyEditor, TComponentEditor

é¾

procedure Edit; virtual;

à-¾

fvpfefBfGfffBf^,Ü,½,ÍRf“f|[]f“fgfGfffBf^,ì Edit f\fbfh,ÍvfvpfefB,Ü,½,ÍRf“f|
[]f“fg’S’ì,ð•ÒW,Å,«,éf_fCfAfOf{fbfNfX,ðŽÀs,µ,Ü,·BvfvpfefB,ì’ì—
ñ,ðf_fuf<fNfŠfbfN,·,é,©’l,ì%ï,ìm...nf{f^f“,ðfNfŠfbfN,·,é,ÆfufWfFfNfgfCf“fxfyfNf^,ª Edit
,ðÆÄ,Ño,µ,Ü,·BÝCEv’t,ìftfH[f€,Å’l’ð,µ,½fRf“f|
[]f“fg,ðf_fuf<fNfŠfbfN,·,é,ÆftfH[f€fffUfCfi,ª Edit ,ðÆÄ,Ño,µ,Ü,·B

TPropertyEditor ,©,çEp³,µ,½ Edit f\fbfh,í%½,à,µ,Ü,¹,ñBEedit ,ðf[]fo[]f
%ofCfh,µ,Äf_fCfAfOf{fbfNfX,ð•Ž!,µ,Ä“Ç,Ýo,¹,ìCvfvpfefBfGfffBf^,ðŽw’è,Å,«,Ü,·B

TComponentEditor ,©,çEp³,µ,½ Edit f\fbfh,ÍfGfffBf^—p,ì ExecuteVerb f\fbfh,ðÆÄ,Ño,µCfRf“f|[]f“fgfGfffBf^,ì“®ŽÆfŠfXfg,ìÅ%o,ì“®ŽÆ,ðŽÀs,µ,Ü,·B

ŽQÆ14580

ExecuteVerb ffbfh

EditProperty f\fbfh14581

ŽQÆ

“K—p

TDefaultEditor

é¾

```
procedure EditProperty(PropertyEditor: TPropertyEditor;  
    var Continue, FreeEditor: Boolean); virtual;
```

à¾

EditProperty f\fbfh,ífftfHf<fgfGfffBf^,đŽg,xfRf“f|
|[flf“fg,Á•ÒW, ,éfftfHf<fgfvf[]pfefB,đ'í'đ,μ,Ü,·BTDefaultEditor ,ì Edit f\fbfh,ÍŠî-{'í'đ€-
ÚfŠfXfg,Áfvf[]pfefB,đ'í'đ,·,é,½,β,É EditProperty ,đÆÄ,Ño,μ,Ü,·B

EditProperty ,ífCxf“fg OnClick, OnChange, OnCreate ,đ,±,ì[]#,É'T,μC(TMethodProperty
fGfffBf^ ,đŽg,Á,Ä) ,±,ífCxf“fg,ífvf[]pfefB'í,đ•ÒW,μ,Ü,·BfRf“f|[flf“fg,É,±
,ê,ç,ífCxf“fg,ª,Ç,ê,à,È,çé[]#CPropertyEdit ,ífRf“f|[flf“fg,ÁÄ%o,Éé¾,μ,Ä,ç
,éfvf[]pfefB,đ'í'đ,μ,Ä,» ,ífGfffBf^ ,đÆÄ,Ño,μ,Ü,·B

ŽQÆ14582

Edit f\fbfh

EPropertyError flfufWfFfNfg 14583

ŽQÆ

ftfjfbfg

DsgnIntf

☐é☐¾

type

```
EPropertyError = class(Exception);
```

☐à-¾

EPropertyError flfufWfFfNfg,Ívf☐fpfefB,ì☐Ý'èfGf

%☐[,đŽ,μ,Ü,☐Bfvf☐fpfefBfGffBf^flfufWfFfNfg,ì SetValue f☐f\

fbfh,íŽw'è,μ,½fvf☐fpfefB'l,đ☐Ý'è,Å,«,È,ç,Æ☐CEPropertyError —áŠO,đ☐¶☐¬,μ,Ü,☐B

ŽQÆ14584

SetValue ffbfh

ExecuteVerb f\fbfh14585

ŽQÆ

“K—p

TComponentEditor

é¾

procedure ExecuteVerb(Index: Integer); **virtual**;

à-¾

ExecuteVerb f\fbfh,íRf“f\fbfh“fgfGfffBf^,ì“ŽŒfŠfXfg,Å Index fpf
%f[f^,ÅŽw'è,μ,½“ŽŒ,ðŽÀ[s,μ,Û,·BExecuteVerb ,í 0 ,©,ç GetVerbCount - 1
,Û,Å,ìfCf“ffbfNfX'1,²,Æ,É—LŒø,ÈfAfNfVf#“,ð,μ,È,-
,Ä,Í,È,è,Û,¹,ñBŠefCf“ffbfNfX'1,É'Í,·éfAfNfVf#“,Í GetVerb ,³Rf“fefLfXfgf\ffj...[ÉŽ,·•Œš—
ñ,É'í%ž,μ,Ä,ç,È,,Ä,Í,È,è,Û,¹,ñB
“ŽŒ,ðŽÀ[s,·,é,É,íC,½,ç,Ä,ç,ìê#fRf“f\fbfh“fg,ìRf“fefLfXfgf\ffj...[Ä€-
Ú,ð'íð,μ,Û,·B,½,¾,μÝŒvŽž,ÉfRf“f\fbfh“fg,ðf_fuf\NfŠfbfN,·,é,ÆCfftfHf<fg,ìvf\fpfefBfGfffBf^,³Rf“f\fbfh“fg,ì“ŽŒfŠfXfg,ìÄ
%o,ì“ŽŒ,ðŒÄ,Ño,μ,Û,·B

ŽQÆ14586

GetVerb_f\fbfh

GetVerbCount_f\fbfh

GetAttributes f\fbfh14587

ŽQÆ

“K—p

TPropertyEditor

é¾

function GetAttributes: TPropertyAttributes; **virtual**;

à-¾

GetAttributes f\

fbfh,lfvf\pfefB,đ'ı'đ,μ,½,Æ,«,É,Ç,lfclf<,ª,»,lfvf\pfefB,ÉŽg,ı,é,©,đ'²,x,é,ı,ÉflufWfFfNfgfCf“

fXfyfNf^,ªŽg,ªı•ñ,đ•Ô,μ,Û,·BTPropertyAttributes

CE^Wı,ı•É,ı'ı,đŽg,ı,ı'ı,lfhf\fbjvf_fEf“fŠXfgC

%o^Éfvf\pfefBfŠXfgCf_fCfAf\Of{fbfNfX,É,Ç,đfvf\pfefB,ı•ÒW—

p,ÉflufWfFfNfgfCf“fXfyfNf^,ÉŠÛ,ß,È,,Á,ı,È,ç,È,ç,±,Æ,đŽw'è,Á,«,Û,·B

,Ù,Æ,ñ,Ç,lfvf\pfefBfGfffBf^flufWfFfNfgCE^,ı^—,·,éff[f^,ıŽı—p,É],Á,Ä GetAttributes

,đf\fo\ff%fcfh,μ,Û,·B

ŽQÆ14588

TPropertyAttributes Ć^

GetComponent f\fbfh14589

ŽQÆ

“K—p

TPropertyEditor

é¾

function GetComponent (Index: Integer): TComponent;

à-¾

GetComponent f\fbfh, í•ÒW't, ìRf“f|f|f“fg, ìvf\fpfefBfGfffBf^fŠXfg, Å Index fpf %f|f^, ÅŽw'è, , éRf“f|f|f“fg, ð•Ô, µ, Û, ·Bfvf\fpfefBfGfffBf^, ì GetAttributes f\fbfh, a paMultiSelect , ðŠÛ, b'l, ð•Ô, ·
(, Â, Û, è'l'ð, µ, ½•j|“, ìlfufWfFfNfg, ì'l, ðfGfffBf^, a“~Žž, É•ÒW, Å, «, é)
é|CfGfffBf^, í•ÒW't, ìRf“f|f|f“fg, ìŠXfg, ð•ÛŽ|, µ, Ä, ç, Û, ·B
AllEqual , È, Ç, ìf\fbfh, í•Ê, ìRf“f|f|f“fg, ÉfAfNfZfX, µ, Ä, » , è, ¼, è, ìvf\fpfefB'l, ð”äŠr, ·, é•K—
v, a, , è, Û, ·B

ŽQÆ14590

GetAttributes ffbfh

AllEqual ffbfh

GetComponentEditor ŠÖ"14591

ŽQÆ

ftjfbfg

DsgnIntf

é¾

```
function GetComponentEditor (Component: TComponent;  
    Designer: TFormDesigner): TComponentEditor;
```

à¾

```
GetComponentEditor ŠÖ", í RegisterComponentEditor Žè'±, «, "o~^, μ, ½fRf"f|  
|[f|f"fgfGfffBf^, |fŠfXfg, ðŸÏð, μCCComponent , |"KØ, ÈŒ^, |fRf"f|  
|[f|f"fgfGfffBf^fCf"fxf^f"fx, ðï¬, μ, » , |fCf"fxf^f"fx, ð•Ô, μ, Û, ·BComponent , |Œ^—  
p, È"o~^, ³, è, Ä, ç, éfRf"f|[f|f"fgfGfffBf^, ³, È, ç, ÆCGetComponentEditor , í TDefaultEditor  
, |fCf"fxf^f"fx, ðï¬, μ, Ä•Ô, μ, Û, ·B
```

```
Delphi ftjH|[f€fffUfCfi, |YŒvŽž, ÉftjH|[f€, Å'í'ð, μ, ½ŠefRf"f|[f|f"fg, ², Æ, É  
GetComponentEditor , ðŒÄ, Ño, μCfRf"f|[f|f"fg, ð'í'ð%ðœ, μ, ½, Æ, «, È•Ô, ³, è, éfRf"f|  
|[f|f"fgfGfffBf^, ð"pŠü, μ, Û, ·BComponent fpf%of|[f^, |fGfffBf^, ðŽg, ¼fRf"f|  
|[f|f"fg, Å, , èCDesigner , |fGfffBf^, ðŽg, ¼ftjH|[f€fffUfCfi, Å, ·B
```

ŽQÆ14592

RegisterComponentEditor Žè'±,«

TDefaultEditor flfufWfFfNfg

GetComponentProperties Žè±,«14593

ŽQÆ

ftjfbfg

DsgnIntf

é¾

procedure GetComponentProperties (Components: TComponentList; Filter: TTypeKinds; Designer: TFormDesigner; Proc: TGetPropEditProc);

à¾

GetComponentProperties Žè±,«,ÍlfufWfFfNfgfCf“fXfyfNf^,É Components fpf %f[]f^,ÁŽw'è,·,éfRf“f] []f“fg,lfvf[]pfefB,Æfvf[]pfefBfGfffBf^,ðpfffBf“fO,μ,Ü,·BComponents ,ÉfRf“f[]f“fg,ª 1 ,Á,μ,©,È,¢èè#[]C,»,ì,·,×,Á,lfpfufŠfbfVf...fvf[]pfefB,ª·\Ž!,³,è,Ü,·BComponents ,É·;[]”,lfRf“f] []f“fg,ª, ,éèè#[]C[]¬,³,è,éfvf[]pfefBfŠfXfg,É,Í·;[]”,lfRf“f][]f“fg,·,×,Á,ª<α— L,·,éfvf[]pfefB,¾,·,ª·\Ž!,³,è,Ü,·B

fvf[]pfefBfCf“fXfyfNf^,ì GetProperties f[]\fbfh,ª%ª^Éfvf[]pfefB,ð·\Ž!,·,éèè#,Æ“— l,ÉCfIfufWfFfNfgfCf“fXfyfNf^,lfvf[]pfefB,ð·\Ž!,·,é,½,ß GetComponentProperties ,ðCEÄ,Ñ[]o,μ,Ü,·BTDefaultEditor lfufWfFfNfg,à GetComponentProperties ,ðCEÄ,Ñ[]o,μ,Áfvf[]pfefBfŠfXfg,ð[]¬,μ[]C,»,lfŠfXfg,ÁffftfHf<fgŽž,É·Ò[]W,·,éfvf[]pfefB,ð'l'ð,μ ,Ü,·B

Filter fpf%of[]f^,lfŠfXfg ('Êí,ìèè#fCxf“fg,lf[]fbfhf] fCf“f^fvf[]pfefB,Æ,»,è^ÈŠO,ìCE^,lfvf[]pfefB,ð<æ·É,·,éfŠfXfg) “à,É,Ç,ìCE^,lfvf[]pfefB,ð 1 ,Á,Ü,½,Í·;[]”CEÄ·\Ž!,·,é,©,ðCE^,ß,Ü,·BDesigner fpf%of[]f^,Í'l'ð,μ,½fRf“f] []f“fg,ðŠÜ,þtfH[]f€ffUfCfi,ð·\,μ[]Cfvf[]pfefBfGfffBf^flfufWfFfNfg,É“n,³,è,Ü,·B

ŽQÆ14594

GetProperties flfbfh

TDefaultEditor flfufWfFfNfg

GetEditLimit f\fbfh14595

“K—p

TPropertyEditor, TCustomGrid

à-¾

GetEditLimit f\fbfh, í 2 ,Â, ,è,Ü,·B1 ,Â, ívf\fpfefBfGfffBf^flfufWfFfNfg—pC,à,α 1
,Â, íOfŠfbfh, íCf“fvfCE[fXfGfffBf^—p,ÅC,»,è,¼,ê•ÒWftfB[f<fh,É“ü—
í,Å,«,éÅ’â•¶Žš”,ðŽw’è,μ,Ü,·B

PropertyEditor flfufWfFfNfg, ì GetEditLimit f\fbfh

CustomGrid fRf“f[[flf“fg, ì GetEditLimit f\fbfh

GetEditLimit f\fbfh14596

ŽQÆ

“K—p

TPropertyEditor

é¾

function GetEditLimit: Integer; **virtual**;

à-¾

GetEditLimit f\fbfh,ÍlfufWfFfNfgfCf“fXfyfNf^,ì'l,Æ,μ,Ä“ü—

Í,Å,«,é•ŕŽš“,ð\$ÆÀ,μ,Û,·BfftfHf<fg'l,Í 255 •ŕŽš,Å,·^aCvf\fpfefBfGfffBf^,ìÆ^,É,æ,Á,Ä,Í

GetEditLimit ,ðf\fo[f%ofCfh,μ,Ä,à,Á,Æ'Z,ç',³,ì-¼'O,μ,©“ü—Í,Å,«,È,ç,æ,æ

,É\$ÆÀ,Å,«,Û,·B

•s³,È'l,ð-h,®,½,ß“ü—Í',ð\$ÆÀ,·,é,É,ÍCSetValue f\fbfh,É\$ÆÀ',ð',,é“ü—Í•ŕŽš—

ñ,ðŽó,·t,³,¹,È,ç,Å<“Û,³,¹,é,æ,æ,É GetEditLimit ,ðf\fo[f%ofCfh,μ,È,,Á,Í,È,è,Û,¹,ñB

ŽQÆ14597

SetValue ffbfh

GetName f\fbfh14598

ŽQÆ

“K—p

TPropertyEditor

é¾

function GetName: **string**; **virtual**;

à-¾

GetName f\fbfh,Ívf\pfefBfGffBf^,ª•ÒW,µ,½fvf\pfefB,ì-¼'O,ð•Ô,µ,Û,·B,·,×,Ä,ì
%ºü,ÍXfy[X,É•İŠ,µ,Û,·Bf\ufWfFfNfgfCf“fXfyfNf^,Í GetName ,ðÆÄ,Ño,µ,Ävf\pfefB—
ñ,É•\Ž!,·,é-¼'O,ðŽæ,èo,µ,Û,·B

GetName ,ðf\fo[f%ofCfh,·,é•K—v,Í,Û,Æ,ñ,Ç, ,è,Û,¹,ñ,ªCf\fo[f%ofCfh,µ,Ä•Ê,ì-
¼'O,ð•Ô,µ,½,è-¼'O•¶Žš—ñ,ìÆ`Ž®,ð•ïX,µ,½,è,Å,«,Û,·B

ŽQÆ14599

GetValue ffbfh

GetProperties f\fbfh14600

ŽQÆ —á

“K—p

TPropertyEditor

é¾

procedure GetProperties (Proc: TGetPropEditProc); **virtual**;

à-¾

f\ufWfFfNfgfCf“fXfyfNf^,Åf\ufWfFfNfg^fvf\fpfefB,đ“WŠJ,μ,Ä%°^Êfvf\fpfefB,đ•Ž|,·,é,±,Æ,đŽw’è,·,é,ÆCGGetProperties f\fbfh,Í%°^Êfvf\fpfefB,Æ,»,ìfvf\fpfefBfGfffBf^,ìfŠfXfg,đ•Ô,μ,Ü,·BGetProperties ,Í GetAttributes ,^apaSubProperties ,đšÜ,þW±,đ•Ô,·é±,¾,~CEÄ,Ño,¹,Ü,·B

ffftfHf<fg,ì GetProperties f\fbfh,Í%½,à,¹,_C%°^Êfvf\fpfefB,à’Ç%Á,μ,Ü,¹,ñB%°^Êfvf\fpfefB,đ•Ô,³,È,,Ä,Í,È,ç,È,çfvf\fpfefBfGfffBf^,Í GetProperties ,đf\fo[f%ofCfh,μ,ÄCProc fpf%of^,ÄŽw’è,·,éŽè’±,«,đCEÄ,Ño,μC%°^Êfvf\fpfefB,Æ,»,ìfGfffBf^,ìfŠfXfg,đ•Ô,μ,Ü,·B

TClassProperty ,Í GetProperties ,đf\fo[f%ofCfh,μ,ÄC1

,Ä,ìf\ufWfFfNfg^fvf\fpfefB,ìpfufŠfbvf...fvf\fpfefBfŠfXfg,đfhf\fbvf_fEf“CE`Ž®,Ä•\Ž|,μ,Ü,·BTSetProperty ,Í GetProperties ,đf\fo[f%ofCfh,μ,ÄW±CE^fvf\fpfefB,Ìše—v’f,²,Æ,ÉW±—v’ffGfffBf^,đ•Ô,μ,Ü,·B

—á14601

```
ŽŸ,lfR[]fh,í TSetProperty ,ª GetProperties f[]\fbfh,ðfI[]fo[]f%ofCfh,;éR[]fh,Á,·B
procedure TSetProperty.GetProperties (Proc: TGetPropEditProc);
var
    I: Integer;
begin
    with GetTypeData (GetTypeData (GetPropType) ^ .CompType) ^ do
        for I := MinValue to MaxValue do { '1,²,Æ,ÉŽw'è,μ,Ü,· }
            Proc (TSetElementProperty.Create (FDesigner, FPropList, FPropCount,
I)); { Proc ,ðCEÄ,Ñ[]o,μ,Ü,· }
    end;
```

ŽQÆ14602

GetAttributes fbfh

GetProperty f\bfbh14603

ŽQÆ

“K—p

TPropertyEditor

é¾

function GetPropType: PTypeInfo;

à-¾

GetProperty f\bfbh, í•ÒW't, ì (1 ,Â,Ü,½,í•i", ì) fvf\pfefB, ìCE^î•ñfR[fhf]
fC" f^, ð•Ô, µ, Ü, •BGetProperty , ðf[fo[f%ofCfh, •é•K—v, í, , è, Ü, ¹, ñB-
ß, è'l, ðŽ!, •fR[fh, í•ÒW't, ìCE^, É, Â, ç, Ä, ìî•ñ, ðŽ!, •ŽÀsŽžCE^î•ñ (RTTI) fR[fh, Å, •B

ŽQÆ14604

ClassInfo ffbfh

GetValue f\fbfh14605

ŽQÆ —á

“K—p

TPropertyEditor

é¾

function GetValue: string; virtual;

à-¾

GetValue f\fbfh,í•ÒW†,ìfvf\fpfefB,ìCE»Ý'l,ðŽ!,•¶Žš—ñ,ð•Ô,μ,Û,·BGetValue ,í Value
fvf\fpfefB,ì **read •**”,ì,½,ß,ìf\fbfh,Å,·B

—á14606

TIntegerProperty ,í GetValue ,đfí[]fo[]f%ofCfh,μ,Äfvf[]pfefB,ì""i,đ•¶Žš—ñ,É•İŠ,μ,Ü,·B

```
function TIntegerProperty.GetValue: string;
```

```
begin
```

```
    Result := IntToStr(GetOrdValue);
```

```
end;
```

ŽQÆ14607

SetValue ffbfh

Value fvfpfefB

GetName ffbfh

GetValues f\fbfh14608

ŽQÆ —á

“K—p

TPropertyEditor

é¾

procedure GetValues (Proc: TGetStrProc); **virtual**;

à-¾

GetValues f\fbfh,Ívf\pfefBfGfffBf^,É•Ž!,·,é'l,ìšfXfg,ðì¬,μ,Ü,·BProc fpf%of[]f^,Í
GetValues f\fbfh,³fvf\pfefB,ì'l,²,Æ,ÉÆÄ,Ño,³,È,,Ä,Í,È,ç,È,çŽè'±,«,ð•\,μC,»,ì,Ä,Ç'l,ð•\
,·¶Žš—ñ,ð“n,μ,Ü,·BGetValues ,Í GetAttributes ,³•Ô,·W¶,É paValueList ,³ŠÜ,Ü,ê,Ä,ç
,éê¶,¾,¯ÆÄ,Ño,¹,Ü,·B

—á14609

Yes, No, Maybe ,ì 3 ,Â,ì'l,đ,Æ,éfvf[]pfefB,í GetValues ,đŽŸ,ì,æ,x,ÉfI[]fo[]f%ofCfh,μ,Ü,·[]B

```
procedure TSamplePropertyEditor.GetValues (Proc: TGetStrProc);
```

```
begin
```

```
  Proc ('Yes');
```

```
  Proc ('No');
```

```
  Proc ('Maybe');
```

```
end;
```

ŽQÆ14610

GetAttributes.fbfh

GetVerb f\fbfh14611

ŽQÆ

“K—p

TComponentEditor

é¾

function GetVerb(Index: Integer): **string**; **virtual**;

à-¾

GetVerb f\fbfh,Í Index fpf%ff[f^,ÅŽw'è,·,é—LCEø,ÈfCf“ffbfNfX'I,É'í%ž,·,é•¶Žš—
ñ,ð•Ô,μ,Û,·BGetVerb ,Í 0 ,©,ç GetVerbCount - 1 ,Û,Å,ì,·,×,Ä,ÏfCf“ffbfNfX'I,É'í,μ,Ä—
LCEø,È•¶Žš—ñ,ð•Ô,³,È,Ä,Í,È,è,Û,¹,ñB

•Ô,³,é,é•¶Žš—ñ,ÍfRf“fefLfXfgf¶ffj...¶[.É•Ž|,³,é¶CfAf“fh<L¶t (&),Æ¶È—¶L¶t (...),ð³,μ,-
Žg,Á,Ä,ç,È,Ä,Í,È,è,Û,¹,ñBExecuteVerb f\fbfh,Í GetVerb ,ª•Ô,·•¶Žš—ñ,É'í
%ž,·,éfAfNfVf¶f“,ð,μ,Û,·B

ŽQÆ14612

GetVerbCount ffbfh

ExecuteVerb ffbfh

GetVerbCount f\fbfh14613

ŽQÆ

“K—p

TComponentEditor

é¾

function GetVerbCount: Integer; **virtual**;

à-¾

GetVerbCount f\fbfh,í\fbfh GetVerb ,Æ ExecuteVerb ,ì—

LCEø,ÈfCf“ffbfNfX,ì” ,ð•Ô,μ,Ü,·B,Ç,ì,ç,ì\fbfh,à 0 ,©,ç GetVerbCount - 1

,ìfCf“ffbfNfX,žì,·—LCEø,ÈfAfnfVf+f” ,ð,μ,È,,Ä,Í,È,è,Ü,¹,ñB

ŽQÆ14614

GetVerb_f\fbfh

ExecuteVerb_f\fbfh

Initialize f\fbfh14615

ŽQÆ

“K—p

TPropertyEditor

é¾

procedure Initialize; virtual;

à-¾

Initialize f\fbfh,Ívf\pfefBfGfffBf^,É•K—v,È,·,x,Ä,ì%Šú
%»»,ð,μ,Û,·Bfvf\pfefBfGfffBf^,ÉŽžŠÔ,ð—v,·,éÝ’è,ª•K—v,Èê#CCreate ,Á,Í,È, Initialize
,ÅŽw’è,μ,È,,Ä,Í,È,è,Û,¹,ñB

flfufWfFfNfgfCf“fXfyfNf^,Ívf\pfefBfGfffBf^flfufWfFfNfg,ð\—,μ,½EãC,»,è,ðŽg,π’O,É
Initialize ,ðEÄ,Ño,μ,Û,·BflfufWfFfNfgfCf“fXfyfNf^,Ívf\pfefBfGfffBf^,ð^è“x,àŽg,í,È,ç,π
,¿,É”jŠü,·,é,±,Æ,ª, ,é,ì,ÁC’,çÝ’èŽè’±,«,í”ð,¯,é•ù,ª\,^—,Á,«,Û,·B

fvf\pfefBfGfffBf^,ÍRf“fXfgf%ofNf^,ÍZ,πv’—,É,μCŽžŠÔ,ª,©,©,éÝ’èŽè’±,«,Í Initialize
,ÉŠ,,è“—,Ä,Ä,,¾,¾,çB

ŽQÆ14616
Create ffbfh

PrivateDirectory fvf[]pfefB14617

“K—p

TPropertyEditor

□éĒ¾

property PrivateDirectory: string;

□à-¾

PrivateDirectory

fvf[]pfefB,lfvf[]pfefBfGfffBf^,ª•â[]•ftf@fCf<,Ü,½,Í[]ó'Ôftf@fCf<,đŠi”[,·,éfffBfĈfNfgfŠ,đŽw'è,
μ,Û,·[]BPrivateDirectory ,Í“Ç,Ý[]o,μ[]ê—p,lfvf[]pfefB,Â,·[]BffftfHf<fg,Í[]ê[]#[]CPrivateDirectory
,Í DELPHI.EXE ,đŠÛ,pfffBfĈfNfgfŠ,Û,½,Í DELPHI.INI ,ĂŽw'è,·,é[]ì<Æ—
pfffBfĈfNfgfŠ,đ•Ô,μ,Û,·[]B

PropCount fvf[]pfefB14618

ŽQ[]Æ

“K—p

TPropertyEditor

□éÆ¾

property PropCount: Integer;

□à-¾

PropCount fvf[]pfefB,lfvf[]pfefBfGfffBf^,ªÆ»[]Ý•Ò[]W’t,lfvf[]pfefB,ì[]”,ð•Ô,µ,Û,·[]B,±
,ì[]”,lfvf[]pfefBfGfffBf^flfufWfFfNfg,ì Create fRf“fXfgf%ofNf^,É“n,³,ê,é[]”,Å,·[]BPropCount
,í“”,lfvf[]pfefB,ð<α—L,·,é•;[]”,lfRf“f[]lflf“fg,ð‘l’ð,·,é[]ê[]‡,¾,¯ 1 ,æ,è‘å,«,ç‘l,É,È,è,Û,·[]B

ŽQÆ14619
Create ffbfh

RegisterComponentEditor Žè'±,«14620

ŽQ□Æ —á

ftfjfbfg

DsgnIntf

□éĈ¾

procedure RegisterComponentEditor (ComponentClass: TComponentClass;
ComponentEditor: TComponentEditorClass);

□à-¾

RegisterComponentEditor Žè'±,«,ÍfRf"f|□[flf"fgfGfffBf^ĈĈ^,ð"o~^□Ī,Ý,ÍfRf"f|
□[flf"fgfGfffBf^fŠfXfg,É'Ç%Á,μ,Û,·□BDelphi ftfH□[fĕfffUfCfi,ª'Í'ð,μ,½fRf"f|
□[flf"fg,ÍfGfffBf^,ð□□□-,·,é,½,ß,É GetComponentEditor
ŠÖ□",ðĈĈ,Ñ□o,·,Æ□CGetComponentEditor ,Í"o~^□Ī,Ý,ÍfRf"f|
□[flf"fgfGfffBf^,ÍfŠfXfg,ðĈÿ□ð,μ,Û,·□BŽw'è,μ,½ĈĈ^,ÍfGfffBf^,ª"o~^,³,è,Ä,ĉ
,É,ĉ□é□#□CGetComponentEditor ,Í TDefaultEditor fCf"fXf^f"fX,ð•Ô,μ,Û,·□B
ftfH□[fĕfffUfCfi,ªft□[fU□[,ì□□□-,·,éRf"f|□[flf"fgfGfffBf^,ðŽg,æ,æ,æ
,É,·,é,É,Í□CRegisterComponentEditor
,ðĈĈ,Ñ□o,μ,ÄfGfffBf^,ð"o~^,μ□CfGfffBf^,ðŽg,Á,Ä•Ô□W,·,éRf"f|
□[flf"fg,ìĈĈ^,ÆfGfffBf^,ìĈĈ^,ðŽw'è,μ,È,,Ä,Í,È,è,Û,¹,ñ□B

—á14621

ŽŸ,lfR[fh,lfRf“f][f]“fgfGfffBf^CE^ TMyComponentEditor ,đfRf“f][f]“fgCE^
TMyComponent ,lfGfffBf^CE^ ,Æ,μ,Ä“o~^,μ,Ü,·B

```
procedure Register;  
begin  
    RegisterComponentEditor(TMyComponent, TMyComponentEditor);  
end;
```


ŽQÆ14622

GetComponentEditor ŠÖ”

RegisterPropertyEditor Žè'±,«14623

ŽQÆ

ftfjfbfg

DsgnIntf

□éŒ¾

```
procedure RegisterPropertyEditor(PropertyType: PTypeInfo; ComponentClass:
    TClass;
    const PropertyName: string; EditorClass: TPropertyEditorClass);
```

□à-¾

RegisterPropertyEditor Žè'±,«,Ívf□fpfefBfGfffBf^,ðvf□fpfefBCE^,ÉŠÖ~A•t,¯,Ü,·□B•K—v,É
%ož,¶,ÄfRf“f|□lf“fg,ì“Á'è,ìCE^,Æ,»,ìfRf“f|□lf“fg,ì“Á'è,ìvf□fpfefB,ÉCEÀ'è,Å,«,Ü,·□B

ŽQÆ14624

TPropertyEditor flufWfFfNfg

SetValue f\fbfh14625

ŽQÆ

“K—p

TPropertyEditor flfufWfFfNfg

é¾

procedure SetValue(**const** Value: **string**); **virtual**;

à-¾

SetValue f\fbfh ,í Value ,ÅŽw'è,·,é•ŕŽš—ň,ð%ðí,μC•K—v,É

%ž,ŕ,Ä¾,μ,çfvf\fpfefB'l,É,·,é,½,ß,É•İŠ,μ,Ü,·B SetValue ,í Value fvf\fpfefB,ì **write**

•",ì,½,ß,lf\fbfh,Å,·B

TIntegerProperty ,í SetValue ,ðf\fo\fcfh,μ,Ä Value ,ð™%ž,È"l,É•İŠ,μ,Ü,·B

ŽQÆ14626

GetValue ffbfh

Value fvfpfefB

TCaptionProperty flfufWfFfNfg14627

ŽQÆ f\fbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TCaptionProperty flfufWfFfNfg,Ívf\fpfefB Caption ,Æ Text
,iffjtHf<fg,Ívf\fpfefBfGfffBf^,Á,·B,±,ÍfGfffBf^,Í·W€,í·qZš—
ñfvf\fpfefBfGfffBf^,Á,·,ªCpaAutoUpdate ‘@«,žŽ,Á,Ä,ç,é,ì,ÅfL[“ü—
Í,²,Æ,Éfvf\fpfefB,ðXV,μ,Ü,·B

TCaptionProperty ,Í TStringProperty ,©,ç,·,x,Ä,ðEp³,·,é,Ù,©CGetAttributes ,ðf\fo\l
%ofCfh,μ,Ä·i“l’ð,ÆŽ©“@XV,ð%oÅ“\,É,μ,Ü,·B

fifbfh14628

GetAttributes

ŽQÆ14629

Caption fvfpfefB

Text fvfpfefB

TStringProperty flufWfFNg

TCharProperty flfufWfFfNfg14630

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TCharProperty flfufWfFfNfg,í•ŕŽšĀ^fvfƒpfefB—p,ífvfƒpfefBfGfffBf^,Å,·BfvfƒpfefBĀ^,ª
Char ,ì”•ª”í^í (A ̀ Z ,È,Ç) ,ìêƒƒCfGfffBf^ ,ífvfƒpfefBĀ^ ,ì^í“à,ì•ŕŽš,¾, ,ì“ü—
Í,ÉŒĀ,μ,Û,·B

TCharProperty ,í TOrdinalProperty ,©,ç,·,×,ĀĀp³,·,é,Û,©ƒfbfh GetValue ,Æ SetValue
,đf[fo[f%ofCfh,μ,Ā%oĀŽ<•ŕŽš,¾, ,đ•Ž!,μĀĀX,ì•ŕŽš,Æ # •ŕŽš,ª’O,É•t,ç,½ ASCII
'l,đŽó, ,t, ,Û,·B

fjfbfh14631

GetValue

SetValue

ŽQÆ14632

TOrdinalProperty flufWfEfNfg

TClassProperty flfufWfFfNfg14633

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TClassProperty flfufWfFfNfg,ÍflfufWfFfNfg,Å, ,é,·,×,Ä,ìfvf[]pfefB—
p,ìffftfHf<fg,ìfvf[]pfefBfGffBf^,Å,·BflfufWfFfNfgCE^fvf[]pfefB,ð'¼Ú,í•İX,Å,«,Ü,¹,ñ,ªCfGf
ffBf^,ªflfufWfFfNfgCE^,ì-¼'O,ð•Ž!,µCfvf[]pfefB,ì
%º^Êfvf[]pfefB,Æ,µ,ÄflfufWfFfNfg,ìfvf[]pfefB,ð•ÒW%Å"\,É,µ,Ü,·B

TClassProperty ,Í TPropertyEditor ,©,ç,·,×,Ä,ðEp³,·,é,Ü,©CGetAttributes ,ðf[]fo[]f
%ofCfh,µ,Ä%º^Êfvf[]pfefB,ð[]¬,µCGetProperties ,ðf[]fo[]f%ofCfh,µ,Ä,»,ì
%º^Êfvf[]pfefB,ð•Ž!,µCGetValue ,ðf[]fo[]f%ofCfh,µ,ÄflfufWfFfNfgCE^,ì-¼'O,ð•\
Ž!,µ,Ü,·B

fjfbfh14634

GetAttributes GetProperties GetValue

ŽQÆ14635

TPropertyEditor flufWfFfNfg

TColorProperty flfufWfFfNfg14636

ŽQAE flfufbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TColorProperty flfufWfFfNfg, í Color fvf fpfefB, â TColor CE ^, ì¼, ìfvf fpfefB—
p, ìffftfHf<fg, ìfvf fpfefBfGfffBf ^, Å, ·Bfff% [fvf fpfefBfGfffBf ^, ì·W€ , ì cXXX fff
% ['è" , a, , éê C, » , ì 1 , Å, Æ, µ, ÅCE » Ý, ìfff% ['l, ð·Ž! , µ, Ü, ·Bfff
% ['è" , a' ¶Ý, µ, È, çê C16 ['l, Æ, µ, Å·Ž! , µ, Ü, ·BfGfffBf ^ , ì, ·, x, Å, ì cXXX fff
% ['è" , ìfhf bfvf_fEf" fŠXfg, ð·Ž! , µ, Ü, ·B

TColorProperty , í TIntegerProperty , ©, ç, ·, x, Å, ðEp³, ·, é, Ù, ©CEdit flfufbfh, ðf [fo [f
% ofCfh, µ, Å Windows , ìmColor Selection nf_fCfAfOf {fbfNfX, ðŽg, çCGetAttributes flf
fbfh, ðf [fo [f% ofCfh, µ, Å·; "CE ^, ì·ÒW, ð% Å" \, É, µCGetValue , Æ SetValue , ðf [fo [f
% ofCfh, µ, ÅCE ^ fff% ['l, ², Æ, É, ·, x, Å^Ù, È, é·ù-@, Å^—, µCGetValues , ðf [fo [f
% ofCfh, µ, Å, ·, x, Å, ì·W€ fff% ['è" , ð·Ž! , µ, Ü, ·B

fjfbfh14637

Edit GetValue SetValue
GetAttributes GetValues

ŽQÆ14638

TColor Ć^

Color fv[]pfefB

TIntegerProperty flufWfFfNfg

TComponentEditor flfufWfFfNfg14639

ŽQAE flfufWfFfNfg flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TComponentEditor flfufWfFfNfg, í, ·, ×, Ä, lfRf"flflf"fgfGfffBf^, ÌŠî-{-, Ä, ·BTComponentEditor ,», Ì, à, Ì, ÍŠÜflfufWfFfNfg, Ä, ·èCZÄÜ, É, lfRf"flflf"fg, ð·ÖW, µ, Ü, ¹, ñBffftfHf<fg, lfRf"flflf"fgfGfffBf^, Í TComponentEditor ,ì%º^ÉflfufWfFfNfg, Ä, ·é TDefaultEditor ,Ä, ·B, ±, è, Ì, Ì<AE—p Edit flfufWfFfNfg, Ä, ·B

V, µ, çRf"flflf"fgfGfffBf^, ðÜ-·, ·é—R, ÍŽÝ, Ì·\, Éà-¾, ·é, æ, x, É 3 , Ä, ·è, Ü, ·B

—R

flflfoflf%oCfh, ·, éflfbfh

Rf"feLFXfgfj...[.Ö, Ì€-Ú, ÌÇ%Á GetVerb, GetVerbCount

ÝEvŽž, lf_fuf<fNfŠfbfNfAfNfvf#f", Ì·İX Edit

NfŠfbvf{[fh, Ö, Ì·É, Ì€`Ž®, Ì·\, è·t, · Copy

V, µ, çRf"flflf"fgfGfffBf^CE^, ð"ħ¶, ·, éè¶CRegisterComponentEditor Žè'±, ·, ðCEÄ, Ño, µ, Ä, » , lfGfffBf^CE^, ð"o~^, µ, É, , Ä, Í, È, è, Ü, ¹, ñB

ÝEvŽž, ÉftfH[f€, ÄRf"flflf"fg, ð'Ì'ð, ·, é, AEÇftfH[f€fffUfCfi, lfRf"flflf"fgCE^, ÉŠî, Ä, ç, ÄRf"flflf"fgfGfffBf^, ðÜ-·, µ, Ü, ·BfGfffBf^, lfvf[fpfefB Component ,AE Designer ,Í, » , è, ¼, éRf"flflf"fgfCf"fxf^f"fx, AEfAfNfefBfu, ÉftfH[f€fffUfCfi, ðŽQAE, µ, Ü, ·B

▪ Rf"flflf"fg, ðf_fuf<fNfŠfbfN, ·, é, AEÇftfH[f€fffUfCfi, Rf"flflf"fgfGfffBf^, Ì Edit flfbfh, ðCEÄ, Ño, ·

▪ %EfNfŠfbfN, ·, é, © Alt+F10 , ð%Ÿ, µ, ÄRf"feLFXfgfj...[. , ðCEÄ, Ño, ·, AEÇRf"flflf"fgfGfffBf^, Í GetVerbCount , ðCEÄ, Ño, µ, Ä, ©, çSe€-U, ², AE, É GetVerb , ðCEÄ, Ño, µ, ÄRf"feLFXfgfj...[. , ðÜ-·, ·, éBfRf"feLFXfgfj...[€-U, ð'Ì'ð, ·, é, AEÇfGfffBf^, Í ExecuteVerb , ðCEÄ, Ño, ·

▪ Rf"flflf"fg, ðNfŠfbvf{[fh, ÉRfs[. ·, é, AEÇRf"flflf"fgfGfffBf^, Í, Ü, ·, Rf"flflf"fg, Ì<Lq, ðRfs[. µ, Ä, ©, ç Copy flfbfh, ðCEÄ, Ño, ·B, ±, lf[fbfh, lfRf"flflf"fgfGfffBf^, Rf"flflf"fgfGfffBf^, Ì·É, Ì€`Ž®, ðRfs[. Ä, «, é, æ, x, É, ·, éB·É, Ì€`Ž®, ð"è·t, ·, Ä, àftfH[f€fffUfCfi, Í, » , è, ð-³Ž<, ·, é, ¶C·É, lfAvfŠfP[fVf#f", » , Ì€`Ž®, ð"FŽ^ , Ä, «, é

flf: Rf"flflf"fgfGfffBf^, Rf"flflf"fg, ð·İX, ·, éè¶C, », Ì, Ä, Ç Designer.Modified , ðCEÄ, Ño, ³, È, , Ä, Í, È, è, Ü, ¹, ñB, ±, è, lfftfH[f€fffUfCfi, Rf"flflf"flflf"fg, Ì·İXCEä, Ìó'Ô, É¶, Í, ¹, Ä%æ-Êä, lfCf[fw, ðXV, Ä, «, é, æ, x, É, µ, Ü, ·B

fvf[]pfefB14640

Component

Designer

f\fbfh14641

Copy

Create

Edit

ExecuteVerb

GetVerb

GetVerbCount

ŽQÆ14642

TComponentEditorClass CE^

TComponentEditorClass CE^14643

ŽQAE

ftjfbfg

DsgnIntf

éCE¾

type

```
TComponentEditorClass = class of TComponentEditor;
```

à-¾

TComponentEditorClass CE^,íRf“f[]fj“fgfGfffBf^flfufWfFfNfg,lfufufWfFfNfgŽQAECE^,Å,·B

ŽQÆ14644

TComponentEditor flfufWfFfNfg

TComponentList flfufWfFfNfg14645

ŽQÆ flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TComponentList flfufWfFfNfg,í•W€,lfŠXfgflfufWfFfNfg TList ,Ö,lfRf“f|
|[lf“fgfX|[fX,lfCf“f^[ftfF|[fX,đ'ñ<Ÿ,·.éfŠXfgflfufWfFfNfg,Å,·BTComponentList ,í,»,ì€-
Ú,^a,Ç,ê,à TComponent ,ì%^o^ÊfRf“f|[lf“fg,Å, ,é,Æ,Ÿ,È,μ,Û,·B,»,ê^ÈŠO,lfRf“f|
|[lf“fgfŠXfgflfufWfFfNfg,í'¼,lfŠXfgflfufWfFfNfg,Æ“⁻,¶,æ,æ,É“®ì,μ,Û,·B

GetComponentProperties Žè'±

,«,lfWfFfNfgCf“fXfyfNf^,lfvf[fpfefBfŠXfg,đì,·,é,Æ,«CfRf“f|
|[lf“fgfŠXfg,đŽg,Á,Ä«»Y'í'đ,μ,Ä,ç,é,·,×,Ä,lfRf“f|[lf“fg,đ•ÛŽ,μ,Û,·BfRf“f|
|[lf“fgfŠXfgflfufWfFfNfg,lfvf[fpfefBfGfffBf^,^a,»,í“à•”,Ä,¾,~Žg,æ,ì,ÄCf+[fU[^aì,·,é•K
—v,í, ,è,Û,¹,ñB

ŽQÆ14646

TList flfufWfFfNfg

GetComponentProperties Žè'±,«

TComponentProperty flfufWfFfNfg14647

ŽQAE flfufbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¼

TComponentProperty flfufWfFfNfg, íRf“f|[]flf“fg, Å, , évf[]fpfefB—
p, íffftfHf<fg, ìvf[]fpfefBfGffBf^, Å, ·B, ±, ì, æ, x, ÈfRf“f|
[]flf“fgfvf[]fpfefB, ìvf[]fpfefB, í·ìX, Å, Ü, ¹, ñ, ºC“¯, ¶ftfH[]f€, ìŒÝŠ·fRf“f|[]flf“fg, ì-
¼‘O, ìŽw’è, Å, «, Ü, ·BActiveControl fv[]fpfefB, í TComponentProperty
flfufWfFfNfg, ðŽg, xfv[]fpfefB, ì—á, Å, ·B

TComponentProperty , í TPropertyEditor , ©, ç, ·, x, ÄEp³, ·, é, Ù, © CGetAttributes f[]f
fbfh, ðf[]fo[]f%ofCfh, µ, Äf[]fg, µ, ½—LŒø, ÈfRf“f|[]flf“fg, ìfh[]fbfvf_fEf“fŠXfg, ð·\
Ž!, µ CGetEditLimit f[]fbfh, ðf[]fo[]f%ofCfh, µ, Ä“ü—í·¶Žš, ð 64 ·¶Žš, É[]ŒEA, µ CGetValue
f[]fbfh, ðf[]fo[]f%ofCfh, µ, ÄŽw’èfRf“f|[]flf“fg, ì-¼‘O, ð·\Ž!, µ CGetValues f[]fbfh, ðf[]fo[]f
%ofCfh, µ, ÄŒÝŠ·fRf“f|[]flf“fg, ìfh[]fbfvf_fEf“fŠXfg, ð[]¬, µ CSetValue , ðf[]fo[]f
%ofCfh, µ, ÄfRf“f|[]flf“fg-¼, ðŽó, ¯·t, ¯, Ü, ·B

fjfbfh14648

GetAttributes

GetEditLimit

GetValue

GetValues

SetValue

ŽQÆ14649

TPropertyEditor flufWfFfNfg

TCursorProperty flfufWfFfNfg14650

ŽQÆ ffbfh flfufWfFfNfg

ftfjbfq

DsgnIntf

à-¾

TCursorProperty flfufWfFfNfg, TCursor Ć^fvfppfefB—

p,iffjtHf<fg,ìfvfppfefBfGfffBf^,Å,·Bfj[fv<'l,ª•W€j[fv<,ì,ç,ê,©,È,ç,ÎCfGfffBf^,í'l,ð
crXXX fj[fv<'l,ì 1 ,Å,Æ,μ,Ä·Žì,μ,Û,·B,»»,Å,È,̄,ê,ÎC'l,í 16 ñ'l,Æ,μ,Ä·Žì,³,ê,Û,·B

TCursorProperty ,í TIntegerProperty ,©,ç,·,×,Ä,ðEp³,·,é,Û,©CGetAttributes ffbh
fbfh,ðf[f%ofCfh,μ,Ä'l,ìfhfbvf_fEf"řřXfg,ðññ-,μCGetValues ffbfh,ðf[f%ofCfh,μ,ÄřřXfg,ðññ-,μCfbfbfh GetValue ,Æ SetValue ,ðf[f%ofCfh,μ,Äññ'l,Û,½,í'è`ñí,Ý,ìj[fv<'è",ðžó,·t,·Žì,μ,Û,·B

fjfbfh14651

GetAttributes

GetValues

SetValue

GetValue

ŽQÆ14652

TCursor Ć^

TIntegerProperty flufWfEfNfg

TDefaultEditor flfufWfFfNfg14653

ŽQÆ ffbfbh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TDefaultEditor ,í Delphi ftfH[f€fffUfCfi,ìffftfHf<fg,ìfRf“f]
[flf“fgfGfffBf^,Å,·B,Â,Ü,è“Á“è,ìCE^,ìfRf“f|[flf“fg—p,ìjffXf^f}fCfYfRf“f]
[flf“fgfGfffBf^,ð“o~^,·,éê±,ðœ.«CftfH[f€fffUfCfi,ìftfH[f€“à,ìŠefRf“f]
[flf“fg,ð•ÒW,·,é,½,ß,É TDefaultEditor ,ìfCf“fXf^f“fX,ðì¬,μ,Ü,·B

TDefaultEditor ,í TComponentEditor ,©,çEp³,μ,½ Edit ffbfbh,ðf|[fo[f
%ofCfh,μ,ÄŠÖ~A•t,¯,ç,ê,½fRf“f|[flf“fg,ìfCxf“fg OnCreate, OnChanged, OnClick ,ì,π,¿Å
%,ÉCE©,Â,©,Á,½,à,ì,ìfCxf“fgfnf“fhf%,ð¶¬,μ,Ü,·BfRf“f|[flf“fgfGfffBf^,ª GetVerb ffb
fbfh,ðf|[fo[f%ofCfh,μ,ÄfRf“fefLfxfgfjff...[É€-Ú,ð’Ç%A,·,é,ÆCfjff...[ÉÅ%,É’Ç
%A,μ,½€-Ú,ðffftfHf<fg,ìf_fuf<fNfŠfbfNfAfNfVfjff“,É,È,è,Ü,·B

fifbfh14654

Edit

EditProperty

ŽQÆ14655

TComponentEditor flfufWfFfNfg

TEnumProperty flfufWfFfNfg14656

ŽQÆ ffbfbh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TEnumProperty flfufWfFfNfg,í,·,×,Ä,ì—ñ<“CE^—p,ìffftfHf<fgfvf[]fpfefBfGfffBf^,Ä,·B—
ñ<“CE^fGfffBf^,í,·,×,Ä,ì—ñ<“CE^l,ìfhf[]fbfvf_fEf“fŠfXfg,ðfTf[]fg,μ,Û,·B

TEnumProperty ,í TOrdinalProperty ,©,ç,·,×,Ä,ðEp³,·,é,Û,©CGetAttributes f[]
fbfh,ðf[]fo[]f%ofCfh,μ,Ä'l,ìfhf[]fbfvf_fEf“fŠfXfg,ð[]—,μCGetValues f[]fbfh,ðf[]fo[]f
%ofCfh,μ,ÄfŠfXfg,ð[]—,μCf[]fbfh GetValue ,Æ SetValue ,ðf[]fo[]f%ofCfh,μ,Ä'è`[]İ,Ý,ì—
ñ<“CE^,ì'l,ðžó,·t,·\Z!,μ,Û,·B

fifbfh14657

GetAttributes

GetValues

SetValue

GetValue

ŽQÆ14658

TOrdinalProperty flufWfEfNfg

TFloatProperty flfufWfFfNfg14659

ŽQÆ flfufbfh flfufWfFfNfg

ftfjbf

DsgnIntf

à-¾

TFloatProperty flfufWfFfNfg,í,·,×,Ä,ì,“@-”_”fvfpfefB—
p,ìfftfHf<fg,ìfvfpfefBfGffBf^,Ä,·B

TFloatProperty ,í TPropertyEditor ,©,ç,·,×,Ä,ðEp³,·,é,Ù,©CAIEqual flfufbfh,ðf[]fo[]f
%ofCfh,μ,Ä,“@-”_”l,ð”äŠr,μCf[]fbfh GetValue ,Æ SetValue ,ðf[]fo[]f
%ofCfh,μ,Ä,“@-”_””,ðŽó,·t,·\Ž!,μ,Ü,·B

fifbfh14660

AllEqual

GetValue

SetValue

ŽQÆ14661

TPropertyEditor flufWfFfNfg

TFontProperty flfufWfFfNfg14662

ŽQÆ ffbfbh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TFontProperty flfufWfFfNfg, í Font fvfppfefB—

p, lftfHf<fg, lfvfppfefBfGfffBf^, Å, ·BftfHf“fgfvfppfefBfGfffBf^, íftfHf“fgflfufWfFfNfg, lŠe’@«
, ð%º^ÉfvfppfefB, Æ, µ, Ä•ÒW, Å, «, é, æ, x, É, ·, é, Ù, ©CWindows , l•W€ , l mFont
Selectionnf_fCfAfOf{fbfNfX, ÉfAfNfZfX, Å, «, é, æ, x, É, µ, Ù, ·B

TFontProperty , í TClassProperty , ©, ç, ·, x, ÄEp³, ·, é, Ù, ©CGetAttributes ffbfbh, ðfllfo[lf
%ofCfh, µ, Äf_fCfAfOf{fbfNfXfGfffBf^, lŽg—p, ð%º^Å“\, É, µCEdit ffbfbh, ðfllfo[lf%ofCfh, µ, Ä
Windows , l•W€ , l mFont

Selectionnf_fCfAfOf{fbfNfX, ðŽg, Á, ÄftfHf“fgfvfppfefB’S’l, ð•ÒW, µ, Ù, ·B

f[]fbfh14663

Edit

GetAttributes

ŽQÆ14664

TClassProperty flfufWfEfNfg

TFontNameProperty flfufWfFfNfg 14665

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TFontNameProperty flfufWfFfNfg,íftfHf“fg-¼—p,íffftfHf<fg,ívf[]pfefBfGffBf^,Å,·B,±,íGffBf^,í Windows ,ÅÆ»ÝŽg,!,é,·,×,Ä,íftfHf“fg,ì-¼’O,ðfhf[]fbvf_fEf“CE`Ž®,Å•Ž!,μ,Û,·B

TFontNameProperty ,í TStringProperty ,©,ç,·,×,ÄEp³,·,é,Û,©CGetAttributes f[]\fbfh,ðf[]fo[]f%ofCfh,μ,Ä’l,ðfhf[]fbvf_fEf“CE`Ž®,Å•Ž!,Å,<,é,æ,π,É,μCGetValues f[]\fbfh,ðf[]fo[]f%ofCfh,μ,ÄŠfXfg,ð[]-μ,Û,·B

fjfbfh1466

GetAttributes

GetValues

ŽQÆ14667

TStringProperty flufWfFfNfg

TFormDesigner flfufWfFfNfg14668

ŽQ□Æ flfufWfFfNfg

ftfjfbfg

DsgnIntf

□à-¾

TFormDesigner flfufWfFfNfg, í Delphi

, ìftfH□[f€fffUfCfi, aCEp□³, ·, é'Š□ÚCE^, Å, ·□BTFormDesigner , í TDesigner

, ©, çCEp□³, ·, évf□fpfefB, Æf□fjfbfh, ì, Ù, ©, É□CfR□[fhfGfffBf^, ìfCxf"fgfnf"fhf%o, ð□^—□, ·, é 5 CEÅ, ì'Š□Úf□fjfbfh, ð□éCE¾, μ, Û, ·□B

f□fjfbfh

f□fjfbfh

Žg, ç•û

CreateComponent	Žw'è, μ, ½□ê□Š, ÆfTfCfY, Å□CŽw'è, μ, ½fRf"fj □[lf"fg, ð□e, Æ, μ, ÅŽg, Á, Ä□CŽw'è, μ, ½fRf"fj□[lf"fg, ð□□—, ·, é
CreateMethod	Žw'è, ì-¼'O, ÆCE^, ìfCxf"fgfnf"fhf%o, ð□□—, μ□Cf□fjfbfhfj fCf"f^, ð•Ô, ·
GetComponent	fpf%of□□[f^, Æ, μ, Ä"n, μ, ½-¼'O, É^è'v, ·, éfRf"fj □[lf"fg, ð•Ô, ·□BCE»□Ý, ìftfH□[f€, aŽg, xftfH□[f€"à, ì-¼'O, ð%oð□í, ·, é
GetComponentName	fpf%of□□[f^, Æ, μ, Ä"n, μ, ½fRf"fj□[lf"fg, ì- ¼'O, ð•Ô, ·□BGetComponent, Æ<t, Å, , é
GetComponentNames	Žw'è, μ, ½CE^, ìfvf□fpfefB, ÉŠÖ~A•t, ¯, é, ±, Æ, a, Å, «, éfRf"fj □[lf"fg, ², Æ, É□C"n, ³, è, ½f□fjfbfh, ðCEÄ, Ñ□o, ·□B, ± , è, É, í□CCE»□Ý, ìftfH□[f€, aŽg, xftfH□[f€"à, ì□€-Ú, aŠÜ, Û, è, é
GetMethodNames	Žw'è, ìfCxf"fgfnf"fhf%o, ì-¼'O, ð•Ô, ·
GetMethods	"Á'è, ìCE^, ìf□fjfbfhfŠfXfg, ð□□—, ·, é
GetPrivateDirectory	ftfH□[f€fffUfCfi, ì□ê—pfffBfCEfNfgfŠ, ð•Ô, ·
IsComponentLinkable	Žw'è, μ, ½fRf"fj□[lf"fg, aCE»□Ý, ìftfH□[f€, aŽg, xftfH□[f€"à, É, , é□ê□± □CTrue, ð•Ô, ·
MakeComponentLinkable	Žw'è, μ, ½fRf"fj□[lf"fg, ìftfjfbfg, ð□ÝCEv't, ìftfH□[f€, ì uses □B, É'Ç %oÁ, ·, é
MethodExists	Žw'è, ìfCxf"fgfnf"fhf%o, a'¶□Ý, ·, è, ì True, ð•Ô, ·
MethodFromAncestor	Žw'è, μ, ½f□fjfbfh, ð□CCE»□Ý, ìftfH□[f€, Å, í, È, □ã^ÉftfH□[f€ , a"±"ü, μ, Å, ç, ½□ê□±□CTrue, ð•Ô, ·
RenameMethod	Šù'¶, ìfCxf"fgfnf"fhf%o, ì-¼'O, ð•Ô□X, ·, é
Revert	Žw'è, μ, ½fvf□fpfefB, ð□C□ã^ÉftfH□[f€, É, , é'íoož, ·, éfRf"fj □[lf"fg, ì'l, É-B, ·, æ, x, ÉftfH□[f€□ÝCEvŽÖ, É<□, B, é
ShowMethod	"ü—ìfj□[f€, aŽw'è, ìfCxf"fgfnf"fhf%o, É, , éfR□[fhfGfffBf^, ð<N"®, ·, é

ŽQÆ14669

TDesigner flfufWfEfNfg

TGetPropEditProc CE^14670

ŽQÆ

ftjfbfg

DsgnIntf

é¾

type

TGetPropEditProc = **procedure** (Prop: TPropertyEditor) **of object**;

à¾

TGetPropEditProc CE^, GetProperties ffbfh,Æ GetComponentProperties Žè'±,«,Ö,lfpf
%of[f^,ì 1 ,Â,Æ,μ,ĂŽg,xffbfhfjCf“f^CE^,Â,·B

ŽQÆ14671

GetProperties ffbfh

GetComponentProperties Žè'±,«

TIntegerProperty flfufWfFfNfg14672

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TIntegerProperty flfufWfFfNfg,í,·,×,Ä,ìTfCfY,ì,·,×,Ä,ì@”CE^—
p,ìffftfHf<fg,ìfvf[]pfefBfGfffBf^,Ä,·BTIntegerProperty
,í•ÒW’t,ì“Á’è,ì@”CE^,ì”í“à,É’l,ð\$CEÀ,μ,Ü,·B

TIntegerProperty ,í TOrdinalProperty ,©,ç,·,×,ÄEp³,·,é,Ù,©Cf[]fbfh GetValue ,Æ
SetValue ,ðf[]fo[]f%ofCfh,μ,Ä”’l,ðŽó,·t,·\Ž!,μ,Ü,·B

fifbfh14673

GetValue

SetValue

ŽQÆ14674

TOrdinalProperty flufWfEfNfg

TMethodProperty flfufWfFfNfg 14675

ŽQÆ ffbfbh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TMethodProperty flfufWfFfNfg, ífbfbh|fCf“f^ (, Ù, Æ, ñ, Ç, ìê#fCxf“fg) , Å, , évf|fpfefB—
p, ìfftHf<fg, ìvf|fpfefBfGffBf^, Å, ·B

TMethodProperty , í TPropertyEditor , ©, ç, ·, x, ÄEp³, ·, é, Ù, © CAIEqual ffbfbh, ðf|fo|f
%ofCfh, µ, Äfbfbh|fCf“f^, ì, ð”äŠr, µ CGetAttributes ffbfbh, ðf|fo|f
%ofCfh, µ, Ä'l, ðhf|fbvf_fEf“Æ`Ž@, Å·Ž|, µ CGetValues ffbfbh, ðf|fo|f
%ofCfh, µ, ÄfŠfXfg, ðf|fo|f, µ CEdit ffbfbh, ðf|fo|f%ofCfh, µ, ÄfCxf“fgfnf“fhf%
, ðf|fo|f, Ù, ½, í·ÖW, µ Cfbfbh GetEditLimit, GetValue, SetValue , ðf|fo|f
%ofCfh, µ, ÄfCxf“fgfnf“fhf%o-¾, ðf|fo|f, µ, Ù, ·B

fjfbfh14676

AllEqual

Edit

GetAttributes

GetEditLimit

GetValue

GetValues

SetValue

ŽQÆ14677

TPropertyEditor flufWfFfNfg

TModalResultProperty flfufWfFfNfg14678

ŽQÆ flfbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TModalResultProperty flfufWfFfNfg, í ModalResult fvfjpfefB—
p, ìffftfHf<fg, ìfvfjpfefBfGfffBf^, Å, ·B

TModalResultProperty , í TIntegerProperty , ©, ç, ·, x, ÄEp³, ·, é, Ù, © GetAttributes flfbfh, ðfl[fo[f%ofCfh, µ, Äfhfbfvf_fEf" fŠfXfg, ðì¬, µ GetValues fŠfXfg, ðfl[fo[f%ofCfh, µ, Ä, » , ìfŠfXfg, ðì¬, µ Cf\fbfh GetValue , Æ SetValue , ðfl[fo[f%ofCfh, µ, Ä "Žš, Ù, ½, í'è` ì, Ý, ìfh•t, <E<%oÊ'è", ðŽó, ·t, ·\Ž!, µ, Ù, ·B

fjfbfh14679

GetAttributes

GetValues

SetValue

GetValue

ŽQÆ14680

ModalResult fvfpfefB

TIntegerProperty flufWfFfNfg

TMPFileNameProperty flfufWfFfNfg 14681

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¼

TMPFileNameProperty flfufWfFfNfg, í TMediaPlayer fRf“f|“flf“fg, ì FileName fvf“fpfefB—
p, ìffftfHf<fg, ìfvf“fpfefBfGffBf^, Å, ·B, ±, ìfGffBf^, ìmFile

Open“nf_fCfA“fOf{fbfNfX, ðŠJ, <, Ü, ·B, ±

, ìf_fCfA“fOf{fbfNfX, Å, ìf“ffBfAfvfE“f,, “Ä“¶, ·.éftf@fCf<, ì-¼‘O, ð‘I’ð, Å, <, Ü, ·B

TMPFileNameProperty , ì IStringProperty , ©, ç, ·, ×, ÄEp³, ·, é, Ü, ©“CGetAttributes f“f
fbfh, ðfI“fo“f%ofCfh, µ, Äf_fCfA“fOf{fbfNfX, ð•Ò“W%oÅ“\, É, µ“CEdit ffbfh, ðfI“fo“f
%ofCfh, µ, Äftf@fCf<-¼, ð‘I’ð, ·, é Windows , ì•W“€, ìmFile

Open“nf_fCfA“fOf{fbfNfX, ðŠJ, <, Ü, ·B

fifbfh14682

Edit

GetAttributes

ŽQÆ14683

FileName_fvf_fpfefB

TMediaPlayer_fR“f|“f|“fg

TStringProperty_flfufWfFfNfg

TOrdinalProperty flfufWfFfNfg 14684

žQAE ffbfbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

TOrdinalProperty flfufWfFfNfg, í, ·, ×, Ä, ì, ð, ~, Æ, ^, fv, fp, fe, fB, fG, ff, Bf, ^, ì, Š, Ì-
{Æ, ^, Ä, ·, B, TOrdinalProperty, í, TPropertyEditor, ©, ç, ·, ×, Ä, Ep, ð, ·, é, Û, ©, CAIEqual, f, fb, fh, ð, fl, fo, f%o, fC, fh, µ, Ä, ð, ~, 'l, ð" ä Šr, µ, CGetEditLimit, ð, fl, fo, f%o, fC, fh, µ, Ä, ü—, í, 'l, ð 64
•¶Žš, É, §, Æ, Ä, µ, Ü, ·, B

'Š, Û, Æ, ^, ì, TOrdinalProperty, ì, %o, ^, Ê, fv, fp, fe, fB, É, í, C, ·, Ö, —, ~, È, TIntegerProperty,
TCharProperty, TEnumProperty, TSetProperty, TShortCutProperty, ª, , è, Ü, ·, B

f[]fbfh14685

AllEqual

GetEditLimit

ŽQÆ14686

TPropertyEditor flufWfFfNfg

TPropertyAttributes Ć^14687

ŽQÆ

ftjfbfg

DsgnIntf

éĆ¼

```
TPropertyAttribute = (paValueList, paSubProperties, paDialog,
    paMultiSelect, paAutoUpdate, paSortList, paReadOnly, paRevertable);
TPropertyAttributes = set of TPropertyAttribute;
```

à-¾

TPropertyAttributes Ć^, ĩfufWfFfNfgfCf“fXfyfNf^, ĘfvfĳpfefB, đ•Žĳ, ., é•ú-
 @, đŽw’è, μ, Ű, .ĳBvfĳpfefBfCf“fXfyfNf^ ĩfufWfFfNfg, ĩ GetAttributes fĳf
 fbh, ĩfvfĳpfefB’ @ĳ«ĳWĳ‡, đ•Ō, μ, Ű, .ĳB, ±, ĩĳWĳ‡, ĩfGfffBf^, @ĳi, đ•Žĳ, ., é•ú-@, đŽĳ, μ, Ű, .ĳB
 ŽŸ, ĩ•\, Ę’ @ĳ«, ĩ^Ó-ĳ, đĳà-¾, μ, Ű, .ĳB

’@ĳ«

^Ó-ĳ

paValueList	fGfffBf^, ĩ—ñ<“Ć^, ĩĳšfXfg, đĳĳĳ, Ā, «, éĳBGetValues fĳf fbh, ĩšfXfg, đĳĳĳ, ., é
paSubProperties	fvfĳpfefB, ĩ%º^ ĘfvfĳpfefB, đ•Žĳ, Ā, «, éĳfufWfFfNfg, Ā, ., éĳBGetProperti es fĳf fbh, ĩ%º^ ĘfvfĳpfefBfšfXfg, đĳ^—ĳ, ., é
paDialog	fGfffBf^, ĩfvfĳpfefB’S’ĳ, đ•ŌĳW, ., éf_fCfAfĳOf{fbfNfX, đ•Žĳ, Ā, «, éĳBEdit fĳf fbh, ĩf_fCfAfĳOf{fbfNfX, đšĳ,
paMultiSelect	•ĳĳ”, ĩfRf“fĳĳfĳfg, đ’ĳ, ., é, ĘfvfĳpfefB, @•\ Žĳ, º, é, éĳB’â”¼, ĩfvfĳpfefBfGfffBf^, Ā, ĳĳĳ”, ĩ’ĳ, @, Ā, «, éĳBName fvfĳpfefB—p, ĩfGfffBf^, ĩ—ášO, Ā, ., é
paAutoUpdate	’ĳ’S’ĳ, @ĳ”F, º, é, ½Ćă, Ā, ĳ, Ę, še’ĳ, đ•ĳĳĳĳ, Ę SetValue fĳf fbh, đĆĂ, Ńĳo, .
paSortList	fĳfufWfFfNfgfCf“fXfyfNf^, ĩĳšfXfg, đfAĳ<ftf@fxfbfgĳ‡, Ęĳĳĳfg, ., é
paReadOnly	fvfĳpfefB, ĩfufWfFfNfgfCf“fXfyfNf^, ĩ”Ć, Ÿĳo, μĳê—p, Ā, ., éĳBftĳĳfUĳ[, @ ¼ĳŰ“ü—ĳ, Ā, «, Ę, Ć•ĳžšfZfbfg, ĘftfHf“fg, Ęžg, x
paRevertable	Ćpĳ, μ, ½’ĳ, ĘfvfĳpfefB, đ-β, º, éĳBfZfbfg, ĩfXfgfvfĳpfefB, â—v’f, ĳ•ĆĆ ³ %ºĀ“\, Ę, ., é, x, «, Ā, ĳ, Ę, Ć

ŽQÆ14688

GetAttributes.fbfh

TPropertyEditor fIfufWfFfNfg14689

ŽQÆ fvffpfefB ffbfh fIfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TPropertyEditor Ć^,Í,·,×,Ä,ìfvf fpfefBfGfffBf^,ìŠî-{|,ìfIfufWfFfNfgĆ^,Ä,·BTPropertyEditor
,ÍŠÛfIfufWfFfNfg,Ä,·,ªC,·,×,Ä,ì—LCEø,Èfvf fpfefBfGfffBf^,ªŽg,ª,©fllfoff
%ofCfh,·,èfvf fpfefB,Æfffbfh,ð'è<` ,µ,Û,·B

TPropertyEditor ,Í TObject ,©,ç,·,×,ÄEp³,·,é,Û,©C4 ,Ä,ìfvf fpfefB,ÆŠeŽí,ìfffbfh,ðéC¾,µ,Û,·B

'ŠÛĆ^fIfufWfFfNfg TPropertyEditor ,ì%º^ÈfIfufWfFfNfgĆ^,É,ÍC•Ö—~,È
TOrdinalProperty, TFloatProperty, TStringProperty, TSetElementProperty, TClassProperty,
TMethodProperty, TComponentProperty ,ª, ,è,Û,·B

fvf[]pfefB14690

Designer

PropCount

Value

PrivateDirectory

fjfbfh14691

AllEqual

Destroy

Edit

GetAttributes

GetComponent

GetEditLimit

GetName

GetProperties

GetPropType

GetValue

GetValues

Initialize

SetValue

ŽQÆ14692

TPropertyEditorClass Ć^

TPropertyEditorClass CE^14693

ŽQAE

ftjfbfg

DsgnIntf

éCE¾

type

```
TPropertyEditorClass = class of TPropertyEditor;
```

à-¾

TPropertyEditorClass

CE^,í,·,×,Ä,lfvf[]pfefBfGfffBf^flfufWfFfNfgCE^,lfufWfFfNfgCE^ŽQAECE^,Å,·[]B

ŽQÆ14694

TPropertyEditor flufWfFfNfg

TSetElementProperty fIfufWfFfNfg 14695

ŽQ Æ f f f b f h f f f W f F f N f g

ftfjfbfg

DsgnIntf

□à-¾

TSetElementProperty fIfufWfFfNfg, í□W□#“à, ÌŠe—v’f—
p, ÌffftjHf<fg, Ìfvf□fpfefBfGffBf^, Å, ·□BfIfufWfFfNfgfCf“fXfyfNf^, í□W□#, ÌŠe—v’f, ð~_—□□€-
Ú, Æ, μ, Ä^—□, μ□C□W□#, É—v’f, ŠÜ, Ü, ê, Ä, ç, ê, Î True , ð•Ô, μ□C□W□#, É—v’f, ð, È, ~, ê, Î False
, ð•Ô, μ, Ü, ·□B

TSetElementProperty , í TPropertyEditor , ©, ç, ·, x, ÄEp□³, ·, é, Ù, ©□CGetName f□f
fbfh, ðf□□[fo□□[f%ofCfh, μ, Äfvf□fpfefB-¼, Å, Í, È, —v’f-¼, ð•\Ž|, μ□CGetValue , Æ SetValue
, ðf□□[fo□□[f%ofCfh, μ, Ä~_—□’l, ðŽg, Á, ÄŠe—v’f, Ì□ó’Ô, ð•\, μ, Ü, ·□B

fjfbfh14696

AllEqual

Destroy

GetAttributes

GetName

GetValue

GetValues

SetValue

ŽQÆ14697

TSetProperty flfufWfFfNfg

TPropertyEditor flfufWfFfNfg

TSetProperty flfufWfFfNfg14698

ŽQAE flfufbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TSetProperty flfufWfFfNfg,í,·,×,Ä,ìWþ^fvfþpfefB—
p,ìffftjHf<fg,ìfvfþpfefBfGfffBf^,Å,·BþfvfþpfefBfGfffBf^,íWþ,ð¼Ú•ÒW,¹,·Cþ
“à,ìŠe—v’f,ìWþ—v’f—pfGfffBf^,ðì¬,μ,Û,·B

TSetProperty ,í TOrdinalProperty ,©,ç,·,×,ÄEp³,·,é,Û,© CGetAttributes flfufbfh,ðf[]fo[]f
%ofCfh,μ,ÄŠeþ—v’f,ð%º^ÊfvfþpfefB,Æ,μ,Ä“WŠJ,Å,«,é,æ,κ,É,μ CGetProperties flfufbfh,ðf[]fo[]f%ofCfh,μ,Äþ—v’f,Æ,» ,ìfGfffBf^ ,ìŠfXfg,ð•Ô,μ CGetValue flfufbfh,ðf[]fo[]f%ofCfh,μ,Ä Object Pascal •\<L,Äþ’l,ð•Ž!,μ,Û,·B

fifbfh14699

GetAttributes

GetProperties

GetValue

ŽQÆ14700

TSetElementProperty_flfufWfFfNfg

TShortcutProperty flfufWfFfNfg14701

ŽQ⊗Æ f⊗\fbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

⊗à-¾

TShortcutProperty flfufWfFfNfg, í ShortCut fvf⊗fpfefB—

p, ìffftjHf<fgfGfffBf^, Å, ·⊗Bfhf⊗fbfvf_fEf“fŠfXfg, ÅfVf#⊗[fgfjfbfgfL⊗[, ð'ì'ð, ·, é, ±, Æ, à, Æ, à, Å, «, Û, ·⊗B

TShortcutProperty , í TOrdinalProperty , ©, ç, ·, x, ÄEp⊗³, ·, é, Û, ©⊗CGetAttributes f⊗\fbfh, ðfI⊗[fo⊗[f%ofCfh, μ, Ä'ì, ðfhf⊗fbfvf_fEf“CE`Ž®, Å•\Žì, Å, «, é, æ, x, É, μ⊗CGetValues f⊗\fbfh, ðfI⊗[fo⊗[f%ofCfh, μ, ÄfŠfXfg, ð•Ô, μ⊗Cf⊗\fbfh GetValue , Æ SetValue , ðfI⊗[fo⊗[f%ofCfh, μ, ÄfŠfXfg, ð•\Žì, μfVf#⊗[fgfjfbfg, ð'ì'ð, ·, é, ©'¼⊗Ú“ü—í, Å, «, é, æ, x, É, μ, Û, ·⊗B

fifbfh14702

GetAttributes

GetValues

SetValue

GetValue

ŽQÆ14703

ShortCut fvfpfefB

TOrdinalProperty flfufWfEfNfg

TStringProperty flfufWfFfNfg14704

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TStringProperty flfufWfFfNfg,í,·,×,Ä,ì•Źš—ñĀ^fvfƒpfefB—
p,ìffftfHf<fg,ìfvfƒpfefBfGffBf^,Ä,·B

TStringProperty ,í TPropertyEditor ,©,ç,·,×,ÄEp³,·,é,Ù,©CAIEqual ffbfh,đf[fƒ
%ofCfh,μ,Ä•Źš—ñ'l,đ"äŠr,μCGetEditLimit ffbfh,đf[fƒ[f%ofCfh,μ,Ä•Źš—
ñĀ^,ìÄ'â',É"ü—l,đ\$Ā,μCfƒfbfh GetValue ,Æ SetValue ,đf[fƒ[f%ofCfh,μ,Ä,»,ì•Źš
—ñ,đžó,·t,·\ž!,μ,Ü,·B

fifbfh14705

AllEqual

GetEditLimit

GetValue

SetValue

ŽQÆ14706

TPropertyEditor flufWfFfNfg

TTabOrderProperty flfufWfFfNfg14707

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

DsgnIntf

à-¾

TTabOrderProperty flfufWfFfNfg, í TabOrder fvfppfefB—

p, lffftfHf<fg, lfvfppfefBfGfffBf^, Å, ·B, ±, lfGfffBf^, í·W€

, l@”fvfppfefBfGfffBf^, Å, ·, aC·;” , lRf”f[lf”fg, a’l’ð, ¾, ê, Ä, ç, éŠÖ, l·\

Žl, ¾, ê, Ü, ¹, ñBf^fu#~ , l’l, lŠefRf”f[lf”fg, ², Æ, É^Ù, È, é’l, a·K—v, ¾, ©, ç, Å, ·B

TTabOrderProperty , l TIntegerProperty , ©, ç, ·, x, ÄEp³, ·, é, ù, ©CGetAttributes ffb

fbfh, ðf[lfo[lf%ofCfh, µ, Ä·;” , lRf”f[lf”fg, lfGfffBf^, ð·Žl, µ, È, ç, æ, x, É, µ, Ü, ·B

f[]fbfh14708

GetAttributes

ŽQÆ14709

TabOrder fvjfpfefB

TIntegerProperty flfufWfEfNfg

TTypeInfo Ć^14710

ŹQĀĒ

ftfjfbfg

TypInfo

ĀéĆ¾

type

PTypeInfo = ^TTypeInfo;

TTypeInfo = **record**

Kind: TTypeInfoKind;

Name: **string**;

TypeData: TTypeInfoData;

end;

Āà-¾

TTypeInfo Ć^ (,Ē,»Ē,Ē,ĒŠÖ~A•t,̄,ç,Ē,½f|fCf“f^Ć^ PTypeInfo) ,í Delphi
flfufWfFfNfg,ìŹÀĀsŹŹĆ^Āî•ň (RTTI) ,đ•\,μ,Û,·ĀB

ŽQÆ14711
TTypeKind CE^

TTypeKind **CE^14712**

ŽQÆ

ftjfbfg

TypInfo

é¾

type

```
TTypeKind = (tkUnknown, tkInteger, tkChar, tkEnumeration, tkFloat,  
tkString, tkSet,  
tkClass, tkMethod);
```

à¾

TTypeKind **CE^**, í Delphi ,ÆfJfufWfFfNfgfCf“fXfyfNf^,ª^—,µ,È,-
,Ä,Í,È,ç,È,ç^ê”Ê“l,È•;”,lfvfjpfefBCE^,ðŽw'è,·,é—ñ<“CE^,Á,·B

ŽQÆ14713

TTypeInfo Ć^

TTypeKinds Ć^

TTypeKinds $\mathbb{C}^{\wedge 14714}$

ŽQÆ

ftjfbfg

TypInfo

é $\mathbb{C}^{\frac{3}{4}}$

type

TTypeKinds = **set of** TTypeKind;

à- $\frac{3}{4}$

TTypeKinds \mathbb{C}^{\wedge} , íf<[f`f“, a 1 ,Â,Ü,½,Í•;□”, ìŽí—p, ì \mathbb{C}^{\wedge} , ðŽw`è, μ, È, ,Ä, Í, È, ç, È, ç
, Æ, «, ÉŽg, \mathbb{C}^{\wedge} , ìŽí—p, ì□W□‡, Å, ·□B, ½, Æ, |, Î GetComponentProperties Žè'±, «, Í TTypeKinds
 \mathbb{C}^{\wedge} , ìfpf%of□□[f^, ðŽg, Á, Ä, Ç, ì \mathbb{C}^{\wedge} , ìfvf□fpfefB, ð•Ô, ·, © \mathbb{C}^{\wedge} , ß, Ü, ·□B

ŽQÆ14715

TTypeKind CE^

GetComponentProperties Žè'±,«

Value fvf[]pfefB14716

ŽQ[]Æ

“K—p

TPropertyEditor

□é☒¾

property Value: string read GetValue write SetValue;

□à-¾

Value fvf[]pfefB,í•Ò[]W’t,lfvf[]pfefB,ì'l,đ•\,μ,Ü,·[]BfIfufWfFfNfgfCf“fXfyfNf^,í Value
,đŽg,Á,Äfvf[]pfefB'l,đfvf[]pfefBfGfffBf^,Æ,ÌŠÔ,Å,â,è,Æ,è,μ,Ü,·[]BValue ,»,ì,à,ì,đ•ì[]X,·,é•K—
v,í, ,è,Ü,¹,ñ,²□CGetValue ,Æ SetValue f[]fbfh,í,½,ç,Ä,çfI[]fo[]f%ofCfh,³,é,Ü,·[]B

ŽQÆ14717

GetValue ffbfh

SetValue ffbfh

fRf“f|□[flf“fgŠJ”ŽÒŠftf@fĀf“fX14718

fRf“f|□[flf“fg flfufWfFfNfg f<□[f`f“

, ±, ðŠftf@fĀf“fX, íÊ□í, ð VCL fŠftf@fĀf“fX, Ö, ðâ'«, Å, ·□B

- •W□€“I, È VCL fRf“f|□[flf“fg, ðvf□fefNfg•”, É, Å, ç, Ä, ðî•ñ
- fRf“f|□[flf“fg, ð^—□, ·, é, ½, ß, ðflfufWfFfNfg, âf<□[f`f“, È, Ç□CfRf“f|□[flf“fg, ðŠJ”, É-ð—š, Åî•ñ

Šî- {“I, É, ±, ðŠftf@fĀf“fX, ð•K—v, Æ, ·, éŠJ”ŽÒ, Í□CfRf“f|

□[flf“fg, ðŠÜ, ß, ½Šù‘¶, ðflfufWfFfNfg, ð’P, É—~—p, ·, é, ¾, ¯, Å, Í, È, ç, Æ’z’è, µ, Ä, ç

, Ü, ·□B“ÆŽ©, ðV, µ, çflfufWfFfNfg, ðŠJ”-

, ·, é, È, Í□CSù‘¶, ðflfufWfFfNfg, ðft□[fU□[, ðfAfNfZfX, Å, «, È, ç•”•ª, É, Å, ç, Ä, ðî•ñ,ª•K—v, Å, ·□B

flfufWfFfNfg, ð”h□¶, Æ, »., è, ç, ðvf□fefNfg•”•ª, Ö, ðfAfNfZfX, É, Å, ç, Ä, ðÚ□×, Í□CfRf“f|□[flf“fgŠJ”ŽÒ, ð

OOP, ðŽQ□Æ, µ, Ä, ,¾,³, ç□B

Apply font\font14719

ŽQÆ

“K—p

TFontDialog

é¾

procedure Apply(Wnd: HWND); **dynamic**;

à-¾

Apply font\font, ífont-selectionfont_CfAfOf{fontNfX, í OnApply fCxf“fg—p, ívfefNfgf\font-
font-
selectionfont_CfAfOf{fontNfX, íCf+U[, af_CfAfOf{fontNfX, ÅmApplyfont{f^f“, ðfNfŠfont
, µ, ½, ±, Æ, ðŽ, ·fontZ[W, ð Windows , ©, çŽó, Žæ, é, Æ Apply , ðÆÄ, Ño, µ, Ü, ·BWnd fpf
%font[f^, ífont-
selectionfont_CfAfOf{fontNfX, íefEfBf“fhfE, íEfBf“fhfEfnf“fhf<, ðŽw’è, µ, Ü, ·B
fftfHf<fg, Å, íCApplý , í OnApply fCxf“fg, ÉfA^fbf` , ³, è, ½fCxf“fgfnf“fhf%, ðÆÄ, Ño, ·^ÈŠO, í
%½, à, µ, Ü, ¹, ñBApplý , ðf[fo[f%fcfh, ·, è, íCÆp³, ³, è, ½fCxf“fgfnf“fhf
%ÆÄ, Ño, µ, Ì, Ü, ©, É, à%ž“š, ª, Å, «, Ü, ·B

ŽQÆ14720

OnApply_fCxf“fg

AutoButtonSet f\fbfh14721

ŽQÆ

“K—p

TMediaPlayer

é¾

procedure AutoButtonSet (Btn: TMPBtnType); **virtual**;

à-¾

AutoButtonSet f\fbfh,íCAutoEnable fvfpfefB,ª True ,ÉÝ'è,³,ê,Ä,ç
,éê±,ÉffffBfAfvfCE[f,,,lf{f^f",đŽ©"®"l,ÉŽg—p%oÂ"\,Ü,½,ÍŽg—p•s%oÂ,É,µ,Ü,·BBtn fpf
%of[f^,íft[fU[,ª%Ÿ,µ,½ffffBfAfvfCE[f,,,lf{f^f",đŽ!,µ,Ü,·B

ŽQÆ14722

AutoEnable fvfpfefB

CanChange ffbfh14723

ŽQÆ

“K—p

TabSet

é¾

function CanChange(NewIndex: Integer): Boolean; **virtual**;

à-¾

CanChange ffbfh, í^fufZfbfgfRf“f|f“fg, ì OnChange fCxf“fg—p, ìvfNfgf\fbfh, Å, ·B

ŽQÆ14724

OnChange_fCxf“fg

CanModify ffbfh14725

“K—p

TCustomRadioGroup

é¾

function CanModify: Boolean; virtual;

à¾

CanModify ffbfh,íft[fU[,áf%WfIf{f^f“,ìOf<[fv“à,ì•Ê,ì€-
Ú,đ'ì'đ,Á,«,é,©,đĈ^,ß,Û,·Bft[fU[,áf%WfIf{f^f“,ìOf<[fv“à,ìf
%WfIf{f^f“,đNfŠfbfN,·,é,©,»,è,É'Š“-,·,éL[,đ%Ÿ,·,ÆC,»,è,³<-³,è,Ä,ç,é,©,³ CanModify
,Åf`fFfbfN,³,è,Û,·B

CanModify ,íffftfHf<fg,Á,í True ,đ•Ô,μ,Û,·,³Cft[fU[,É,æ,é•ïX,đ<-%oÂ,μ,È,çê±,É,Í False
,đ•Ô,·,æ,π,Éf[f%ofCfh,·,é,±,Æ,à,Á,«,Û,·B

Change f\fbfh14726

ŽQÆ

“K—p

TCustomEdit, TCustomComboBox, TScrollBar

é¾

procedure Change; **dynamic**;

à-¾

•ÒWf{fbfNfXfRf“f{fbfNfXfXfNf[f<fo[,ì Change f\fbfh,í OnChange fCxf“fg—
p,ìvf\fefNfgf\fbfh,Å,·BfftfHf<fg,Å,íCChange f\fbfh,í,Ç,ìRf“f|f“fg,Å,à OnChange
fCxf“fg,ÉfA^fbf` ,³,ê,½fCxf“fgfnf“fhf%o,ðEÄ,Ño,·^ÈŠO,í%½,à,μ,Û,¹,ñBChange
,ðf[f%ofCfh,·,ê,îC,±,ê,ç,ìRf“f|f“fg,Ö,ì•ïX,É’î,μ,Ä,Û,©,É,à%ž“š,ª,Å,<,Û,·B

Change ,Ö,ìEÄ,Ño,μ,ð”¶,³,¹,éó<μ,É,Â,ç,Ä,ìÚ×,í OnChange fCxf“fg,ìà-
¾,ðŽQÆ,μ,Ä,,¾,³,çB

ŽQÆ14727

OnChange_fCxf“fg

CheckCursor f\fbfh14728

ŽQÆ

“K—p

TCustomMaskEdit

é¾

procedure CheckCursor;

à¾

CheckCursor f\fbfh,íCf}fXfN•ÒWf{fbfNfX,ífefLfXfg,^a•İX,³ê,½Æă,ÉC‘í’ð€-
Ú,Ü,½,ífefLfXfgf][f<,ðĂÝ’è,μ,Ü,·B

ŽQÆ14729

SetCursor ffbfh

GetSel ffbfh

SetSel ffbfh

Click f\fbfh14730

ŽQÆ

“K—p

TMediaPlayer

é¾

procedure Click(Button: TMPBtnType; **var** DoDefault: Boolean); **dynamic**;

à-¾

f\BfAvfCE[f,,fRf“f[fif“fg,ì Click f\fbfh,í OnClick fCxf“fg—p,lfvf\fefNfgf\fbfh,Å,·BfftfHf<fg,Å,íCClick ,lf\BfAvfCE[f,,ì OnClick ,ÉfAf^fbf` ,³,ê,½fCxf“fgfnf“fhf% ,ðCEÄ,Ño,·^ÈŠO,í%½,à,μ,Ü,¹,ñB%°^Ê,ìCE^,Å,í Click ,ðf[fof[f %ofCfh,μCfNfŠfbfN,É'í,·,é^—,ðjfxf^f}fCY,Å,«,Ü,·B

ŽQÆ14731

OnClick fCxf“fg

PostClick f\fbfh

ComboWndProc f\fbfh14732

ŽQÆ

“K—p

TCustomComboBox

é¾

procedure ComboWndProc (**var** Message: TMessage; ComboWnd: HWND; ComboProc: Pointer); **virtual**;

à-¾

ComboWndProc f\fbfh,lfRf“f{f{fbfNfXfRf“f|f|f“fg,lfEfBf“fhfEfVfV[fWfff\fbfh,Å,·BfRf“f{f{fbfNfXfRf“f|f|f“fg,ÍŽÀÛ,É,Í 2 ,Â,lfRf“fgf[f<,Å,·B1 ,Â,í'í'ð,³,ê,½€-Ú,ª“ü,é•ÒWf{fbfNfX,ÅC,à,π 1 ,Â,í€-Ú,lfŠfXfg,Å,·B,Ç,¿,ç,lfRf“fgf[f<,lfEfBf“fhfE,àfRf“f{f{fbfNfX‘S‘ì,É %œ<¿,·éf\fbfZ[fW,ðŽó,~Žæ,é,±,Æ,ª, ,é,ì,ÅCComboWndProc f\fbfh,É<π'É,lf\fbfZ[fW,Ö,ì%ž“š,ð,ç,,Â,©<π—L,μ,Å,ç,Û,·B

ŽQÆ14733

WndProc ffbfh

Collapse f[]\fbfh14734

ŽQÆ

“K—p

TCustomOutline

é¾

procedure Collapse(Index: LongInt); **dynamic**;

à-¾

Collapse f[]\fbfh,ÍfAfEfgf%oCf“fRf“f|[]f[]fg,ì OnCollapse fCxf“fg—p,Ívf[]fefNfgf[]\fbfh,Å,·BfAfEfgf%oCf“fm[]fhfIfufWfFfNfg,ÍC“WSJ,μ,½€-

Ú,ðÜ,è,½,½,b,Æ,«,ÉCSÖ~A,·,éfAfEfgf%oCf“,ì Collapse f[]\fbfh,ðCEÄ,Ño,μ,Ü,·B

ffftfHf<fg,Å,ÍCCollapse f[]\fbfh,Í OnCollapse fCxf“fg,ÉfAf^fbf`,³,è,½fCxf“fgfnf“fhf%o,ðCEÄ,Ño,·^ÈŠO,Í%½,à,μ,Ü,¹,ñBCollapse ,ðf[]fo[]f%oCfh,μCÜ,è,½,½,YfCxf“fg,É'í,·,é%ž“š,ð•iX,·,é,±,Æ,à,Å,«,Ü,·B

ŽQÆ14735

OnCollapse fCxf“fg

Expand f\fbfh

ConvertFields f\fbfh14736

ŽQÆ

“K—p

TFindDialog

à-¾

ConvertFields f\fbfh,ímfndnf_fCfAfOf{fbfNfXfRf“f|flf“fg,ìŠi”[ff[f^,ð Windows
,ìfRf,f“f_fCfAfOf{fbfNfX—p,ìff[f^‘ç,É•İŠ,μ,Ü,·BŽå,É Object Pascal ,ì•¶Žš—
ñ,afkf<,Ål,í,é•¶Žš—ñ,É•İŠ,³,ê,Ü,·B

ConvertFields ,íCmfndnf_fCfAfOf{fbfNfX,ì Execute f\fbfh,É,æ,Á,ÄËÏð,ìŽÀs’O,ÉÄ,Ño,³,ê,Ü,·BËÏð,É—Æ÷,·,é,ÆCmfndnf_fCfAfOf{fbfNfXfRf“f|flf“fg,ì ConvertFieldsForCallback f\fbfh,ðÄ,Ño,μ,ÄËÏð,μ,½ff[f^,ðÆ³,ìÆ`Ž®,É-β,μ,Ü,·B

ŽQÆ14737

ConvertFieldsForCallback_f\fbfh

ConvertFieldsForCallback f\fbfh14738

ŽQÆ

“K—p

TFindDialog

é¾

procedure ConvertFieldsForCallback; **virtual**;

à-¾

ConvertFieldsForCallback f\fbfh, í Windows , ì mfind nfRf, f“f_CfAfOf{fbfNfX—
p, ìff[f^[\`ç, ð mfind nf_fCfAfOf{fbfNfXfRf“f[f]fg—
p, ìÆ`Ž®, É•İŠ, µ, Ü, ·BŽã, Éfkf<, Ål, í, é•¶Žš—ñ, ð Object Pascal , ì•¶Žš—ñ, É•İŠ, ³, è, Ü, ·B

ConvertFieldsForCallback , ìC mfind nf_fCfAfOf{fbfNfXfRf“f]
[f]fg, ðÆÿð, É¬Æ÷, , é, ÆÆÄ, Ño, ³, è, Ü, ·B mfind nf_fCfAfOf{fbfNfXfRf“f]
[f]fg, ìÆÿð, ðŠŽn, , é‘O, É ConvertFields f\fbfh, ðÆÄ, Ño, µ, Äff[f^, ð Windows
Æ`Ž®, É•İŠ, µ, Ü, ·B

ŽQÆ14739

ConvertFields ffbfh

Create f\fbfh14740

“K—p

TObject (. , x , Ä , ì | f u f W f F f N f g) □ C T C o m p o n e n t , T F i l e r , T C o m p o n e n t E d i t o r

□ à - ¾

Create f\fbfh, ì | f u f W f F f N f g , Ü , ½ , Í R f “ f | □ [f l f “ f g , δ □ ì □ ¬ , μ , Ü , · □ B

· , x , Ä , ì | f u f W f F f N f g , ì Create f\fbfh

f R f “ f | □ [f l f “ f g , ì Create f\fbfh

Filer f | f u f W f F f N f g , ì Create f\fbfh

FileStream f | f u f W f F f N f g , ì Create f\fbfh

HandleStream f | f u f W f F f N f g , ì Create f\fbfh

Create method for resource-stream objects

ComponentEditor , ì Create f\fbfh

DirectoryExists ŠÖ"14741

ŽQÆ

ftfjfbfg

FileCtrl

é¾

function DirectoryExists (Name: **string**): Boolean;

à-¾

DirectoryExists ŠÖ", í Name fpf%of[]f^, É"n,³,ê,½•¶Žš—ň,ªŠù'¶,ìffBfCEfNfgfŠ,đŽ|,·,È,ç,Î
True ,đ•Ô,µ,Û,·B,»ê^ÈŠO,ìê¶,Í False ,đ•Ô,µ,Û,·B

ŽQÆ14742
FileExists ŠÖ”

DispatchCommand f\fbfh14743

ŽQÆ

“K—p

TMenu

é¾

function DispatchCommand(ACommand: Word): Boolean;

à-¾

DispatchCommand f\fbfh,í ACommand ,É“n,³,ê,^{1/2}fRf}f“fh,ÉŠÖ~A•t,¯,ç,ê,Ä,ç,é€-
Ú,ðf\ff...[,Å’T,μ,Û,·B€-Ú,^a, ,ê,îCDDispatchCommand ,í,»,ì€-Ú,ì Click f\fbfh,
ðCEÄ,Ño,μ True ,ð•Ô,μ,Û,·B€-Ú,^a,È,¯,ê,î False ,ð•Ô,μ,Û,·B

ŽQÆ14744

DispatchPopup.f\fbfh

DispatchPopup f\fbfh14745

ŽQÆ

“K—p

TMenu

é¾

function DispatchPopup(AHandle: HMENU): Boolean;

à¾

DispatchPopup f\fbfh,Í AHandle ,É“n,³,ê,½f\ffj...[fnf“fhf<,ðŽ,Â€-Ú,ðf\ffj...
[,Å’T,μ,Û,·B€-Ú,ª, ,ê,îCDDispatchPopup ,Í,»,ì€-Ú,ì Click f\fbfh,ðÄ,Ño,μ True
,ð•Ô,μ,Û,·B€-Ú,ª,È,¯,ê,î False ,ð•Ô,μ,Û,·B

ŽQÆ14746

DispatchCommand ffbfh

DoNotify f\fbfh14747

ŽQÆ

“K—p

TMediaPlayer

é¾

procedure DoNotify; dynamic;

à-¾

DoNotify f\fbfh, íffBfAvfCE[f,,fRf“f|[]f“fg, ò OnNotify fCxf“fg—p, ìfvf[]fefNfgf[]\fbfh, Å, ·BDoNotify , íffBfAvfCE[f,,, ì MMNotify f\fbfh, É, æ, è[]CMMNotify , {f^f“ , ðŽg—p %oÅ“\, Ü, ½, ÍŽg—p•s%oÅ, É•ïX, µ[]C’É’mf[]fbfZ[]fWfpf%of[]f^ , Å“n, ³, è, ½‘l, É[] , Á, Ä“à•”ftf %ofO, ðÝ’è, µ, ½CEã, ÉCEÄ, Ñ[]o, ³, è, Ü, ·[]B

ffftfHf<fg, Å, íCDoNotify , íffBfAvfCE[f,,, ì OnNotify fCxf“fg, ÉfAf^fbf` , ³, è, ½fCxf“fgfnf“fhf %o, ðCEÄ, Ñ[]o, ^ÈŠO, í%o½, à, µ, Ü, ¹, ñ[]BDoNotify , ðf[]fo[]f %ofCfh, ·, è, î[]CEp[]³, ³, è, ½fCxf“fgfnf“fhf%oCEÄ, Ñ[]o, µ, ì, Ü, ©, É, à%ož“š, ª, Å, «, Ü, ·[]B

ŽQÆ14748

MMNotify_f\fbfh

OnNotify_fCxf“fg

DrawButtonFace ŠÖ"14749

ŽQÆ

ftfjfbfg

Buttons

é¾

```
function DrawButtonFace(Canvas: TCanvas; const Client: TRect; BevelWidth: Integer; Style: TButtonStyle; IsRounded, IsDown, IsFocused: Boolean): TRect;
```

à¾

DrawButtonFace ŠÖ", í Client

, Åžw'è, ¾, ½ ŽIŠpĚ, Ěfxfxf< CŠpC, », ì'¼f{f^f", ì•W€"I, ÈŠOŠĪ, ð•`%æ, µCfNf %ofCfAf"fgŽIŠpĚ, ìŽc, è, ì•"•ª, ð, », ìĚ<%Ě, Ě, µ, Ä•Ô, µ, Û, ·B

fXfs[fhf{f^f", Ěfrfbfgf}fbfvf{f^f", ìŠî-{"I, Ěf{f^f", ìŠOŠĪ, ðì-., é, ½, ß, ÉC, », è, ¼, è Paint ffbfh, Ě DrawItem ffbfh, Å DrawButtonFace , ðŽg, ç, Û, ·B

ŽQÆ14750

Paint ffbfh

DrawItem f\fbfh14751

ŽQÆ

“K—p

TCustomComboBox, TCustomListBox

é¾

```
procedure DrawItem(Index: Integer; Rect: TRect; State: TOwnerDrawState);  
    virtual;
```

à-¾

DrawItem f\fbfh,Íf\fi[•`%æfŠfXfgf{fbfNfX,âf\fi[•`%æfRf“f{f{fbfNfX,ì OnDrawItem
fCxf“fg—p,ìfvf\fefNfgf\fbfh,Å,·Bf\fi[•`%æfŠfXfgf{fbfNfX,âf\fi[•`
%æfRf“f{f{fbfNfX,ÍCfŠfXfgf{fbfNfX“à,ì•Ž!€-Ú,²,Æ,É DrawItem ,ðCEÄ,Ño,μCIndex fpf
%of\f^,É€-Ú,ìfCf“fffbfNfX,ð“n,μ,Ü,·B

ffftfHf<fg,Å,ÍCf\fi[•`%æfRf“f{f{fbfNfX,Æf\fi[•`%æfŠfXfgf{fbfNfX,ì,Ç,¿,ç,ì DrawItem
f\fbfh,àC,»,ìfRf“f\fi[•`fg,ì OnDrawItem fCxf“fg,ÉfA^fbf`³,ê,½fCxf“fgfnf“fhf%
,ðCEÄ,Ño,μ,Ü,·BfCxf“fgfnf“fhf%³,ê,Ä,ç,É,çê#CDrawItem ,Í Rect
,Å“n,³,ê,½Ž!ŠpCE` ,ð“h,è,Ä,Ö,μCfCf“fffbfNfX,ì€-Ú,ÉŠÖ~A•t,¯,ç,ê,Ä,ç,éfefLfxfg,ð`
%æ,μ,Ü,·BState fpf%of\f^,ìfA^fbf`³,ê,½fCxf“fgfnf“fhf%³,ê,Ü,·,·CffftfHf<fg,Å,Í-
³Ž<³,ê,Ü,·B

ŽQÆ14752

OnDrawItem_fCxf“fg

DrawTab f\fbfh14753

ŽQÆ

“K—p

TabSet

é¾

procedure DrawTab (TabCanvas: TCanvas; R: TRect; Index: Integer;
Selected: Boolean); **virtual**;

à-¾

DrawTab f\fbfh, íl[fi[•`%æf^fufZfbfgfRf“f|lfl“fg, ì OnDrawTab fCxf“fg—
p, ìfvf\fefNfgf\fbfh, Å, ·Bf^fufZfbfg, í Paint f\fbfh, ì^êŠÅ, Æ, µ, Ä·\Ž|,³,ê,é f^fu,²,Æ,É
DrawTab ,ðĀ,Ño,µCf^fu—ì^æ—p, ìLfff“fofX□CfLfff“fofX,É·`%æ,·,éŽlŠpĀ`□C·`
%æ,·,é f^fu, ìCf“ffbfNfX□C·`%æ,·,é f^fu,²,³,ê,Ä,ç,é,©,ðpf%o f□[f^, Å“n, µ, Ü, ·B
ffftfHf<fg, Å, ìCDrawTab f\fbfh, ì OnDrawTab fCxf“fg, ÉfAf^fbf` ,³,ê,½fCxf“fgfnf“fhf%
,ðĀ,Ño,·^ÈŠO, í%½, à, µ, Ü,¹,ñBDrawTab ,ðf□[fo□[f
%ofCfh,·,ê,ìCĀp³,³,ê,½fCxf“fgfnf“fhf%Ā,Ño,µ,ì,Ü,©,É,à%Ž“š,ª,Å,«,Ü,·B

ŽQÆ14754

OnDrawTab fCxf“fg

DropDown f\fbfh14755

ŽQÆ

“K—p

TCustomComboBox

é¾

procedure DropDown; **dynamic**;

à-¾

DropDown f\fbfh, íRf“f{fbfNfX, ì OnDropDown fCxf“fg—p, ìfvf[]fefNfgf[]\fbfh, Å, ·[]BfRf“f{fbfNfX, í Windows , ©, çŠXfg, ðhf[]fbfv, ·, é•K—v,^a, , é, Æ, ç, æf[]fbfZ[]fW (CBN_DROPDOWN) , ðŽó, ~Žæ, é, Æ DropDown , ðÆÄ, Ñ[]o, µ, Ü, ·[]B

ffftfHf<fg, Å, í[]CDropDown , íRf“f{fbfNfX, ì OnDropDown fCxf“fg, ÉfA^fbf` ,³, è, ½fCxf“fgfnf“fhf%o, ðÆÄ, Ñ[]o, ·^ÈŠO, í%½, à, µ, Ü, ¹, ñ[]BDropDown , ðf[]fo[]f%ofCfh, ·, é, í[]CÆp[]³,³, è, ½fCxf“fgfnf“fhf%oÆÄ, Ñ[]o, µ, ì, Ü, ©, É, à%ž“š,^a, Å, «, Ü, ·[]B

ŽQÆ14756

OnDropDown_fCxf“fg

EditCanModify f\fbfh14757

ŽQÆ

“K—p

TCustomMaskEdit

é¾

function EditCanModify: Boolean; **virtual**;

à-¾

```
EditCanModify f\fbfh,Í}fXfN•ÒWf{fbfNfX,ª•ÒW%oÅ“\
,È´Ó,Å, ,é,©,ðĈ^,ß,Ü,·BEditCanModify ,Í KeyDown ,È,Ç,ì,ç,,Å,©,ìf\fbfh,Å Del ,â BS
,È,Ç,ìfL[“ü—Í,ªŽÀ[s,³,ê,é,x,«,©,ì”»’è,ÉŽg,í,ê,Ü,·B
ffftfHf<fg,Å,ÍCEditCanModify ,Í True ,ð•Ô,µ,Ü,·Bf}fXfN•ÒWf{fbfNfX,ð“Ç,Ýo,µê—
p,É,µ,È,,Ä,Í,È,ç,È,çó<µ,Å,Í EditCanModify ,ðf[f%ofCfh,µ,Ä False ,ð•Ô,·,±,Æ,à,Å,«,Ü,·B
```


ŽQÆ14758

KeyDown_fbfh

Expand f\fbfh14759

ŽQÆ

“K—p

TCustomOutline

é¾

procedure Expand(Index: LongInt); **dynamic**;

à-¾

Expand f\fbfh,ÍAfEfgf%oCf“fRf“f|[]f“fg,ì OnExpand fCxf“fg—p,ìvf[]fefNfgf\fbfh,Å,·BfAfEfgf%oCf“fm[]fhfIfufWfFfNfg,ÍCÜ,è,½,½,ñ,¾€-Ú,ð•\

Ž!,·,é,Æ,«,ÉCSÖ~A,·,éfAfEfgf%oCf“,ì Expand f\fbfh,ðÆÄ,Ño,μ,Ü,·B

ffftfHf<fg,Å,ÍCEExpand f\fbfh,Í OnExpand fCxf“fg,ÉfA^fbf` ,³,é,½fCxf“fgfnf“fhf%o,ðÆÄ,Ño,·^ÈŠO,Í%½,à,μ,Ü,¹,ñBExpand ,ðf[]fo[]f%oCfh,·,è,îC“WŠJfCxf“fg,É‘Î,·,é%ož“š,ð•İX,·,é,±,Æ,à,Å,«,Ü,·B

ŽQÆ14760

OnExpand fCxf“fg

Collapse f\fbfh

Find f\bfbfh14761

ŽQÆ

“K—p

TFindDialog

é¾

procedure Find; dynamic;

à-¾

Find f\bfbfh,ímsearchnf_fCfAfOf{fbfNfX,ì OnFind fCxf“fg—p,lfvffefNfgf\bfbfh,Á,·Bmfíndn,Æmreplaceñ,İšef_fCfAfOf{fbfNfX,íŸõ,Á‘íÛ,lfefLfxfg,ð©,Â,¯,é,Æ Find ,ðÄ,Ño,μ,Û,·B

ffftfHf<fg,Á,íCFind ,í OnFind fCxf“fg,ÉAf^fbf` ,³,è,½fCxf“fgfnf“fhf%o,ðÄ,Ño,^ÈŠO,í%½,à,μ,Û,¹,ñBFind ,đl[fo[f%ofCfh,·,é,îCCEp³,³,è,½fCxf“fgfnf“fhf%oÄ,Ño,μ,ì,Û,©,É,à%ž“š,ª,Á,«,Û,·B

ŽQÆ14762

OnFind_fCxf“fg

Replace_f\fbfh

FormatMaskText ŠÖ"14763

ftfjfbfg

Mask

é¾

```
function FormatMaskText(const EditMask: string; const Value: string):  
    string;
```

à-¾

FormatMaskText ŠÖ",í EditMask fpf%ff[f^,É“n,³,ê,½•ÒWf}fXfN,ì•ŕŽš—ň,đ Value fpf
%of[f^,É“n,³,ê,½•ŕŽš—ň,É“K—p,μCCE<%oÊ,ìCE`Ž@•ŕŽš—ň,đ•Ô,μ,Û,·B

Frame3D Žè'±,«14764

ŽQÆ

ftfjfbfg

ExtCtrls

é¾

```
procedure Frame3D(Canvas: TCanvas; var Rect: TRect; TopColor, BottomColor:
    TColor;
    Width: Integer);
```

à¾

```
Frame3D Žè'±,«,íCRect ,Å“n,¾,¾ŽIŠpCE` ,ì't,ì Canvas ,É“n,¾,¾fLfff“fofXflfufWfFfNfg,É 3
ŽŸCE³•Ž!,ì%oe,ð•t,¾,¾ŽIŠpCE` ,ð•`%œ,μ,Û,·B,±,ì,Æ,« TopColor
,ÅŽw'è,¾,¾,¾F,¾,¾,Æ,ì'α-É,ÉCBottomColor ,ÅŽw'è,¾,¾,¾F,¾,¾E,Æ%º,ì'α-
É,ÉŽg,í,è,Û,·BWidth fpf%of[]f^ ,íŽIŠpCE` ,ì%oe,ìü,ì¾,¾,¾Žw'è,μ,Û,·BFrame3D ,í
%oe,ð•t,¾,¾ŽIŠpCE` ,ì“à•”,¾,¾,¾ŠÛ,ρ,æ,α,É Rect ,ìŽIŠpCE` ,ð'²@,μ,Ä,©,ç•Ô,μ,Û,·B
Frame3D ,í Panel fRf“f[]f[]fg,Åfxfxf<,ð•`%œ,·,é,¾,β,ÉŽg,í,è,Û,·B
```

ŽQÆ14765

DrawButtonFace ŠÖ”

GetFirstEditChar f\fbfh14766

ŽQÆ

“K—p

TCustomMaskEdit

é¾

function GetFirstEditChar: Integer;

à¾

GetFirstEditChar f\fbfh, íCf}fXfN•ÒWfRf“fgf[f<, ì EditText , ì•Źš—ñ, ìÁ%, ì•ÒW
%Á“\•Źš, ì^Ê'u, ð•Ô, µ, Ü, · (f}fXfN, É, æ, éÉ`Ž®Y'è, Å'Ç%Á,³, ê, é•Źš, ðœ, «, Ü, ·)B

ŽQÆ14767

GetLastEditChar_f\fbfh

GetNextEditChar_f\fbfh

GetPriorEditChar_f\fbfh

GetLastEditChar f\fbfh14768

ŽQÆ

“K—p

TCustomMaskEdit

é¾

function GetLastEditChar: Integer;

à¾

GetLastEditChar f\fbfh,íCf}fXfN•ÒWfRf“fgf[f<,ì EditText ,ì•Źš—ñ,ìÅÆã,ì•ÒW
%oÂ“\•Źš,ì^Ê'u,đ•Ô,μ,Ü,· (f}fXfN,É,æ,éÆ`Ž®Ÿ'è,Å'Ç%oÁ,³,ê,é•Źš,đœ,«,Ü,·)B

ŽQÆ14769

GetFirstEditChar_f\fbfh

GetNextEditChar_f\fbfh

GetPriorEditChar_f\fbfh

GetMaxChars f\fbfh14770

ŽQÆ

“K—p

TCustomMaskEdit

é¾

function GetMaxChars: Integer;

à-¾

GetMaxChars ŠÖ“,íCf+[fU[,af}fXfN•ÒWf{fbfNfX,É“ü—

í,Å,«,é•ŕŽš,ìÁ‘â”,đ•Ô,μ,Û,·BIsMasked fvf\fpfefB,ª True ,ìê+CGetMaxChars ,í

MaxLength fvf\fpfefB,ìl,đ•Ô,μ,Û,·B,»ê^ÈŠO,ìê+íEp³,³,ê,½ GetTextLen f\

fbfh,ìl,đ•Ô,μ,Û,·B

ŽQÆ14771

MaxLength fvf\pfefB

GetTextLen f\bfh

GetNextEditChar f\fbfh14772

ŽQÆ

“K—p

TCustomMaskEdit

é¾

function GetNextEditChar(Offset: Integer): Integer;

à-¾

GetNextEditChar f\fbfh,íCf}fXfN•ÒWfRf“fgf[f<,ì EditText ,ì•Žš—ñ,ì Offset
,ì^É'u,É, ,é•Žš^È~ ,ìÅ% ,ì•ÒW%Å“\•Žš,ì^É'u,đ•Ô,μ,Ü,· (f}fXfN,É,æ,éE`Ž®Ý`è,ÅÇ
%Á,³,ê,é•Žš,đœ,«,Ü,·)B

ŽQÆ14773

GetFirstEditChar ffbfh

GetLastEditChar ffbfh

GetPriorEditChar ffbfh

GetNodeDisplayWidth f\fbfh14774

ŽQÆ

“K—p

TCustomOutline

é¾

function GetNodeDisplayWidth(Node: TOutlineNode): Integer;

à-¾

GetDisplayNodeWidth f\fbfh,íCŽw'è,³,ê,½fm[fh,ì\Ž!,É•K—
v,È•,ðfsfNfZf<,Å•Ô,μ,Û,·B,±,ì•,É,íCE»Ÿ,ìtfHf“fg,Å,ì€-Ú,ìfefLjXfgCfAfEfgf
%ofCf““à,Å,ì€-Ú,ìfCEfxf<,É'í,·,éfCf“fff“fgCü,È,Ç,ìfOf%oftfBfbfN—p,ìóŠÔC,»,μ,ÄfAfEfgf
%ofCf“,ìXf^fCf<,É,æ,Á,Ä,í³•„,†,Æ•%•„,†,ŠÜ,Û,ê,Û,·B

OnDrawItem fCxf“fg,Éfnf“fhf%o,²fAf^fbf` ,³,ê,½fì[fì[•`%oæfAfEfgf
%ofCf“,ìê†CGetNodeDisplayWidth ,í,·,x,Ä,ìfm[fh,É,Â,ç,Ä 0 ,ð•Ô,μ,Û,·B

ŽQÆ14775

setDisplayWidth_f\fbfh

GetPriorEditChar f\fbfh14776

ŽQÆ

“K—p

TCustomMaskEdit

é¾

function GetPriorEditChar(Offset: Integer): Integer;

à¾

GetPriorEditChar f\fbfh,íCf}fXfN•ÒWfRf“fgf[f<,ì EditText,ì•Źš—ñ,ì Offset
,ì^É'u,É, ,é•Źš^È'O,ìÅ%ì•ÒW%Å“\•Źš,ì^É'u,ð•Ô,μ,Û,· (f}fXfN,É,æ,éE`Ž®ÿ'è,Å'Ç
%Á,³,ê,é•Źš,ðœ,«,Û,·)B

ŽQÆ14777

GetFirstEditChar ffbfh

GetLastEditChar ffbfh

GetNextEditChar ffbfh

GetSel f\bfbfh14778

ŽQÆ

“K—p

TCustomMaskEdit

é¾

procedure GetSel(**var** SelStart, SelStop: Integer);

à-¾

GetSel f\bfbfh,íC SelStart ,Æ SelStop ,ìSe **var** fpf%of[f^,ðf}fXfN•ÒWf{fbfNfX,ìÅ%o
,ÆÅÆã,ì'ð•¶Žš,ìCf“ffbfNfX,É,»,ê,¼,êÝ'è,μ,Û,·B

ŽQÆ14779

SetSel ffbfh

IsShortCut f\fbfh14780

ŽQÆ

“K—p

TMenu

é¾

function IsShortCut (**var** Message: TWMKey): Boolean;

à-¾

IsShortCut f\fbfh, í Message fpf%o f f^, É“n,³, ê, ½fL[f\fbfZ[fW, ð
%øð“Ç, μCf\fbfZ[fW, ìfL[“ü—í, ðf\fbf... [“à, ì€-Ú, ìVf#[fgf]fbfgfL[, Å, , éê#C, »), ì€-Ú, ì
Click f\fbfh, ðÆÄ, Ño, μ, Ä True , ð•Ô, μ, Ü, ·Bf\fbfZ[fW, É‘î%ž, ·, éVf#[fgf]fbfg, ðf\fbf...
[“à, ì€-Ú, É, È, tê#, í False , ð•Ô, μ, Ü, ·B

ŽQÆ14781

fjif...[€-Ú,ì Click f\fbfh

MaskGetFldSeparator ŠÖ"14782

ŽQÆ

ftfjfbfg

Mask

é¾

function MaskGetFldSeparator(**const** EditMask: **string**): Integer;

à-¾

MaskGetFldSeparator ŠÖ",Í EditMask ,É"n,³,ê,^{1/2}•¶Žš—ň"à,Å€-
Ú<æ∅,è<L†,ðŒ©,Â, C•¶Žš—ň"à,Å,ì,»,'É'u,ð•Ô,μ,Û,·B•¶Žš—ň,É€-
Ú<æ∅,è<L†,³,È,çê¶CMaskGetFldSeparator ,Í -1 ,ð•Ô,μ,Û,·B

ŽQÆ14783

MaskGetMaskBlank ŠÖ”

MaskGetMaskBlank ŠÖ"14784

ŽQÆ

ftfjfbfg

Mask

é¾

```
function MaskGetMaskBlank(const EditMask: string): Char;
```

à-¾

```
MaskGetMaskBlank ŠÖ",í EditMask ,É"n,³,ê,½•Ò[Wf}fXfN•ŕŽš—  
ň"à,ÅfftfHf<fg,ì<ó"•ŕŽš,ðŒ©,Â, C,»,ì^É'u,ð•Ô,μ,Û,·B<ó"•ŕŽš,í•Ò[Wf}fXfN•ŕŽš—  
ň,ì,ÅŒă,ì•ŕŽš,ÅC€-Ú<æ∅,è<L†,ìŽŸ,É,È,,Ä,í,È,è,Û,¹,ňB
```

ŽQÆ14785

MaskGetFldSeparator ŠÖ

MaskGetMaskSave ŠÖ"14786

ŽQÆ

ftfjfbfg

Mask

é¾

function MaskGetMaskSave(**const** EditMask: **string**): Boolean;

à-¾

MaskGetMaskSave ŠÖ",íCEditMask ,É“n,³,ê,½•ÒWf}fXfN•Źš—ñ,lf}fXfN•Ú‘€-Ú,É
MaskNoSave •Źš,ª,È,çêçCTrue ,đ•Ô,µ,Û,·Bf}fXfN•Ú‘€-Ú,É MaskNoSave
•Źš,ª, ,éêç,Í False ,đ•Ô,µ,Û,·B

ŽQÆ14787

EditMask fvfpfefB

MeasureItem ffbfh14788

ŽQAE

“K—p

TCustomComboBox, TCustomListBox

é¾

procedure MeasureItem(Index: Integer; **var** Height: Integer); **virtual**;

à-¾

MeasureItem ffbfh, ífi fi [•`æRf“f{fbfNfXfRf“fif“fg,âfi fi [•`æSfXfgf{fbfNfXfRf“fif“fg, ò OnMeasureItem fCxf“fg—p, ìfvf fefNfgf ffbfh, Å, ·B€-Ú, ð•`æ, , é‘O, ÉC%Å·í, ìfi fi [•`æRf“f{fbfNfX, âfi fi [•`æSfXfgf{fbfNfX, Í·\ Ž!€-Ú, ², Æ, É MeasureItem , ðCEÄ, Ño, µC; -@, ðŽæ^¾, ·, éfC“ffbfNfX, Æ€-Ú, ìfftfHf<fg, ì, ³, ð“n, µ, Ü, ·BHeight , í **var** fpf% f [f^, È, ì, ÅCMeasureItem , Å, íSe€-Ú, ì, ³, ð·K—v, É%ž, ¶, Ä‘CE , Å, «, Ü, ·B

fftfHf<fg, Å, íCMeasureItem ffbfh, í OnMeasureItem fCxf“fg, ÉfA f^fbf` , ³, è, ½fCxf“fgfnf“fhf%o, ðCEÄ, Ño, ·^ÈŠO, í%½, à, µ, Ü, ¹, ñBMeasureItem , ðfi [fo [f% fCfh, ·, è, ìCCEp³, ³, è, ½fCxf“fgfnf“fhf%oCEÄ, Ño, µ, ì, Ü, ©, É, à%ž“š, ^a, Å, «, Ü, ·B

ŽQÆ14789

OnMeasureItem fCxf“fg

DrawItem f\fbfh

MeasureTab f\fbfh14790

ŽQÆ

“K—p

TabSet

é¾

procedure MeasureTab(Index: Integer; **var** TabWidth: Integer); **virtual**;

à-¾

MeasureTab f\fbfh,Íf\fi[·`%æf^fufZfbfgfRf“f\lf“fg,ì OnMeasureTab fCxf“fg—
p,ìfvf\fefNfgf\fbfh,Å,·Bf^fu,ð·`%æ,·,é'O,ÉCf^fufZfbfg,Í\Zì,·,éf^fu,²,Æ,É MeasureTab
,ðCEÄ,Ño,μC□i-@,ðŽæ“¾,·,éf^fu,ìfCf“ffbfNfX,Æf^fu,ìfftfHf<fg,ì·,ð“n,μ,Ü,·BTabWidth
,Í **var** fpf%of□f^,È,ì,ÅCMeasureTab ,Å,Íf^fu,ì·,ð·K—v,É%ž,¶,Ä'CE, ,Å,«,Ü,·B

fftfHf<fg,Å,ÍCMeasureTab f\fbfh,Í OnMeasureTab fCxf“fg,ÉfAf^fbf` ,³,è,½fCxf“fgfnf“fhf
%o,ðCEÄ,Ño,·^ÈŠO,í%½,à,μ,Ü,¹,ñBMeasureTab ,ðf\fo□f

%ofCfh,·,è,ìCCEp³,³,è,½fCxf“fgfnf“fhf%CEÄ,Ño,μ,ì,Ü,©,É,à%ž“š,^a,Å,«,Ü,·B

ŽQÆ14791

OnMeasureTab fCxf“fg

DrawTab f\fbfh

MenuChanged f\fbfh14792

ŽQÆ

“K—p

TMenuItem

é¾

procedure MenuChanged(Rebuild: Boolean); **dynamic**;

à-¾

MenuChanged f\fbfh,Ífjf...[€-ÚfRf“f[fif“fg,ì OnChange fCxf“fg—p,Ífvf[]fefNfgf\fbfh,Å,·BRebuild fpf%of[f^,Í•İX,É,æ,Á,Äfjf...[[]‘ç,İÄ\z,ª•K—v,©,đŽ!,µ,Û,·Bfjf... [€-Ú,ÍC€-Ú,ìÇ%ÁCíœC-¼‘O•İX,È,Çfjf...[,ì\‘ç,â“à—e,ª•İX,³,é,é,Æ MenuChanged ,đÄ,Ño,µ,Û,·B

TMenuItem ,Á`è` ,³,é,é MenuChanged f\fbfh,Í OnChange fCxf“fg,ÉfA^fbf` ,³,é,½fCxf“fgfnf“fhf%o,đÄ,Ño,·`ÈŠO,í%½,à,µ,Û,¹,ñBMenuChanged ,đf[]fo[]f%ofCfh,·,é,ÍCp³,³,é,½fCxf“fgfnf“fhf%oÄ,Ño,µ,ì,Û,©,É,à%ž“š,ª,Á,«,Û,·B

ŽQÆ14793

OnChange_fCxf“fg

Message f\bfbfh14794

ŽQÆ

“K—p

TCommonDialog

é¾

function Message(**var** Msg: TMessage): Boolean; **virtual**; **export**;

à-¾

Message f\bfbfh,ÍRf,f“f_CfAfOf{fbfNfXfRf“f|f|f“fg,ÌfEfBf“fhfEfVfV[fWfff\fbfh,Å,·BTCommonDialog ,ÍCf_fCfAfOf{fbfNfX,Ì HelpContext fvfpfefB,É 0
^ÈŠO,ì‘,ª“ü,Á,Ä,ç,éê#CfwfçfvfŠfNfGfXfgf\bfbfZ[fW,ì^—p,É Message
,ð‘è` ,μ,Û,·Bmfndn,Æmreplacen,ÌŠef_fCfAfOf{fbfNfX,ÍCCEÿö,Æ‘uŠ,ÌfbfZ[fW,à
^—,Å,«,é,æ,¸,É Message ,ðf[f%ofCfh,μ,Û,·B

ŽQÆ14795

Find f\fbfh

Replace f\fbfh

MMNotify f\fbfh14796

ŽQÆ

“K—p

TMediaPlayer

é¾

procedure MMNotify(**var** Message: TMessage); **message** MM_MCINOTIFY;

à-¾

MMNotify f\fbfh,íf}f<f`f\fffBfAfRf}f“fh,Š®—¹,μ,½,Æ,ç,κ Windows
,©,ç,ì'É'mf\fbfZ[fW,đŽó, Žæ,é,ÆCAutoEnable fvfpfefB,^a True
,Å, ,ê,íf{f^f“,ìó'Ô,đXV,μCfRf}f“fh,ì<%%É,đ”½%f,·,é,æ,κ,É“à•”ftf
%ofO,đ'è,μCDoNotify f\fbfh,đCEÄ,Ño,μ,Ä OnNotify fCxf“fg,â,»,ì¼,ì“Á•Ê,È^—,đ”-
¶,³,¹,Ü,·B

ŽQÆ14797

DoNotify ffbfh

Move f\bfbfh14798

ŽQÆ

“K—p

TCustomOutline

□éĒ¾

procedure Move(Destination, Source: LongInt; AttachMode: TAttachMode);

□à-¾

Move f\bfbfh, í Source ,ÉŽw'è,³,ê,½fCf“ffbfNfX,ì^Ê'u,É, ,éfAfEfgf%ofCf“fm□[fh,đ
Destination ,É“n,³,ê,½fCf“ffbfNfX,É^Ú“® ,μ,Ü,·□B^Ú“® ,Å,Í□CAttachMode fpf
%of□□[f^,ì'l,É,æ,Á,Ä□Cfm□[fh,đ'Ç%oÁ□C'} “ü□C,Ü,½,ÍŽq,Æ,μ,Ä'Ç%oÁ,μ,Ü,·□B

ŽQÆ14799

MoveTo ffbfh

NewItem ŠÖ"14800

ŽQÆ

ftjfbfg

Menus

é¾

```
function NewItem(const ACaption: string; AShortCut: TShortCut; AChecked,  
    AEnabled: Boolean;  
    AOnClick: TNotifyEvent; hCtx: Word; const AName: string): TMenuItem;
```

à-¾

NewItem ŠÖ",lfpf%of[f^,ÅŽw'è,³,ê,½'@«,lfjff...[€-ÚfRf"f|
[fj"fg,ðì¬,μCì¬,μ,½fjff...[€-Ú,ð•Ô,μ,Ü,·BNewItem ,ð NewLine, NewMenu,
NewPopupMenu, NewSubMenu ,Æ,ç,«ŠÖ~AŠÖ",Æ^è,ÉŽg,«,±,Æ,É,æ,èCDelphi ,lfjff...
[fffUfCfi,ðŽg,«,©,í,è,ÉC,Ü,½,lfjff...[fffUfCfi,ðŽg,«^ÈŠÖ,ÉCŽÅsŽž,Éfjff...
[\ ' ç ' S ' í ,ðì¬,Å,«,Ü,·B

ŽQÆ14801

NewLine ŠÖ

NewMenu ŠÖ

NewPopupMenu ŠÖ

NewSubMenu ŠÖ

NewLine ŠÖ"14802

ŽQÆ

ftjfbfg

Menus

é¾

function NewLine: TMenuItem;

à-¾

NewLine ŠÖ", í¼, ì€-Ú, Æ, ÌŠÖ, ì•ªŠ,, ü, Æ, µ, ÄŽg, ¤f¸fj... [€-ÚfRf"fl
[f"fg, ðì¬, µCì¬, µ, ½f¸fj... [€-Ú, ð•Ô, µ, Ü, ·BNewLine , ð NewItem, NewMenu,
NewPopupMenu, NewSubMenu , Æ, ç, ¤ŠÖ~AŠÖ" , Æ^ê, ÉŽg, ¤, ±, Æ, É, æ, èC Delphi , lf¸fj...
[fffUfCfi, ðŽg, ¤, ©, í, è, ÉC, Ü, ½, íf¸fj... [fffUfCfi, ðŽg, ¤^ÈŠÖ, ÉCŽÀsŽž, Éf¸fj...
[\ ' ç ' S ' ì, ðì¬, Å, «, Ü, ·B

ŽQÆ14803

NewItem ŠÖ

NewMenu ŠÖ

NewPopupMenu ŠÖ

NewSubMenu ŠÖ

NewMenu ŠÖ"14804

ŽQÆ

ftjfbfg

Menus

é¾

```
function NewMenu (Owner: TComponent; const AName: string;  
    Items: array of TMenuItem): TMainMenu;
```

à-¾

NewMenu ŠÖ", í Owner fpf%of[f^, ÉŽw'è,³,ê,½f[fif[CAName ,ÉŽw'è,³,ê,½-¼'O"C"z—
ñfpf%of[f^, Ì Items ,É"n,³,ê,½f[fjf...[€-Ú,ðŽ,ÂfCf"fjf...[Rf"fj
[fj"fg,ðì¬,μCì¬,μ,½fCf"fjf...[,ð•Ô,μ,Û,·BItems "z—ñ,ð NewItem, NewLine,
NewSubMenu ,lŠeŠÖ",Ö,ìĀÄ,Ňo,μ,Å'z,·,é,±,Æ,É,æ,èCŽÀsŽž,ÉfCf"fjf...
['S'ì,ðì¬,Ā,«,Û,·B

ŽQÆ14805

NewItem ŠÖ

NewLine ŠÖ

NewPopupMenu ŠÖ

NewSubMenu ŠÖ

NewPopupMenu ŠÖ" 14806

ŽQÆ

ftjfbfg

Menus

é¾

```
function NewPopupMenu (Owner: TComponent; const AName: string; Alignment:
    TPopupMenuAlignment;
    AutoPopup: Boolean; Items: array of TMenuItem): TPopupMenu;
```

à¾

NewPopupMenu ŠÖ", í Owner fpf%of[f^, ÅŽw'è,³,ê,½f! [fi [CAName ,É"n,³,ê,½-¼'O C"z—ñfpf%of[f^, Ì Items ,É"n,³,ê,½f [ff... [€-Ú, ðŽ, Âf|fbfvfAfbfvf [ff... [fRf"fl [f|f"fg, ði¬, μCì¬, μ,½f|fbfvfAfbfvf [ff... [ð•Ô, μ, Û, ·B Items "z—ñ, ð NewItem, NewLine, NewSubMenu , ÌŠeŠÖ", Ò, ÌCEÄ, Ño, μ, Å'z, ·, é, ±, Æ, É, æ, è CŽÀ sŽž, Éf|fbfvfAfbfvf [ff... ['S'ì, ði¬, Å, «, Û, ·B

ŽQÆ14807

NewItem ŠÖ

NewLine ŠÖ

NewMenu ŠÖ

NewSubMenu ŠÖ

NewSubMenu ŠÖ"14808

ŽQÆ

ftjfbfg

Menus

é¾

```
function NewSubMenu(const ACaption: string; hCtx: Word; const AName:
    string;
    Items: array of TMenuItem): TMenuItem;
```

à¾

NewSubMenu ŠÖ", íC"n,³,ê,½fjpf%of[]f^,ÅŽw'è,³,ê,½fLfffvfVf#f"[]Cfwf<fvfRf"fefLfxfg[]C-
¼'O,đŽ,Âf[]fjf...[][-ÚfRf"f[]f[]f"fg,Æ[]C"z—ñfjpf%of[]f^,i Items ,ÅŽw'è,³,ê,½%o^É[-
Ú,đ[]i[]-,μ[]C[]i[]-,μ,½f[]fjf...[][-Ú,đ•Ó,μ,Ü,·BNewSubMenu ,đ NewLine, NewMenu,
NewPopupMenu, NewItem ,Æ,ç,¸ŠÖ~ASÖ",Æ^ê[][],ÉŽg,¸,±,Æ,É,æ,è[]CDelphi ,lf[]fjf...
[]f[]f[]UfCfi,đŽg,¸,©,í,è,É[]C,Ü,½,Íf[]fjf...[]f[]f[]UfCfi,đŽg,¸^ÉŠO,É[]CŽÀ[]sŽž,Éf[]fjf...
[][-\`ç'S'í,đ[]i[]-,Å,«,Ü,·B

ŽQÆ14809

NewItem ŠÖ

NewLine ŠÖ

NewMenu ŠÖ

NewPopupMenu ŠÖ

PostClick f\fbfh14810

ŽQÆ

“K—p

TMediaPlayer

é¾

procedure PostClick(Button: TMPBtnType); **dynamic**;

à-¾

PostClick f\fbfh, OnPostClick fCxf“fg—p, ìvf\fefNfgf\fbfh, Å, ·BfftfHf·fg, Å, íCPostClick, ìffBfAfvfCE[f,, ì OnPostClick fCxf“fg, ÉfAf^fbf` , ³, ê, ½fCxf“fgfnf“fhf%, ðCEÄ, Ño, ·^ÈŠO, í%½, à, μ, Ü, ¹, ñB%º^Ê, ìCE^, Å, í PostClick , ðf[fo[f%ofCfh, μCfNfŠfbfN, Éí, ·, é^—, ðffXf^f}fCfY, Å, «, Ü, ·B

ŽQÆ14811

OnClick_fCxf“fg

Click_f\fbfh

Replace f\fbfh14812

ŽQÆ

“K—p

TReplaceDialog

é¾

procedure Replace; dynamic;

à-¾

Replace f\fbfh,ímfnd-and-replace_nf_CfAfOf{fbfNfX,ì OnReplace fCxf“fg—
p,ìvf\fefNfgf\fbfh,Å,·Bmfnd-and-
replace_nf_CfAfOf{fbfNfX,íEÿð‘îÛ,ìfefLjXfg,ðE©,Â,¯,Ä’uŠ·,·,é,Æ Replace
,ðEÄ,Ño,μ,Û,·B

ffftfHf<fg,Å,íCReplace ,í OnReplace fCxf“fg,ÉfA^fbf` ,³,è,½fCxf“fgfnf“fhf%
,ðEÄ,Ño,·^ÈŠO,í%½,à,μ,Û,¹,ñBReplace ,ðf[f]o[f
%ofCfh,·,è,îCCEp³,³,è,½fCxf“fgfnf“fhf%CEÄ,Ño,μ,ì,Û,©,É,à%ž“š,ª,Å,«,Û,·B

ŽQÆ14813

OnReplace fCxf"fg

Find f\fbfh

Scroll f\fbfh14814

ŽQÆ

“K—p

TScrollBar

é¾

procedure Scroll(ScrollCode: TScrollCode; **var** ScrollPos: Integer); **dynamic**;

à-¾

Scroll f\fbfh, íXfNf[f<fo[fRf“f|[fif“fg, ì OnScroll fCxf“fg—p, ìvf[feNfgf\fbfh, Å, ·BTScrollBar, í Windows, ©, çXfNf[f<fbfZ[fW, ðŽó, ˜Žæ, é, Æ Scroll, ðÆÄ, Ño, µ, Ü, ·B

TScrollBar, É'è` , ³, é, é Scroll f\fbfh, í OnScroll fCxf“fg, ÉfA^fbf` , ³, é, ½fCxf“fgfnf“fhf%o, ðÆÄ, Ño, ·^ÈŠO, í%½, à, µ, Ü, ¹, ñBScroll, ðf|[fo[f%ofCfh, ·, é, îCÆp³, ³, é, ½fCxf“fgfnf“fhf%oÆÄ, Ño, µ, ì, Ù, ©, É, à%ž“š, ª, Å, «, Ü, ·B

ŽQÆ14815

OnScroll.fCxf"fg

SetButtonStyle f\fbfh14816

“K—p

TButton

□é☒¾

procedure SetButtonStyle(ADefault: Boolean); **virtual**;

□à-¾

SetButtonStyle f\fbfh

fbfh,í☒Cf{f^f“fRf“fgf☒☒[f<,ÉftfH☒[ffX,ª, ,é,©,É,æ,Á,Ä☒CffftfHf<fg,ìfXf^fCf<,Æ,» ,ê^ÈŠO,ìfXf^fCf<,Æ,ð☒Ø,è'Ö,!,Ü,☒B

SetCursor f\fbfh14817

ŽQÆ

“K—p

TCustomMaskEdit

é¾

procedure SetCursor (Pos: Integer);

à-¾

SetCursor f\fbfh,íCfLfxfgj\fx,ø Pos fpf

%o[f^,ĂŽw'è,³,ê,½f}fXfN•ÔWf{fbfNfX,ìfLfxfg,ÉÝ'è,μ,Û,·B

ŽQÆ14818

CheckCursor.fbfh

SetDisplayWidth ffbfh14819

ŽQÆ

“K—p

TCustomOutline

é¾

procedure SetDisplayWidth(Value: Integer);

à-¾

SetDisplayWidth ffbfh,íAfejf%ofCf“,ì DefaultColWidth fvfpfefB,ð Value
,É“n,³,ê,½'l,ÉÝ'è,μ,Ü,·BfAfejf%ofCf“,í 1 ,Â,ì—ñ,μ,©·\Ž!,μ,È,ç,ì,ÅC,±,ì,±,Æ,É,æ,èAfejf
%ofCf“,ì·\Ž!,ì·,ªÝ'è,³,ê,Ü,·BfAfejf%ofCf“,íCfAfejf
%ofCf“,ìfXf^fCf<,ÆfXfNf[]f<fo[],ð·ìX,·,é,Æ,«,ÉÅ,à·,ìL,ç€-Ú,É±,í,¹,Ä·\
Ž!·,ðÝ'è,·,é,½,β,É SetDisplayWidth ,ðÄ,Ño,μ,Ü,·B

ŽQÆ14820

DefaultColWidth_fvf_fpfefB

SetLevel f\fbfh14821

ŽQÆ

“K—p

TCustomOutline

é¾

procedure SetLevel(Node: TOutlineNode; CurLevel, NewLevel: Cardinal);

à-¾

SetLevel f\fbfh,ÍŽw'è,³,ê,¹/₂fm[fh,ð (CurLevel ,É“n,³,ê,¹/₂) Ć»Ÿ,lfĈfxf<,©,çV,μ,ċfĈfxf<
(NewLevel ,É“n,³,ê,¹/₂fĈfxf<ĈĈ»Ÿ,lfĈfxf<,æ,èă,Å,à%°^o,Å,à,æ,ċ) ,ÉŠ,,è“-,Ä,Ü,·B

ŽQÆ14822

Level fvfpfefB

SetSel f\fbfh14823

ŽQÆ

“K—p

TCustomMaskEdit

é¾

procedure SetSel(SelStart, SelStop: Integer);

à¾

SetSel f\fbfh,íC}fXfN•òWf{fbfNfX,ì SelStart fC“ffbfNfX,©,ç SelStop
fC“ffbfNfX,ü,â,ì•ŕŽš,ð'í'ð,µ,ü,·B

ŽQÆ14824
GetSel.f\fbfh

Sized f\fbfh14825

ŽQÆ

“K—p

THeader

é¾

procedure Sized(ASection, AWidth: Integer); **dynamic**;

à-¾

Sized f\fbfh,Ífwfbf_[fRf“f|[f|f“fg,ì OnSized fCxf“fg—p,Ívf□fefNfgf□\
fbfh,Á·□Bfwfbf_[fRf“f|[f|f“fg,Íf+□fU□[.²fTfCfY•ï□X,ì‘€□ì,ð□l,ì,é,Æ Sized ,ðCEÄ,Ñ□o,μ,Ü,·□B

THeader ,Á’è<` ,³,ê,é Sized f\fbfh,í□COnSized fCxf“fg,ÉfAf^fbf` ,³,ê,½fCxf“fgfnf“fhf%
,ðCEÄ,Ñ□o,·^ÈŠO,Í%½,à,μ,Ü,¹,ñ□B,½,¾,μ□C□ÝCEvŽž,É,Ífwfbf_[fRf“f|
□[f|f“fg,ðŠÜ,ÞftfH□[f€fffUfCfi,ì Modified f\fbfh,ðCEÄ,Ñ□o,μ,Ü,·□BSized ,ðf□[fo□[f
%ofCfh,·,é,î□CCEp□³,³,ê,½“®□ì,ì,Ü,©,É,à%ž“š,²,Á,«,Ü,·□B

ŽQÆ14826

OnSized_fCxf_fg

Sizing_ffbfh

Sizing f\fbfh14827

à-¾

Sizing ,Æ,ç,ıf\fbfh,Í 2 ,Â, ,è,Û,·B,»,ê,¼,ê,âTfCfY•ïX,ì,½,ß,Éfhf

%ofbfO,³,ê,éfRf“fgf[f<,ð^μ,ç,Û,·,ªCfRf“fgf[f<,É,æ,Á,Ä,»,İpf%of[f^,ª^á,ç,Û,·B

Header ,İ Sizing f\fbfh

CustomGrid ,İ Sizing f\fbfh

Sizing f\fbfh14828

ŽQÆ

“K—p

THeader

é¾

procedure Sizing(ASection, AWidth: Integer); **dynamic**;

à-¾

Sizing f\fbfh,Ífwfbf_[]fRf“f[]f“fg,ì OnSizing fCxf“fg—p,Ìvf[]efNfgf\

fbfh,Å,·Bfwfbf_[]fRf“f

[]f“fg,ÍCf+[]fU[],É,æ,éfwfbf_[],ÌZfNfVf+“ ,ÌTfCfY•ïXŽž,Ìf}fEfX^Ú“ @f\fbfZ[]fW,²,Æ,É

Sizing ,ðÆÄ,Ñ[]o,µ,Û,·B

THeader ,É`è`³,é,é Sizing f\fbfh,Í OnSizing fCxf“fg,ÉfAf^fbf`³,è,½fCxf“fgfnf“fhf%o

,ðÆÄ,Ñ[]o,·^ÈŠO,Í%½,à,µ,Û,¹,ñBSizing ,ðf[]fo[]f%ofCfh,·,é,ÍCCEp³,é,½fCxf“fgfnf“fhf

%oÆÄ,Ñ[]o,µ,Ì,Û,©,É,à%ž“š,^a,Å,«,Û,·B

ŽQÆ14829

OnSizing_fCxf“fg

Sized_f\fbfh

TBevel fRf“f|[]lf“fg (fvf[]fefNfg)14830

ŽQÆ f[]fbfh fRf“f|[]lf“fg

ftfjbfq

ExtCtrls

à-¾

TBevel fRf“f|[]lf“fg, í TGraphicControl, ì P[]f, È%°^ÊfRf“f|[]lf“fg, Å, ·Bfxfxf<fRf“f|[]lf“fg, ì
VCL_f\$ftf@f[]f“fX, Éà-¾, ^a, , éfpuf\$fbfVf...•”, ì, Ù, ©, ÉCTBevel , ífxfxf<, ìŠOŠí, ð•`
%œ, ·, é, ½, ß, É Paint , Æ, ç, xfvf[]fefNfgf[]fbfh, ðf[]fo[]f%ofCfh, μ, Û, ·B

fifbfh14831

Paint

ŽQÆ14832

TGraphicControl fRf" f|[]f|f"fg

TBevel fRf" f|[]f|f"fg VCL fŠtf@fĀf"fx

TButton fRf“f|□[flf“fg (fvf□fefNfg)14833

ŽQ□Æ f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

StdCtrls

□à-¾

TButton fRf“f|□[flf“fg, í TButtonControl, ì¼□Ú, ì%°^ÊfRf“f|□[flf“fg, Å□CWindows, ì•W□€
%°ÿ, μf{f^f“fRf“fgf□□[f<, É'í, ·, éfRf“f|□[flf“fgfCf“f^□[ftjF□[fX, ð'ñ<ÿ, μ, Û, ·□B

TButtonControl, ©, ç, ìĈp□³□€-Ú, Æ TButton, ì VCL fŠftf@fĈf“fX, É□à-¾, ^a, , éfpufŠfbfN□€-
Ú, ÆfpufŠfbfVf...□€-Ú, ì, Û, ©, É□CTButton, í Windows

, ìf{f^f“fRf“fgf□□[f<, Æ, ìŠÖ~A•t, ¯, ð□ì□¬, ·, ·, é, ½, ß, É CreateParams, Æ CreateWnd
, ìŠefvf□fefNfgf□\fbfh, ðfì□[fo□[f%□fCfh, μ□CftfH□[fjX, ^aftfH□[f€ŠÖ, ð^Ú“®, ·, ·, é, ì, É□

, Á, Äf{f^f“ , ðffftfHf<fg, Û, ½, í, » , é^ÈŠÖ, ìfXf^fCf<, É•í□X, ·, é SetButtonStyle, Æ, ç, μfvf□fefNfgf□\fbfh, ð'ñ<ÿ, μ, Û, ·□B

f\fbfh14834

CreateParams

CreateWnd

SetButtonStyle

ŽQÆ14835

TButtonControl_fRf"f|"[f|f"fg

TButton_fRf"f|"[f|f"fg_VCL_fŠtf@fEf"fX

TButtonControl fRf“f|□[flf“fg14836

ŽQ□Æ f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

StdCtrls

□à-¾

TButtonControl fRf“f|□[flf“fg, í TWinControl , ðŠÈ‘f%» , μ, ½, à, ì, Å □ CTButton ,
f`fFfbfNf{fbfNfX□Cf%ofWfjf{f^f“ , ðŠÜ, p, , x, Ä, ìf{f^f“fRf“f|□[flf“fg, ìŠî‘b, Å, · □ BTButtonControl
, ìf{f^f“ , ìf{fH□[ffX, ì• ì□X, ð“Á•Ê, Ê□^ —□, ·, é, ½, ß, Ê WndProc , Æ, ç, ðfvf□fefNfgf□fbfh, ðfi□[fo□lf
%ofCfh, μ, Ü, · □ B

f\fbfh14837

WndProc

ŽQÆ14838

TWinControl fR“f“[f“fg

TCommonDialog fRf“f|[]f|f“fg 14839

ŽQŒ fvf[]pfefB f[]\fbfh fRf“f|[]f|f“fg

ftfjfbfg

Dialogs

à-¾

TCommonDialog fRf“f|[]f|f“fg, í[]C[]mfile-
open[]n[]C[]mfind[]n[]C[]mreplace[]n[]C[]mcolor[]n[]C[]mfont-
selection[]nf_fCfAf[]fOf{fbfNfX, È, Ç, Ì Windows , ÌfRf, f“f_fCfAf[]fOf{fbfNfX, ð•\, ·fRf“f|[]f|f“fg—
p, Ì[]CTComponent , ©, ç“h[]¶, µ, ½'Š[]ÚfRf“f|[]f|f“fg^, Å, ·[]BTCommonDialog
, ©, ç[]V, µ, ç^, ð“h[]¶, ·, é, ±, Æ, Í, Å, «, Ü, ·, ·[]CTCommonDialog , Í Windows
, ÌfRf, f“f_fCfAf[]fOf{fbfNfX, ÌfjfvfZf<%o»¾, ¯, ð^Ó[]}, µ, Ä[]Ý^v, ³, è, Ä, ç, Ü, ·[]B[]V, µ, -
f_fCfAf[]fOf{fbfNfX, ð[]ì[]¬, ·, é[]é[]¶, í[]C·[]É TForm , ©, çŠŽn, µ, Ü, ·[]B

TCommonDialog , ·[]V, µ, 'ñ<ÿ, ·, é 2 , Å, Ìfvf[]pfefB Ctl3D , Æ HelpContext
, Í, ·, x, Å, ÌfRf, f“f_fCfAf[]fOf{fbfNfXfRf“f|[]f|f“fg, ÅpfufŠfbfVf...É[]ÿ'è, ³, è, Ä, ç
, Ü, ·[]BTCommonDialog , í[]CfRf, f“f_fCfAf[]fOf{fbfNfX, ÌfEfbf“fhfEfvf[]fV[]fWff, Æ, µ, ÄŽg, í, è, é
Message , Æ, ç, ¶fvf[]fefNfgf[]fbfh, à[]V, µ, 'ñ<ÿ, µ, Ü, ·[]B

fvf[]pfefB14840

CtI3D

HelpContext

fjfbh14841

Create

Message

ŽQÆ14842

TComponent_fRf“f|“[f|“fg

TCustomCheckBox fRf“f|□[flf“fg14843

ŽQ□Æ fvf□fpfefB f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

StdCtrls

□à-¾

TCustomCheckBox fRf“f|□[flf“fg,í□CTCheckBox,

TDBCheckBox□Cft□[fU□[’è<` ,if`fFfbfNf{fbfNfXfRf“f|

□[flf“fg,đŠÜ,þ□C,·,×,Ä,lf`fFfbfNf{fbfNfXfRf“fgf□□[f<,ìŠ□ÚŠî- {Æ^,Å,·□B

TCustomCheckBox ,Å’è<` ,³,ê,éfvf□fpfefB,í,·,×,Ä Delphi ,ì•W□€f`fFfbfNf{fbfNfXfRf“f|

□[flf“fg,ÅpfufŠfbfVf...,É□Ý’è,³,ê,Ä,ç,Ü,·□BTCustomCheckBox ,í 3 ,Å,lfvf□fefNfgf□\

fbfh,đf|□[fo□[f%ofCfh,·,é,Ù,©□C—LÆø,Èf`fFfbfNf{fbfNfX□ó’ÔŠÔ,ì□Ø,è’Ö,!,đ,·,é Toggle ,Æ,ç

,æfvf□fefNfgf□\fbfh,đ’ñ<ÿ,µ,Ü,·□B

fvf[]pfefB14844

Alignment

AllowGrayed

Checked

State

TabStop

fjfbfh14845

Create

CreateParams

CreateWnd

Toggle

ŽQÆ14846

TButtonControl.fRf“f|[]f|“fg

TCustomComboBox fRf“f|□[flf“fg14847

ŽQ□Æ fvf□fpfefB f□\fbfh fCxf“fg fRf“f|□[flf“fg

ftfjfbfg

StdCtrls

□à-¾

TCustomComboBox fRf“f|□[flf“fg,Í□CTComboBox, TDBComboBox, TDriveComboBox,
,đŠÜ,þ□C,·,×,Ä,lfRf“f{f{fbfNfXfRf“fgf□□[f<,ìŠ□ÛŠî- {CE^,Å,·□B

TCustomComboBox ,Å□éCE¾,¾,ê,½,·,×,Ä,lfvf□fpfefB,Í TComboBox ,ÅpfufŠfbfVf...
,É□Ý'è,¾,ê,Ä,ç,Ü,·□BTWinControl ,©,çCEp□¾,·,éf□\fbfh,ì,Û,©,É□CTCustomComboBox ,í,ç,-
,Å,©,lfvf□fefNfgf□\fbfh,đf□[fo□[f%ofCfh,μ□C4 ,Å,lfvf□fefNfgf□\fbfh,đ□V,μ,-
'ñ<Ÿ,μ,Û,·□BComboWndProc f□\fbfh,lfRf“f{f{fbfNfXfRf“f|
□[flf“fg,lfEfbf“fhfEfvf□fV□[fWff,Æ,μ,ÄŽg,í,ê,Û,·□BChange, DropDown, DrawItem,
MeasureItem ,ìŠef□\fbfh,Í OnChange, OnDropDown, OnDrawItem, OnMeasureItem
,ìŠefCxf“fg,đ,» ,ê,¾,ê”□¶,¾,¹,Û,·□B

fvf[]pfefB14848

DropDownCount

ItemHeight

MaxLength

ParentColor

Sorted

Style

f\fbfh14849

Change

ComboWndProc

CreateParams

CreateWnd

DestroyWnd

DrawItem

DropDown

MeasureItem

WndProc

fCxf“fg14850

OnChange

OnDrawItem

OnMeasureItem

OnDropDown

ŽQÆ14851

TWinControl fR“f[]f“fg

TCustomEdit fRf“f|[]lf“fg14852

ŽQAE fvf[]pfefB f[]fbfh fCxf“fg fRf“f|[]lf“fg

ftfjfbfg

StdCtrls

à-¾

TCustomEdit fRf“f|[]lf“fg, íCTEdit, TDBEdit, TMaskEdit, TMemo ,đŠÜ, pCDelphi ,ì, ,x, Ä, Ì•ÒWf{fbfNfXfRf“f|[]lf“fg, Æf[]f, fRf“f|[]lf“fg, ÌŠÜŠì- {fRf“f|[]lf“fgCE^, Å, ·B

TCustomEdit , ÅéCE¾, ¾, è, ½, ,x, Ä, Ìvf[]pfefB, Í TEdit , ÅpfufŠfbVf...

, ÉÝ’è, ¾, è, Ä, “, èC•ÒWf{fbfNfXfRf“f|[]lf“fg, Ì VCL fŠtf@fCEf“fX, Éà-¾, ¾, è, Ä, ç ,Ü, ·BTWinControl , ©, çEp¾, ·, éf[]fbfh, Ì, Ù, ©, ÉCTCustomEdit , í 2 , Å, Ìvf[]fefNfgf[]fbfh, ðf[]fo[]f%ofCfh, µCOnChange fCxf“fg, ð”[]¾, ¾, 1, é Change , Æ, ðvf[]fefNfgf[]fbfh, ðV, µ, ’ñ<ÿ, µ, Ü, ·BOnChange , à TCustomEdit , ÅV, µ, ’ñ<ÿ, ¾, è, é, à, Ì, Å, ·B

fvf[]pfefB14853

AutoSelect

AutoSize

BorderStyle

CharCase

HideSelection

MaxLength

OEMConvert

PasswordChar

ParentColor

ReadOnly

f\fbfh14854

Change

CreateParams

CreateWnd

fCxf“fg14855

OnChange

ŽQÆ14856

TWinControl_fR“f[]f[]fg

TCustomGroupBox fRf“f|□[flf“fg 14857

ŽQ□Æ f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

StdCtrls

□à-¾

TCustomGroupBox fRf“f|□[flf“fg, í TGroupBox ,Æ TRadioGroup ,đŠÜ,p□CDelphi
,ì,·,×,Ä,lfOf□[fvf{fbfNfXfRf“fgf□□[f<,ìŠ□ŮŠî- {fRf“f|□[flf“fgĈ^,Å,·□B

TCustomGroupBox ,í TCustomControl ,©,çĈp□³,·,éf□\fbfh,ì,Ů,©,Éfvf□fefNfgf□\fbfh,đ□V,μ,
1 ,Â'ñ<Ÿ,μ,Ů,·□B,±,ì AlignControls f□\fbfh,í□Š—LfRf“fgf□□[f<,ì^É'u□Ÿ'è,đ□^—
□,μ,Ů,·□B,Ů,½□CTCustomGroupBox ,í Paint f□\fbfh,đf□[fo□[f%ofCfh,μ,Ů,·□B

f[]fbfh14858

AlignControls

Create

Paint

ŽQÆ14859

TCustomControl fR“f|□[f|“fg

TCustomLabel fRf“f|[]lf“fg14860

ŽQ□Æ fvf□fpfefB f□\fbfh fRf“f|[]lf“fg

ftfjfbfg

StdCtrls

□à-¾

TCustomLabel fRf“f|[]lf“fg, í TLabel ,Æ TDBText ,đŠÜ, b□CDelphi ,ì, ·, x, Ä, ìf%ofxf<fRf“f|[]lf“fg, ì’Š□ÚŠî- {fRf“f|[]lf“fgCE^, Å, ·□B

TCustomLabel ,Å□V, μ, ’ñ<ÿ,³,ê,éfvf□fpfefB, í, ·, x, Ä TLabel ,ÅfpfufŠfbfVf...
,É□Ý’è,³,ê,Ä,¨,è□CTLabel ,ì VCL fŠtf@fCef“fX,É□à-¾,³,ê,Ä,ç,Ú, ·□BTGraphicControl
, ©, çCEp□³, ·, éf□\fbfh, ì, Ú, ©, É□CTCustomLabel , í 2 ,Å, ìfvf□fefNfgf□\fbfh, ðf□[fo□lf
%ofCfh, μ, Ü, ·□B

fvf[]pfefB14861

Alignment

AutoSize

Canvas

FocusControl

ShowAccelChar

Transparent

WordWrap

fifbfh14862

Create

Notification

Paint

ŽQÆ14863

TGraphicControl.fRf“f|“[f|“fg

TListBox fRf“f|[]f|f“fg 14864

ŽQ□Æ fvf□fpfefB f□\fbfh fCxf“fg fRf“f|[]f|f“fg

ftfjfbfg

StdCtrls

□à-¾

TListBox fRf“f|[]f|f“fg, í TListBox, TDBListBox, TFileListBox
, đŠÜ, p□C, ·, x, Ä, ìšfXfgf{fbfNfXfRf“fgf□□f<, ì’š□Ůšî- {œ^, Ä, ·□B

TListBox , Ä□éœ¾, ¾, ê, é, ·, x, Ä, ìvf□fpfefB, Æ’½,, ìf□\fbfh, í TListBox , ÄfpufšfbfVf...
, É□Ý’è, ¾, ê, Ä, ç, Ü, ·□BTWinControl , ©, çœp□¾, ·, éf□\fbfh, ì, Ů, ©, É□CTCustomListBox , í, ç, -
, Ä, ©, ìvf□fefNfgf□\fbfh, đf□□fo□□f%□fCfh, μ□C2 , Ä, ìvf□fefNfgf□\fbfh, đ□V, μ, ’ñ<Ÿ, μ, Ů, ·□B, »; ì
DrawItem f□\fbfh, Æ MeasureItem f□\fbfh, í OnDrawItem fCxf“fg, Æ OnMeasureItem
fCxf“fg, đ, »; ê, ¾, ê”□¶, ¾, Ů, ·□B

fvf[]pfefB14865

BorderStyle

Canvas

Columns

ExtendedSelect

IntegralHeight

ItemHeight

ItemIndex

Items

MultiSelect

ParentColor

SelCount

Selected

Sorted

Style

TabStop

TopIndex

f\bfbh14866

Clear

Create

CreateParams

CreateWnd

Destroy

DestroyWnd

DragCanceled

DrawItem

ItemAtPos

ItemRect

MeasureItem

WndProc

fCxf“fg14867

OnDrawItem

OnMeasureItem

ŽQÆ14868

TWinControl fR“f“[f“fg

TCustomMaskEdit fRf“f[]lf“fg14869

ŽQAE fvf[]pfefB f[]fbfh fRf“f[]lf“fg

ftfjfbfg

Mask

à-¾

TCustomMaskEdit fRf“f[]lf“fg,í TCustomEdit ,©,ç”h[]l,µ,½’ŠÛfRf“f[]lf“fgCE^,Å[]C,±,ê,ðŽg,α,Æ TMaskEdit ,È,Ç,ì•Ö—~,Èf}fXfN•Ò[]Wf{fbfNfXfRf“f[]lf“fg,³[]ì[]-,Å,«,Ü,·BTCustomMaskEdit ,ÉéCE¾,¾,ê,½fvf[]pfefB,Æf[]fbfh,ì,Ù,Æ,ñ,Ç,í

TMaskEdit ,ÅpfufŠfbfVf...,ÉÝ’è,¾,ê,Ä,“,è[]Cf}fXfN•Ò[]Wf{fbfNfX,ì VCL fŠftf@fCEf“fX,É[]à-¾,¾,ê,Ä,ç,Ü,·[]B

,±,ì,Ù,©[]C%o^Ê,lf}fXfN•Ò[]Wf{fbfNfX,Åf[]fo[]f%ofCfh,Å,«,évf[]fefNfgf[]fbfh,à[]”½,, ,è,Ü,·[]B

fvf[]pfefB14870

EditMask

EditText

IsMasked

MaxLength

Text

fjfbfh14871

CheckCursor

Clear

Create

Destroy

EditCanModify

GetFirstEditChar

GetLastEditChar

GetMaxChars

GetNextEditChar

GetPriorEditChar

GetSel

GetTextLen

KeyDown

KeyPress

KeyUp

SetCursor

SetSel

ValidateEdit

ValidateError

ŽQÆ14872

TCustomEdit_fRf“f|□[f|“fg

TCustomMemo fRf“f|□[flf“fg14873

ŽQ□Æ fvf□fpfefB f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

StdCtrls

□à-¾

TCustomMemo fRf“f|□[flf“fg,í□f,fRf“f|□[flf“fg,ì’Š□ŮŠî- {CE^,Å,·□Bf□f,fRf“f|□[flf“fg,í TMemo ,â TDBMemo ,È,Ç,ì•;□”□s,ì•Ö□Wf{fbfNfX,Å,·□B

TCustomEdit , ©,ç,ìCEp□³□€-Ú,ì,Ù, ©,É□CTCustomMemo ,í TMemo ,ÅfpfufŠfbfVf...
,É□Y’è,³,ê,é,ç,,Å, ©,ìfvf□fpfefB,ð□V,μ,‘ñ<Ÿ,μ,Ü,·□B,±,ê,ç,í,·,×,Ä TMemo fRf“f|□[flf“fg,ì VCL
fŠtf@fCEf“fX,É□à-¾,³,ê,Ä,ç,Ü,·□BTCustomMemo ,í□CCEp□³fvf□fefNfgf□\fbfh,ì,ç,-
,Å, ©,àf|□[fo□[f%ofCfh,μ,Ü,·□B

fvf[]pfefB14874

Alignment

Lines

ScrollBars

WantReturns

WantTabs

WordWrap

f\bfbh14875

Create

CreateParams

CreateWindowHandle

Destroy

KeyPress

ŽQÆ14876

TCustomEdit_fRf“f|□[f|“fg

TCustomOutline fRf“f|□[lf“fg14877

ŽQ□Æ fvf□fpfefB f□\fbfh fCxf“fg fRf“f|□[lf“fg

ftfjfbfg

Outline

□à-¾

TCustomOutline fRf“f|□[lf“fg,í□CTCustomGrid ,©,ç“h□¶,μ,½“ÁŽê,È‘Š□ÚfOfŠfbfhfRf“f|
□[lf“fg,Å,·□BTCustomOutline ,í TOutline ,È,Ç,ì•Ö—~,ÈfOfŠfbfhfRf“f|
□[lf“fg,ìŠí‘b,Å,·□BTCustomOutline ,É‘è<` ,³,ê,éfvf□fpfefB,Æf□\
fbfh,ì,Ù,Æ,ñ,Ç,Ífvf□fefNfg,³,ê,Ä,“ ,è□CŠefAfEfgf%ofCf“fRf“f|□[lf“fg,ÅfpufŠfbfVf...
,É□Ý‘è,·,é,©,í‘í‘đ,Å,«,Ü,·□BTOOutline ,Å,í,» ,ì,Ù,Æ,ñ,Ç,³fpufŠfbfVf...,É□Ý‘è,³,ê,Ä,“ ,è□CTOutline
,ì VCL_fŠftf@fCf“fX,É□à-¾,³,ê,Ä,ç,Ü,·□B

TOutline ,ÅfpufŠfbfVf...,É□Ý‘è,³,ê,Ä,ç,é□€-Ú,ì,Ù,©,É□CTCustomOutline ,íŠefAfEfgf
%ofCf“fRf“f|□[lf“fg,Åf□[fo□[f%ofCfh,μ,È,Ä,í,É,ç,È,çfvf□fefNfgf□\fbfh,đ□”‘½,□éC¾¾,μ,Ü,·□B

fvf[]pfefB14878

Canvas

ItemCount

ItemHeight

Items

ItemSeparator

Lines

Options

OutlineStyle

PictureClosed

PictureLeaf

PictureMinus

PictureOpen

PicturePlus

Row

SelectedItem

Style

fifbfh14879

Add

AddChild

AddChildObject

AddObject

BeginUpdate

Clear

Collapse

Create

DbClick

DefineProperties

Delete

Destroy

DrawCell

EndUpdate

Expand

FullCollapse

FullExpand

GetDataItem

GetItem

GetNodeDisplayWidth

GetTextItem

Insert

InsertObject

KeyDown

KeyPress

Loaded

LoadFromFile

LoadFromStream

Move

SaveToFile

SaveToStream

SetDisplayWidth

SetLevel

SetUpdateState

fCxf“fg14880

OnCollapse

OnExpand

OnDrawItem

ŽQÆ14881

TCustomGrid_fR“f[]lf“fg

TCustomPanel fRf“f|[]lf“fg14882

ŽQ□Æ fvf□fpfefB f□\fbfh fCxf“fg fRf“f|[]lf“fg

ftfjfbfg

ExtCtrls

□à-¾

TCustomPanel fRf“f|[]lf“fg, í□CTPanel ,đŠÜ, p Delphi ,ì, ·, x, Ä, ìfpfj<fRf“f|[]lf“fg, ì’Š□ÚŠî-
{fRf“f|[]lf“fgCE ^, Å, ·□B

TCustomControl , ©, ç, ìCEp□³□€-Ú, ì, Ù, ©, É□CTCustomPanel , í□”½,, ìfvf□fpfefB, ð□V, μ,-
'ñ<ÿ, μ, Ù, ·□B, ±, ê, ç, í, ·, x, Ä TPanel , ÅfpfufŠfbfVf..., É□Ý’è,³, ê, Ä, ”, è□CTPanel , ì VCL
fŠtf@fCEf“fX, É□à-¾,³, ê, Ä, ç, Ù, ·□B, Ù, ½□CTCustomPanel , í’½,, ìCEp□³fvf□fefNfgf□\
fbfh, ðf□[]fo□[]f%ofCfh, μ□COnResize fCxf“fg, ð”□¶,³,¹, éfvf□fefNfgf□\fbfh Resize , ð□V, μ,-
'ñ<ÿ, μ, Ù, ·□BOnResize , à TCustomPanel , Å□V, μ, ’ñ<ÿ,³, ê, é, à, ì, Å, ·□B

fvf[]pfefB14883

Alignment

BevelInner

BevelOuter

BevelWidth

BorderWidth

BorderStyle

Color

Locked

ParentColor

fjfbfh14884

AlignControls

Create

CreateParams

DefineProperties

Paint

Resize

fCxf“fg14885

OnResize

ŽQÆ14886

TCustomControl fR“f|□[f|“fg

TCustomRadioGroup fRf“f[]lf“fg14887

ŽQÆ fvf[]pfefB f[]fbfh fRf“f[]lf“fg

ftfjfbfg

ExtCtrls

à-¾

TCustomRadioGroup fRf“f[]lf“fg, í TCustomGroupBox , ì“ÁŽê, È%°^ÊfRf“f[]lf“fg, Å[]Cf %ofWfjOf<[]fvfRf“f[]lf“fg, ìŠì’bfRf“f[]lf“fgCE^, Å, ·[]B

TCustomRadioGroup , Å[]V, μ, ’ñ<ÿ, ¾, ê, éfvf[]pfefB, í, ·, x, Ä TRadioGroup , ÅfpufŠfbfVf...

, É[]Ý’è, ¾, ê, Ä, ”, è[]CTRadioGroup , ì VCL_fŠtf@fEf“fX, É[]à-¾, ¾, ê, Ä, ç

, Ü, ·[]BTCustomRadioGroup , ÌEp[]³fvf[]fefNfgf[]fbfh, ð, ç, , , Â, ©f[]fo[]f%ofCfh, μ[]CCanModify , Æ, ç, æfvf[]fefNfgf[]fbfh, ð[]V, μ, ’ñ<ÿ, μ, Ü, ·[]B

fvf[]pfefB1488

Columns

ItemIndex

Items

fjfbfh14889

CanModify

Destroy

ReadState

Create

ŽQÆ14890

TCustomGroupBox_fR“f|□[f|“fg

TFindDialog fRf“f|□[flf“fg (fvf□fefNfg)14891

ŽQ□Æ f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

Dialogs

□à-¾

TFindDialog fRf“f|□[flf“fg, í TCommonDialog, ì%°^ÊfRf“f|□[flf“fg, Å, ·□BCEp□³□€-
Ú, ì, Ù, ©, É□CTFindDialog, í Message f□\fbfh, ðf□[fo□[f%°fCfh, μ□C3, Å, ìfvf□fefNfgf□\fbfh, ð□V, μ, 'ñ<Ÿ, μ, Ù, ·□B1, Å, í Find, Å OnFind fCxf“fg, ð“□¶, ³, ¹, Ù, ·□BŽc, è, ì 2, Å, ì ConvertFields, Æ ConvertFieldsForCallback, í Windows, ìfRf, f“f_fCfAf□fOf{fbfNfX, Æ, ìff□[f^, ìCEðŠ, ì, ½, ß, Éff□[f^CE^, ð•İŠ, μ, Ù, ·□B

f[]fbfh14892

ConvertFields

Find

Message

ConvertFieldsForCallback

ŽQÆ14893

TCommonDialog_fRf"f|[f|f"fg

TFindDialog_fRf"f|[f|f"fg_VCL_fŠtf@fEf"fX

TFontDialog fRf“f|[]lfif“fg (fvf[]fefNfg)14894

ŽQ[]Æ f[]\fbfh fRf“f|[]lfif“fg

ftfjfbfg

Dialogs

[]à-¾

TFontDialog fRf“f|[]lfif“fg, í TCommonDialog, ì%°^ ÊfRf“f|[]lfif“fg, Å, ·[]BCEp[]³[]€-Ú, Æ
TFontDialog, ì VCL_f\$ftf@f[]f“fX, É[]à-¾, ^a, , épfuf\$fbfVf...[]€-Ú, ì, Ù, ©, É[]CTFontDialog
, Í[]»[]Ý, ì[]mfont[]nf_fCfAf[]fOf{fbfNfX, ì'l, ð“K—p, ·, é Apply , Æ, ç, ðfvf[]fefNfgf[]fbfh, ð[]V, µ, -
'ñ<Ý, µ, Ù, ·[]B

fifbfh14895

Apply

ŽQÆ14896

TCommonDialog_fRf“f|[flf“fg

TFontDialog_fRf“f|[flf“fg VCL_fŠtf@fÆf“fX

THHeader fRf“f|[]lf“fg (fvf[]fefNfg)14897

ŽQ[]Æ f[]\fbfh fRf“f|[]lf“fg

ftfjfbfg

ExtCtrls

□à-¾

THHeader fRf“f|[]lf“fg, í TCustomControl , ì%º^ÊfRf“f|[]lf“fg, Å, ·□BCEp³□€-Ú, Æ THHeader , ì
VCL_fŠftf@fCEf“fX, É□à-¾,ª, , éfpfufŠfbfVf...•”, ì, Ù, ©, É□C2 , Â, ìfvf[]fefNfgf[]fbfh, ðf[]fo[]f
%ofCfh, µ□COnSized fCxf“fg, Æ OnSizing fCxf“fg, ð, » , ê, ¼, ê”□¶,³,¹, é Sized , Æ Sizing , Æ, ¢
, ðfvf[]fefNfgf[]fbfh, ð□V, µ, ’ñ<Ÿ, µ, Ü, ·□B

f[]fbfh14898

CreateParams

Paint

Sized

Sizing

ŽQÆ14899

TCustomControl fR“f|□[fif“fg

THeader fR“f|□[fif“fg VCL fŠtf@fÆf“fX

TImage fRf“f|[]lf“fg (fvf[]fefNfg)14900

ŽQÆ f[]fbfh fRf“f|[]lf“fg

ftfjfbfg

ExtCtrls

à-¾

TImage fRf“f|[]lf“fg, í TGraphicControl , ì%º^ ÊfRf“f|[]lf“fg, Å, ·BCEp³€-Ú, Æ TImage , ì
VCL_fStf@fEf“fX, Éà-¾,ª, , éfpufŠfbfVf...€-Ú, ì, Ù, ©, ÉCTImage , í GetPalette f[]fbfh, Æ
Paint f[]fbfh, ðf[]fo[]f%ofCfh, µ, Û, ·B

fifbfh14901

GetPalette

Paint

ŽQÆ14902

TGraphicControl fRf“f|□[f|f“fg

TImage fRf“f|□[f|f“fg VCL fŠftf@fÆf“fX

Timer f\fbfh14903

ŽQÆ

ftfjfbfg

ExtCtrls

“K—p

TTimer

□éÆ¾

procedure Timer; **dynamic**;

□à-¾

Timer f\fbfh, í Timer fRf“f|□[flf“fg, ì OnTimer fCxf“fg—p, ìvf□fefNfgŽÀÆ»f□\fbfh, Å, ·□BTimer fRf“f|□[flf“fg, í Windows , ©, çf^fCf}□[f□fbfZ□[fW (WM_TIMER) , ðŽó, ~Žæ, é, ÆTimer , ðÆÄ, Ñ□o, μ, Û, ·□B

TTimer , É'è' , ¾, é, é Timer f\fbfh, í OnTimer fCxf“fg, ÉfA^fbf` , ¾, é, ½fCxf“fgfnf“fhf%o , ðÆÄ, Ñ□o, ·^ÈŠO, í%o½, à, μ, Û, ¹, ñ□BTimer , ðf□[fo□[f%ofCfh, ·, é, ì□CCEp□¾, ¾, é, ½fCxf“fgfnf“fhf%oÆÄ, Ñ□o, μ, Ì, Û, ©, É, à%ož“š, ¾, Å, «, Û, ·□B

ŽQÆ14904

OnTimer.fCxf“fg

TMediaPlayer fRf“f|[]lf“fg (fvf[]fefNfg)14905

ŽQÆ f[]fbfh fRf“f|[]lf“fg

ftfjbfq

MPlayer

à-¾

TMediaPlayer fRf“f|[]lf“fg,í TCustomControl ,ì%º^ÊfRf“f|[]lf“fg,Å,·BCEp³€-Ú,Æ
TMEDIAPLAYER ,ì VCL_fŠftf@fCEf“fX,Éà-¾,ª, ,épfufŠfbfVf...€-
Ú,ì,Ù,©,ÉCf[]ffBfAfvfCE[]f,,f{f^f“,đ•Ž!,·,é,½,ß,É Paint f[]fbfh,đCAutoOpen
fvf[]fpfefB,đŽÀ€»,·,é,½,ß,É Loaded f[]fbfh,đf[]fo[]f%ofCfh,μ,Û,·BTMediaPlayer
,ífNfŠfbfN,â Windows ,ìÉ’m,đ^—,·,é,½,ß,ífvf[]fefNfgf[]fbfh,àV,μ,‘ñ<ÿ,μ,Û,·B

f[]fbfh14906

AutoButtonSet

Click

DoNotify

Loaded

MMNotify

Paint

PostClick

ŽQÆ14907

TCustomControl fRf“f|□[f|f“fg

TMediaPlayer fRf“f|□[f|f“fg VCL fŠftf@fÆf“fX

TMemo fRf“f|[]lf|“fg (fvf[]fefNfg)14908

ŽQ□Æ f[]\fbfh fRf“f|[]lf|“fg

ftfjfbfg

StdCtrls

□à-¾

TMemo fRf“f|[]lf|“fg, í TCustomMemo , ©, ç, ·, x, Ä, ì, à, ì, ðÆp□³, μ□CDefineProperties ,Æ, ç
, ðfvf[]fefNfgf[]\fbfh, ðf|[]fo[]lf%ofCfh, μ, Ü, ·□BTMemo , ì, Ù, ©, ì, ·, x, Ä, ì□€-
Ú, ípfufŠfbfN, ©fpfufŠfbfVf..., É□Ý’è,³,ê,Ä,¨, è□CTMemo fRf“f|[]lf|“fg, ì VCL_fŠtf@fÆf“fX, É□à-
¾/4,³,ê,Ä,ç,Ü,·□B

fifbfh14909

DefineProperties

ŽQÆ14910

TCustomMemo fRf“f|“f|f“fg

TMemo fRf“f|“f|f“fg VCL fŠtf@fÆf“fX

TMenu fRf“f|□[flf“fg 14911

ŽQ□Æ fv□fpofefB f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

Menus

□à-¾

TMenu fRf“f|□[flf“fg, í□CTMainMenu , â TPopupMenu , È, Ç, ì•Ö—~, Èf□fjf...□[fRf“f|
□[flf“fg, ì'Š□ÚŠî- {ÇÈ^, Å, ·□B□ă^ÊfRf“f|□[flf“fg TComponent , ©, ç, ìÇep³□€-Ú, ì, Ù, ©, É□CTMenu
, Í 3 , Â, ìfvf□fpofefB, Æ, ç, , Â, ©, ìf□\fbfh, ð□V, μ, 'ñ<Ÿ, μ, Ù, ·□B

fvf[]pfefB14912

Handle

Items

WindowHandle

f\fbfh14913

Create

Destroy

DispatchCommand

DispatchPopup

FindItem

GetHelpContext

IsShortCut

WriteComponents

ŽQÆ14914

TComponent_fRf“f|“[f|“fg

TMenuItem fRf“f|□[flf“fg (fvf□fefNfg)14915

ŽQ□Æ f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

Menus

□à-¾

TMenuItem fRf“f|□[flf“fg,Í□fCf“f□fj...□[Ü,½,Íf|fbfvfAfbfvf□fj...□[,ì□€-Ú,Å,·□BTMenuItem
,ì,Ù,Æ,ñ,Ç,ì•”,ÍpfufŠfbfN,©fpfufŠfbfvf...,É□Ý’è,³ê,Ä,“,è□Cf□fj...□[□€-Ú,ì VCL
fŠtf@fCf“fX,É□à-¾,³ê,Ä,ç,Ü,·□BTMenuItem ,Í OnChange fCxf“fg,đŽÀÆ»,·,é
MenuChanged ,Æ,ç,xfvf□fefNfgf□f|fbfh,đ 1 ,Â□V,μ,‘ñ<Ÿ,μ□C4 ,Â,Ífvf□fefNfgf□f|fbfh
DefineProperties, HasParent, ReadState, WriteComponents ,đf|□[fo□[f%ofCfh,μ,Ü,·□B

f[]fbfh14916

DefineProperties

HasParent

MenuChanged

ReadState

WriteComponents

ŽQÆ14917

TComponent fRf“f|□[flf“fg

TMenuItem fRf“f|□[flf“fg VCL fŠtf@fÆf“fX

TNotebook fRf“f[]lf“fg (fvf[]fefNfg)14918

ŽQÆ f\fbfh fR“f[]lf“fg

ftfjbfq

ExtCtrls

à-¾

TNotebook fRf“f[]lf“fg,í fXf^fRf“fg[]f<,Å,·BÆp³€-Ú,Æ TNotebook ,ì VCL
fStt@fÆf“fX,Éà-¾,ª, ,épfufŠbfVf...€-Ú,ì,Ù,©,ÉC,ç,,Å,©,ìEp³fvf[]fefNfgf\fbfh,ðf[]fo[]f%ofCfh,μ,Û,·B

fjfbfh14919

CreateParams

ReadState

ShowControl

WriteComponents

ŽQÆ14920

TCustomControl fRf“f|□[flf“fg

TNotebook fRf“f|□[flf“fg VCL fŠtf@fÆf“fX

Toggle f\fbfh14921

ŽQÆ

“K—p

TCustomCheckBox

é¾

procedure Toggle; virtual;

à-¾

Toggle f\fbfh, í` ffbfNf{fbfNfXfRf“f[fif“fg, ì State

f\fpfeB, ì‘, ìŠŒ, ðØ, è‘Ö, ì, Û, ·Bf` ffbfNf{fbfNfXfRf“f[fif“fg, íNfŠfbfN, ³, è, é, Æ Toggle

, ðÆÄ, Ño, µ, Û, ·B

ŽŸ, ì·\, ÉCTCustomCheckBox , Å`è` , ³, è, é Toggle f\fbfh, aCState , ì‘, ð, » , è^È‘O, ì‘, ÉŠí, Ä, ç

, Ä, Ç, ì, æ, x, É·ïX, , é, ©, ðŽì, µ, Û, ·B

Toggle , ðÆÄ, Ño, ·‘O, ì State

Toggle , ðÆÄ, Ño, µ, ½Æã, ì State

csChecked

csUnchecked

csGrayed

csChecked

csUnchecked

csCheckedC, ½, ¾, µ AllowGrayed ,ª True , ìê±, ì
csGrayed

Toggle , ðf[fo[f%ofCfh, µCf` ffbfNf{fbfNfXfRf“f[fif“fg, Å, ì‘, ìØ, è‘Ö, ì±~ , ð·ïX, , é, ± , Æ, à, Ä, «, Û, ·B

ŽQÆ14922

State fv[]pfefB

TRadioButton fRf“f|[]lf“fg (fvf[]fefNfg)14923

ŽQÆ f\fbfh fR“f|[]lf“fg

ftfjfbfg

StdCtrls

à-¾

TRadioButton fRf“f|[]lf“fg,Í{f^f“fRf“fgf[]f<,Å,·BCEp³€-Ú,Æ TRadioButton ,ì VCL
f\$ftf@fCEf“fX,Éà-¾,ª, ,épfufŠfbfVf...€-Ú,ì,Ù,©,ÉCCreateParams ,Æ CreateWnd ,Æ,ç,κ 2
,Å,ìfvf[]fefNfgf\fbfh,ðf[]fo[]f%fCfh,μ,Û,·B

f\fbfh14924

CreateParams

CreateWnd

ŽQÆ14925

TButtonControl fRf“f|[]f|f“fg

TRadioButton fRf“f|[]f|f“fg VCL fŠftf@fÆf“fX

TReplaceDialog fRf“f|[]lf“fg (fvf[]fefNfg)14926

ŽQ[]Æ f[]\fbfh fRf“f|[]lf“fg

ftfjfbfg

Dialogs

□à-¾

TReplaceDialog fRf“f|[]lf“fg,ífefLfXfg,ìCEÿ[]ö,Æ’uŠ·,ð—¼•û,Æ,àŽÀ[]s,·,é TFindDialog ,ðfjXf^f}fCfY,μ,½,à,ì,Å,·□BCEp[]³[]€-Ú,Æ TReplaceDialog ,ì VCL fŠftf@fCEf“fX,É□à-¾,ª, ,épfufŠfbfVf...□€-Ú,ì,©,É□CConvertFields ,Æ ConvertFieldsForCallback ,Æ,¢ ,xfvf[]fefNfgf[]fbfh,ðf[]fo[]f%fCfh,μ□COnReplace fCxf“fg,ð”[]¶,³,¹,é Replace ,Æ,¢ ,xfvf[]fefNfgf[]fbfh,ð□V,μ,‘ň<ÿ,μ,Ü,·□B

fjfbfh14927

ConvertFields

ConvertFieldsForCallback Replace

ŽQÆ14928

TFindDialog fRf“f[]flf“fg (vf[]fefNfg)

TReplaceDialog fRf“f[]flf“fg VCL fŠtf@fÆf“fX

TShape fRf“f|[]f|f“fg (fvf[]fefNfg)14929

ŽQ[]Æ f[]\fbfh fRf“f|[]f|f“fg

ftfjfbfg

ExtCtrls

□à-¾

TShape fRf“f|[]f|f“fg, í TGraphicControl ,ì'P[]f,È%°^ÊfRf“f|[]f|f“fg,Å,·BShape fRf“f|[]f|f“fg,ì
VCL_f\$ftf@f[]f“fX,É□à-¾,ª, ,éfpuf\$fbfVf...•”,ì,Ù,©,É□CTShape ,íŠó%½Šw[]}[]Æ` ,ð•`
%œ,·,é,½,ß,É Paint ,Æ,¢,xfvf[]fefNfgf[]fbfh,ðf[]fo[]f%ofCfh,μ,Û,·□B

fifbfh14930

Paint

ŽQÆ14931

TGraphicControl fRf“f|“f|f“fg

TShape fRf“f|“f|f“fg VCL fŠftf@fÆf“fX

TPaintBox fRf“f|□[flf“fg (fvf□fefNfg)14932

ŽQ□Æ f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

ExtCtrls

□à-¾

TPaintBox fRf“f|□[flf“fg,í TGraphicControl ,ì'P□f,É%°^ÉfRf“f|□[flf“fg,Å,·□BPaint Box fRf“f|□[flf“fg,ì VCL_fŠtf@fCef“fX,É□à-¾,ª, ,épfufŠfbfVf...•” ,ì,Ù,©,É□CTPaintBox ,í OnPaint fCxf“fg,ð”□¶,³,¹,é Paint ,Æ,ç,xfvf□fefNfgf□\fbfh,ðfl□[fo□[f%ofCfh,μ,Û,·□B

fifbfh14933

Paint

ŽQÆ14934

TGraphicControl fRf“f|□[flf“fg

TPaintBox fRf“f|□[flf“fg VCL fŠtf@fÆf“fX

TScrollBar fRf“f|□[flf“fg (fvf□fefNfg)14935

ŽQ□Æ f□\fbfh fRf“f|□[flf“fg

ftfjfbfg

StdCtrls

□à-¾

TScrollBar flfufWfFfNfg, íEfBf“fhfEfRf“fgf□□[f<, Å, ·□BCEp□³□€-Ú, Æ TScrollBar , ì VCL
fŠftf@fCEf“fX, É□à-¾, ^a, , éfpufŠfbfVf...□€-Ú, ì, Ù, ©, É□CTScrollBar , í 2 , Å, ìfvf□fefNfgf□\fbfh, ðfl□[fo□[f%□fCfh, μ□COnChange fCxf“fg, Æ OnScroll fCxf“fg, ð, » , ê, ¼, ê”-
□¶, ³, ¹, éfvf□fefNfgf□\fbfh, ì Change , Æ Scroll , ð□V, μ, ’ñ<ÿ, μ, Û, ·□B

f\fbfh14936

Change

CreateParams

CreateWnd

Scroll

ŽQÆ14937

TWinControl fRf“f|□[flf“fg

TScrollBar fRf“f|□[flf“fg VCL fŠftf@fĈf“fX

TTabSet fRf“f|□[lf|“fg (fvf□fefNfg)14938

ŽQ□Æ f□\fbfh fRf“f|□[lf|“fg

ftfjfbfg

Tabs

□à-¾

TTabSet fRf“f|□[lf|“fg, íjfx^f€fRf“fgf□□[f<, Å, ·□B□p□³□€-Ú,Æ TTabSet ,ì VCL
fŠftf@fCef“fX,É□à-¾,ª, ,épfufŠfbfVf...□€-Ú,ì,Ù,©,É□CDefineProperties ,Æ Paint ,Æ,¢
,xfvf□fefNfgf□\fbfh,đf□[fo□[f%□fCfh,μ□C3 ,Å,lfvf□fefNfgf□\fbfh,đ□V,μ,ñ<Ÿ,μ,Ü,·□B,» ,ì 2 ,Å,ì
DrawTab ,Æ MeasureTab ,í,» ,é,¼,ê OnDrawTab fCxf“fg,Æ OnMeasureTab fCxf“fg,đ”-
□¶,³,¹,Ü,·□B,à,κ 1 ,Å,ì CanChange
,lfRf“fgf□□[f<,ª'ì'đ,³,é,½f^fu,ì•ï□X,ª,Å,« ,é,©,đ”»'è,μ□C•ï□X,Å,« ,é,éê□#,í OnChange
fCxf“fg,đ”□¶,³,¹,Ü,·□B

f\fbfh14939

CanChange

DefineProperties

DrawTab

MeasureTab

Paint

ŽQÆ14940

TCustomControl fRf“f|□[lf“fg

TTabSet fRf“f|□[lf“fg VCL fŠtf@fEf“fX

TTimer fRf“f|[]lfj“fg (fvf[]fefNfg)14941

ŽQ□Æ f[]\fbfh fRf“f|[]lfj“fg

ftfjfbfg

ExtCtrls

□à-¾

TTimer fRf“f|[]lfj“fg, í TComponent , ©, ç'¼□Ú”h□¶, μ, ½□C'P□f, È”ñfrfWf...fAf<fRf“f|
□[]lfj“fg, Å, ·□Bf^fCf}□[]fRf“f|[]lfj“fg, ì VCL_fŠtf@fÆf“fX, É□à-¾, ^a, , éfpfufŠfbfN□€-
Ú, ÆfpfufŠfbfVf...□€-Ú, ì, ù, ©, É□CTTimer , í OnTimer fCxf“fg, ð”□¶, ^{3,1}, é Timer , Æ, †
, †fvf[]fefNfgf[]\fbfh, ð□éÆ¾, μ, Ù, ·□B

fjfbh14942

Timer

ŽQÆ14943

TComponent_fRf“f|[]|f|“fg

TTimer_fRf“f|[]|f|“fg VCL fŠtf@fEf“fX

ValidateError f\fbfh14944

ŽQÆ

“K—p

TCustomMaskEdit

é¾

procedure ValidateError; **virtual**;

à-¾

ValidateError f\fbfh,íCf}fXfN•ÒWf{fbfNfX,ìfefLfxfg,ìÿØ,ÅfGf%[][,“[],.é,Æ
ValidateEdit f\fbfh,É,æ,èËÄ,Ño,³,ê,Ü,·BfftfHf·fg,Å,íCValidateError ,íCx[]%¹,ð-
Ä,ç,μ,Ä,©,ç EDBEditError —áŠO,ð[]¬,μ,Ü,·BValidateError ,ðf[]fo[]f%fcfh,μC•Ê,ìfGf
%[][^—[],à,Å,«,Ü,·B

ŽQÆ14945

ValidateEdit_f\fbfh

fRf“f|□[flf“fg 14946

f|fufWfEfNfg f<□[f`f“ VCL fRf“f|□[flf“fg

,±,±,Å,lfRf“f|□[flf“fg,ì•ÔÆì•”,¾,¯,ð<L□Ú,μ,Ü,·□B

<u>TApplication</u>	<u>TCustomMaskEdit</u>	<u>TMenu</u>
<u>TBevel</u>	<u>TCustomMemo</u>	<u>TMenuItem</u>
<u>TButton</u>	<u>TCustomOutline</u>	<u>TNotebook</u>
<u>TButtonControl</u>	<u>TCustomPanel</u>	<u>TPaintBox</u>
<u>TCommonDialog</u>	<u>TCustomRadioGroup</u>	<u>TRadioButton</u>
<u>TComponent</u>	<u>TFindDialog</u>	<u>TReplaceDialog</u>
<u>TControl</u>	<u>TFontDialog</u>	<u>TScrollBar</u>
<u>TCustomCheckBox</u>	<u>TForm</u>	<u>TScrollBar</u>
<u>TCustomComboBox</u>	<u>TGraphicControl</u>	<u>TScrollingWinControl</u>
<u>TCustomControl</u>	<u>THeader</u>	<u>TShape</u>
<u>TCustomEdit</u>	<u>THintWindow</u>	<u>TTabSet</u>
<u>TCustomGrid</u>	<u>TImage</u>	<u>TTimer</u>
<u>TCustomGroupBox</u>	<u>TInplaceEdit</u>	<u>TWinControl</u>
<u>TCustomLabel</u>	<u>TMediaPlayer</u>	
<u>TCustomListBox</u>	<u>TMemo</u>	

flfufWfFfNfg14947

fRf“f|□[flf“fg f<□[f`f“ VCL flfufWfFfNfg

□wfRf“f|□[flf“fgŠ]”ŽÒfŠftf@fĀf“fX□x,É<L□Ú,³,ê,Ä,č,éflfufWfFfNfg,đŽŸ,ÉŽ!,μ,Ü,·□B

<u>TBitmap</u>	<u>TFiler</u>	<u>TMPFileNameProperty</u>
<u>TCanvas</u>	<u>TFileStream</u>	<u>TObject</u>
<u>TCaptionProperty</u>	<u>TFloatProperty</u>	<u>TOrdinalProperty</u>
<u>TCharProperty</u>	<u>TFontProperty</u>	<u>TPersistent</u>
<u>TClassProperty</u>	<u>TFontNameProperty</u>	<u>TPicture</u>
<u>TColorProperty</u>	<u>TFormDesigner</u>	<u>TPropertyEditor</u>
<u>TComponentEditor</u>	<u>TGraphic</u>	<u>TReader</u>
<u>TComponentList</u>	<u>THandleStream</u>	<u>TResourceStream</u>
<u>TComponentProperty</u>	<u>TIcon</u>	<u>TSetElementProperty</u>
<u>TControlCanvas</u>	<u>TIntegerProperty</u>	<u>TSetProperty</u>
<u>TCursorProperty</u>	<u>TList</u>	<u>TShortCutProperty</u>
<u>TCustomMemoryStream</u>	<u>TMemoryStream</u>	<u>TStream</u>
<u>TDefaultEditor</u>	<u>TMetafile</u>	<u>TStringProperty</u>
<u>TDesigner</u>	<u>TMethodProperty</u>	<u>TTabOrderProperty</u>
<u>TEnumProperty</u>	<u>TModalResultProperty</u>	<u>TWriter</u>

f<[f`f“14948

fRf“f|□[f|f“fg

flfufWfEfNfg

ŽŸ, ižè‘±,«,«,ÆŠÖ□”, ižå, ÉfRf“f|□[f|f“fg, iŠJ”, ÉŠÖÆW, μ, Ü, ·□B

DrawButtonFace

GetFixupRoots

RegisterComponentEditor

FindDragTarget

IdentToCursor

RegisterComponents

FormatMaskText

InitComponentRes

RegisterPropertyEditor

GetComponentEditor

MaskGetFldSeparator

SetCaptureControl

GetComponentPropertiesMaskGetMaskBlank

StringToCursor

GetCursorValues

MaskGetMaskSave

Ancestor fvf[]fpfefB14949

ŽQ[]Æ

“K—p

TFilel

[]éÆ¾

property Ancestor: TPersistent;

[]à-¾

Ancestor fvf[]fpfefB,í[]CCEp[]³ftfH[][f€,ÉfRf“f[][][flf“fg,ð[]’,«[]ž,p[]ê[]‡,Éžg,í,ê,Ü,·[]Bf
%ofCf^[][flfufWfFfNfg,í[]CCEp[]³,μ,½,ì,Æ^Ü,È,éfvf[]fpfefB,ì‘l,¾,¯,ð[]’,«[]ž,Ü,È,¯,ê,í,È,ç,È,ç
,ì,Å[]CCEp[]³,μ,½ŠefRf“f[][][flf“fg,ð Ancestor ,É<L~^,μ[]C[]’,«[]ž,p‘O,Éfvf[]fpfefB,ð”äŠr,μ,Ü,·[]B

Ancestor ,^a nil ,ì[]ê[]‡[]C‘í%ž,·,éCep[]³fRf“f[][][flf“fg,í,È,[]Cf%ofCf^[][flfufWfFfNfg,³fRf“f[]
[][flf“fg,ðfXfgfŠ[][f€,ÉŠ@‘S,É[]’,«[]o,³,È,¯,ê,í,È,è,Ü,¹,ñ[]BWriteDescendant ,Æ
WriteDescendantRes ,ðCEÄ,Ñ[]o,μ,Ä,ç,éŠÖ,ð[]œ,ç,Ä[]CAncestor ,í[]í,É nil ,Å,·[]B

DefineProperties f[]f[]fbfh,ð<L[]q,Ü,½,ífl[][fo[][f%ofCfh,·,é[]ê[]‡[]CAncestor ,^aÝ‘è,³,ê,é,±
,Æ,ð^ÓŽ¯,μ,È,¯,ê,í,È,ç,·[]C,»ê,É%ž,¶,Ä[]Cfvf[]fpfefB,ð<L[]q,μ,È,¯,ê,í,È,ç,È,ç[]ê[]‡,Æ<L[]q,·,é•K
—v,ì,È,ç[]ê[]‡,^a, ,è,Ü,·[]B

ŽQÆ14950

RootAncestor fvfpfefB

DefineProperties ffbfh

AssignTo f\fbfh14951

ŽQÆ

“K—p

TPersistent

é¾

procedure AssignTo (Dest: TPersistent); **virtual**;

à-¾

AssignTo f\fbfh, ífufWfFfNfg, ÉŠÖ~A•t, ¯, ç, ê, ½ff[f^, ð•É, ìfufWfFfNfg, ÉŠ,, è“-
, Ä, é^ê”É“l, È<@[\, ð’ñ<ÿ, µ, Ü, ·BAssignTo , ípfufŠfbfNf\fbfh Assign
, ìŽÀÜ, ì\<Æ, ðs, È, ¤vf\fefNfgf\fbfh, Å, ·BfftfHf<fg, ìê#CAssignTo , í EConvertError —
áŠO, ð¶¬, µ, Ü, ·BfNfŠfbvf{[fhfufWfFfNfg, í AssignTo , ðf[fo[f%ofCfh, ·, é, ±
, Æ, Å^ÙŽí, ìof%oftfBfbfNfufWfFfNfgŠÔ, ÅfNfŠfbvf{[fh, ìff[f^, ðfRfs[. Å, «, é, æ, ¤, É, µ, Ü, ·B
TClipboard.AssignTo , íNfŠfbvf{[fh, ì“à—e, ð Dest
, ÅŽw’è, ·, éfufWfFfNfg, ÉfRfs[, µ, Ü, ·BDest , í%œ’œCfrfbfgf}fbfvCf^ftf@fCf<, ì, ç
, ·, é, ©, Å, È,, Ä, Í, È, è, Ü, ¹, ñB, »,, é^ÉŠO, ìŽí—p, ìfufWfFfNfg, ðŽw’è, ·, é, Æ•İŠ·fGf%o[, “¶, µ, Ü, ·B

ŽQÆ14952

Assign ffbfh

BeginReferences f\fbfh14953

ŽQÆ —á

“K—p

TReader

é¾

procedure BeginReferences;

à-¾

BeginReferences f\fbfh,íCÉÝ,ç,Ö,ìŽQÆ,ª, ,éfRf“f|

[f|f“fg,ð“Ç,Ýo,·fuf\fbfN,ìŠJŽn,ðé¾,μ,Û,·BBeginReferences ,íC**try..finally**

fuf\fbfN“à,Å•K, , FixupReferences ,Æ EndReferences ,Æ^ê,ÉŽg,ç,Û,·B

BeginReferences ,ðCEÄ,Ño,μ,½CEãC“Ç,Ýo,³,ê,½,·,x,Ä,ìf|fufWfFfNfg,Æ,» ,ê,ç,ì-

¼'O,ìfŠfXfg,ªfŠ[f_[]f|fufWfFfNfg,É,æ,Ä,Äì-³,ê,Û,·B,·,x,Ä,ì‘ŠCEÝ^Ë‘¶f|fufWfFfNfg,ð“Ç,Ýo

o,μ,½CEãCfXfgfŠ[f€ , ©,ç,ì-¼'O•t,«ŽQÆ,ðCf“fXf^f“fX,Ö,ìŽQÆ,É,·,é,½,ß,É

FixupReferences ,ðCEÄ,Ño,μ,Û,·BÅCEã,ÉCftfBfbfNfXfAfbvfšfXfg,ð“jŠü,·,é,½,ß,É

EndReferences ,ðCEÄ,Ño,μ,Û,·B

-á14954

ŒÉÝ,ç,đŽQŒÆ,·,éŕRf“f|[]f|f“fg,đ“Ç,Ý□o,·fuf□bfN,í□C□í,ÉŽŸ,ìŒ`Ž® ,É,È,è,Ü,·□B

```
BeginReferences;      { ftfBfbfNfXfAfbfvfŠfXfg,đ”ì□-,·,é }  
try  
  { ,·,×,Ä,ìŕRf“f|[]f|f“fg,đ“Ç,Ý□o,μ□C,»,é,ç,ì-¼‘O,đftfBfbfNfXfAfbfvfŠfXfg,É’Ç%oÁ,·,é }  
  ...  
  FixupReferences;   { -¼‘O,đftfBfbfNfXfAfbfvfŠfXfg,É’Ç%oÁ,·,é }  
finally  
  EndReferences;     { ftfBfbfNfXfAfbfvfŠfXfg,đ”jŠü,·,é }  
end;
```

ŽQÆ14955

EndReferences ffbfh

FixupReferences ffbfh

Capacity fvf fpfefB14956

ŽQÆ

“K—p

TMemoryStream

é¾

property Capacity: Longint;

à-¾

Capacity fvf fpfefB, íC^ê“x, ìš,, è“- ,Ä, Äf f, fšXfgfš[f€, Éš,, è“-
, Ä, éf f, fšfv[f<, ìTfCfY, ðCE^, ß, Ü, ·BfXfgfš[f€“à, ìff[f^, ìTfCfY, Ä, , é Size ,Æ, í^Ù, È, è, Ü, ·B'ä
—Ê, ìff[f^, ð[-, ³, ç'P^Ê, Å'Ç%oÄ, ·, é, ±, Æ, ¢, í, ©, Ä, Ä, ç, éê[-, íCCapacity , ì%oŠú'l, ð'ä, «, -
, μ, ÄÄš,, è“- ,Ä, ì'½”, ð-h, °, Ü, ·B

ŽQÆ14957

Size fvfpfefB

Realloc_ffbfh

ChangeName f\fbfh14958

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðRf“f|“f|f“fg)

é¾

procedure ChangeName (**const** NewName: TComponentName);

à-¾

ChangeName f\fbfh, í NewName , ÅŽw'è, ·, é•¶Žš—ñ, ð Name fvfpfefB, ì“à•” —
ì^æ, ÉÝ'è, µ, Ü, ·BSetName f\fbfh, í ChangeName , ðŽg, Á, ÄfRf“f|“f|f“fg-
¼, ðŽÀÛ, É•ïX, µ, Ü, ·BSetName , ðf|“fo“f%ofCfh, ·, éê±CCEp³, µ, ½ SetName
, ðCEÄ, Ño, ·, ©CChangeName , ð'¼ÜCEÄ, Ño, ·, ©CName fvfpfefB, ÉV, ½, È“à•”<L%o¯ —
ì^æ, ðš,, è“- , Ä, È, , Ä, í, È, è, Ü, ¹, ñB

ŽQÆ14959

Name fvfpfefB

,,x,Ä,lfRf“f|“flf“fg,ì SetName f\fbfh

Clear f\fbfh14960

ŽQÆ

“K—p

TMemoryStream

é¾

procedure Clear;

à-¾

Clear f\fbfh,Íf,fŠfXfgfŠ[f€,ÉŠ,,è“-,Ä,½f,fŠfv[f<,ð”jŠü,μCMemory fvf\fpfefB,ð **nil**
,ÉÝ’è,μ,Ü,·BClear ,ðEÄ,Ño,μ,½Eă,ÍCf,fŠfXfgfŠ[f€,ì Size fvf\fpfefB,Æ Position
fvf\fpfefB,Í,Ç,ì,ç,à 0 ,É,È,è,Ü,·B

ŽQÆ14961

Memory_fvffpfefB

ComponentState fvf[]pfefB14962

ŽQ[]Æ

“K—p

TComponent (, ·, ×, Ä, ÌfRf“f|[][f|f“fg)

□éÆ¾

property ComponentState: TComponentState;

□à-¾

ComponentState fvf[]pfefB, ÌfRf“f|[][f|f“fg, ÌÆ»[]Ý, Ì[]ó‘Ô, ðŽ!, ·“Ç, Ý[]o, μ[]ê—
p, Ìfvf[]pfefB, Å, ·[]BŠefRf“f|[][f|f“fg[]ó‘Ôftf%o, É, Ä, ç, Ä, Ì[]Ú[]×, Ì TComponentState
Æ^, ðŽQ[]Æ, μ, Ä, ,¾, ¾, ç[]B

fRf“f|[][f|f“fg, Ì“Á’è, ÌŽí—p, ÌfAfNfVf#f“, ð”ð, -, È, , Ä, Ì, È, ç, È, ç[]ó‘Ô, ð ComponentState
fvf[]pfefB, ðŽg, Á, ÄÆÝ[]o, μ, Û, ·[]B, ½, Æ, Ì, ÌfRf“f|
[][f|f“fg, ÄŽÀ[]sŽž, Ä, Ì“Á’è, Ì“®[]ì, ð[]ÝÆvŽž, É, Ì, μ, Ä, Ì, È, ç, È, ç[]ê[]#[]CcsDesigning ftf%o, Ì—L-
¾, ð², ×, Ä”»’f, μ, Û, ·[]B

ŽQÆ14963

TComponentState Ć^

ComponentStyle fvf fpfefB14964

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðRf“f[]lf“fg)

é¾

property ComponentStyle: TComponentStyle;

à-¾

ComponentStyle fvf fpfefB, íCfRf“f[]lf“fg, ð @i, ð\$Eä, ·, éŽg—p%Ä“\ , ðfXf^fCf<, íW±, Ä, ·B

, à, µ, , ê, íCcsInheritable fXf^fCf<, íC%º^ÉftfH[]f€E^, ðRf“f[]lf“fg, ðEp³, Ä, «, é, ±, Æ, ð·\ , µ, Ü, ·BftfH[]f€, ð, ðRf“f[]lf“fg, É, à cslInheritable fXf^fCf<, ð, É, ç, é, ç, é, ç, ±, Æ, ð·\, µ, Ü, ·BcsCheckPropAvail fXf^fCf<, í OLE fRf“fgf[]lf<, É, ¾, Žg, í, ê, Ü, ·Bfvf fpfefB, ð“Ç, Ýo, µ%Ä“\, ©, Ç, µ, ©[]C, µ, ½, ð, Ä, Ä·Ž!%Ä“\ , ©, Ç, µ, ©, ðlfufWfFfNfgfCf“fXfyfNf^, Ä¼Ú”»’f, ;, é, ±, Æ, í, Ä, «, Ü, ð, ðB“Ç, Ýo, µ%Ä“\ []«, ðf`fFfbfN, íŽžŠÓ, ð, ©, ©, é, ð, ÄCDelphi , ðlfCfefBfufRf“f[]lf“fg, í csCheckPropAvail fXf^fCf<, ðŽg, µ, ×, «, Ä, í, , è, Ü, ð, ðB

ŽQÆ14965

TComponentStyle CE^

CopyFrom f\fbfh14966

“K—p

TStream

□éCE¾

function CopyFrom(Source: TStream; Count: Longint): Longint;

□à-¾

CopyFrom f\fbfh, í Source ,Åžw'è, ,éfXfgfŠ[f€, ì Count fofCfg, ðfXfgfŠ[f€
,ÉfRfs[,μ□CCE»□Ý, ì^É'u, ð Count
,Åžw'è, ,éfofCfg□” ,¾, ^Ú“ ® ,μ□CfRfs[,μ, ½fofCfg□” ,ð•Ô, μ, Ü, ·□B

Create f\bfbfh14967

ŽQÆ

“K—p

TFile

é¾

constructor Create(Stream: TStream; BufSize: Cardinal);

à-¾

Create f\bfbfh,íV,µ,tft@fCf%flfufWfFfNfg,ðì¬,µCStream fpf
%f[f^,ÅŽw'è,µ,½XfgfŠ[f€,É BufSize ,ÅŽw'è,·éfofbftf@fTfCY•ª,¾, ŠÖ~A•t,Ü,·B

ŽQÆ14968
Create ffbfh

Create f\fbfh14969

ŽQÆ

“K—p

TComponent

é¾

constructor Create (AOwner: TComponent); **virtual**;

à-¾

Create f\fbfh,íV,μ,tfRf“f[fif“fgfufWfFfNfg,ðì¬,μC“%Šú%»μ,Ä,©,çCAOwner fpf
%f[f^,ÅŽw’è,·,éI[fí[,ì InsertComponent f\fbfh,ðCEÄ,Ño,μ,ÄV,μ,ðì¬,μ,½fRf“f
[fif“fg,ð,»,ìfí[fí[,É’}“ü,μ,Ü,·B

,Ü,Æ,ñ,Ç,ìfRf“f[fif“fg,í Create ,ðfí[fó[f%ofCfh,μC,»,ìfRf“f[fif“fg“ÆŽ©,ìfvf\fpfefB,ð
%Šú%»μ,Ü,·BfRf“f[fif“fg,ì Create ,ðfí[fó[f%ofCfh,·,ééê#CCep³,·,é Create f\fbfh,ðæ,ÉCEÄ,Ño,μ,Ä,©,çfRf“f[fif“fg,ð%Šú%»μ,È,,Ä,í,È,è,Ü,¹,ñB

fRf“f[fif“fg,ì Create f\fbfh,šfŠ[fX,Ü,½,íf[f,fŠ,ðŠ,,è“- ,Ä,ééê#CCDestroy f\fbfh,àfí[fó[f%ofCfh,μ,Ä,»,ìfŠ[fX,ð%ð•ú,μ,È,,Ä,í,È,è,Ü,¹,ñB

ŽQÆ14970

.,x,Ä,İflufWfEfNfg,İ Create ffbfh

Destroy ffbfh

Create f\fbfh14971

ŽQÆ

“K—p

TFileStream

é¾

constructor Create(const FileName: string; Mode: Word);

à¾

Create f\fbfh, í FileName

, Āžw'è, ·, éftf@fCf<, ÉŠÖ~A•t, ¯, ç, ê, ½V, μ, çftf@fCf<fXfgfŠ[f€flfufWfFfNfg, ð)ï¬, μ, Ü, ·BCreat
e, íŠÖ~A•t, ¯, ç, ê, ½ftf@fCf<, ð Mode, Āžw'è, ·, éftf@fCf<f, [fh, ðŽg, Á, ĀŠJ, «, Ü, ·BMode, í Delphi
, lftf@fCf<f, [fh'è", Å, È, Ā, Í, È, è, Ü, ¹, ñB

ŽQÆ14972
Create ffbfh

Create f\bfbh14973

ŽQÆ

“K—p

THandleStream

é¾

constructor Create(AHandle: Integer);

à¾

Create f\bfbh, í AHandle ,ÅŽw'è, ., éftj@fCf<fnf“fhf<, ÉŠÖ~A•t, ¯, ç, ê, ½V, µ, tfnf“fhf<fXfgfŠ[f€
, ðì¬, µ, Ü, ·BAHandle , ífXfgfŠ[f€, ì Handle fvf\fpfefB, ì'í, É, È, è, Ü, ·B

ŽQÆ14974

Create ffbfh

Handle fvfpfefB

Create f\fbfh14975

ŽQÆ

“K—p

TResourceManager

é¾

```
constructor Create(Instance: THandle; const ResName: string; ResType:  
    PChar);
```

à-¾

```
fš[fXfXfgfš[f€,ì Create f\fbfh,íCResName ,ÉŽw'è,μ,½-¼'O,Å ResType  
,ÉŽw'è,μ,½^,ifš[fX,a, ,éf,fšfXfgfš[f€,ðCInstance  
,É“n,μ,½fCf“fXf^f“fX,©,çì¬,μ,Û,·B
```

ŽQÆ14976

CreateFromID_ffbfh

CreateFromID14977

ŽQÆ

“K—p

TResourceStream

□éĒ¾

constructor CreateFromID(Instance: THandle; ResID: Integer; ResType:
PChar);

□à-¾

CreateFormID f\fbfh,íCCE^,ª ResType ,ÅCfŠf[fX ID ,ª ResID ,Æ^ê'v,·,éCInstance
,É“n,μ,½fCf“fXf^f“fX,İŠf[fX,Éf[f,ŠfXfgfŠ[f€,ðì¬,μ,Û,·B

ŽQÆ14978

fŠfXfgfŠf€. Create ffbfh

DefineBinaryProperty f\fbfh14979

ŽQÆ

“K—p

TFile, TReader, TWriter

é¾

```
procedure DefineBinaryProperty(const Name: string; ReadData, WriteData:
    TStreamProc;
    HasData: Boolean); virtual; abstract;
```

à¾

```
DefineBinaryProperty f\fbfh,lfvf\fpfefB,Á, ,é,©,ì,æ,æ,Éftf@fCf
%oflfufWfFfNfg,Ši“[.,éfofCfifŠff[f^,ð'è<` ,µ,Ü,·BName fpf%of[f^,í,±
,ìu<U,ìvfvf\fpfefB,ì¼'O,ðŽw'è,µ,Ü,·Bfpf%of[f^ ReadData ,Æ WriteData ,í•K—
v,Éff[f^,ì“Ç,Ýo,µC‘,«ž,Ý,ð,·éŠi“[‘xflfufWfFfNfg,lf\fbfh
fbfh,ð,»é,¼,éŽw'è,µ,Ü,·BHasData fpf
%of[f^,íŽÀsŽž.Éu<U,ìvfvf\fpfefB,Ši“[ff[f^,ðŽ,Á,Ä,ç,é,©,Ç,æ,©Ž!,µ,Ü,·B
```

```
DefineBinaryProperty ,Æ,»,)“ňfofCfifŠfo[fWf#“ ,Á, ,é DefineProperty
,íŠi“[.,éff[f^,ðŽ,ÄflufWfFfNfg,ì DefineProperties f\fbfh“à,¾, ,ÁÄ,Ňo,³,È,-
,Ä,í,È,è,Ü,¹,ňBDefineProperties ,É,lfpf%of[f^ ,Æ,µ,Äftf@fCf
%oflfufWfFfNfg, ,é,ì,ÁC,»,lftf@fCf%oflfufWfFfNfg,lf\fbfh DefineProperty ,Æ
DefineBinaryProperty ,ðÄ,Ňo,µ,Ü,·B
```

```
DefineBinaryProperty ,Æ DefineProperty ,ìŠ^á“_ ,lfofCfifŠfvf\fpfefB,ìé#ftf@fCf
%oflfufWfFfNfg,ð%oi,·,ì,Á,í,È,fXfgfŠ[f€flufWfFfNfg,Æ,µ,Ä¼Ú‘,«ž,Ü,è,é,±
,Æ,Ä,·BReadData ,Æ WriteData ,ÄŽw'è,·,éf\fbfh
fbfh,flufWfFfNfg,lfofCfifŠff[f^,ðŽw'è,·,éXfgfŠ[f€,É¼Ú‘,«ž,ÝC“Ç,Ýo,µ,Ü,·B
fofCfifŠfvf\fpfefB,ð'è<` ,·,é,±,Æ,í,Ü,Æ,ň,Ç, ,è,Ü,¹,ňBfofCfifŠfvf\fpfefB,ð'è<` ,·,é•W€“l,È
VCL flufWfFfNfg,lfjXf^f€fAfEfgf%ofCf“ (“à•”frfbfgf}fbfv,ðŠi“[.,é,½,ß,lfjXf^f€fAfEfgf
%ofCf“)CfOf%oftfBfbfN%C%æ'æ,¾, ,Á,·B
```

ŽQÆ14980

DefineProperty f\fbfh

DefineProperties f\fbfh

DefineProperties f\fbfh14981

ŽQÆ —á

“K—p

TPersistent

é¾

procedure DefineProperties(Filer: TFiler); **virtual**;

à-¾

DefineProperties f\fbfh,íftfH[f€ftf@fCf<,È,Ç,ìfXfgfŠ[f€,ÉfufWfFfNfg,ì”ñfpufŠfbfVf...
ff[f^,ðŠi”[.,,éf\fbfh,ðŽw’è,μ,Ü,·BffftfHf<fg,ìê#CfXfgfŠ[f€
,Ö,ìfufWfFfNfg,ì’,«ž,Ý,Å,í,·,×,Ä,ìpfufŠfbfVf...
fvf\pfefB,ì’l,ð’,«ž,ÝCfufWfFfNfg,ì”Ç,Ýo,μ,Å,í,·,×,Ä,ìpfufŠfbfVf...
fvf\pfefB,ì’l,ð”Ç,Ýo,μ,Äfvf\pfefB,ÉŠ,,è”-,Ä,Ü,·BfufWfFfNfg,ì DefineProperties f\fbfh,
ðf\fo[f%ofCfh,·,é,±,Æ,Äfvf\pfefB^ÉŠO,ìf[f^,ì”Ç,Ýo,μ,Æ’,«ž,Ý,ìf\fbfh,
àŽw’è,Ä,«,Ü,·B

DefineProperties ,ðf\fo[f%ofCfh,·,éê#CŽÿ,ì^è•”,Ü,½,í,·,×,Ä,ðŽw’è,μ,Ü,·B

- Cp³f\fbfh,ìÄ,Ño,μ
- ftf@fCf%ofufWfFfNfg,ì DefineProperty f\fbfh,ìÄ,Ño,μ
- ftf@fCf%ofufWfFfNfg,ì DefineBinaryProperty f\fbfh,ìÄ,Ño,μ

TPersistent ,á’è<`,·,é DefineProperties f\fbfh,íffftfHf<fg,ìê#
%½,à,μ,Ü,¹,ñ,ªC,»,è^ÉŠO,ì’½,,ìfufWfFfNfg,ÆfRf“f\lf“fg,ì,±,ìf\fbfh,ðf\fo[f%ofCfh,μ,Ä”ñfpvfŠfbfVf...ff[f^,ðŠi”[.,μ,Ü,·B

—á14982

DefineProperties f\fbfh,ìÁ,à'Pff,È—á,í TComponent ,ìé±,Á,·BTComponent ,Á,ívf\fpfefB Left ,Æ Top ,áéCE¾,³,é,Á,ç,Ü,¹,ñ,áCfRf“f] [f]f“fg,ð,á”z’u,³,é,½^É’uî•ñ,ðŠi”[,Á,«,Ü,·BTComponent ,í DifineProperties ,ðf]fo[f %ofCfh,μ,ÄfRf“f]f]f“fg,ì^É’u,ð•Ü’¶,·,é,ì,ÁCTComponent ,©,ç¼Ü”h¶¶,μ,½”ñfrfWf... fAf<fRf“f]f]f“fg,í,»,ì^É’u,ð•Ü’¶,Á,«,Ü,·B

```
procedure TComponent.DefineProperties(Filer: TFiler);
begin
  Filer.DefineProperty('Left', ReadLeft, WriteLeft,
    LongRec(FDesignInfo).Lo <> 0);
  Filer.DefineProperty('Top', ReadTop, WriteTop, LongRec(FDesignInfo).Hi
    <> 0);
end;
```

^ê•û TControl ,Á,íŽÀÜ,É Left fvf\fpfefB,Æ Top fvf\fpfefB,ðpfufŠfbfVf... ,Æ,μ,ÄY’è,·,é,½,βCDefineProperties ,ðf]fo[f%ofCfh,μ,Ä,àu<U,ìvLeft ,Æ Top ,ð’è<` ,·,éEp³,μ,½f\fbfh,íCEÄ,Ño,·K—v,í, ,è,Ü,¹,ñB

```
procedure TControl.DefineProperties(Filer: TFiler);
begin
  { ŽÀÜ,ívf\fpfefB,É,æ,èÄ’è<` ,³,é,é,ì,ÁCEp³CE³,Á’è<` ,³,é,½fvf\fpfefB,ð-³Ž<,μ,Ü,· }
  Filer.DefineProperty('IsControl', ReadIsControl, WriteIsControl,
    FIsControl);
end;
```

ŽQÆ14983

DefineProperty f\fbfh

DefineBinaryProperty f\fbfh

DefineProperty f\fbfh14984

ŽQÆ —á

“K—p

TFile, TReader, TWriter

□é¾

```
procedure DefineProperty(const Name: string; ReadData: TReaderProc;  
  WriteData: TWriterProc;  
  HasData: Boolean); virtual; abstract;
```

□à-¾

DefineProperty f\fbfh,íftf@fCf%oIfufWfFfNfg,É,Æ,Á,Ä, ,½, ©,àfvf\fpfefB,ª¹Ÿ,·,é, ©,ì,æ,ª
,É“Ç,Ý,«,Á,«,éff[f^,ðŽÀsŽž,É'è<` ,µ,Ü,·B

Name ^ø” ,í,±,ìu<U,ìvfvf\fpfefB,ì-¼'O,ðŽw'è,µ,Ü,·B

^ø” ReadData ,Æ WriteData ,É,í•K—v,Èff[f^ ,ì“Ç,Ý,«,ðs,ª,½,ß,ìf\fbfh,ð,» ,ê,¼,êŽw'è,µ,Ü,·B

DefineProperty ,Æ,» ,lfofCjifŠ”Á,Ä ,é DefineBinaryProperty

,ì“Ç,Ý,«,·,éff[f^ ,ðŽ,ÁfufWfFfNfg,ì DefineProperties f\fbfh,ì't, ©,ç,ì,ÝÄ,Ño,·,±

,Æ,ª,Ä,«,Ü,·BDefineProperties ,í^ø” ,Æ,µ,Äftf@fCf%oIfufWfFfNfg,ðŽ,Á,Ä,ç,Ü,·B,» ,ì

DefineProperty ,â DefineBinaryProperty ,ðÄ,Ño,·,±,Æ,Äfvf\fpfefB,ì“o~^ ,ªs,í,ê,Ü,·B

f\: fvf\fpfefB,ì,«ž,Ýf\fbfh,ð'è<` ,·,é,Æ,«,íCp³CE³fNf

%fX,ð'm,ç,È, ,ê,î,È,è,Ü,¹,ñBAncestor fvf\fpfefB,ª nil ,Ä,È,çêê,íC³fNf

%fX, ©,çCp³,µ,½,à,ì^ÈŠO,ìV,½,É'Ç

%oÁ,µ,½fvf\fpfefB,ì'l,¾, ,ð,«ž,Ü,È, ,ê,î,È,ç,È,ç, ©,ç,Á,·B

—á14985

DefineProperties f\fbfh, à'P f, È—á, í TComponent , àéñ, Å, ·BTComponent
, Å, ívf\fpfefB Left ,Æ Top , àéç¼, ³, è, Å, ç, Û, ¹, ñ, àCfRf“f|
|[f|f“fg, à”z'u, ³, è, ½^Ê'u|î•ñ, ðŠi”[, Å, «, Û, ·BTComponent , í DifineProperties , ðf|fo|[f
%ofCfh, µ, ÄfRf“f|[f|f“fg, ì^Ê'u, ð•Û'¶, ·, é, ì, ÅCTComponent , ©, ç'¼Û”h¶µ, ½”ñfrfWf...
fAf<fRf“f|[f|f“fg, í, » , ì^Ê'u, ð•Û'¶, Å, «, Û, ·B

```
procedure TComponent.DefineProperties(Filer: TFiler);  
begin  
  Filer.DefineProperty('Left', ReadLeft, WriteLeft,  
LongRec(FDesignInfo).Lo <> 0);  
  Filer.DefineProperty('Top', ReadTop, WriteTop, LongRec(FDesignInfo).Hi  
<> 0);  
end;
```

ŽQÆ14986

DefineBinaryProperty f\fbfh

DefineProperties f\fbfh

Ancestor fv\pfefB

DesignInfo fvf[]pfefB14987

“K—p

TComponent (.,x,Ä,lfRf“f[]lf“fg)

□éĒ¾

property DesignInfo: Longint;

□à-¾

DesignInfo fvf[]pfefB,É,ítfH[]f€fffUfCfi,Žg,αî•ñ,ŠÜ,Ü,ê,Ä,ç,Ü,·BDesignInfo
,ÉfAfNfZfX,;é•K—v,Í, ,è,Ü,¹,ñ□B

DestroyComponents f\fbfh14988

ŽQÆ

“K—p

TComponent (, ·, x, Ä, ðRf“f|“|f|“fg)

é¾

procedure DestroyComponents;

à-¾

DestroyComponents f\fbfh, ðRf“f|“|f|“fg, ðŠ—L, ·, é, ·, x, Ä, ðRf“f|“|f|“fg, É, Â, ç, Ä, C, Š—
L, Š, X, fg, ©, ç, í, æ, µ, C”p, Š, ü, µ, Ü, ·, BTComponent, ð Destroy f\fbfh, ð Destroying
, ð, É, Ä, Ñ, o, µ, ½, æ, ã, C, Destroy f\fbfh, », ð, à, ð, ð, ð—¹, ·, é, O, É DestroyComponents
, ð, É, Ä, Ñ, o, µ, Ü, ·, B

ŽQÆ14989

Destroy ffbfh

Destroying ffbfh

Destroying f\fbfh14990

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðfRf“f|[]f|f“fg)

é¾

procedure Destroying;

à-¾

Destroying f\fbfh, í ComponentState fvf[]pfefB, É csDestroying ftf%ofo, ðÝ'è, µ, Ä, ©, çŠ—
LfRf“f|[]f|f“fg, ², Æ, É Destroying f\fbfh, ðÄ, Ño, µ, ÄC, Ç, ðfRf“f|[]f|f“fg, É, à, ±, ðtf
%ofo, ðÄ“xÝ'è, ³, è, é, æ, x, É, µ, Ü, ·BcsDestroying , ð, ·, Ä, ÉÝ'è, ³, è, Ä, ç, è, ðCDestroying , í
%o½, à, µ, Ü, ¹, ñB

TComponent , ð Destroy f\fbfh, íŽÀÛ, É”pŠü, ·, é'O, É Destroying
, ðÄ, Ño, µ, Ü, ·BTWinControl , È, Ç, ð'¼, ðfRf“f|[]f|f“fg, àŠ—LfRf“f|[]f|f“fg, É, ±
, è, ©, ç”pŠü, ·, é, ±, Æ, ð'¼Û'É'm, ·, é, ½, ðCDestroying , ðÄ, Ño, µ, Ü, ·B

ŽQÆ14991

Destroy_f\fbfh

ComponentState_fvf\pfefB

EndOfList f\fbfh1492

ŽQÆ —á

“K—p

TReader

é¾

function EndOfList: Boolean;

à-¾

EndOfList f\fbfh,ÍŠ[f_[fIfufWfFfNfg,ª€-ÚfŠfXfg,ìÅÆã,Ü,Å“Ç,Ýo,μ,½ê#CTrue
,ð•Ô,μ,Ü,·B€-ÚfŠfXfg,ð“Ç,Ýo,·,É,íCfŠ[f_[fIfufWfFfNfg,ì ReadListBegin f\fbfh,ðÆÄ,Ño,μ,Ä,©,çCfŠfXfg€-Ú,ðEJ,è•Ô,μÆÄ,Ño,μ,ÄCEndOfList ,ª True ,ð•Ô,μ,½,ç
ReadListEnd ,ðÆÄ,Ño,μ,Ü,·B

—á14993

ŽŸ,lfR[fh,í TStrings flfufWfFfNfg,ì ReadData f[]f\fbfh,Á,·□B,±,lf[]\fbfh,Á,lfŠ[]f_[]lfifufWfFfNfg,©,ç•¶Žš—ñfŠfXfg“Ç,Ý□ž,Ý,ð•¶Žš—ñfŠfXfgflfufWfFfNfg,É'Ç
%oÁ,μ,Û,·□B

```
procedure TStrings.ReadData(Reader: TReader);  
begin  
    Reader.ReadListBegin;  
    Clear;  
    while not Reader.EndOfList do  
        Add(Reader.ReadString);  
    Reader.ReadListEnd;  
end;
```

ŽQÆ14994

ReadListBegin ffbfh

ReadListEnd ffbfh

EndReferences f\fbfh14995

ŽQÆ

“K—p

TReader

éÆ¾

procedure EndReferences;

à-¾

EndReferences f\fbfh,íCCEÝ,ç,đŽQÆ,·,éfŠ[f_[]fufWfFfNfg,ìXfgfŠ[f€,©,çRf“f|
[]fj“fg,đ“Ç,Ýo,·fR[]fh,ìfuf\fbfN,đ|—¹,μ,Û,·BEndReferences f\fbfh,íC•K,·
BeginReferences ,Æ FixupReferences ,ìCEÄ,Ño,μ,ì, ,é **try..finally** fuf\fbfN,ì **finally**
•”,ì†,ÅŽg,ç,Û,·B

ŽQÆ14996

BeginReferences ffbfh

FixupReferences ffbfh

Error f\fbfh14997

“K—p

TReaderCTList

é¾

fRf“f|f“fgšJ”ŽÒ,ÉŠÖÆW,·,é Error f\fbfh,í 2 ,Â, ,è,Ü,·B1 ,Â,ÍCfŠ[f_[]fifufWfFfNfg,afGf
%o[],É~<ö,µ,½ê±,ÉÆÄ,Ño,³,ê,Ü,·B,à,x 1

,Â,ÍCfŠXfgfifufWfFfNfg,ì“YŽš,“í^í,ð´,!,½ê±,ÉÆÄ,Ño,³,ê,Ü,·B

fŠ[f_[]fifufWfFfNfg,ì Error f\fbfh

fŠXfgfifufWfFfNfg,ì Error f\fbfh

Error f\bfbh1498

ŽQÆ —á

“K—p

TReader

é¾

```
function Error(const Message: string): Boolean; virtual;
```

à¾

```
Error f\bfbh,ÍŠ[f_[]fufWfFfNfg,ì OnError fCxf“fg,ì,½,ß,Ívf[]fefNfgf\bfbh,Å,·B-ß,è'l,ÍGf
%[][^—,ð'±s,·,é,©,Ç,κ,©Ž!,μ,Ü,·B-ß,è'l,ª True ,È,ç,Î,fAfvfŠfP[]fVf+f“,ÍGf%[][,ì,Ü,Ü^—
,ð'±,·,È,,Ä,Í,È,è,Ü,¹,ñBFalse ,È,ç,ÎCfGf%[][]ðCE[],Í-³Ž<,·,x,«,±,Æ,ðŽ!,μ,Ü,·B
fŠ[]f_[]fufWfFfNfg,ÍRf“f[]f[]f“fg,Ü,½,Ívf[]fpfefB,ì“Ç,Ýo,μ,ÉŠÖ,·,é-â'è,ðCEÿo,·,é,ÆC·K,
Error ,ðCEÄ,Ño,μ,Ü,·BffftfHf<fg,ìê±CError ,Í-ß,è'l,É False ,ðÝ'è,μCOnError
fCxf“fg,ÉfAf^fbf` ,³,è,½fnf“fhf%o,ðCEÄ,Ño,μ,Ü,·Bfnf“fhf%o,Å-ß,è'l,ð·ïX,·,é,±
,Æ,ª,Ä,«,Ü,·B
```

—á14999

TReader fJfufWfFfNfg,Í•K, try..except fufjfbfN,ì except •”,Å Error ,ðCEÄ,Ño,μCfGf %o[,ð-³Ž<,·,é<@%oï,ð—p^Ó,μ,Ü,·BŽÝ,Ì,æ,æ,É\•¶,ª•K—v,Å,·B

```
try
  { fRf“f[]fjf“fg,ðCEÄ,Ño,·¶ }
except
  on E: Exception do
  begin
    ... { fNfŠ[]f“fAfbfv,μ,Ü,· }
    if not Error(E.Message) then raise; { Error ,ª False ,ð•Ô,·,Æ—
    áŠO,ªÄ“x¶¶—,³,é,Ü,· }
  end;
end;
```

,±,ì^—•û-@,Í Delphi ŠÂ«<,Å,·,Å,É,²¶¶,©,à,μ,ê,Ü,¹,ñBftfH[]f€ftf@fCf<,ì“Ç,Ýo,μ†,É Delphi ,ª-ç`è<` ,ìvf[]fpfefB-¼,Ü,½,Í-ç“o~^ ,ìfRf“f[]fjf“fg,ðCEŸo,·,é,ÆCfŠ[]f_[]fGf%o[,ª”- ¶¶,μCfGf%o[,ð-³Ž<,μ,Ä“Ç,Ýo,μ,ð’±s,·,é,©q,Ë,éf[]fbfZ[]fWf{fbfNfX,ª•\Ž|,³,é,Ü,·B

ŽQÆ15000

OnError fCxf“fg

Error f\fbfh15001

ŽQÆ

“K—p

TList

é¾

procedure Error; **virtual**;

à-¾

Error f\fbfh,íC•s³,È“YŽš'I (•%o,ì“YŽš,âCfŠfXfg,ìE»Ý,ìTfCfY,ð' ',,½“YŽš,È,Ç)
,ðfŠfXfgfIfufWfFfNfg,ª'€i,µ,æ,æ,Æ,µ,½é¶,ÉEÄ,Ño,³,ê,Û,·BfftfHf<fg,Å,ÍCTList.Error
,É,æ,Ä,Ä EListError —áŠO,ª¶¶¬,³,ê,Û,·B

'Ç%oÁ,Û,½,Í'ä'Ö,ìfGf%o[[]^—,âfGf%o[fEfl[]fg,ð'ñ<ÿ,·,é,½,ß,ÉEError ,ðf[]fo[]f
%ofCfh,Å,«,Û,·B

ŽQÆ15002

EListError_flfufWfFfNfg

ftf@fCf<f, [fh'è" 15003

ŽQÆ —á

ftfjfbfg

Classes

à-¾

Classes ftfjfbfg, lftf@fCf<fXfgfŠ [f€flufWfFfNfg, i Create fRf“fXfgf%ofNf^, lfpf %of [f^, Æ, μ, ĀŽg, ftf@fCf<f, [fh'è", l", đžw'è, μ, Ü, ·BŽw'è, ·é'è", É, æ, èCfXfgfŠ [f€ , ÉŠÖ~A•t, ¯, ç, ê, ½ftf@fCf<, đŠJ, , Ì, ÉŽg, ftf@fCf<f, [fh, ^Æ^, Ü, è, Ü, ·B

ŽŸ, l·\, Éftf@fCf<f, [fh'è", Æ, » , Ì^Ó-i, đŽl, μ, Ü, ·B

'è"

'l

^Ó-i

'è"	'l	^Ó-i
fmOpenRead	\$0000	“Ç, Ýo, μ—p, Éftf@fCf<, đŠJ,
fmOpenWrite	\$0001	‘, «ž, Ý—p, Éftf@fCf<, đŠJ,
fmOpenReadWrite	\$0002	“Ç, Ý‘, «—p, Éftf@fCf<, đŠJ,
fmShareExclusive	\$0010	ftf@fCf<, đŠJ,- B, », ÌŠÖ'¼, lfAfvfŠfP [fVf#f“ , “Ç, Ýo, μ, Ü, ½, l‘, «ž, Ý, l, ½, B, », lf tf@fCf<, đŠJ, , ±, Æ, l, Ā, «, È, ç
fmShareDenyWrite	\$0020	ftf@fCf<, đŠJ,- B, », ÌŠÖ'¼, lfAfvfŠfP [fVf#f“ , “‘, «ž, Ý, l, ½, B, », lftf@fCf<, đŠJ, , ± , Æ, l, Ā, «, È, ç
fmShareDenyRead	\$0030	ftf@fCf<, đŠJ,- B, », ÌŠÖ'¼, lfAfvfŠfP [fVf#f“ , “Ç, Ýo, μ, l, ½, B, », lftf@fCf<, đŠJ, , ± , Æ, l, Ā, «, È, ç
fmShareDenyNone	\$0040	ftf@fCf<, đŠJ, B, », ÌŠÖ'¼, lfAfvfŠfP [fVf#f“ , “Æè, μ, ĀŽg, ¨- Ú“l, Ā, », lftf@fCf<, đŠJ, , ±, Æ, l, Ā, «, È, ç
fmCreate	\$FFFF	ftf@fCf<, đV<K [fVf#f“ , ·, éB“ , ¶-¼‘O, ÌŠù‘¶lftf@fCf<, , , éê [fVf#f“ V, μ, çftf@fCf<, ĀX [fVf#f“ , ·, é

ftf@fCf<f, [fh'è" , l or %%%ŽŽžq, đŽg, Á, ĀÆ< [fVf#f“ , Ā, «, Ü, ·B

—á15004

ŠÖ~A•t,̄,ç,ê,½ftf@fCf<,³“Ç,Ý□o,μ□ê—
p,É□Ý'è,³,ê,Ä,¨,è□C'¼,lfAfvfŠfP□[fvf#f“,à,»,lftf@fCf<,ð“Ç,Ý□o,¹,é□ê#□Cftf@fCf<fXfgfŠ□[f€
,ðŠ,,É,Í□Cftf@fCf<f,□[fh'è□”,ðŽÝ,ì,æ,π,ÉÆ<□‡,μ,Û,·□B

```
FileStream := TFileStream.Create('EXAMPLE.STM', fmOpenRead or  
fmShareDenyWrite);
```

ŽQÆ15005
Create ffbfh

FindClass ŠÖ"15006

ŽQÆ

ftfjfbfg

Classes

é¾

function FindClass(**const** ClassName: **string**): TPersistentClass;

à-¾

FindClass ŠÖ",Í"o~^İ,Ý,İfİfufWfFfNfgCE^fŠfXfg,ðCEŸð,μCClassName ,É^ê'v,·,é-
¼'O,Ü,½,İfGfŠfAfX,ðŽ,Â"o~^İ,Ý,İCE^,Ö,İfİfufWfFfNfgCE^ŽQÆ,ð•Ô,μ,Ü,·BClassName
,É^ê'v,·,é"o~^İ,Ý,İCE^,È,çêê#CFindClass ,Í EClassNotFound —áŠO,ð¶İ¬,μ,Ü,·B

GetClass ŠÖ",à"¬,¶,æ,æ,ÉCEŸð,μ,Ü,·,çCŽw'è,μ,½-¼'O,É^ê'v,·,é"o~^İ,Ý,İCE^,È,çêê#
nil ,ð•Ô,μ,Ü,·B

ŽQÆ15007

GetClass ŠÖ

RegisterClasses Žè'±,«

FindMethod f\fbfh15008

ŽQÆ

“K—p

TReader

é¾

```
function FindMethod(Root: TComponent; const MethodName: string): Pointer;  
    virtual;
```

à¾

FindMethod f\fbfh, í Root , ÅŽw'è, μ, ½fRf“f[fj“fg“à, É, , è MethodName , ÅŽw'è, μ, ½-
¼'O, ðŽ, Âf\fbfh, Ö, ìfjCf“f^, ð•Ô, μCOnFindMethod fCxf“fg, ÉfAf^fbf` , ³, è, ½fCxf“fgfnf“fhf
%o, ¢, , è, í, » , è, ðCEÄ, Ño, μ, Ü, ·BFindMethod , ¢Žw'è, ìf\fbfh, ðCE© , Â, ¯, ç, è, , OnFindMethod
fnf“fhf%o, ¢fGf%o[fyf%ofO, ðfNfŠfA, μ, È, çê#CFindMethod , í EReadError —
áŠO, ð¶ï¬, μ, Ü, ·B

fŠ[f_[]fifufWfFfNfg, ìf\fbfhfjCf“f^ ('Éí, ìê#fCxf“fg) , Â, , éfvf[]pfefB, ð“Ç, Ýo, ·, Æ, «, É
FindMethod , ðCEÄ, Ño, μ, Ü, ·BfŠ[f_[]fifufWfFfNfg, íŠ, „, è“—, Ä, ç, è, ½f\fbfh (fCxf“fgfnf“fhf
%o) , ì-¼'O, ð“Ç, Ýo, μ, ½CEãCFindMethod , ðCEÄ, Ño, μ, Äf<[]fgfifufWfFfNfg (ftfH[]f€) “à, ìf\fbfh,
ìfAfhfCEfX, ðŽæ, èo, μ, Ü, ·B

fŠ[f_[]fifufWfFfNfg, ©, ç“Ç, Ýo, μ, ½f\fbfhfjCf“f^, ì^—•û-
©, ðfjXf^f}fCY, ·, é, É, íï¬, μ, ½fnf“fhf%o, ð OnFindMethod fCxf“fg, ÉfAf^fbf` , μ, Ü, ·B

ŽQÆ15009

OnFindMethod_fCxf“fg

FixupReferences f\bfbfh15010

ŽQÆ —á

“K—p

TReader

é¾

procedure FixupReferences;

à-¾

FixupReferences f\b

f\bh,íC,; ,x,Ä,lfufWfFfNfg,ª“Ç,Ýo,³,ê,½æ,Éfš[f_[flfufWfFfNfg,lfXfgfš[f€

,©,ç“Ç,Ýo,³,ê,éC,³,Ü,´,Ü,É‘ŠŸ^É‘¶fRf“f|[flf“fgšÖ,ìŽQÆ,ð

%øŸ^,μ,Ü,·BFixupReferences f\bfbfh,íC•K, , **try..finally** fuf\bfbfN“à,ì BeginReferences

,Æ EndReferences ,ìæÄ,Ño,μ,ìšÖ,ÅŽg,ç,Ü,·B

ŽQÆ15011

BeginReferences ffbfh

EndReferences ffbfh

FlushBuffer f\fbfh15012

ŽQÆ

“K—p

TFile CTReader CTWriter

é¾

procedure FlushBuffer; **virtual**; **abstract**;

à¾

FlushBuffer f\fbfh,íCŠÖ~A•t, ,ç,ê,½xfXfgfŠ[f€,Æftj@fCf

%oflfufWfFfNfg,lfobftj@,Æ,ðCfŠ[f_[]lfufWfFfNfg,É,Ä,ç,Ä,lfobftj@,ðÄ“Ç,Ýo,μ,·,é,±
,Æ,Å“~Šú,³,¹Cf%ofCf^[]lfufWfFfNfg,É,Ä,ç,Ä,ÍCE»[]Ý,lfobftj@,ð‘,«ž,P,±,Æ,Å“~Šú,³,¹,Ü,·B

TFile ,íC’ŠÛf\fbfh,Æ,μ,Ä FlushBuffer ,ðé¾,μ,Ü,·B TReader ,Æ TWriter

,íCCE»ŽÀ“l,ÈŽÀ‘•,ì,½,ß,É FlushBuffer ,ðf[]fo[]f%ofCfh,μ,Ü,·B

ŽQÆ15013
Create ffbfh

FreeNotification f\fbfh15014

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðRf“f|“|f“fg)

é¾

procedure FreeNotification(AComponent: TComponent);

à-¾

FreeNotification f\fbfh, íCfRf“f|“|f“fg, ðjŠü, ^a AComponent ,É’Ê’m, ³,ê,é,±
,Æ,ð•ÚØ,μ,Û,·B”jŠü, ³,ê,é,éRf“f|“|f“fg,Æ”~^ê, ðftfH“f€“à, ðRf“f|“|f“fg,É,Ä,ç,Ä,í
Notification f\fbfh, ^aŽ©“@“l,ÉÆÄ,Ño, ³,ê,Û,·, ^aC”jŠü, ³,ê,é,éRf“f|
“|f“fg,Ö, ðŽQÆ, ^a, ,é,Û,©, ðftfH“f€“à, ðRf“f|“|f“fg, ðê“í FreeNotification
,ðÆÄ,Ño, ³,È, ,ê,Î,È,è,Û, ¹,ñB

ŽQÆ15015

Notification ffbfbh

GetChildOwner f\fbfh15016

ŽQÆ

“K—p

TComponent (,·,×,Ä,lfRf“f|[]f|f“fg)

□éŒ¾

function GetChildOwner: TComponent; **dynamic**;

□à-¾

GetChildOwner f\fbfh,íCfXfgfŠ[]f€,©,ç“Ç,Ý[]o,μ,Ä,ç,éŽqfRf“f|
[]f|f“fg,lf|[]f|[][,đ•Ô,μ,Û,·BGetChildOwner ,^a **nil** ,đ•Ô,·□é[]#,í[]CŒ»[]Ý“Ç,Ý[]o,μ,Ä,ç,é
(‘Éí,íftfH[]f€,Ä, ,é) f<[]f|f|f“fg,³f|[]f|[][,Ä, ,é,Æ‘z’è,³,ê,Û,·B

ŽQÆ15017

Owner fvfpfefB

GetChildParent f\fbfh15018

ŽQÆ

“K—p

TComponent (,·,×,Ä,lfRf“f|lf“fg)

é¾

function GetChildParent: TComponent; **dynamic**;

à-¾

GetChildParent f\fbfh,íCfXfgfŠ[f€,©,ç“Ç,Ýo,μ,Ä,ç,éŽqfRf“f|lf“fg,le,ð•Ô,μ,Û,·BGetChildParent ,^a **nil** ,ð•Ô,·ê‡,íCCE»Ý“Ç,Ýo,μ,Ä,ç,é
(‘Éí,íftfH[f€,Ä, ,é) f<lfqfRf“f|lf“fg,^ae,Ä, ,é,Æ‘z’è,³é,Û,·B

ŽQÆ15019

Parent fvfpfefB

GetChildren f\fbfh15020

ŽQÆ —á

“K—p

TComponent

é¾

procedure GetChildren(Proc: TGetChildProc); **dynamic**;

à-¾

GetChildren f\fbfh,íCfRf“f[f“fg,ìuŽqvfRf“f[f“fg (íuŽqvfRf“f[f“fg,ì
GetParentComponent f\fbfh,ì,ìŽ©•ª,đŽw,μ,Û,·) ,đ•Ô,μ,Û,·B

TComponent ,ì GetChildren ,ìŽq,đ•Ô,μ,Û,¹,ñBTWinControl ,ì GetChildren ,ì`è<` ,đf[fo[f
%ofCfh,μCŽ©•ª,ðe,Æ,·,é,·,×,Ä,ìRf“fgf[f<,đ•Ô,μ,Û,·B,½,Æ,ì,ìCfpflf<fRf“f
[f“fg,íC,» ,ìRf“f[f“fg“à,ì,·,×,Ä,ìRf“fgf[f<,đ•Ô,μCfjff...[€-Ú,íC,» ,ìfjff...
[,ì,·,×,Ä,ì%º^É€-Ú,đ•Ô,μ,Û,·B

Žq€-Ú,É'í,μ,ÄCì-íC,Â,Û,èftH[f€ftf@fCf<,É•Ù'¶,³,ê,Ä,ç,é¶"Ô,Â Proc ,É“n,³,ê,½f\fbfh,ªCEÄ,Ño,³,ê,Û,·B

f\fbfh: GetChildren ,íCDELPHI 1.0 ,ì WriteComponents f\fbfh,É'u,«Š,ì,éf\fbfh,Â,·BGetChildren ,íCftH[f€,ìEp³,đftf[f,μ,Ä,ç,Û,·B

-á15021

TWinControl ,ì GetChildren f□\fbfh,ðŽŸ,ÉŽ!,μ,Ü,·□BfRf“fgf□□[f<,lfŠfXfg,ð”½•œ□^—
□,μ,Ä□CŠefRf“fgf□□[f<,ð Proc f<□[f`f“,É“n,μ,Ä,ç,é,±,Æ,É’□^Ó,μ,Ä,,¾,¾,ç□B

```
procedure TWinControl.GetChildren(Proc: TGetChildProc);  
var  
  I: Integer;  
  Control: TControl;  
  Form: TForm;  
begin  
  Form := GetParentForm(Self); { ,Ç,ìftfH□[f€“à,É,ç,é,©,ðœ©,Ä,~,é }  
  for I := 0 to ControlCount - 1 do { ŽqfRf“fgf□□[f<,ð”½•œ□^—□,·,é }  
  begin  
    Control := Controls[I]; { ŠefRf“fgf□□[f<,ðŽæ“¾,μ... }  
    if Control.Owner = Form then { ...»,é,¾,±,ìftfH□[f€“à,É,é,î... }  
      Proc(Control); { ...Proc ,É“n,· }  
  end;  
end;
```


ŽQÆ15022

GetParent fvfpfefB

GetClass ŠÖ"15023

ŽQÆ

ftfjfbfg

Classes

é¾

function GetClass(**const** ClassName: **string**): TPersistentClass;

à-¾

GetClass ŠÖ",í“o~^İ,Ý,İfİfufWfFfNfgĈ,İfŠfXfg,ðĈÿð,μĈCClassName ,É^ê'v,·,é-¼'O,Û,½,İfGfŠfAfX,ðŽ,Â“o~^İ,Ý,İĈĈ^,Ö,İfİfufWfFfNfgĈ^ŽQÆ,ð•Ö,μ,Û,·BClassName ,É^ê'v,·,é“o~^İ,Ý,İĈĈ^,ª,È,çĈĈĈĈĈĈCGetClass ,í **nil** ,ð•Ö,μ,Û,·B

FindClass ŠÖ",à“-,İ,æ,ª,ÉĈÿð,μ,Û,·,ªĈCŽw'è,μ,½-¼'O,É^ê'v,·,é“o~^İ,Ý,İĈĈ^,ª,È,ç,Æ—áŠÖ,ðĈĈĈĈĈĈ-,μ,Û,·B

ŽQÆ15024

FindClass ŠÖ

RegisterClasses Žè'±,«

GetFixupRoots Žè'±,«15025

Unit

[Classes](#)

Declaration

```
procedure GetFixupRoots (Names: TStrings; Root: TComponent);
```

Description

The GetFixupRoots procedure fills the Names string list with the names of any root components (that is, in general, forms) that still need to be loaded to resolve pointers in the already-loaded component, Root. Such pointers are a result of form linking.

If Root is **nil**, GetFixupRoots fills Names with the names of all pending root components.

GetComponent fbfh15026

ŽQÆ

“K—p

TComponent

é¾

function GetComponent: TComponent; **dynamic**;

à-¾

GetComponent fbfh,íCfRf“f[]f“fg,ìe,đ•Ô,μ,Û,·BfRf“fgf[]f<,Æf[]fj...[]€-
Ú,íC,»»,ê,ç,ì Parent fvfpfefB,ì‘,đ•Ô,μ,Û,·B€-ÚfRf“f|
[]f“fg,íCŠÖ~A•t,¯,ç,ê,½ff[]f^fZfbfg,đ•Ô,μ,Û,·BŽÀÛ,ìu[]e[]v,^a,È,çfRf“f[]f“fg,íCnil
,đ•Ô,μ,Û,·B

ŽQÆ15027

Parent fvfpfefB

Grow f\fbfh15028

ŽQÆ —á

“K—p

TListCTStringList

é¾

procedure Grow; **virtual**;

à¾

Grow f\fbfh,íCfŠfXfglfufWfFfNfg,ì—e—Ê,đŠg’â,μ,Û,·BffftfHf<fg,Á,íCŽÿ,ì•\,ÉŽ|,·,æ,π
,ÉCfŠfXfg,ì»Ý,ìTfCfY,É%ž,¶,Á^Ù,È,é—Ê,,Á—e—Ê,³Šg’â,³,ê,Û,·B

»Ý,ì—e—Ê ‘•ª

0..4 4

5..8 8

9 ^Èã 16

€—Ú,ì’Ç%Á,Û,½,í’}“ü,É,æ,Á,ÄfŠfXfg,ì»Ý,ì—e—Ê,ª,ç,Á,ì,ç,É,È,é,ÆCfŠfXfglfufWfFfNfg,ª
Grow ,đCEÄ,Ño,μ,Û,·BGrow ,đfì[f%ofCfh,·,é,±,Æ,ÁC—e—
Ê,ì’•ªTfCfY,đ•ì,½,èCfŠfXfg,ìTfCfY,đ\$CEÄ,Á,«,Û,·B

—á15029

ŽŸ,ìfR[]fh,í[]C[]í,É 42 []€-Ú, ,,ÂfŠfXfg,ì—e—Ê,đŠg'â,·,é,æ,α,É Grow f[]\fbfh,đfi[]fo[]f
%ofCfh,μ,Ä,φ,Û,·[]B

```
procedure TMyList.Grow;  
begin  
    Capacity := Capacity + 42;  
end;
```


ŽQÆ15030

Capacity fvfpfefB

Handle fvf[]fpfefB15031

ŽQ[]Æ

“K—p

THandleStream

[]éÆ¾

property Handle: Integer;

[]à-¾

Handle fvf[]fpfefB,đŽg,æ,Æ[]Cfnf“fhf<fXfgfŠ[][f€,ì Create fRf“fXfgf
%ofNf^,ÅŽw’è,·,éftf@fCf<fnf“fhf<,É“Ç,Ý[]o,μ[]ê—p,ìfAfNfZfX,^a,Å,«,Ü,·[]B,±
,ìfnf“fhf<,íftf@fCf<fnf“fhf%oo,đŽg,æftf@fCf<ŠÇ—[]f<[]f`f“,É“n,¹,Ü,·[]B

ŽQÆ15032
Create ffbfh

HasParent f\fbfh15033

ŽQÆ

“K—p

TComponent, TControl, TMenuItem

é¾

function HasParent: Boolean; **dynamic**;

à-¾

HasParent ŠÖ” ,ílfufWfFfNfg,ì‘ ,«ž,Ý,ÉÓ”C,đ•%o,æe,ª‘¶Ÿ,·,é,©,Ç,æ
,©Ž!,µ,Û,·BfftfHf<fg,ìê±CTComponent ,ì HasParent f\fbfh,í False
,đ•Ô,µ,Û,·BTControl ,Æ TMenuItem ,í,Ç,ì,ç,à HasParent ,đf[fo[f%ofCfh,µ,Ä•K, , True
,đ•Ô,µ,Û,·B

True ,íXfgfŠ[f€,Ö,ìlfufWfFfNfg,ì‘ ,«ž,Ý,í•Ê,ìlfufWfFfNfg,ª,» ,ì WriteComponents f\fbfh,ÅŽÅs,·,é,±

,Æ,đŽ!,µ,Û,·B,Û,Æ,ñ,Ç,ìê±C•Ê,ìlfufWfFfNfg,Æ,íRf“fg[f<,đŽ,ÁftH[f€
,Û,½,ípfjf<fRf“f[f“fg,Å,·B

f\fbfh,: HasParent ,©,ç True ,đ•Ô,·Žq,íCGetParentComponent f\fbfh,Æ
SetParentComponent f\fbfh,àŽÀ‘•,µ,È, ,ê,î,È,è,Û,¹,ñB

HasParent ,đf[fo[f%ofCfh,·,é•K—v,í,Û,Æ,ñ,Ç, ,è,Û,¹,ñB

ŽQÆ15034

Parent_fvf[]pfefB

GetParentComponent_f[]fbfh

SetParentComponent_f[]fbfh

IgnoreChildren fvf[]pfefB15035

ŽQ[]Æ

“K—p

TFiler

[]éÆ¾

property IgnoreChildren: Boolean;

[]à-¾

IgnoreChildren fvf[]pfefB,É,æ,è[]Cf%ofCf^[]f[]fufWfFfNfg,ífRf“f[]f[]f“fg,ªŠ—L,µ,Ä,ç
,éŽq,ífRf“f[]f[]f“fg,ð•Û’¶,µ,É,ç,Ä[]efRf“f[]f[]f“fg,¾,¯,ð•Û’¶,Ä,«,Û,·[]BIgnoreChildren ,ª True
,ì[]ê[]#[]Cf%ofCf^[]f[]fufWfFfNfg,í[]CfRf“f[]f[]f“fg,ð[]’,«[]ž,Ý[]C,»,ífRf“f[]f[]f“fg,ªŠ—L,µ,Ä,ç
,éŽqfRf“f[]f[]f“fg,ì•û,í[]’,«[]ž,Ý,Û,¹,ñ[]B,»,ê^ÈŠO,ì[]ê[]#[]Cf%ofCf^[]f[]fufWfFfNfg,í[]C[]Š—
L,µ,Ä,ç,é,·,×,Ä,íf[]fufWfFfNfg,ðfXfgfŠ[]f€,É[]’,«[]ž,Ý,Û,·[]B

ŽQÆ15036

WriteComponent_fbfh

InitComponentRes ŠÖ"15037

ŽQÆ

ftfjfbfg

Classes

é¾

```
function InitComponentRes(const ResName: string; Instance: TComponent):  
    Boolean;
```

à¾

InitComponentRes ŠÖ",íC^È%º,ì 2 " _ ,ðœ,ç,Ä ReadComponentRes ŠÖ",Æ" ,¶,Å,·B

- Instance ,í nil ^ÈŠO,Å,È, ,ê,î,È,ç,È,ç
- ResName ,æ©,Å,©,ç,È,çê±CFalse ,ð•Ô,µC—áŠO,ð¶¬,µ,È,ç

ŽQÆ15038

ReadComponentRes ŠÖ

LineStart ŠÖ"15039

ftfjfbfg

Classes

é¾

function LineStart(Buffer, BufPos: PChar): PChar;

à-¾

LineStart ŠÖ", í Buffer ,ÁŽw'è,μ,½fefLfXfgfobftf@,ìŽŸ,lfefLfXfgs,ìÁ%o,ì•Ÿš,Ö,lf|
fCf"f^,ð•Ô,μ,Û,·BBufPos fpf

%of|[f^,íŸŸ,ìŸ»Ÿ^É'u,Û,½,íŠŽn^É'u,ðŽ!,μ,Û,·BLineStart ,í BufPos
,áŽ!,·•Ÿš,Áfobftf@,íŸŸ,ð,ðŠŽn,μC%üs (#10) ,ìŽŸ,ì•Ÿš,Ö,lf|fCf"f^,ð•Ô,μ,Û,·B

LineStart ,í (Memo fRf"f|[f|f"fg,áŽg,æ,æ,æ,È)

'å,«,ÉfefLfXfgfobftf@,Á•;|"s,ðŸŸ,·,é,ì,ÉŽg,æft|[fefBfŠfefBŠÖ",Á,·B

Loaded f\fbfh15040

ŽQÆ —á

“K—p

TComponent

é¾

procedure Loaded; virtual;

à-¾

Loaded f\fbfh,íXfgfŠ[f€, ©,çRf“f[f“fg,ì,·, x,Ä,ì”•ª,ðf[fh,μ,½CEã,ÅRf“f]
[f“fg,»,ì,à,ì,ð%Šú%»·,·,é,ì,ÉŽg,ç,Ü,·B,½,Æ,ì,Î Delphi
fAvfŠP[fVf+“ ,əftH[f€ftf@fCf<, ©,çftH[f€,ðf[fh,·,·,éê#CÅ%o,ÉftH[f€Rf“f]
[f“fg,ì Create fR“fXfgf%ofNf^ ,ðCEÄ,Ño,μ,ÄftH[f€
,ði¬,μ,Ä, ©,çCftH[f€ftf@fCf<,Ä,Ü,èXfgfŠ[f€
, ©,çvf[pfefB’l,ð“Ç,Ýo,μ,Ü,·B,·, x,Ä,ìRf“f]
[f“fg,ì,·, x,Ä,ìvf[pfefB’l,ð“Ç,Ýo,μ,½CEãCDelphi ,ìRf“f[f“fg,ði¬,μ,½# ,ÉŠefRf“f]
[f“fg,ì Loaded f\fbfh,ðCEÄ,Ño,μ,Ü,·BLoaded f\fbfh,Ä,í¼,ìRf“f[f“fg,Ü,½,íŽ©fRf“f]
[f“fg,ì¼,ì”•ª,ì’l,É],Ä,Ä%Šú%»·,·,é“à—e,ð•ì,ì,ç,ê,Ü,·B

—á15041

ŠÖ~A•t, ,ç,ê,½f[]ffBfAftf@fCf<,ì AutoOpen fvf[]fpfefB,ª True ,È,ç,î[]CMedia Player fRf“fj
[]fjf“fg,í Loaded ,ðf[]fo[]f%ofCfh,μ,Ä,» ,ìftf@fCf<,ðŽ©“®“l,ÉŠJ,« ,Û ,·[]BCreate fRf“fXfgf
%ofNf^ ,Å,í,È, Loaded f[]\fbfh,Åftf@fCf<,ðŠJ,,Æ[]Cf[]ffBfAfvfÆ[]f,,ðŠJ,-
‘O,É,»,ì,·,×,Ä,ìfvf[]fpfefB,ð[]³,μ,ŠmŽÀ,É[]%oŠú%o»,Å,« ,Û ,·[]B

```
procedure TMediaPlayer.Loaded;  
begin  
  inherited Loaded; { Cp[]³,μ,½ Loaded ,ð•K, ,[]æ,ÉCEÄ,Ñ[]o,μ,Ä,,¾,³,¢ }  
  if (not (csDesigning in ComponentState)) and FAutoOpen then  
    Open;  
end;
```

ŽQÆ15042
Create ffbfh

LoadFromFile f\fbfh15043

ŽQÆ

“K—p

TMemoryStream

é¾

procedure LoadFromFile(**const** FileName: **string**);

à-¾

LoadFromFile f\fbfh, í FileName , ÅŽw'è, ., éftf@fCf<, ì'S"à—e, ðf, fŠfXfgfŠ[f€
, É"Ç, Ýo, µCŠù'¶, ì"à—e, ðXV, µ, Ü, ·B"Ç, Ýo, µ, ½f, fŠfXfgfŠ[f€
, ìftf@fCf<, ìf, fŠ"àfRfs[, É, È, è, Ü, ·B

ŽQÆ15044

LoadFromStream f\bfbh

SaveToFile f\bfbh

LoadFromStream f\fbfh15045

ŽQÆ

“K—p

TMemoryStream

é¾

procedure LoadFromStream(Stream: TStream);

à-¾

LoadFromStream f\fbfh,í Stream ,ÅŽw'è, .éfXfgfŠ[f€,ì'S“à—e,đf,fŠfXfgfŠ[f€
,É“Ç,Ýo,μCŠù'¶,ì“à—e,đXV,μ,Ü,·Bf,fŠfXfgfŠ[f€,í\ [fXfXfgfŠ[f€,ìRfs[É,È,è,Ü,·B

ŽQÆ15046

SaveToStream f\fbfh

LoadFromFile f\fbfh

MaxListSize 'è"15047

ŽQÆ

ftjfbfg

Classes

é¾

const

MaxListSize = MaxInt **div** 16;

à¾

MaxListSize 'è",ÍŠfXfgfIfufWfFfNfg,É"ü,é€-Ú,ìÅ'â",ð•\,μ,Û,·B

ŽQÆ15048

Count fvfpfefB

Memory fvf[]pfefB15049

ŽQ[]Æ

“K—p

TCustomMemoryStream

□é☒¾

property Memory: Pointer;

□à-¾

Memory fvf[]pfefB, íf[]f, fšfXfgfš[]f€Éš,,, è“- , Ä, ½f[]f, fšfv[]f<, É'¼[]ÚfAfNfZfX, Å, «, é, æ, x, É, μ, Ü, ·□B

f[]f,: Memory , í“Ç, Ý[]o, μ[]ê—pfvf[]pfefB, È, ì, Å'[]^Ó, μ, Ä, ,¾,¾, ç, ç[]Bš,,, è“- , Ä[]í, Ý, ìf[]f, fš, ð•í[]X, μ, È, ¯, ê, î, È, ç, È, ç[]ê[]#[]Cf[]f, fš, ìš,,, è“- , Ä☒ã, É SetPointer f[]f\fbfh, ð☒Ä, Ñ[]o, μ, Ä[]Äš,,, è“- , Ä, μ, ½f[]f, fš, ð Memory fvf[]pfefB, É[]Ý'è, μ, È, ¯, ê, î, È, è, Ü, ¹, ñ[]B

ŽQÆ15050

Clear ffbfh

SetPointer ffbfh

NextValue f\fbfh15051

ŽQÆ

“K—p

TReader

é¾

function NextValue: TValueType;

à-¾

NextValue f\fbfh,íCfš[f_][fifufWfFfNfg,ìXfgfš[f€“à,ìŽŸ,ì€-
Ú,ì€^,ð•Ô,μ,Û,·B'ì€^fCf“fWfP[f^,ì'O,Á, ,Á,À,àXfgfš[f€^É'u,ðŽg,Á,À•Ô,μ,Û,·B

ŽQÆ15052

ReadValue_f\fbfh

Notification f\fbfh15053

ŽQÆ —á

“K—p

TComponent

é¾

procedure Notification (AComponent: TComponent; Operation: TOperation);
virtual;

à-¾

Notification f\fbfh, í AComponent, ÅŽw'è, ·, éfRf“f\fbfh“fg, É, » , ðfRf“f\fbfh“fg, ð Operation
, ÅŽw'è, ·, é, Æ, ”, è, É' } “ü, Ü, ½, ííœ, ·, é, ±, Æ, ð'É'm, µ, Ü, ·BfftfHf<fg, ðê#CfRf“f\fbfh“fg, ÉŠ—
LfRf“f\fbfh“fg,^a, , ê, î, » , ðŠ—LfRf“f\fbfh“fg, É, à'É'm, µ, Ü, ·B

fRf“f\fbfh“fg, ðfRf“f\fbfh“fg, ð' } “ü, ©íœ, ð, Ç, ç, ð'É'm, ©, ÉŠî, Å, ç
, Å“ @ ðì, ð·î, ç, ê, Ü, ·B“Á, ÉfRf“f\fbfh“fg, É'¼, ðfRf“f\fbfh“fg

\fbfh“fg, Ö, ðŽQÆ, ðŠÜ, ðf\ufWfFfNfgftfB\fbfh, Ü, ½, ðvf\pfefB,^a, , éê#CfRf“f\fbfh“fg, ðíœ, ·, é'É'm, ©, Ç, æ, ©Šm“F, µCíœ, Å, , ê, î·K—v, É%ž, ¶, ÅŽQÆ, ð-
¾ø, É, Å, «, Ü, ·B

—á15054

Batch Move fRf“f|[]f|f“fg,Í Notification ,đf|[]fo[]f%ofCfh,μ,Ü,·[]BOperation ,^ª opRemove
,ì[]è[]#[]Cfofbf`^Ú“@fRf“f|[]f|f“fg,Í AComponent ,đ,»,ì Source fv[]f[]pfefB,Æ Destination
fv[]f[]pfefB,Æ”äŠr,μ,Ü,·[]B,Ç,ì,ç,©,^ªí[]œ,·,éfRf“f|[]f|f“fg,Å, ,é,Æ[]Cfofbf`^Ú“@fRf“f|[]f|f“fg,Íî
%ož,·,éfv[]f[]pfefB,ð **nil** ,É[]Ý`è,μ,Ü,·[]B

ŽQÆ15055

InsertComponent ffbfh

RemoveComponent ffbfh

TOperation Ć^

ObjectBinaryToText Žè'±,«15056

ŽQÆ

ftfjfbfg

Classes

é¾

procedure ObjectBinaryToText (Input, Output: TStream);

à-¾

ObjectBinaryToText Žè'±,«,ÍfofCfifŠfXfgfŠ[f€,ÉŠi"[,³,ê Input ,ÅŽw'è,.,éfRf"f|[]f|f"fg
(WriteRootComponent f[]f|fbfh,Å[]ì[]-,³,ê,½fRf"f|[]f|f"fg,È,Ç) ,ðfefLfXfgCE`Ž® ,É•İŠ·,μ,Ä
Output ,ÅŽw'è,.,éfXfgfŠ[f€,É[]o—Í,μ,Ü,·[]B'É[]í,ÌfefLfXfgftf@fCf<,ð•Ò[]W,·,é,æ,x
,É[]CfefLfXfgfo[]fWf#f",ÍfefLfXfgfGffBf^,ðŽg,Á,ÄfOf[][]fof<,ÉCEÿ[]ð'uŠ·,È,Ç,Ì^—
[],³,Ä,«,Ü,·[]BObjectTextToBinary
,ðCEÄ,Ñ[]o,¹,ÍfefLfXfgftf@fCf<,ðfofCfifŠCE`Ž® ,É[]Ä•İŠ·,Ä,«,Ü,·[]B

ŽQÆ15057

ObjectTextToBinary Žè'±,«

ObjectResourceToText Žè'±,«15058

ŽQÆ

ftfjfbfg

Classes

é¾

procedure ObjectResourceToText (Input, Output: TStream);

à-¾

ObjectResourceToText Žè'±,«Í Windows fŠ\ [fXftf@fCf<CE`Ž® (Delphi
ftfH [f€ftf@fCf<,È,Ç) ,ÅŠi" [,³,ê Input ,ÅŽw'è,·,éfRf"f| [fj"fg,ðfefLjXfgCE`Ž®,É•İŠ·,μ,Ä
Output ,ÅŽw'è,·,éfXfgfŠ [f€,É□o—Í,μ,Ü,·□B'É□í,lfefLjXfgftf@fCf<,ð•Ò□W,·,é,æ,x
,É□CfefLjXfgfo□ [fWf#f" ,lfefLjXfgfGffBf^ ,ðŽg,Á,ÄfOf□□ [fof<,ÉCEŸ□ð'uŠ·,È,Ç,ì□^—
□,ª,Á,«,Ü,·□BObjectTextToResource
,ðCEÄ,Ñ□o,¹,lfefLjXfgftf@fCf<,ðfofCfifŠCE`Ž®,É□Ä•İŠ·,Á,«,Ü,·□B

ObjectResourceToText ,Í ReadResHeader f□f\fbfh,ðCEÄ,Ñ□o,μ,Ä Input ,©,çfŠf\
□ [fXftf@fCf<fwfbf_□ [,ð"Ç,Ý□o,μ□CŽÝ,É ObjectBinaryToText ,ðCEÄ,Ñ□o,μ,ÄfŠf\
□ [fXftf@fCf<,ÉŠÜ,Ü,ê,Ä,ç,éfofCfifŠff□ [f^ ,ð•İŠ·,μ,Ü,·□B

ŽQÆ15059

ObjectTextToResource Žè'±,«

ObjectTextToBinary Žè'±,«15060

ŽQÆ

ftfjfbfg

Classes

é¾

procedure ObjectTextToBinary(Input, Output: TStream);

à-¾

ObjectTextToBinary Žè'±,«Í Input ,ÅŽw'è,³,ê,½fefLfXfgCE`Ž®,Å•Û'¶,³,ê,Ä,ç,éRf"fl
[fj"fg,ðfofCfifŠCE`Ž® (WriteRootComponent f¶fjfbfh,Å¶',«ž,ñ,¾,à,ì,Æ"~,¶) ,É•İŠ,µ,Ä
Output ,ÅŽw'è,·,éXfgfŠ[f€,Éo—Í,µ,Û,·B

ObjectTextToBinary ,Í ObjectBinaryToText Žè'±

,«,¶¶¶µ,½fefLfXfgftf@fCf<,ðÄ•İŠ,·,é,ì,É,½,ç,Ö,ñ•Ö—~,È,¾,~,Å,È,-
C•É,lfAfvfšP[fVf¶f",¶¶¶µ,·,éfefLfXfg,àfofCfifŠftf@fCf<,É•İŠ,Å,«,Û,·B

ŽQÆ15061

ObjectBinaryToText Žè'±,«

ObjectTextToResource Žè'±,«

ObjectTextToResource Žè'±,«15062

ŽQÆ

ftfjfbfg

Classes

é¾

procedure ObjectTextToResource (Input, Output: TStream);

à-¾

ObjectTextToResource Žè'±,«,Í Input ,ÅŽw'è,·,éfefLjXfgĈ`Ž®,lfXfgfAfhfRf"f[]f"fg (Delphi fR[]fhfGfffBf^,©,çfefLjXfg,Æ,μ,Ä•Ú'¶,μ,½ftfH[]f€ftf@fCf<,È,Ç) ,ð Windows fofCfifŠfŠf[]fXftf@fCf<Ĉ`Ž®,É•İŠ,μ,Ä Output ,ÅŽw'è,·,éfxfgfŠ[]f€,É[]o—Í,μ,Ü,·B

ObjectTextToResource

,ÍftfH[]f€ftf@fCf<,İ•İŠ,μ,½fefLjXfgfo[]fWf#f",©,çftfH[]f€ftf@fCf<,ð[]-·,·,é,İ,É,½,ç,Ö,ñ•Ö—~ ,É,¾,·,Ä,È,[]C•È,lfAfvfŠfP[]fVf#f",Ü,½,Í ObjectResourceToText Žè'± ,«,¾[]-·,μ,½ĈÝŠ·fefLjXfgftf@fCf<,à•İŠ,Ä,«,Ü,·B

ObjectTextToResource ,Í ObjectTextToBinary Žè'±

,«,ðĈÄ,Ñ[]o,μ,ÄfefLjXfgftf@fCf<,ðfofCfifŠĈ`Ž®,É•İŠ,μ,Ä,©,ç[]CfŠf[]fXftf@fCf<fwfbf_[] ,ð[]-·,μ[]CfofCfifŠff[]f^ ,ðfŠf[]fXftf@fCf<,ÉŠi"l,μ,Ü,·B

ŽQÆ15063

ObjectResourceToText Žè'±,«

ObjectTextToBinary Žè'±,«

OnError fCxf"fg15064

ŽQÆ

“K—p

TReader

é¾

property OnError: TReaderError;

à-¾

OnError fCxf"fg,ífŠ[f_[]fifufWfFfNfg,³ff[f^,ì“Ç,Ý[]o,µfGf%[] (“ñé¾fvf[]fpfefB,ì-¼'O,Ü,½,í•s[]³,É'I,ì“Ç,Ý[]o,µ,È,Ç) ,ðŒÝ[]o,·,é,Æ"[]¶,µ,Ü,·[]BOnError fCxf"fg,ðŽg,æ,Æ[]CfGf %[][,ð^—[],·,é,±,Æ,à-³Ž<,·,é,±,Æ,à,Å,«,Ü,·[]B

OnError fCxf"fgfnf"fhf%o,É“n,·[]ÅŒä,ìfpf%of[]f^,í Handled ,Æ,ç,æ var fpf %of[]f^,Å,·[]BfftfHf<fg,ìê[]¶[]CError f[]fbfh,í Handled ,ð False ,É,µ,Ü,·,°[]CfGf %[][,ð[]C[]³,·,é,©fGf%[][,ð-³Ž<,·,éfnf"fhf%o,í Handled ,É True ,ðÝ'è,µ[]CfGf %[][,ð,»,ê^É~^—[],µ,È,ç,æ,æ,É,µ,Ü,·[]BfCxf"fgfnf"fhf%o,©,ç[]Œä,ª-β,Á,½,Æ,«,É Handled ,ª False ,ÉÝ'è,³,ê,Ä,ç,é,Æ[]CfŠ[]f_[]fifufWfFfNfg,í EReadError — áŠO,ð[]¶[]-,µ,Ü,·[]B

ŽQÆ15065

fŠ[f [lfufWfFfNfg.ìError f\fbfh

OnFindMethod fCxf“fg15066

ŽQAE

“K—p

TReader

é¾

property OnFindMethod: TFindMethodEvent;

à-¾

OnFindMethod fCxf“fg,ÍŠ[f_][fifufWfFfNfg,³fifufWfFfNfg,lfvfbfhf|
fCf“f^fvf[]pfefB,ðÆÄ,Ño,·,½,Ñ,É”[]μ,Û,·Bf[]f[]bfhf|fCf“f^fvf[]pfefB,Í”ñí,É,æ,-
ÆÄ,Í,ê,Û,·B

OnFindMethod fCxf“fg,Í,Û,Æ,ñ,Ç,ìé#[]CŽ,“s,μ,½f[]f[]bfh,ð^—,·,é•û-
@,ðf[]fU[],Éq,Ë,é,ì,ÉŽg,ç,Û,·BFindMethod f[]f[]bfh,lf[]f[]bfhf|fCf“f^,ÉŠ,,è“-,Ä,½f[]f[]
bfh,ð'T,¹,È,ç,Æ[]COnFindMethod fnf“fhf%o,ì Error fpf%of[]f^,ð True ,ÉÝ'è,μ,Û,·BError ,Í
var fpf%of[]f^,È,ì,Ä[]Cfnf“fhf%o,í Error ,ð False ,ÉÝ'è,Ä,«,Û,·BFalse ,ÉÝ'è,·,é,Æ[]Cfnf“fhf
%o,³\$Æä,ð•Ô,μ,½,Æ,« FindMethod ,Í—áŠO,ð[]μ,Û,¹,ñB

ŽQÆ15067

FindMethod.f\fbfh

OnSetName fCxf“fg15068

ŽQÆ —á

“K—p

TReader

é¾

property OnSetName: TSetNameEvent;

à-¾

OnSetName fCxf“fg, íŠ[f_ [fifufWfFfNfg, afXfgfŠ[f€, ©, ç“Ç, Ýo, ·fRf“f| [fif“fg, ì Name
fvf [fpfefB, ðÝ’è, ·, é’¼’O, É”¶, μ, Ü, ·BOnSetName fCxf“fgfnf“fhf%o, ì Name fpf%of [f^, í
var fpf%of [f^, È, Ì, ÅCfŠ[f_ [fifufWfFfNfg, a Name fpf%of [f^, ðfRf“f| [fif“fg, ÉŠ,,, è“-
, Ä, é’O, Éfnf“fhf%o, í-¼’O, ð·ïX, Å, «, Ü, ·BftfH [f€“à, ì, ·, x, Ä, ÌfRf“f| [fif“fg-
¼, ÉftfBf<f^, ð, ©, -, Ä·¶Žš—ň, É’Ç%oÁ, μ, ½, è^è·”, ð·ïX, μ, ½, è, ·, éè¶, É·Ö—~, Å, ·B

—á15069

OnSetName fCxf"fg—p,ìŽŸ,ìfnf"fhf%o,í-¼'O,É Button ,ðŠÜ,ñ,Å,ç,é,·,x,Ä,ìfRf"f|[]f|f"fg,ì-¼'O,ð•íX,μ,Ä PushButton ,ðŠÜ,p,æ,æ,É,μ,Ü,·B

```
procedure TForm1.ReaderSetName(Reader: TReader; Component: TComponent;
  var Name: string);
var
  ButtonPos: Integer;
begin
  ButtonPos := Pos('Button', Name);
  if ButtonPos <> 0 then
    Name := Copy(Name, 1, ButtonPos - 1) + 'PushButton' +
      Copy(Name, ButtonPos + 6, Length(Name));
end;
```


ŽQÆ15070

fŠ[f [lfufWfFfNfg.ì SetName ffbfh

Owner fvf[]fpfefB15071

ŽQ[]Æ

“K—p

TReader

□é€¾

property Owner: TComponent;

□à-¾

fŠ[]f_[][fifufWfFfNfg, ì Owner fvf[]fpfefB, ÌfŠ[][f_[][fifufWfFfNfg, ÌfXfgfŠ[][f€
, ©, ç“Ç, Ý[]o, μ, ½, ·, ×, Ä, ÌfRf“f|[][fj“fg, ì Owner fvf[]fpfefB, Æ, μ, ÄŠ,, è“- , Ä, éfRf“f|
[][fj“fg, ðŠi“[, μ, Ü, ·□B

ŽQÆ15072

fR“f“[f“fg,ì Owner fv“fpfefB

Parent fv“fpfefB

Parent fvf[]fpfefB15073

ŽQ[]Æ

“K—p

TReader

□é€¾

property Parent: TComponent;

□à-¾

fŠ[]f_[][fifufWfFfNfg,ì Parent fvf[]fpfefB,ífŠ[]f_[][fifufWfFfNfg,ìfXfgfŠ[][f€
, ©,ç“Ç,Ý[]o,μ,½,·,×,Ä,ìfRf“fgf[]f<,ì Parent fvf[]fpfefB,Æ,μ,ÄŠ,,è“-,Ä,éfRf“f|
[]fif“fg,ðŠi”[,μ,Ü,·□B

ŽQÆ15074

fR“fgf[]f<,i Parent fv[]fpfefB

Owner fv[]fpfefB

Position fvf[]fpfefB15075

“K—p

TStream[]CTReader[]CTWriter

□à-¾

Delphi ,lfXfgfŠ[]f~f“fO, ”,æ,Ñftf@fCfŠf“fOJvfXfef€É,Í[]CŠÖ~A,·,é Position fvf[]fpfefB,ª 2
,Â, ,è,Ü,·□B1 ,Â,lfXfgfŠ[]f€è»Y^Ê'u,Â□C,à,x 1 ,Â,Í[]CfŠ[]f_[]f[]fufWfFfNfg,Ü,½,Íf
%ofCf^[]f[]fufWfFfNfg,lfobftf@“à,Â,ì[]CCE»Y,ì“Ç,Y[]o,μ^Ê'u,Ü,½,Í[]',«ž,Y^Ê'u,Â,·□B

fXfgfŠ[]f€f[]fufWfFfNfg,ì Position fvf[]fpfefB

fŠ[]f_[]f[]fufWfFfNfg,Æf%ofCf^[]f[]fufWfFfNfg,ì Position fvf[]fpfefB

Position fvf[]pfefB15076

žQ[]Æ

ftjfbfg

Classes

“K—p

TStream

□é€¾

property Position: Longint;

□à-¾

Position fvf[]pfefB,Í“Ç,Ý□’,«—pfXfgfŠ□lf€,lfjfcf“fglftfZfbfg,đŽ!,μ,Ü,·□B

ŽQÆ15077

Seek ffbfh

Size fvfpefB

Position fvf[]fpfefB15078

ŽQ[]Æ

“K—p

TReader[]CTWriter

[]éĒ¾

property Position: Longint;

[]à-¾

ftf@fCf%[]fufWfFfNfg,[] Position

fvf[]fpfefB,[]CŠÖ~A•t, ,ç,è,½fXfgfŠ[]f€“à,Å,[]Ē»[]Ý,[]“Ç,Ý[]o,μ^Ê'u,Ü,½,[]Í,«[]ž,Ý^Ê'u,đ•\ ,μ,Ü,·[]B^ê”É,É Position ,[]' ,[]Í[]C,à,Á,Æ,à[]V,μ,-

“Ç,Ý[]ž,Ü,è,½fofbftf@fuf[]fbfN“à,©[]',«[]ž,Ü,è,éžŸ,[]fuf[]fbfN“à,É, ,è,Ü,·[]B,μ,½,ª,Á,Ä[]C'É[]í

Position ,[]Í[]Cf%[]fCf^[]fufWfFfNfg,[]ê[]#,[]fXfgfŠ[]f€,[] Position -ç-

ž,Å, ,è[]CfŠ[]f_[]fufWfFfNfg,[]ê[]#,[]fXfgfŠ[]f€,[] Position ,æ,è'â,«,.,É,è,Ü,·[]B

Position ,đĒ»[]Ý,[]fofbftf@,[]ŠO'x,[]^Ê'u,É[]Ý'è,.,é,Æ[]CFlushBuffer ,ªĒÄ,Ñ[]o,³,è,Ü,·[]B

ŽQÆ15079

fXfgfŠ[f€.ì Position fvfpfefB

FlushBuffer ffbfh

Read f\fbfh15080

ŽQÆ

“K—p

TStream

é¾

function Read(**var** Buffer; Count: Longint): Longint; **virtual**; **abstract**;

à-¾

Read f\fbfh,íXfgš[f€, ©,ç Count ,ÅŽw'è,·,éfofCfg” ,ð Buffer ,É“Ç,Ýo,μCfXfgš[f€
,ìE»Ý^É'u,ð Count

,ÅŽw'è,·,éfofCfg” ,¾, ¯i,ß,Ä, ©,çCŽÀÜ,É“Ç,Ýo,μ,½fofCfg” ,ð•Ô,μ,Ü,·B-ß,è'l,ª Count
'l,æ,è,È,çê#CŽw'è,μ,½fofCfg” ,ð“Ç,Ýo,·'O,ÉfXfgš[f€,ìÅEä,Ü,Å“Ç,Ýo,μ,½,±
,Æ,ð^Ó-i,μ,Ä,ç,Ü,·B

TStream.Read ,íŠÜf\fbfh,Å,·B%o^ÊfXfgš[f€CE^,í,»,è,¼,è“Á'è,ì<L%o~"}ì

(f\,fš,Ü,½,ífffBfXfNftf@fCf<,É,Ç) , ©,çff[f^,ð“Ç,Ýo,· Read f\fbfh,ð'è<` ,μ,Ü,·B,»,è^ÉŠO,íXfgš[f€ff[f^“Ç,Ýo,μf\fbfh (ReadBuffer, ReadComponent) ,íŽÀÜ,É“Ç,Ýo,·,½,ß,É Read ,ðEÄ,Ño,μ,Ü,·B

ŽQÆ15081

fXfgfŠ[f€lfufWfFfNfg.ìWrite_f[f\bfh

ReadBoolean f\fbfh15082

ŽQÆ

“K—p

TReader

é¾

function ReadBoolean: Boolean;

à-¾

ReadBoolean f\fbfh,ÍŠ[f_[]fufWfFfNfg,©,ç~—‘l,đ“Ç,Ýo,μ,»,ìl,đ•Ô,μ,Ü,·B

ŽQÆ15083

Read f\fbfh

WriteBoolean f\fbfh

ReadBuffer f\fbfh15084

ŽQÆ

“K—p

TStream

é¾

procedure ReadBuffer(**var** Buffer; Count: Longint);

à-¾

ReadBuffer f\fbfh,íXfgfŠ[f€, ©, ç Count ,ÅŽw'è,·,éfofCfg",đ Buffer
,É“Ç,Ýo,μCfXfgfŠ[f€,ì«»Ý^Ê'u,đ Count ,ÅŽw'è,·,éfofCfg",¾, i,ß,Ü,·BfXfgfŠ[f€
,ìÅÆã,Ü,Å“Ç,Ýo,μ,Ä,à,Ü,¾“Ç,Ýo,»,x,Æ,·,é,ÆCReadBuffer ,í EReadError —
áŠO,đ¶—,μ,Ü,·B

ŽQÆ15085

Read f\fbfh

WriteBuffer f\fbfh

ReadChar f\fbfh15086

ŽQÆ

“K—p

TReader

é¾

function ReadChar: Char;

à-¾

ReadChar f\fbfh,ÍŠ[f_[]fufWfFfNfg,ìXfgfŠ[f€
,©,ç•¶Žš,đ“Ç,Ý[]o,μ[]C•¶Žš,ì'!,đ•Ô,μ,Ü,·[]B

ŽQÆ15087

Read f\fbfh

WriteChar f\fbfh

ReadComponent f\fbfh15088

ŽQÆ

“K—p

TStream

é¾

function ReadComponent (Instance: TComponent): TComponent;

à-¾

ReadComponent f\fbfh,ÍXfgfŠ[f€,©,ç Instance ,ÅŽw'è,·,éRf“f|
|[f|“fg,đ“Ç,Ýo,μC,» ,ìRf“f|[f|“fg,đ•Ô,μ,Û,·BReadComponent
,ÍŠ|[f|[f|fufWfFfNfg,đ̀̀,μC,» ,ì ReadRootComponent f\fbfh,đCEÄ,Ño,μ,Ä Instance ,Æ
Instance ,ªŠ—L,·,é,·,×,Ä,ìf|fufWfFfNfg,đ“Ç,Ýo,μ,Û,·B

Instance ,ª **nil** ,È,ç,îCReadComponent ,ÍXfgfŠ[f€,ìCE^î•ñ,ÉŠî,Ä,ç,ÄRf“f|
|[f|“fg,đ̀̀,μC∨,μ,̀̀,μ,½fRf“f|[f|“fg,đ•Ô,μ,Û,·B

ŽQÆ15089

ReadRootComponent ffbfh

fXfgš[f€fufWfFfNfg.ì WriteComponent ffbfh

ReadComponentRes ffbfh1590

ŽQÆ

“K—p

TStream

é¾

function ReadComponentRes (Instance: TComponent): TComponent;

à-¾

ReadComponentRes ffbfh,íXfgš[f€,©,ç Instance ,ÅŽw'è,·,éRf“fj
[fj“fg,ð“Ç,Ýo,μ,Û,·BfXfgš[f€,ì«»Ý^Ê'u,í WriteComponentRes ffbfh,ðŽg,Á,Äï¬,μ,½fRf“f|[fj“fg,ðŽw,μ,Ä,ç,È,,Ä,Í,È,è,Û,¹,ñB

ReadComponentRes ,íÅ%o,É ReadResHeader ,ðÄ,Ño,μ,ÄfXfgš[f€,ìšf
[fXfwfbf_[][,ð“Ç,Ýo,μ,Ä,©,çCReadComponent ,ðÄ,Ño,μ,Ä Instance
,ð“Ç,Ýo,μ,Û,·BfXfgš[f€,ì«»Ý^Ê'u,Éšf|[fXfwfbf_[][,È,ç,ÆCReadResHeader ,í
EInvalidImage —áŠO,ðï¬,μ,Û,·B

fj,: Classes ftjfbfg,É,í ReadComponentRes ,Æ,ç,«ŠÖ”,à, ,èC,Ù,Ú“~,ï^—
[],ð,μ,Û,·,ªCfAfvfšP[]fj“f”,ìšf|[fX,Éš,Ä,ç,Ä“ÆŽ©,ìXfgš[f€,ðï¬,μ,Û,·B

ŽQÆ15091

WriteComponentRes ffbfh

ReadResHeader ffbfh

ReadComponent ffbfh

ReadComponentRes ŠÖ”

ReadComponentRes ŠÖ"15092

ŽQÆ

ftfjfbfg

Classes

é¾

```
function ReadComponentRes (const ResName: string; Instance: TComponent):  
    TComponent;
```

à-¾

ReadComponentRes ŠÖ", í AccessResource API ŠÖ", ðÄ, Ño, µ, Ä ResName

, Åžw'è, ·, éfŠf\

[fX, ð'T, µC, »), Ì<‰%oÊ©, Â, ¯, ½fnf"fhf<, ðŽg, Á, Äfnf"fhf<fXfgfŠ[f€fufWfFfNfg, ðŠJ, «, Ü, ·BR

eadComponentRes , íŽŸ, ÉfXfgfŠ[f€, Ì ReadComponent f\fbfh, ðÄ, Ño, µ, ÄfŠf\ [fX, Ì

Instance , ð"Ç, Ýo, µCReadComponent , ¢•Ô, ·'l, ð•Ô, µ, Ú, ·B

ReadComponentRes , ífXfgfŠ[f€fufWfFfNfg, ðŽè"® , Åi□¬, µ, ½, è"jŠü, ¹, , ÉfŠf\ [fX, É, È, Á, Ä, ¢

, éfRf" f\fbfh, ð"Ç, Ýo, ¹, é, Ì, Å•Ö—, Å, ·B

ŽQÆ15093

ReadComponent f\fbfh

ReadComponentResFile ŠÖ”

ReadComponentRes f\fbfh

InitComponentRes ŠÖ”

ReadComponentResFile ŠÖ"15094

ŽQÆ

ftjfbfg

Classes

é¾

function ReadComponentResFile(**const** FileName: **string**; Instance: TComponent): TComponent;

à-¾

ReadComponentResFile ŠÖ",í FileName ,ÅŽw'è,·,éftf@fCf<,©,çfRf"f|
|[f|f"f|fg,ð"Ç,Ýo,μC"Ç,Ýo,μ,½fRf"f|[f|f"f|g,ª, ,ê,Î,»ê,ð•Ô,μ,Ü,·BDelphi ,í
ReadComponentResFile ,ðŽg,Á,ÄftfH|[f€ftf@fCf<,©,çftfH|[f€,Æ,»],lfRf"f|
|[f|f"f|fg,ð"Ç,Ýo,μ,Ü,·BDelphi ftfH|[f€ftf@fCf<,ð"Ç,Ýo,μCfRf"f|
|[f|f"f|fg,ð•îX,μ,ÄC,»),ìC<%oÊ,ðftfH|[f€ftf@fCf<,É',«ž,þft|[fefBfŠfefB,ði- ,Á,«,Ü,·B
ReadComponentResFile ,í FileName
,ÉŠÖ~A•t, ,ç,ê,½ftf@fCf<fXfgfŠ|[f€flfufWfFfNfg,ði- ,μCfXfgfŠ|[f€,ì ReadComponentRes
f|f|fbfh,ðCÄ,Ño,μ,Ä Instance ,ð|[fh,μ,Ü,·B

ŽQÆ15095

WriteComponentResFile Žè'±,«

ReadComponentRes f\fbfh

ReadComponents f\fbfh15096

ŽQÆ

“K—p

TReader

é¾

procedure ReadComponents (AOwner, AParent: TComponent; Proc:
TReadComponentsProc);

à-¾

ReadComponents f\fbfh, íŠ[f_ [fufWfFfNfg, ÌÖ~ AfXfgfŠ[f€, ©, çRf“f|
[f|f“fgfŠfXfg, ð“Ç, Ýo, µ, Ü, ·B

ReadComponents , íÅ%o, ÉfŠ[f_ [fufWfFfNfg, Ìvf\fpfefB Root ,Æ Owner ,ð AOwner fpf
%of [f^ , ÅŽw'è, , éfRf“f| [f|f“fg, ÉÝ'è, µ, Ä, ©, çC, » , Ì Parent fvfpfefB, ð AParent
, ÉÝ'è, µ, Ü, ·BŽŸ, É ReadComponent f\fbfh, ðÄ, Ño, µ, ÄfRf“f|

[f|f“fg, ð“Ç, Ýo, µC•Ö, ³, ê, éŠefRf“f| [f|f“fg, ð Proc , ÅŽw'è, , éf\fbfh, É“n, µ, Ü, ·B

, , x, Ä, ÌfRf“f| [f|f“fg, ðfŠfXfg, Éf [fh, µ, ½ÄãCReadComponents , Ì [fh, µ, ½ŠefRf“f| [f|f“fg, Ì
Loaded f\fbfh, ð“Ç, Ýo, µ, ½±, ÉÄ, Ño, µ, Ü, ·B

ŽQÆ15097

ReadComponent f\fbfh

WriteComponents f\fbfh

ReadFloat f\bfbfh15098

ŽQÆ

“K—p

TReader

é¾

function ReadFloat: Extended;

à-¾

ReadFloat f\bfbfh,ÍŠ[f_[]fIfufWfFfNfg,ìXfgfŠ[]f€
,©,ç•,“®-[]”_”,đ“Ç,Ý[]o,μ[]C,»,ìl,đ•Ô,μ,Û,·[]B

ŽQÆ15099

Read ffbfh

WriteFloat ffbfh

ReadIdent f\bfbfh15100

ŽQÆ

“K—p

TReader

é¾

`function ReadIdent: string;`

à-¾

ReadIdent f\bfbfh,ÍŠ[f_ [fifufWfFfNfg,İfXfgfŠ [f€
, ©, çŽ •ÊŽq,đ“Ç,Ýo,μC,» ,İŽ •ÊŽq,đ•Ô,μ,Û,·B

ŽQÆ15101

Read f\fbfh

Writident f\fbfh

ReadInteger f\bfbfh15102

ŽQÆ

“K—p

TReader

é¾

function ReadInteger: Longint;

à-¾

ReadInteger f\bfbfh, íŒ[f_[f|fufWfFfNfg, ìXfgfŒ[f€
, ©, ç®“CE^”, đ“Ç, Ýo, μC, », ì'l, đ•Ô, μ, Ü, ·B

ŽQÆ15103

Read ffbfh

WriteInteger ffbfh

ReadListBegin f\fbfh15104

ŽQÆ —á

“K—p

TReader

é¾

procedure ReadListBegin;

à-¾

ReadListBegin f\fbfh, íŠ[f_ [fufWfFfNfg, ìŠÖ~ AfXfgfŠ[f€
, ©, çfŠfXfg, ìŠjŽnf} [f] [, ð“Ç, Ýo, μ, Ü, ·BfXfgfŠ[f€, ìŽŸ, ì€-Ú, ^a WriteListBegin f\fbfh, ^a ì, μ, ½ŠjŽnf} [f] [, Å, È, ç, ÆCReadListBegin , í EReadError —áŠO, ð¶ì, μ, ·B
ReadListBegin , ðCEÄ, Ño, μ, ½CEã, íÊí, ìè¶“Ç, Ýo, μf< [fv, ðŽÀs, μ, Ü, ·B, ±, ìf< [fv, Å, í
EndOfList f\fbfh, ^a True , ð•Ô, ·Æ!—¹, μCfXfgfŠ[f€, É, ìŽŸ, ÉfŠfXfg, ì!—¹, ð•\
, f} [f] [, ^a , èC, » , ±, Å ReadListEnd , ðCEÄ, Ño, ³, È, , Ä, í, È, ç, È, ç, ±, Æ, ðŽ!, μ, Ü, ·B

—á15105

TStrings flfufWfFfNfg, ífŠ[f_[]flfufWfFfNfg, ©, ç•¶Žš—ñfŠXfg, ð“Ç, Ý[]o, ·, Æ, «, É
ReadListBegin ,Æ ReadListEnd ,ðŽg, ç, Ü, ·[]BŽÝ, ì ReadData f[]f\fbfh, Ì TStrings ,ª, », ì
DefineProperties f[]f\fbfh, Å•¶Žš—ñff[]f^, ð“Ç, Ý[]o, ·, ½, ß, É“o~^, ·, éf[]f\fbfh, Å, ·[]B

```
procedure TStrings.ReadData(Reader: TReader);  
begin  
  Reader.ReadListBegin;      { fŠXfg, ìŠJŽnf}[]fj[]l, ð“Ç, Ý[]o, μ, Ü, · }  
  Clear; { Šù¶, ì, ·, x, Å, ì•¶Žš—ñ, ðfNfŠfA, μ, Ü, · }  
  while not Reader.EndOfList do { ff[]f^,ª, ,éÇÈÀ, è... }  
    Add(Reader.ReadString);   { ...•¶Žš—ñ, ð“Ç, Ý[]o, μ, » ,é, ðfŠXfg, É'Ç  
%oÁ, μ, Ü, · }  
    Reader.ReadListEnd;      { fŠXfg, ì[]l—¹f}[]fj[]l, ðŠm“F, μ, Ü, · }  
end;
```

ŽQÆ15106

Read f\fbfh

ReadListEnd f\fbfh

WriteListBegin f\fbfh

ReadListEnd f\fbfh15107

ŽQÆ —á

“K—p

TReader

é¾

procedure ReadListEnd;

à-¾

ReadListEnd f\fbfh, íŠ[f_][fifufWfFfNfg, ìŠÖ~ AfXfgfŠ[f€, ©, çfŠfXfg, ì—
¹f}][f][, ð“Ç, Ýo, µ, Ü, ·B“Ç, Ýo, µ, ½€—Ú, ¢I—¹f}][f][, Å, È, ç, ÆCReadListEnd , í EReadError
—áŠO, ð¶µ, Ü, ·BReadListEnd , ðÆÄ, Ño, ·, É, íCæ, É ReadListBegin , ðÆÄ, Ño, µ, Ä, ç, È, -
, Ä, í, È, è, Ü, ¹, ñB

ŽQÆ 15108

Read ffbfh

EndOfList ffbfh

ReadListBegin ffbfh

WriteListEnd ffbfh

ReadPrefix f\fbfh15109

ŽQÆ

“K—p

TReader

é¾

procedure ReadPrefix(**var** Flags: TFileFlags; **var** AChildPos: Integer);

à-¾

ReadPrefix f\fbfh,íCfš[f_lfufWfFfNfg,lfXfgfš[f€,©,çRf“f|
|[f|“fg,lfvfçftfBfNfX,ð“Ç,Ýo,μ,Û,·Bf%ofCf^|[fufWfFfNfg,í,»|fXfgfš[f€,ÉfRf“f|
|[f|“fg,ð‘,«ž,þéþCfRf“f|[f|“fgž©‘ì,ì‘O,É 2 ,Â,ì‘,ð•t,¯,Û,·B1 “Ô-Ú,íCfRf“f|
|[f|“fg,ªă^ÊftfH[f€,©,çCp³,³,é,Ä,ç,é,©,Ç,κ,©,ÆCftfH[f€“à,Â,ì^Ê‘u,ªd—v,©,Ç,κ
,©,ð•\,·ftf%ofO,Â,·B2 “Ô-Ú,íCă^ÊftfH[f€,ìi-þ,Â,ì^Ê‘u,ð•\,μ,Û,·B
ReadComponent f\fbfh,í ReadPrefix ,ðŽ© “®“l,ÉCEÄ,Ño,μ,Û,·ªCfRf“f|
|[f|“fg,lfvfçftfBfNfX,ðCEÂ•Ê,É“Ç,Ýo,³,È,¯,é,Î,È,ç,È,çêþ,íCReadPrefix
,ð¼ÚCEÄ,Ño,·,±,Æ,à,Â,«,Û,·B

ŽQÆ15110

ReadComponent_f\fbfh

ReadResHeader f\fbfh15111

ŽQÆ

“K—p

TStream

é¾

procedure ReadResHeader;

à-¾

ReadResHeader f\fbfh, íXfgfŠ[f€, ©, ç Windows fŠf\

[fXftf@fCf<fwfbf_][, ð“Ç, Ýo, µfXfgfŠ[f€, ìCE»Ý^É'u, ð,», ìfwfbf_][, æ, è 1

, Åæ, É^Ú“® , µ, Ü, ·BfXfgfŠ[f€, É—LCEø, ÈfŠf\ [fXftf@fCf<fwfbf_][, ¢, È, ç, ÆCReadResHeader

, í EInvalidImage —áŠO, ð¶[µ, Ü, ·B

ReadComponentRes f\fbfh, ífŠf\ [fXftf@fCf<, ©, çRf“f [f“fg, ð“Ç, Ýo, ·O, ÉŽ©“®“I, É

ReadResHeader , ðCEÄ, Ño, µ, Ü, ·B'Éí, ìê¶ft [fU [, ¢CEÄ, Ño, ·K—v, í, , è, Ü, ¹, ñB

ŽQÆ15112

ReadComponentRes ffbfh

ReadRootComponent f\fbfh15113

ŽQÆ

“K—p

TReader

é¾

function ReadRootComponent (Root: TComponent): TComponent;

à-¾

ReadRootComponent f\fbfh, íŠ[f_ [flfufWfFfNfg, ìXfgfŠ [f€, ©, çRf“f] [flf“fg, Æ, » , ì , . , x , Ä , ìŠ—LfRf“f [flf“fg, ð“Ç, Ýo, µ, Û, ·BReadRootComponent , íÅ%o, É ReadSignature f\fbfh, ðÆÄ, Ño, µ, Ä“KØ, ÈfRf“f [flf“fg, ð“Ç, Ýo, . , æ, x, É, µ, Ä, ©, çCfRf“f] [flf“fg, ìvf [fpfefB, ÆŠ—LflfufWfFfNfg, ð“Ç, Ýo, µ, Û, ·BRoot , ÅŽw’è, . , éfRf“f] [flf“fg, ðŠ [f_ [flfufWfFfNfg, ì Root fv [fpfefB, ì' , É, È, è, Û, ·B, ±, ì' , ì'“Ç, Ýo, µ, ½ŠeŠ—LflfufWfFfNfg, ìfi [, Æ, È, è, Û, ·B

ŽQÆ15114

Root_fvf\fpfefB

ReadComponents_f\fbfh

WriteRootComponent_f\fbfh

ReadSignature f\fbfh15115

ŽQÆ

“K—p

TReader

é¾

procedure ReadSignature;

à¾

ReadSignature f\fbfh,ÍŠ[f_[]fufWfFfNfg,ìŠÖ~AfXfgfŠ[f€,©,ç Delphi ftf@fCf% ID
,đ“Ç,Ýo,μ,Ü,·BReadRootComponent f\fbfh,ÍXfgfŠ[f€,©,çRf“f[]fj“fg,đĀ,Ño,·‘O,É
ReadSignature ,đĀ,Ño,μ,Ü,·BfufWfFfNfg,đf[]fh,·,é‘O,É-
¼,đŠ”F,·,é,ÆCfŠ[f_[]fufWfFfNfg,Å-³Āø,È,Ü,½,í•ö%ó,μ,½ff[f^,đ“Ç,Ýo,³,È,ç,æ,æ
,É•ÛĀi,Å,«,Ü,·B

ftf@fCf%[]-¼,í 4 •ŕŽš,Å,·B,±,ìfo[]fWf+f“,ì Delphi ,Å,íCTPF0 ,Å,·B

ŽQÆ15116

ReadRootComponent ffbfh

WriteSignature ffbfh

ReadState f\fbjh15117

ŽQÆ

“K—p

TComponent, TControl, TWinControl

é¾

procedure ReadState (Reader: TReader); **virtual**;

à-¾

ReadState f\fbjh, í Reader ,ÅŽw’è, ., éš [f_ [flfufWfFfNfg, ©, çfRf“f [flf“fg, ìpfufšbfVf...
fvf\pfefB\CfXfgfAfhff [f^Cš—LfRf“f [flf“fg, ì’l, ð“Ç, Ýo, μ, Ü, ·B

ŽQÆ15118

WriteState_f\fbfh

ReadStr f\fbfh15119

ŽQÆ

“K—p

TReader

é¾

function ReadStr: string;

à-¾

ReadStr f\fbfh, íŠ[f_ [fufWfFfNfg, íXfgfŠ[f€, ©, ç•ŕŽš—ñ, ð“Ç, Ýo, μC, »; ì“à—
e, ð•Ô, μ, Ü, ·BReadStr , í Delphi , ì^ê•” , ì•W€fRf“f [fif“fg, » , ì“à•” , ÅŽg, x
, à, ì, Å, , èCft [fU [. ìfRf“f [fif“fg, ©, çŽg, Á, Ä, Í, È, è, Ü, ¹, ñB

’^Ó: fXfgfŠ[f€, Á, ìfRf“f [fif“fg•ŕŽš—ñ, ì“Ç, Ýo, μ, Æ’ , «ž, Ý, É, í•K, , ReadString , Æ
WriteString , ðŽg, ç, Ü, ·B” , ŕ, æ, x, È-¼’O, ì ReadStr f\fbfh, Æ WriteStr f\fbfh,
í“Á`è, ì VCL fRf“f [fif“fg, » , ì“à•” , ÅŽg, x, à, ì, È, ì, ÅC, ±, è, ðŽg, x, Æff [f^ , »j¹ , , é
%oÁ“\« , » , è, Ü, ·B

ŽQÆ15120

Read f\fbfh

ReadString f\fbfh

WriteStr f\fbfh

ReadString f\fbfh15121

ŽQÆ

“K—p

TReader

é¾

function ReadString: string;

à-¾

ReadString f\fbfh, í WriteString, ài—, μ, ½ • ¶Žš—ñ, ðš[f_ [f\fuWfFfNfg, ðXfgš[f€
, ©, ç“Ç, Ýo, μC, »), à—e, ð•Ô, μ, Ü, ·B

’^Ó: fXfgš[f€, Å, ðRf“f| [f|f“fg • ¶Žš—ñ, ð“Ç, Ýo, μ, Æ‘, «ž, Ý, É, í•K, , ReadString , Æ
WriteString , ðŽg, ç, Ü, ·B“~, ¶, æ, x, È-¼’O, ð ReadStr f\fbfh, Æ WriteStr f\fbfh,
í“Á’è, ð VCL fRf“f| [f|f“fg, à, »), à•”, ÅŽg, x, à, ð, È, ð, ÅC, ±, è, ðŽg, x, Æff[f^, à”j’1, ·, é
%oÁ“\«, à, , è, Ü, ·B

ŽQÆ15122

Read f\fbfh

WriteString f\fbfh

ReadValue f\bfbfh15123

ŽQÆ

“K—p

TReader

é¾

function ReadValue: TValueType;

à¾

ReadValue f\bfbfh,íCfš[f_[]fufWfFfNfg,ìXfgfš[f€ã,ìŽŸ,ì€-Ú,ì^,ð•Ô,μ,Û,·B

ŽQÆ15124

NextValue ffbfh

Realloc f\fbfh15125

ŽQÆ

“K—p

TMemoryStream

é¾

function Realloc(**var** NewCapacity: Longint): Pointer; **virtual**;

à-¾

Realloc f\fbfh,íCŽw'è,μ,½—e—Ê,ìf,fš,đ 8K 'P^Ê,Å∅,èã,°,ÄÄš,,è“-
,Ä,μ,ÄC,»,ìf,fš,Ö,ìfCf“f^,đ•Ö,μ,Û,·B

ŽQÆ15126

Memory_fvf\fpfefB

SetPointer_f\fbfh

RegisterClass Žè'±,«15127

ŽQÆ —á

ftfjfbfg

Classes

é¾

procedure RegisterClass (AClass: TPersistentClass);

à-¾

RegisterClass Žè'±,«,Í AClass fpf%of[f^,ÅŽw'è,·,élfufWfFfNfgCE^,ð Delphi
fXfgfŠ[f~f“fOfVfXfef€,ðŽg,Á,Ä“o~^,μ,Ü,·B

flfufWfFfNfg,ðfXfgfŠ[f€,ÉŠi“l,μ“Ç,Ýo,¹,é,æ,æ,É,·,é,É,ÍCflfufWfFfNfg,ìCE^,ð“o~^,μ,È,-
,Ä,Í,È,è,Ü,¹,ñBRegisterClass ,Ä,Í,È, RegisterClassAlias
,ðCEÄ,Ño,¹,ÍCflfufWfFfNfgCE^,Í'ä'Ö-¼,Ä,Ü,èfGfŠfAfX,Ä,à“o~^,Ä,«,Ü,·B

—á15128

ŽŸ,ì 2 ,Â,ìžè'±,«ĀÄ,Ñ□o,μ,í,»,ê,¼,êflfufWjfjNfgĀ^,đ“o~^,μ,Ü,·□B

```
RegisterClass (TAnObject) ;  
RegisterClass (TAnotherObject) ;
```

ŽQÆ15129

RegisterClassAlias Žè'±,«

RegisterClasses Žè'±,«

UnRegisterClass Žè'±,«

RegisterClassAlias Žè'±,«15130

ŽQÆ —á

ftfjfbfg

Classes

□é¾

```
procedure RegisterClassAlias(AClass: TPersistentClass; const Alias:
    string);
```

□à-¾

RegisterClassAlias Žè'±,«Í AClass fpf%of□□f^,ÅŽw'è,·,élfufWfFfNfgCE^,đ Delphi
fXfgfŠ□[f~f"fOfVfXfef€,đŽg,Á,Ä"o~^,μ□CAlias ,ÅŽw'è,·,é-¼'O,đ"o~^,μ,½CE^,ì'ä'Ö-
¼,Æ,μ,Ä'Ç%oÁ,μ,Ü,·□B

flfufWfFfNfg,đfXfgfŠ□[f€,ÉŠi"l,μ,»ê,đ"Ç,Ý□o,¹,é,æ,π,É,·,é,É,í□CflfufWfFfNfg,ìCE^,đ"o~^,μ,È,-
,Ä,í,È,è,Ü,¹,ñ□B

-á15131

ŽŸ, ižè'±, «Ā, Ño, μ, ífufWfFjNfgĀ^, đ"o~^, μC, »; Ā^, ì'ă'Ö-¼, àŽw'è, μ, Ü, ·B
RegisterClassAlias(TAnObject, 'TAnAliasForTAnObject');

ŽQÆ15132

RegisterClass Žè'±,«

GetClass ŠÖ"

FindClass ŠÖ"

RegisterClasses Žè'±,«15133

ŽQÆ —á

ftfjfbfg

Classes

□éĒ¾

procedure RegisterClasses (AClasses: **array of** TPersistentClass);

□à-¾

RegisterClasses Žè'±,«Í AClasses "z—ñfpf%of□□[f^,ÅŽw'è,·éŠeflfufWfFfNfgĈ^,đ,»,"z—
ñ"à,ì—v'f,²,Æ,É RegisterClass Žè'±,«,đĈÄ,Ń□o,μ,Ä□CDelphi fXfgfŠ□[f~f"fOfVfXfef€
,đŽg,Á,Ä"o~^,μ,Ü,·□BRegisterClasses ,đŽg,æ,Æ•i□",ìflfufWfFfNfgĈ^,đŠÈ'P,É"o~^,Å,«,Ü,·□B
flfufWfFfNfg,đfXfgfŠ□[f€,ÉŠi"l,μ,»,é,đ"Ç,Ý□o,¹,é,æ,æ,É,·,é,É,í□CflfufWfFfNfg,ìĈ^,đ"o~^,μ,È,-
,Ä,í,È,è,Ü,¹,ñ□B

—á15134

ŽŸ, ižè'±, «Ā, Ñ□o, μ, í 2 , Â, ìfufWfFfNfgĀ^, ð 1 %ñ, ìĀ, Ñ□o, μ, Å“o~^, μ, Ü, ·□B
RegisterClasses([TAnObject, TAnotherObject]);

ŽQÆ15135

RegisterClass Žè'±,«

RegisterClassAlias Žè'±,«

UnRegisterClasses Žè'±,«

RegisterComponents Žè'±,«15136

ŽQÆ —á

ftfjfbfg

Classes

É¾

```
procedure RegisterComponents(const Page: string; ComponentClasses: array of  
  TComponentClass);
```

à-¾

RegisterComponents, í Delphi fRf“f[]f[]fgf%ofCfuf%ofŠ,đŽg,Á,ÄfRf“f[]
[]f[]fg,đ“o~^,μ[]CfRf“f[]f[]fgfpfCEfbfg,É•Ž|,μ,Û,·[]BPage fpf%of[]f^,í ComponentClasses
,ÁŽw'è,·,éfRf“f[]f[]fgCE^,đ•Ž|,·,éfRf“f[]f[]fgfpfCEfbfg,lfy[]fW,ì-
¼'0,đŽw'è,μ,Û,·[]BŽw'è,μ,½fy[]fW,³fRf“f[]f[]fgfpfCEfbfg,É'¶Ý,μ,È,¢[]ê[]#[]CDelphi
,í,»,é,đ[]i[]¬,μ,Û,·[]B

RegisterComponents Ä,Ñ[]o,μ,í•K,·fRf“f[]f[]fg,ìÉ¾•”,ÆŽÀCE»•”,đŠÛ,ñ,Á,¢
,éftfjfbfg“à,ì Register Žè'±,«,ÁŽg,¢,Û,·[]BfRf“f[]f[]fgftfjfbfg,đfRf“f[]f[]fgf%ofCfuf
%ofŠ,ÉfCf“fXfg[]f<,·,é[]ê[]#[]CDelphi ,í,»,ìftfjfbfg,ì Register Žè'±,«,đ'T,μ,Û,· (CE©,Á,©,¢,É,¢
,ÆfGf%[][,đ•ñ[][],μ,Û,·)[]BRegisterComponents ,đŽg,±,Æ 1 %ñ,ìÄ,Ñ[]o,μ,Á 1 fy[]fW,É 1
,Á,Û,½,í•i[]”,lfRf“f[]f[]fg,đ“o~^,Á,«,Û,·[]B

—á15137

ŽŸ,lfR[]fh,í 3 ,Â,ì[]V,μ,ϕfRf“f[][]fif“fgCE^ TFirst, TSecond, TThird
,đ[]éCE¾,.,éftfjfbfg,ì^ê“É“l,É Register Žè±,«,Â,·[]B

```
procedure Register;  
begin  
  RegisterComponents('Miscellaneous', [TFirst, TSecond]);      { ,±  
  ,lfy[]fW,É 2 CEÂ“o~^,μ,Ü,· }  
  RegisterComponents('Assorted', [TThird]); { •É,lfy[]fW,É 1 CEÂ“o~^,μ,Ü,· }  
end;
```

ŽQÆ15138

Delphi .Å.İfRf“f|[]f|“fg,İ“o~^

RegisterIntegerConsts Žè'±,«15139

žQÆ

ftfjfbfg

Classes

é¾

```
procedure RegisterIntegerConsts (IntegerType: Pointer; IdentToInt:
  TIdentToInt;
  IntToIdent: TIntToIdent);
```

à¾

RegisterIntegerConsts Žè'±,«,ÍfXfgfš[f~f"foJvfXfef€,žg,«™%

ž,È'è"Ž•Êžq,Æ'l,đ"o~^,μ,Û,·B"o~^,μ,½CE^,Í"l,Á,Í,È,-

Ž•Êžq,đš"l,Á,«,Û,·B,½,Æ,Í,ÍftfH[f€,Í"l,Á,È, cIXXX 'è",đžg,Á,Äfff

%o[l,đftfH[f€ftf@fCf<,É',«ž,ß,é,ì,ÁCftfH[f€ftf@fCf<,đŠE'P,É•íX,Á,«,Û,·B

Delphi ,í 3 ,Á,ì•W€CE^,ì'è" (TColor, TCursor, TShortCut)

,đ"o~^,μCftfH[f€ftf@fCf<,đžg,ç,â,·,μ,Ä,ç,Û,·B,±,é^ÈŠO,ìCE^,đ"o~^,·,é,Æftf@fCfŠf"fo^

—'—"x,í'x,,È,é,ì,ÁC[V,μ,"o~^,·,éè±,íT[d,É,μ,Ä,,¾,¾,çB

RegisterIntegerConstants ,íCE^,ì'è",đ"o~^,·,é,Û,©Cfpf%of[f^,Æ,μ,Ä 2

,Á,ìŠÖ",đž,Á,Ä,¨,èCŽ•Êžq,Æ@",ìŠÖ,ì•İŠ•û-@,đžw'è,μ,Û,·B,½,Æ,Í,Í TCursor ,í

IdentToCursor ,Æ CursorToIdent ,ì 2 ,Á,ìŠÖ",đžg,ç,Û,·B

ŽQÆ15140

TIdentToInt Ć^

TIntToIdent Ć^

RegisterNoIcon Žè'±,«15141

ftfjfbfg

Classes

□éĒ¾

procedure RegisterNoIcon (ComponentClasses: **array of** TComponentClass);

□à-¾

RegisterNoIcon Žè'±,«Í ComponentClasses "z—ñfpf%of□□[f^,ÅŽw'è,μ,½fRf"f|
□[flf"f|gĒ^,ð□C□ÝĒvŽž,É,ÍfAfCfRf",ª•\Ž|,³,ê,È,ç"ñfrfWf...fAf<fRf"f|□[flf"f|g|fSjXfg,É'Ç
%oÁ,μ,Ü,·□B,±,ì,æ,κ,ĒfRf"f|□[flf"f|g,ð□□¬,·,é,Æ'Í%ož,·,éftfB□[f<fh,àftfH□[f€,ìĒ^□éĒ¾,É'Ç
%oÁ,³,ê,Ü,·,ª□ĒĒĀ□X,ÍfRf"f|□[flf"f|g,ÍftfH□[f€□ã,É,Í•\Ž|,³,ê,Ü,¹,ñ□B

'¼,ÍfRf"f|□[flf"f|g,ÉŠÖ~A•t,¬,ç,ê□í,É%o^ĒĒfRf"f|□[flf"f|g,Å, ,é□ê□#□CfAfCfRf",ª,È,ç"ñfrfWf...
fAf<fRf"f|□[flf"f|g,Æ,μ,Ä'è<,·,é,Æ•Ö—~,Å,·□BDelphi ,Í,±,ì,æ,κ,ĒfRf"f|□[flf"f|g,Æ,μ,Äf□fj...
□[□€-ÚfRf"f|□[flf"f|g,Æftf@fCf<fRf"f|□[flf"f|g,ð'è<,μ,Ä,ç,Ü,·□Bf□fj...□[□€-ÚfRf"f|
□[flf"f|g,Í□í,Éf□fCf"f□fj...□[,©f|fbfvfAfbfvf□fj...□[,ì,Ç,ž,ç,©,ÉŠÖ~A•t,¬,ç,ê□Cftf@fCf<fRf"f|
□[flf"f|g,Í□í,É Table fRf"f|□[flf"f|g,ÉŠÖ~A•t,¬,ç,ê,Ä,ç,Ü,·□B

Root fvf[]fpfefB15142

ŽQ[]Æ

“K—p

TFile

□é☒¾

property Root: TComponent;

□à-¾

Root fvf[]fpfefB,íftf@fCf%oflfufWfFfNfg,Éftf@fCf%o

,a“Ç,Ý[]o,μ,½,Ü,½,í[]',«[]ž,ň,¾flfufWfFfNfg,lf<[]fg,Â,Ü,è[]Å[]fi[]fi[][,í,Ç,lfufufWfFfNfg,©Ž,μ,Ü,

·[]Bf[]\fbfh ReadRootComponent ,Æ WriteRootComponent ,íRf“f[]lf“fg,Æ[]Š—Lfrf“f|

[]lf“fg,ð“Ç,Ý[]',«,·,é'O,É Root ,ð[]Ý'è,μ,Ü,·[]B

ŽQÆ15143

ReadRootComponent ffbfh

WriteRootComponent ffbfh

RootAncestor fvf[]fpfefB15144

ŽQ[]Æ

“K—p

TWriter

□éĒ¾

property RootAncestor: TComponent;

□à-¾

RootAncestor fvf[]fpfefB,í[]CRoot fvf[]fpfefB,ì[]ã^ÊfRf“f|[][f]f“fg,ð•\,μ,Û,·[]BRoot
,³Ēp[]³ftfH[][f€],ì[]é[]#[]Cf%[]fCf^[][f]fufWfFfNfg,í[]CftfH[][f€],ì[]Š—L,·,é,·,x,Ä,ìfRf“f|
[][f]f“fg,ð[]ã^ÊftfH[][f€]“à,Å‘î%ž,·,éfRf“f|[][f]f“fg,Æ”ăŠr,μ[]C[]ã^ÊfRf“f|[][f]f“fg,Æ[]·^Ù,ì, ,é,à,ì,¾
, ,ð[]‘,«[]ž,Ý,Û,·[]BAncestor fvf[]fpfefB,í[]ŠefRf“f|[][f]f“fg,ð[]ã^ÊftfH[][f€] (í,É RootAncestor)
,É<L~^,μ,Û,·[]B

ŽQÆ15145

Ancestor fvfpfefB

Root fvfpfefB

SaveToFile f\fbfh15146

ŽQÆ

“K—p

TCustomMemoryStream

é¾

procedure SaveToFile(**const** FileName: **string**);

à-¾

SaveToFile f\fbfh,íf,fšXfgfš[f€,ì’S“à—e,đ FileName

,ÅŽw’è,·éftf@fCf<,É‘,«ž,Ý,Ü,·BŽw’è,μ,½ftf@fCf<,ª,·,Å,É‘¶Y,·,éê¶¶CSaveToFile

,Íšù’¶ftf@fCf<,Éã‘,«,μ,Ü,·Bftf@fCf<,íf,fšXfgfš[f€,ì“à—e,ìfofCfifšfRfs[É,È,è,Ü,·B

ŽQÆ15147

LoadFromFile f\fbfh

SaveToStream f\fbfh

SaveToStream f\fbfh15148

ŽQÆ

“K—p

TCustomMemoryStream

é¾

procedure SaveToStream(Stream: TStream);

à-¾

SaveToStream f\fbfh,íf,fšXfgfš[f€,ì’S“à—e,ð Stream ,ÅŽw’è,·,éfXfgfš[f€
,É’,«ž,Ý,Ü,·B

ŽQÆ15149

LoadFromStream method

SaveToFile method

Seek f\fbfh15150

ŽQÆ

“K—p

TStream

é¾

function Seek(Offset: Longint; Origin: Word): Longint; **virtual; abstract;**

à-¾

Seek f\fbfh,ÍXfgfŠ[f€,ìŒ»Ý^Ê'u,đ Origin ,ÅŽw'è,·,éŒ´“_ ,©,ç Offset ,ÅŽw'è,·,éfofCfg“ ,¾, ^Ú“ ®,μ,Û,·BOffset ,ª•%oo,ì“ ,È,ç,ÎCŽw'è,μ,½Œ´“_ ,©,çŒã•û,ÉfV[fN,μ,Û,·BŽŸ,ì•\,É Origin ,ì'ì,Æ,» ,ì^Ê'u,đŽì,μ,Û,·B

'è”

'l

fV[fN,ìŒ´“_

soFromBeginning 0 fXfgfŠ[f€,ìŽn,ß

soFromCurrent 1 Œ»Ý^Ê'u

soFromEnd 2 fXfgfŠ[f€,ìì,í,è

ŽQÆ15151

fXfgfŠ[f€]lfufWfFfNfg.ìPosition_fvf[fpfefB

SetAncestor f\fbfh15152

ŽQÆ

“K—p

TComponent (,·,×,Ä,lfRf“f|“f|f“fg)

□éĒ¾

procedure SetAncestor(Value: Boolean);

□à-¾

SetAncestor f\fbfh,íCfRf“f|“f|f“fg,ì ComponentState fvf“fpfefB,“,æ,Ñ,»,lfRf“f|“f|f“fg,ªŠ
—L,·,é,·,×,Ä,lfRf“f|“f|f“fg,ì csAncestor ftf%ofO,ðÝ’è,Ü,½,íNfŠfA,μ,Ü,·B

ŽQÆ15153

ComponentState_fvf[]pfefB

SetChildOrder f\fbfh15154

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðRf“f[fif“fg)

□éÆ¾

procedure SetChildOrder(Child: TComponent; Order: Integer); **dynamic**;

□à-¾

SetChildOrder f\fbfh, íCGetChildren , Å•Ô, ³, ê, éŽqfRf“f[fif“fg, ¢ Child
, ÉÆ» , ê, éññ~ , ð•íX, µ, Û, ·BŽq, íCfŠfXfgfifufWfFfNfg“à, í€-Ú, ì, æ, x
, É^Ú“ ®, µ, Û, ·B^É'O, ÉŽq, ìÆÃ, ç^É'u, Å%ºº, É, , Å, ½€-Ú, ¢ã, Ö^Ú“ ®, µC□V, µ, ç^É'u, Å
%ºº, É, È, é€-Ú, ¢ºº, Ö^Ú“ ®, µ, Û, ·B

ŽQÆ15155

GetChildren_fbfh

SetDesigning f\fbfh15156

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðRf“f[]lf“fg)

é¾

procedure SetDesigning(Value: Boolean);

à-¾

SetDesigning f\fbfh, í Value ,^a True , ðê‡ ComponentState fvf[]pfefB, É csDesigning
flfvfVf‡f“, ðÝ’è, μ, Ü, ·BFalse , ðê‡, í csDesigning , ðíœ, μ, Ü, ·BSetDesigning , íŽŸ, ÉŠ—
LfRf“f[]lf“fg, ð SetDesigning f\fbfh, ðÄ, Ño, μ, Ä Value , ð“n, μCŠ—LfRf“f[]lf“fg, ð
ComponentState fvf[]pfefB, ðf[]f[]l, ðf[]pfefB, Ä“Šú, ·, é, æ, x, É, μ, Ü, ·B

f\fbfh InsertComponent , Ä RemoveComponent , í}“ü, Ü, ½, ííœ, ·, éfRf“f[]lf“fg, ð
SetDesigning , ðÄ, Ño, μCÝv, ðfhftf%ofO, ð³, μ, Ý’è, ð³, é, é, æ, x, É, μ, Ü, ·B

ŽQÆ15157

ComponentState fvffpfefB

InsertComponent ffbfh

RemoveComponent ffbfh

SetName f\fbfh15158

“K—p

TReader flfufWfFfNfg, TComponent (,·,×,Ä,lfRf“f|□[flf“fg)

□à-¾

SetName ,É,Í 2 Ží—p,lf\fbfh,a, ,è,Ü,·□B1 ,Â,lfŠ□[f □[flfufWfFfNfg—p,Å□C,±
,è,đŽg,|,lfXfgfŠ□[f€, ©,çfRf“f|□[flf“fg,đ“Ç,Ý□o,·,Æ,«,ÉfRf“f|□[flf“fg-¼,đ•i□X,Å,«,Ü,·□B,à,× 1
,Â,Í,·,×,Ä,lfRf“f|□[flf“fg,ì Name fvf□pfefB,lfvf□fejNfgf□\fbfh,Å,·□B

fŠ□[f □[flfufWfFfNfg,ì SetName f\fbfh

,·,×,Ä,lfRf“f|□[flf“fg,ì SetName f\fbfh

SetName f\fbfh15159

ŽQÆ

“K—p

TReader

é¾

procedure SetName (Component: TComponent; **var** Name: **string**); **virtual**;

à¾

SetName f\fbfh,íŠ[f [fufWfFfNfg,ªCSÖ~A•t, ¯,ç,ê,½XfgfŠ[f€, ©,ç“Ç,Ýo,·fRf“f|

[f|f“fg,ì-¼‘O,ð,» ,lfRf“f|[f|f“fg,ì Name fvf|pfefB,ðŠ,,è“- ,Ä,é‘O,ÉfRf“f|[f|f“fg-

¼,ð•ïX,Å,« ,é,æ,x,É,µ,Ü,·BReadComponent f\fbfh,lfRf“f|

[f|f“fg,lfvf|pfefB‘l,â‘¼,lf|[f^ ,ð“Ç,Ýo,‘O,ÉfRf“f|[f|f“fg,ìCE^ ,Æ-

¼‘O,ð“Ç,Ýo,µ,Ü,·BReadComponent ,lfRf“f|[f|f“fg-¼,ð“Ç,Ýo,µ,½CEäC,» ,lfXfgfŠ[f€

, ©,ç“Ç,Ýo,µ,½-¼‘O,ð Name fpf%of|[f^ ,ðŽg,Á,Á SetName ,É“n,µ,Ü,·BName ,í **var** fpf

%of|[f^ ,È,ì,ÅCSetName ,í§CEä,ð•Ö,‘O,É•¶Žš—ñ,ð•ïX,Å,« ,Ü,·B

SetName ,í OnSetName fCxf“fg,ÉfAf^fbf` ,³,ê,½fCxf“fgfnf“fhf%o,àCEÄ,Ño,µ,Ü,·B**var** fpf

%of|[f^ ,Å-¼‘O•¶Žš—ñ,ð“n,·,ì,ÅCfAf^fbf` ,µ,½fnf“fhf%o, ©,ç•¶Žš—ñ,ð•ïX,·,é,±

,Æ,à,Å,« ,Ü,·B

ŽQÆ15160

OnSetName_fCxf"fg

SetName f\fbfh15161

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðfRf“f[fif“fg)

é¾

procedure SetName (**const** NewName: TComponentName); **virtual**;

à-¾

SetName f\fbfh, í Name fvfpfefB, ð'í, ð'è, ·, é, ½, ß, ðvfppfefBfAfNfZfXf\fbfh, Å, ·B

ŽQÆ15162

Name_fvf[]pfefB

SetParentComponent f\fbfh15163

ŽQÆ

“K—p

TComponent (,·,×,Ä,lfRf“f|[]f|f“fg)

□éÆ¾

procedure SetParentComponent (Value: TComponent); **dynamic**;

□à-¾

SetParentComponent f\fbfh,íCGetParentComponent ,•Ô,·l,ð•ïX,μ,Ä Value
,É^ê^v,³,¹,Ü,·B'l,í,Ù,Æ,ñ,Ç,ìê± Parent fvffpfefB,Å,·,ªC,»,ê^ÈŠO,ìê±,à, ,è,Ü,·B

ŽQÆ15164

GetComponent_f\fbfh

Parent_fvf\pfefB

SetPointer f\fbfh15165

ŽQÆ

“K—p

TCustomMemoryStream

é¾

procedure SetPointer(Ptr: Pointer; Size: Longint);

à¾

SetPointer f\fbfh, íCPtr ,É“n,μ,½f]fCf“f^ ,đ Memory fvf[]pfefB,ì“à•”<L%o~^æ,ÉŠ,,,è“-
,Ä[]CfXfgfŠ[]f€,ì Size fvf[]pfefB,đ Size ,ÉŽw’è,³,ê,½'l,É[]Ý’è,μ,Û,·[]B

fXfgfŠ[]f€,ì<L%o~^æ—p,Éf[]f,fŠfv[]f<,đŠ,,,è“- ,Ä,½[]ê[]‡,â[]ÄŠ,,,è“-
,Ä,μ,½[]ê[]‡[]Cf[]f,fŠfXfgfŠ[]f€“à,Ä SetPointer ,đÄÄ,Ñ[]o,μ,Ä,,¾,¾,ç[]B

ŽQÆ15166

Memory_fvf[]pfefB

Size_fvf[]pfefB

setSize f\fbfh15167

ŽQÆ

“K—p

TMemoryStream

é¾

procedure setSize(Size: Longint);

à-¾

setSize f\fbfh, íf, fšxfgfš[f€, ì“à—e, ðfNfšfA, µCf, fšxfgfš[f€—p, ìf, fšfv[f<, ìTfCfY, ð
Size fojCfG, ÉŸ'è, µ, Ü, ·BSize ,^a 0 , È, ç, îCsetSize , Íšù'¶, ìf, fšfv[f<, ð”jšü, µ, Ä Memory
fvf\fpfefB, ð **nil** , ÉŸ'è, µ, Ü, ·B0 ^ÈŠO, ìê¶CsetSize , ìf, fšfv[f<, ìTfCfY, ð Size
, Åžw'è, ·, éTfCfY, É•ïX, µ, Ü, ·B

ŽQÆ15168

Size fvfpfefB

Size fvf[]pfefB15169

žQ[]Æ

“K—p

TStream

[]é€¾

property Size: Longint;

[]à-¾

Size fvf[]pfefB,lfXfgfš[][f€,lfofCfg[]”,ÅfTfCfY,ð•\,μ,Ü,·[]BSize ,í“Ç,Ý[]o,μ[]ê—
p,lfvf[]pfefB,Å,·[]B

ŽQÆ15170

fXfgfŠ[f€]fufWfFfNfg.ìPosition_fvf[fpfefB

TComponent fRf“f|□[flf“fg15171

ŽQ□Æ fvf□pfefB f□fVbfh fRf“f|□[flf“fg

ftfjfbfg

Classes

□à-¾

TComponent fRf“f|□[flf“fg, í, ·, x, Ä, ìfRf“f|□[flf“fg, ì□Å, àŠî-
{“l, Å’Š□Ú“l, ÈŠjŽn“_ , Å, ·□BftfH□[f€fffUfCfi, Å’€□i, Å, «, é□€-Ú, í, Ç, ê, à TComponent , ì%°^ ÊfRf“f|
□[flf“fg, Å, ·□B, ·, x, Ä, ìfRf“f|□[flf“fg, í TComponent , ì, ç, , Å, ©, ìŠî- { “ ®□i, ðCEp□³, μ, Ü, ·□B

TComponent , í, » , ì□ã ^ ÊfRf“f|□[flf“fg TPersistent , ©, çCEp□³, ·, é ^ ÈŠO, É□C, ·, x, Ä, ìfRf“f|
□[flf“fg, É<κ’ Ê, Èfvf□pfefB, Æf□fVbfh, ð, ç, -
, Å, ©□ÉCE¾, μ, Ü, ·□B, » , ì, Ù, Æ, ñ, Ç, ìfpufŠfjbn, ©fpufŠfjbfVf... , Å, ·□B□Ú□x , í, ·, x, Ä, ìfRf“f|□[flf“fg, ì
VCL_fŠftf@fCEf“fX, ðŽQ□Æ, μ, Ä, ,¾, ¾, ç□B

TComponent , ì%°^ ÊfRf“f|□[flf“fg, ðf□[fo□[f%ofCfh, μ, Ä“ ®□i, ðfjXf^f}fCfY, Å, «, éfvf□fNfgf□fV
fbfh, à, ç, , Å, ©□ÉCE¾, μ, Ü, ·□Bfvf□fNfgf□fVbfh, ìŽÿ, ì 3 , Å, ìjjefSfŠ, É•ª, ©, ê, Ä, ç, Ü, ·□B

- Name fvf□pfefB, ðŠÇ—□, ·, é□fVbfh
SetName f□fVbfh, í Name fvf□pfefB, ì□’ , «□ž, Ý•” , Æ, μ, ÄŽg, x%¾’zf□fVbfh, Å, , é□BŽÅ□Ú, É-
¾’O, ð•ì□X, ·, é ChangeName f□fVbfh, ðCEÄ, Ñ□o, ·
- fXfgfŠ□[f~f“fO, Æftf@fCfŠf“fO—pf□fVbfh
f□fVbfh ReadState , Æ WriteState , í, » , ê, ¾, êfRf“f|□[flf“fgfvf□pfefB’l, ðftf@fCf
%oflfufWfFfNfg, É“Ç, Ý□o, μ□C□’ , «□ž, p□BHasParent f□fVbfh, ìfRf“f|
□[flf“fg, º, » , ìftf@fCfŠf“fO, ð□^—□, ·, é□e, ðŽ□, Å, Ä, ç, é, ©, Ç, x, ©Ž!, ·□BLoaded f□fVbfh, ìftf@fCf
%oflfufWfFfNfg, © , çf□□[fhCEã, É□%Šú%» , ·, é□BTComponent , í DefineProperties f□fV
fbfh, àf□[fo□[f%ofCfh, μ, Ä□u<U, ì□vLeft fvf□pfefB, Æ Right fvf□pfefB, ð’è<’ , ·, é
- □Š—LfRf“f|□[flf“fg, ìŠÇ—□—pf□fVbfh
ValidateRename f□fVbfh, ì□Š—LfRf“f|□[flf“fg, ì-¾’O, ì•ì□X, É, æ, Å, Ä-¾’O, º□d•j, μ, È, ç, æ, x
, É, ·, é□BWriteComponents f□fVbfh, ì□Š—LfRf“f|□[flf“fg, ðftf@fCf
%oflfufWfFfNfg, É□’ , «□ž, p□BNotification f□fVbfh, í, ·, x, Ä, ì□Š—LfRf“f|
□[flf“fg, É’É’mf□fjZ□[fW, ð’— , é□BSetDesigning f□fVbfh, ì□ÝCEvŽž, É’}“ü, μ, ½fRf“f|
□[flf“fg, É□ÝCEvf, □[fhftf%ofO, ð□Ý’è, ·, é

fvf[]pfefB15172

ComponentCount

ComponentIndex

Components

ComponentState

ComponentStyle

DesignInfo

Name

Owner

Tag

fjfbfh15173

ChangeName

Create

DefineProperties

Destroy

DestroyComponents

Destroying

FindComponent

FreeNotification

GetChildOwner

GetChildParent

GetChildren

GetParentComponent

HasParent

InsertComponent

Loaded

Notification

ReadState

RemoveComponent

SetAncestor

SetChildOrder

SetDesigning

SetName

SetParentComponent

Updated

Updating

ValidateRename

WriteState

ŽQÆ15174

TComponentClass CE^

TComponentClass $\mathbb{C}^{\wedge 15175}$

žQÆ

ftjfbfg

Classes

é¾

type

TComponentClass = **class of** TComponent;

à¾

TComponentClass $\mathbb{C}^{\wedge, \acute{I}, \cdot, x, \ddot{A}, \grave{I}Rf''f|[]f|f''fg, \grave{I}Nf\%ofXf\grave{S}ftf@f\mathbb{C}f''fX\mathbb{C}^{\wedge}, \grave{A}, \cdot B$

ŽQÆ15176

TComponent_fRf“f|“[f|“fg

TComponentState $\mathbb{E}^{\wedge 15177}$

ŽQÆ

ftjfbfg

Classes

é $\mathbb{E}^{\frac{3}{4}}$

type

```
TComponentState = set of (csLoading, csReading, csWriting,  
csDestroying, csDesigning,  
csAncestor, csUpdating, csFixups);
```

à $-\frac{3}{4}$

TComponentState \mathbb{E}^{\wedge} , ComponentState fvfpfefB, ò'Ôftf%OfZfbfg, ð'è` ,μ,Ü, ·BŽŸ, ì·\ ,ÉŠeftf%OfO,ª·\, ·ò'Ô, ðŽ!, μ,Ü, ·B

ftf%ofO

fRf"f|[flf"fg, ìó'Ô

csAncestor	fRf"f [flf"fg, ðã^ÊftfH[f€, É"±"ü, μ, ½ê±, ÉY'è,³,ê,éBcsDesigning , àY'è,³,ê,Ä, ç,éê±,¾, Y'è,³,ê,é
csDesigning	YÉvf, [fhBftfH[f€"à, ÅftfH[f€ffUfCfi,ª^—t,Ä, ,é
csDestroying	fRf"f [flf"fg, ð"pŠü, μ,æ,α,Æ, μ,Ä, ç,é
csLoading	ftf@fCf%flfufWfFfNfg, ©, ç [fh't,Ä, ,é
csReading	fXfgfŠ[f€, ©, çvf pfefB'l, ð"Ç, Y'o, μ't,Ä, ,é
csUpdating	ã^ÊftfH[f€, ì·ìX, ð"½%of, ·,é, ½,β, ÉfRf"f [flf"fg,ªXV,³,ê,Ä, ç ,éBcsAncestor , àY'è,³,ê,Ä, ç,éê±,¾, Y'è,³,ê,é
csWriting	fvfpfefB'l, ðfXfgfŠ[f€, É', «ž, Y't,Ä, ,é

ŽQÆ15178

ComponentState_fvf[]pfefB

TComponentStyle $\mathbb{C}^{\wedge 15179}$

ŽQÆ

ftjfbfg

Classes

é $\mathbb{C}^{\frac{3}{4}}$

type

TComponentStyle = **set of** (csInheritable, csCheckPropAvail);

à $^{-\frac{3}{4}}$

TComponentStyle \mathbb{C}^{\wedge} , \mathbb{C} ComponentStyle

fvpfB, îê~A, îl, ð'è<, μ, Û, ·BComponentStyle ,É,æ,Á,ÄCfRf"fl"fg (, ;,æ,Ñ,»,)lRf"fl
"fg, ðŠÛ, bftjH(f€) ,³Ep³%Ä"\, ©, Ç, x, ©, ³CE^, Û, èC"Ç, Ýo, μ%Ä"\«, É, Â, ç, ÄfRf"fl
"fg, lfvfpfB, ðf`fFbfN, μ, È, ¯, ê, î, È, ç, È, ç, ©, Ç, x, ©, ³CE^, Û, è, Û, ·B

ŽQÆ15180

ComponentStyle_fvffpfefB

TCustomMemoryStream fLfufWfFfNfg 15181

ŽQAE fvf\fpfefB f\fbfh fLfufWfFfNfg

ftfjfbfg

Classes

à-¾

TCustomMemoryStream fLfufWfFfNfg, ICTMemoryStream ,â TResourceStream ,Æ,ç,Á,½•Ö
—, Èf\,fŠfXfgfŠ[f€,ì<α'É,ìã^ÉfLfufWfFfNfg,Æ,μ,ĂŽg,í,é,é'ŠÛŠi-{fNf%ofX,Á,·B

TStream ,©,çEp³,·,é€-Ú,ì,Ù,©,ÉCfXfgfŠ[f€,ì"à•" <L%o^-^æ,Ö,ìf|fCf"f^,đ'ň<ÿ,·,é Memory
fvf\fpfefB,²'è<³,é,Á,¨,èCfI[f%ofCfh,μ,½ Read f\fbfh,Æ Seek f\fbfh,Á,»
ìf\,fŠ"à,ìfAjNfzfx,đŽACE»,μ,Ă,ç,Ü,·B,Ü,½Cf\,fŠ,đftj@fCf<,ÆfXfgfŠ[f€,
É•Û'¶,·,éf\fbfh,²'Ç%oÁ,³,é,Ă,ç,Ü,·B

fvf[]pfefB15182

Memory

f[]fbfh15183

Read

SaveToFile

SaveToStream

Seek

SetPointer

ŽQÆ15184

TStream flufWfFfNfg

TMemoryStream flufWfFfNfg

TFile fufWfFfNfg15185

ŽQAE fvfjpfefB f\fbfh fufWfFfNfg

ftjfbfg

Classes

à-¾

TFile fufWfFfNfg, í Delphi ,ftfH[f€,âfRf“f]

[fj“fg,ðftfH[f€ftf@fCf<,É•Ú‘¶,·,é,½,ß,ÉŽg,xfŠ[f_][fufWfFfNfg,Æf

%fCf^[fufWfFfNfg,ìCE³,Æ,È,éŠÛfufWfFfNfg,Å,·B’t,Å,àftf@fCf

%fufWfFfNfg,í“Ç,Ý‘,«^—‘¬“x,ðã,°,é,½,ßff[f^,ðofbftf@fŠf“fO,μ,Û,·B

,Ç,ìftf@fCf%fufWfFfNfg,àŠÖ~A•t,¯,ç,é,½fXfgfŠ[f€fufWfFfNfg,ðŽ,¿Cfpf

%f[f^,Æ,μ,Ä,»„ì Create f\

fbfh,É“n,³,è,Û,·B“Ç,Ý‘o,·,©,Û,½,Í‘,«ž,bf<[fglfufWfFfNfg,ðŽw’è,·,é Root

fvfjpfefB,à’è<,μ,Û,·B

ftf@fCf%,É,ìfvfjpfefB,ð’è<,·,é 2 ,Å,ìf\fbfh DefineProperty ,Æ DefineBinaryProperty

,à, ,è,Û,·B,±,ìfvfjpfefB,ðŽg,xfufWfFfNfg,í”ñ•\

Žjff[f^,Û,½,í•;ŽG,Èff[f^,ðfufWfFfNfg,ìŽÀÛ,ìfvfjpfefB,Å, ,é,©,ì,æ,xf,É“à•”•\

CE»,Æ^Û,È,éCE`Ž®,ÅŠi”[,Å,«,Û,·B

fvf[]pfefB15186

Ancestor

IgnoreChildren

Root

fjfbh15187

Create

DefineProperty

FlushBuffer

DefineBinaryProperty

Destroy

ŽQÆ15188

TStream flfufWfFfNfg

TReader flfufWfFfNfg

TWriter flfufWfFfNfg

TFileFlags $\text{CE}^{\wedge}15189$

ŽQÆ

ftfjfbfg

Classes

é $\text{CE}^{\frac{3}{4}}$

type

```
TFileFlag = (ffInherited, ffChildPos);
```

```
TFileFlags = set of TFileFlag;
```

à- $\frac{3}{4}$

ffInherited ,íCftf@fCf%flfufWfFfNfg,lfXfgfŠ[f€“à,lfRf“f[]fjf“fg,³CEp³ftfH[f€“à,lfRf“f|

[]fjf“fg,Å, ,éê±,ÉCffChildPos ,í,»,lfRf“f[]fjf“fg,ìì-±,³ftfH[f€,É,Æ,Á,Äd—

v,Å, ,éê±,ÉY’è,³ê,Ü,·BReadPrefix ffbfh,í TFileFlags CE^{\wedge} ,lfpf%ff[]f^,đŽæ $\frac{3}{4}$,μ,Ü,·B

ŽQÆ15190

ReadPrefix_f\fbfh

TFileStream flfufWfFfNfg15191

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

Classes

à-¾

TFileStream

flfufWfFfNfg, lffBfXfNftf@fCf<, Éff[f^, đš"l, ., éXfgfŠ[f€flfufWfFfNfg, Å, ·Bftf@fCf<fXfgfŠ[f€
, Íšî- {, lfXfgfŠ[f€^ TStream , ©, çEp³, ·, é 2 , Å, lffbfh, ¾, ·, đf[fo[f
%ofCfh, µ, Ü, ·BCreate fRf" fXfgf%ofNf^, É, Í 2 , Å, lfpf%of[f^, a, , è, Ü, ·B1 , Å, lfXfgfŠ[f€
, ÉŠÖ~A•t, ·, ç, è, ½ftf@fCf<, l-¼'O, đŽw'è, µC, à, x 1 , Å, lftf@fCf<f, [fh, đŽw'è, µ, Ü, ·Bf[fo[f
%ofCfh, ³, è, é, à, x 1 , Å, lffbfh, Í Destroy fffXfgf
%ofNf^, ÅCfXfgfŠ[f€flfufWfFfNfg, đ"jšü, ·, é'O, ÉŠÖ~A•t, ·, ç, è, ½ftf@fCf<, đ•Å, ¶, Ü, ·B

fjfbfh15192

Create

Destroy

ŽQÆ15193

TStream flufWfFfNfg

THandleStream flufWfFfNfg

TFindMethodEvent $\text{C}^{\wedge}15194$

ŽQÆ

ftjfbfg

Classes

é¾

type

```
TFindMethodEvent = procedure (Reader: TReader; const MethodName: string;
```

```
    var Address: Pointer; var Error: Boolean) of object;
```

à¾

TFindMethodEvent C^{\wedge} , í OnFindMethod fCxf“fg, ì C^{\wedge} , Æ, µ, ÄŽg, ¨f ffbfhf|fCf“f C^{\wedge} , Å, ·B

ŽQÆ15195

OnFindMethod_fCxf“fg

FindMethod_f\fbfh

TGetChildProc C# 15196

ŽQÆ

ftjfbfg

Classes

éC¾

type

```
TGetChildProc = procedure (Child: TComponent) of object;
```

à-¾

TGetChildProc C#, íCGetChildren ffbfh,Éfpf%of[f^,Æ,μ,Ä“n,³,ê,éf\fbfh,ìf\fbfh|
fCf“f^C^,ð'è<`,μ,Ü,·B

ŽQÆ15197

GetChildren_fbfh

TGetStrProc CE^15198

ŽQAE =á

ftjfbfg

Classes

éCE¾

type

TGetStrProc = procedure(const S: string) of object;

à¾

TGetStrProc CE^,ÍŽÀ□sŽž,É•¶Žš—ñfŠfXfg,đ□¶□-,·,·,éŠeŽí,Ìžè'±,«,ìfpf
 %of□□[f^CE^,Æ,μ,ÄŽg,¶f□\f\bfhflfCf"fc^CE^,Å,·□B'É□í,ì□ê□¶□CŽè'±,«□éCE¾,É,Í TGetStrProc
 CE^,ì Proc fpf%of□□[f^,ª 1,ÅŠÜ,Ü,ê,Ü,·□BŽè'±,«,í'î~bŽ®,É Proc ,đCEÄ,Ñ□o,μ,Ä□CfŠfXfg,É'Ç
 %oÁ,·,éŠe•¶Žš—ñ,đ"n,μ,Ü,·□B

—á15199

Controls ftfjfbfg,ì GetCursorValues Žè'±,«,Í TGetStrProc Ą^,ìfpf%of[]f^,đ 1 ,Á,Æ,è□C“n,³,é,^{1/2}f[]fbfh,đĄÄ,Ń□o,μ,ÄŠefj[]f<,ì-^{1/4}'O,đfAfvfŠfP[]fVf†f“,ĂŽg,!,éfj[]f f<,ìfŠfXfg,É'Ç%oÁ,μ,Ü,·□B

GetCursorValues ,íŽŸ,ì,æ,α,É□éĄ^{3/4},μ,Ü,·□B

```
procedure GetCursorValues (Proc: TGetStrProc);
var
  I: Integer;
begin
  for I := Low(Cursors) to High(Cursors) do
    Proc(StrPas(Cursors[I].Name));
  end;
```

Proc ,ìf[]fbfh,ìfvf[]pfefBfGfffBf^,Ü,^{1/2},Í,»,'^{1/4},ìfR[]fh,É,æ,Á,ĂŠ,,è“- ,Ă,ç,é,Ü,·□B'Ç %oÁ,·,é•ŸŽš—ň,²,Æ,Éf[]fbfh,đĄÄ,Ń□o,·,^{3/4}, ,Ă,·□B

TGetStrProc fpf%of[]f^,ì,à,α 1 ,Ă,ì—á,ìfvf[]pfefBfGfffBf^fifufWfFfNfg,ì GetValues f[]fbfh,Ă,·□BfifufWfFfNfgfC“fXfyfNf^,É~—□',Æ,μ,Ă—v'f,đ•Ž|,·,é,æ,α,É□Ÿ'è,·,é,Æ□C'l,Í TSetElementProperty ,É,æ,Á,Ă'è<`³,é,Ü,·□BGetValues ,ì'l,Í True ,Æ False ,ì•ŸŽš—ň,Ă,·□B

```
procedure TSetElementProperty.GetValues (Proc: TGetStrProc);
begin
  Proc('False');
  Proc('True');
end;
```

ŽQÆ15200

GetValues ffbfh

GetCursorValues Žè'±,«

GetColorValues Žè'±,«

THandleStream f1fufWfFfNfg15201

ŽQAE fvf[]pfefB f[]\fbfh f1fufWfFfNfg

ftfjfbfg

Classes

□à-¾

THandleStream f1fufWfFfNfg,íftf@fCf<fXfgfŠ[]f€f1fufWfFfNfg,ì,æ,κ

,É"®[],.éXfgfŠ[]f€f1fufWfFfNfg,Å,.ª[]CfXfgfŠ[]f€ff[]f^,ðSi"l,.é,ì,ÉŽg,κftf@fCf<,ì-¼'O,ðŽw'è,.é,ì,Å,í,È,[]C,.Å,ÉŠ,,è"-,Ä[]İ,Ý,íftf@fCf<,íftf@fCf<fnf"fhh<,ðŽw'è,μ,Ü,.[]B

fnf"fhh<fXfgfŠ[]f€f1fufWfFfNfg,íftf@fCf<fnf"fhh<,É"Ç,Ý[]o,μ[]ê—p,ÅfAfNfZfX%oÅ"\,É,.é Handle
fvf[]pfefB,ð'è<,μ,Ü,.[]B,±,ífvf[]pfefB,ífnf"fhh<,ÉŠî,Ä,ç,Äftf@fCf<,ð[]^—[],.é RTL ŠÖ[]",Éfpf
%of[]f^,Æ,μ,Ä"n,¹,Ü,.[]Bfnf"fhh<fXfgfŠ[]f€,í Create fRf"fXfgf%ofNf^,ðfi[]fo[]f
%ofCfh,μ,Äfnf"fhh<,ðfpf
%of[]f^,Æ,μ[]Cfnf"fhh<fXfgfŠ[]f€f1fufWfFfNfg,ÉŠÖ~A•t,¯,éftf@fCf<,ðŽw'è,Å,«,Ü,.[]B

fvf[]pfefB15202

Handle

fifbfh15203

Create

Read

Seek

Write

ŽQÆ15204

TStream flufWfFfNfg

TFileStream flufWfFfNfg

TIdentToInt $\mathbb{C}^{\wedge}15205$

ŽQÆ

ftfjfbfg

Classes

é $\mathbb{C}^{\frac{3}{4}}$

type

```
TIdentToInt = function (const Ident: string; var Int: Longint):  
    Boolean;
```

à- $\frac{3}{4}$

TIdentToInt \mathbb{C}^{\wedge} ,ÍfXfgfŠ[f~f“fOfVfXfef€

,đŽg,Á,Ä@“’è“,Æ,»,l’l,đ“o~^,,:éŠÖ“ \mathbb{C}^{\wedge} ,đ’è<’,μ,Ü,·B

ŽQÆ15206

TIntToIdent Ć^

IdentToColor ŠÖ”

IdentToCursor ŠÖ”

TIntToIdent **CE**^15207

ŽQÆ

ftfjfbfg

Classes

□éCE¾

type

```
TIntToIdent = function (Int: Longint; var Ident: string): Boolean;
```

□à-¾

TIntToIdent **CE**^,ÍfXfgfŠ[f~f“fOfVfXfef€

,đŽg,Á,Ä@“'è“,Æ,»,l'ı,đ“o~^,.,éŠÖ“CE^,đ'è<`,μ,Ü,·□B

ŽQÆ15208

TIdentToInt Ć^

ColorToIdent ŠÖ”

CursorToIdent ŠÖ”

TList flfufWfFfNfg (fvf□fefNfg)15209

ŽQ□Æ flfufWfFfNfg

ftfjfbfg

Classes

□à-¾

TList flfufWfFfNfg, ífjCf“f^, ìfŠXfg, Å, ·□BfŠXfgflfufWfFfNfg, ìŽg, ç •û, É, Â, ç, Ä, ì VCL
fŠtf@fCef“fX, ì□€-Ú^ÈŠO, É□CfRf“f|□lfj“fgŠj”ŽÒ, ÉŠÖCfW, ·, éf□f\fbfh,^a, ç, , Å, ©, , è, Ü, ·□B

Šj”ŽÒ, í□C•W□€fŠXfg, ì“@□ì, ð•ï□X, ·, é□CŽ©•^a—

p, ì“Á•É, ÈfŠXfgflfufWfFfNfg, ð”h□¶, μ, Ä□ì□¬, Å, «, Ü, ·□BTList ,É, ífvf□fefNfgf□f\fbfh,^a, , è□C, » , è, ç, ìf□f\fbfh, ðŽ©•^a, ì%^o^ÊfŠXfgflfufWfFfNfg“à, ÅCfÄ, Ñ□o, μ, ½, èf□f□fo□f%ofCfh, Å, «, Ü, ·□B

fifbfh15210

Error

Grow

TMemoryStream flfufWfFfNfg15211

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

Classes

à-¾

TMemoryStream

flfufWfFfNfg,ÍCff[f^,ð“@“lf,fš,ÉŠi”[.,éfXfgš[f€flfufWfFfNfg,Å,·BTCustomMemoryStre
am ,©,çÆp³,·,é€-Ú,ì,Ù,©,ÉCff,fšXfgš[f€
,É,ÍCffBfXfNftf@fCf<,Ü,½,Í•É,lfXfgš[f€flfufWfFfNfg,ì“à—e,ðff[fh,Ü,½,Í’uŠ·,Å,«,éf f
fbfh,ª, ,è,Ü,·Bff,fš,É’,«ž,ň,¾,èCff,fš,ðfNfŠfA,·,éf ffbfh,âC“@“lf,f,šfv[f<,ðŠÇ—
·,·,éf ffbfh,à, ,è,Ü,·B

f\fbfh15212

Capacity

Clear

Destroy

LoadFromFile

LoadFromStream

Realloc

SetSize

Write

ŽQÆ15213

TStream flufWfFfNfg

TCustomMemoryStreamflufWfFfNfg

TOperation C^15214

ŽQÆ

ftfjfbfg

Classes

éC¾

type

```
TOperation = (opInsert, opRemove);
```

à-¾

TOperation C^, í Notification f\fbfh, aftf%ofo, ð—š, Ä, ½ 2 Ží—p, lfRf“f| [f|f“fg^—
□, Ä, Ü, è’}“ü, Æ□í□œ, ð’è<` , μ, Ü, · □BNotification , í•Ê, ìfpf%of□□[f^, ÅŽw’è, μ, ½fRf“f|
□[f|f“fg, ð’}“ü, ·, é, ì, ©□í□œ, ·, é, ì, ©Ž|, · TOperation C^, ìfpf%of□□[f^, ð, Æ, è, Ü, · □B

ŽQÆ15215

Notification ffbfh

TPersistent flfufWfFfNfg15216

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

Classes

é¾

TPersistent flfufWfFfNfg, í Delphi

fXfgš[flfufWfFfNfg, Éš”[, μ[fh,³,ê,é,·,×,Ä,lfufWfFfNfg,ìš-

{“l,É’šÚflfufWfFfNfg,Å,·BTPersistent ,íă^ÉflfufWfFfNfg TObject ,©,çEp³,·,éfb

fbfh,ì,Ù,©,ÉC3 ,Â,ìV,μ,çfbfh AssignTo, DefineProperties (fvfbfNfgfbfh)CAssign

(fpufšfbfNfbfh) ,ð’è` ,μ,Ü,·B

f\fbfh15217

Assign

AssignTo

DefineProperties

ŽQÆ15218

TPersistentClass CE^

TStream flufWfFfNfg

TPersistentClass 15219

ŽQÆ

ftjfbfg

Classes

é¾

type

```
TPersistentClass = class of TPersistent;
```

à¾

TPersistentClass 15219, íŽ'±"lfufWfFfNfg, ìNf%ofXfŠftf@fÆf"fxÆ^, Å, ·B

ŽQÆ15220

TPersistent flufWfEfNfg

TReadComponentsProc $\mathbb{C}^{\wedge}15221$

ŽQÆ

ftjfbfg

Classes

é¾

type

TReadComponentsProc = **procedure** (Component: TComponent) **of object**;

à-¾

TReadComponentsProc \mathbb{C}^{\wedge} , íŠ [f [fifufWfFfNfg, ì ReadComponents f\fbfh, ì Proc fpf
%of [f^, ÉŽg, x f\fbfh|fCf" f^ \mathbb{C}^{\wedge} , Å, ·B

ŽQÆ15222

ReadComponents ffbfh

TReader flfufWfFfNfg15223

ŽQAE fvf\fpfefB f\fbfh fCxf"fg flfufWfFfNfg

ftfjfbfg

Classes

à-¾

TReader flfufWfFfNfg, íŠÖ~A•t, ¯, ç, è, ½fXfgfŠ[f€, ©, çff[f^, ð"Ç, Ýo, "ÁŽè, Èftf@fCf %o flfufWfFfNfg, Å, ·BTReader , í Tfiler , ©, çEp³, ·, é€-Ú, ì, ù, ©, ÉC"ÆŽ©, ìfvf\fpfefB\Cf\fbfh\CfCxf"fg, ðéÉ¾, μ, Û, ·B

fvf\fpfefB Owner ,Æ Parent , ìfŠ[f_ [flfufWfFfNfg, ìfXfgfŠ[f€, ©, ç"Ç, Ýo, μ, ½fRf"fl [fj"fg, ì, » , è, ¼, êfI[fí [,Æe,Æ, μ, Å<@"\, μ, Û, ·BfCxf"fg OnError , OnFindMethod , OnSetName , Å, í€-Ú, ð"Ç, Ýo, μ, ½, Æ, «, É"Á'è, ìfCxf"fg, º"¶, μ, ½êê‡, ì %ož"š, ðjffXf^f}fCfY, Å, «, Û, ·B

TReader , í Tfiler , ©, çEp³, μ, ½, ç, , Å, ©, ìf\fbfh, ðfI[fo [f %ofCfh, ·, é, ù, ©CSÖ~A•t, ¯, ç, è, ½fXfgfŠ[f€, ©, ç^ÚŽí, ì€-Ú, ð"Ç, Ýo, ·ŠeŽí, ìf\fbfh, ÆCfŠ[f_ [flfufWfFfNfg, ìfCxf"fg, ì¶- , ì, ½, ß, ìf\fbfh, ð'è<` , μ, Û, ·B

fvf[]pfefB15224

Owner

Parent

Position

fjfbfh15225

BeginReferences

DefineBinaryProperty

DefineProperty

Destroy

EndOfList

EndReferences

Error

FindMethod

FixupReferences

FlushBuffer

NextValue

Read

ReadBoolean

ReadChar

ReadComponents

ReadFloat

ReadIdent

ReadInteger

ReadListBegin

ReadListEnd

ReadPrefix

ReadRootComponent

ReadSignature

ReadStr

ReadString

ReadValue

SetName

fCxf“fg15226

OnError

OnFindMethod

OnSetName

ŽQÆ15227

TFiler flfufWfEfNfg

TWriter flfufWfEfNfg

TReaderError $\text{C}^{\wedge}15228$

ŽQÆ

ftjfbfg

Classes

é $\text{C}^{\wedge}3/4$

type

```
TReaderError = procedure (Reader: TReader; const Message: string;  
    var Handled: Boolean) of object;
```

à- $3/4$

TReaderError C^{\wedge} , íŠ [f [fifufWfFfNfg, ì OnError fCxf"fg, ìf [fbfhfjCf" f C^{\wedge} Å, ·B

ŽQÆ15229

OnError fCxf“fg

TReader flfufWfFfNfg

TReaderProc CE^15230

ŽQÆ

ftjfbfg

Classes

é¾

TReaderProc = **procedure** (Reader: TReader) **of object**;

à-¾

TReaderProc CE^, í DefineProperty f\fbfh, ì ReadData fpf% f[f^, ÉŽg, x f\fbfh|

fCf" f^ CE^, Å, ·BTReaderProc , í Reader fpf

% f[f^, ÅŽw'è, ·, éš [f [fifufWfFfNfg, ©, çvf fpfefB'l, ð"Ç, Ýo, ·f\fbfh, ð'è` , μ, Ü, ·B

ŽQÆ15231

DefineProperty ffbfh

TReader flufWfFfNfg

TWriterProc Ć^

TResourceManager 15232

ŽQÆ ffbfh flfufWfEfNfg

ftjfbfg

Classes

à-¾

TResourceManager, íCWindows fAfvfŠfP[fVf#f“, lfŠf
[fX, Ö, ð'ñ<ÿ, , éf, fŠfXfgfŠ[f€, Å, ·BTCustomMemoryStream , ©, çEρ³, , é€-
Ú, ì, ù, ©, ÉCfŠf[fXftf@fCf<, É, «ž, P Write ffbfh, ðf[fó[f
%ofCfh, μ, ù, ·B, ù, ½C“Á'èf, fWf...[f<, ù, ½, lfŠf[fX ID , lfŠf[fX, ÆfXfgfŠ[f€
, Æ, ðŠÖ~A•t, , éRf“fXfgf%ofNf^, à'è<`³, ê, Ä, ç, ù, ·B

f[]fbfh15233

Create

Destroy

Write

CreateFromID

ŽQÆ15234

TCustomMemoryStream flfufWfFfNfg

TSetNameEvent **CE**^15235

ŽQÆ

ftfjfbfg

Classes

□éCE¾

type

```
TSetNameEvent = procedure (Reader: TReader; Component: TComponent;  
    var Name: string) of object;
```

□à-¾

TSetNameEvent CE^, íŠ[f □[fifufWfFfNfg, ì OnSetName fCxf"fg, ÉŽg, x[f□fbfhf]
fCf"f^CE^, Å, ·□B

ŽQÆ15236

OnSetName fCxf"fg

fŠ[f [fufWfFfNfg.ì SetName ffbfh

TStream flfufWfFfNfg15237

ŽQAE fvfjpfefB fvfbfh flfufWfFfNfg

ftfjbfjg

Classes

à-¾

TStream flfufWfFfNfg, ífofCfifŠff[f^,đš"l,Å,«,é"}'ì,đ•\,.'ŠÛflfufWfFfNfgĈ^,Å,·BTStream
,É,íff,šCffBfXfNftf@fCf<,È,Ç,Éff[f^,đš"l,·,é•Ö—~,È%°^ÉflfufWfFfNfg,ª,ç,,Å,©, ,è,Û,·B

TStream ,í 2 ,Å,ífvfjpfefB Size ,Æ Position ,đ'è<` ,μ,Û,·B,» ,ê,¼,êfXfgfŠ[f€,lfTfCfY
(fofCfg) ,ÆĈ»Ý^É'u,đ•\,μ,Û,·BTStream ,ª'è<` ,·,éffvfbfh,đŽg,ª,ÆfXfgfŠ[f€
,ÅfofCfg,ì“Ç,Ýo,μC' ,«ž,ÝCfRfs[,ª,Å,«,Û,·B

fvf[]pfefB15238

Position

Size

fjfbfh15239

CopyFrom

Read

ReadBuffer

ReadComponent

ReadComponentRes

ReadResHeader

Seek

Write

WriteBuffer

WriteComponent

WriteComponentRes

WriteDescendant

WriteDescendantRes

ŽQÆ15240

TFileStream flfufWfFfNfg

THandleStream flfufWfFfNfg

TMemoryStream flfufWfFfNfg

TStreamProc CE^15241

ŽQÆ

ftfjfbfg

Classes

é¾

TStreamProc = **procedure** (Stream: TStream) **of object**;

à¾

TStreamProc CE^, íŠ[f_[]fufWfFfNfg, ì DefineBinaryProperty f[]fbfh, ìfpf%[]f^
ReadData ,Æ WriteData ,ÉŽg,xf[]fbfh[]fCf“f^CE^,Å,·BTStreamProc ,í Stream fpf
%[]f^,Åžw'è,·,éfXfgfŠ[]f€,ÅfofCfifŠCE`Ž®,ìfvf[]fpfefB'l,ð“Ç,Ý[],«,·,éf[]fbfh,ð'è<` ,μ,Ü,·B

ŽQÆ15242

DefineBinaryProperty flfbfh

TReader flfufWfFfNfg

TValueType $\mathbb{C}^{\wedge 15243}$

ŽQÆ

ftjfbfg

Classes

é $\mathbb{C}^{\wedge 3/4}$

type

```
TValueType = (vaNull, vaList, vaInt8, vaInt16, vaInt32, vaExtended, vaString, vaIdent, vaFalse, vaTrue, vaBinary, vaSet, vaLString, vaNil, vaCollection);
```

à- $3/4$

TValueType \mathbb{C}^{\wedge} , íCftf@fCf%flfufWfFfNfg,É',«ž,Ü,ê,é'l,Æftf@fCf%flfufWfFfNfg,©,ç“Ç,Ýo,³,ê,é'l,ìŽí—p,đ'è` ,μ,Ü,·BDelphi ,lftf@fCf% ,Å,lf^fO•t,«,l',^aŽg,í,êCfXfgfš[f€ã,ì,»,ê,^{1/4},ê,l',É \mathbb{C}^{\wedge} ,đ•\,·fvfCftfBfNfX,^a•t,«,Ü,·B,±,ê,ç,lfvfCftfBfNfX,^a TValueType \mathbb{C}^{\wedge} ,Å,·B

ŽQÆ15244

NextValue ffbfh

ReadValue ffbfh

TWriter flfufWfFfNfg15245

ŽQÆ fvfpfefB ffbfh flfufWfFfNfg

ftfjfbfg

Classes

à-¾

TWriter flfufWfFfNfg,í,»ìŠÖ~A•t,¯,ç,ê,½xfjgfŠ[f€,Éff[f^,ð',«ž,b"ÁŽè,Ètf@fCf
%oflfufWfFfNfg,Â,·B

TWriter ,í Tfiler ,©,çÆp³,μ,½fffbfh,ì,ç,,Â,©,ðf[fo[f
%ofCfh,·,é,Û,©CSÖ~A•t,¯,ç,ê,½xfjgfŠ[f€,ÉŠeŽí,ì€-Ú,ð',«ž,bfbfh,ð,ç,-
,Â,à'è` ,μ,Û,·B

fvf[]pfefB15246

Position

RootAncestor

fjfbfh15247

DefineBinaryProperty

DefineProperty

Destroy

Write

WriteBoolean

WriteCollection

WriteComponent

WriteChar

WriteFloat

WriteIdent

WriteInteger

WriteListBegin

WriteListEnd

WriteRootComponent

WriteSignature

WriteStr

WriteString

ŽQÆ15248

TFiler flfufWfFfNfg

TReader flfufWfFfNfg

TWriterProc **CE^15249**

ŽQÆ

ftfjfbfg

Classes

□éCE¾

type

TWriterProc = **procedure** (Writer: TWriter) **of object**;

□à-¾

TWriterProc CE^, í DefineProperty f[]fbfh, ì WriteData fpf%of[]f^, ÉŽg,xf[]fbfh|
fCf" f^CE^, Å, ·BTWriterProc , í Writer fpf%of[]f^, ÅŽw'è, ·, éf
%ofCf^[]f[]fufWfEfNfg, Éfvf[]fpfefB'l, ð', «ž, pf[]fbfh, ð'è<` , μ, Ü, ·B

ŽQÆ15250

DefineProperty ffbfh

TWriter flfufWfEfNfg

TReaderProc CE^

UnRegisterClass Žè'±,«15251

ŽQÆ

ftfjfbfg

Classes

□éŒ¾

procedure UnRegisterClass (AClass: TPersistentClass);

□à-¾

UnRegisterClass Žè'±,«,Í Delphi fXfgfŠ[f~f"foVfXfef€
,đŽg,Á,Ä"o~^,μ,½fJufWfFfNfgŒ^fŠfXfg,©,ç AClass fpf
%of□□[f^,ÅŽw'è,·,élfufWfFfNfgŒ^,đ□'œ,μ,Û,·□B

ŽQÆ15252

RegisterClass Žè'±,«

UnRegisterClasses Žè'±,«

UnRegisterClasses Žè'±,«15253

ŽQÆ

ftjfbfg

Classes

□éĒ¾

procedure UnRegisterClasses (AClasses: **array of** TPersistentClass);

□à-¾

UnRegisterClasses Žè'±,«Í Delphi fXfgfŠ[f~f“fOfVfXfef€
,đŽg,Á,Ä“o~^,μ,½fIfufWfFfNfgĒ^fŠfXfg,©,ç AClasses "z—ñfpf
%of□□[f^,ÅŽw'è,·,éIfufWfFfNfgĒ^,đ□□œ,μ,Ü,·□BUnRegisterClasses ,Í"z—ñ"à,ìŠe—
v'f,²,Æ,É UnRegisterClass ,đĒÄ,Ñ□o,μ,Ü,·□B

ŽQÆ15254

RegisterClasses Žè'±,«

UnRegisterClass Žè'±,«

Updated f\fbfh15255

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðRf“f|[]f|f“fg)

□éÆ¾

procedure Updated; **dynamic**;

□à-¾

Updated f\fbfh, íCfRf“f|[]f|f“fg, ðXV, ð, í, Á, ½, ±, Æ, ð·\, ·, ½, ß, ÉCfRf“f|[]f|f“fg, ð
ComponentState fvf\pfefB, ð csUpdating, ðó’Ô, ðfNfŠfA, µ, Ü, ·BUUpdated, ðÆÄ, Ño, ·, ð, íCftf
%ofO, ðÝ’è, ·, é Updating, ðÆÄ, Ño, µ, ½Æã, Ä, ·B

ŽQÆ15256

ComponentState_fvf\fpfefB

Updating_f\fbfh

Updating f\fbfh15257

ŽQÆ

“K—p

TComponent (, ·, ×, Ä, ðRf“f|[]f|f“fg)

□éÆ¾

procedure Updating; **dynamic**;

□à-¾

Updating f\fbfh, íCfRf“f|[]f|f“fg, ðXV, ð, æ, æ, Æ, µ, Ä, ç, é, ±, Æ, ð·\, ·, ½, ß, ÉCfRf“f|[]f|f“fg, ð
ComponentState fvfpfefB, ð csUpdating, ðó’Ô, ðÝ’è, µ, Û, ·BUpdating
, ðÆÄ, Ño, µ, ½Æã, É, íCftf%ofO, ðfNfŠfA, ·, é Updated, ð·K, ÆÄ, Ño, ·, æ, æ
, É, µ, È, -, ê, î, È, è, Û, ¹, ñB

ŽQÆ15258

ComponentState_fvf\fpfefB

Updated_f\fbfh

ValidateRename f\fbfh15259

ŽQÆ —á

“K—p

TComponent

é¾

```
procedure ValidateRename (AComponent: TComponent; const CurName, NewName:
    string); virtual;
```

à¾

ValidateRename f\fbfh, í AComponent , ÅŽw'è, ., éŠ—LFRf“f|[]f|f“fg, ðŒ»Ý, ì¼'O
(CurName) , ©, ç NewName , ÅŽw'è, ., é•ŕŽš—ñ, É•ïX, Å, «, é, ©, Ç, æ, ©'², x, Ü, ·B AComponent
,^a nil , ìê#Æ NewName , ì¼'O,^a Components fŠXfg, ìFRf“f|[]f|f“fg, ì-
¼'O, Æ, µ, Ä, ·, Å, É'ŕÝ, ·, éê#CValidateRename , í EComponentError —áŠO, ðŕ—, µ, Ü, ·B

—á15260

TComponent ,ì InsertComponent f[]\fbfh,í ValidateRename ,đŽg,Á,Ä“Á“è,ì-¼‘O,ìfRf“f|
[]|f|f“fg,đ‘}“ü,Å,«,é,©,Ç,æ,©‘²,×,Ü,·BfRf“f|[]|f|f“fg,ª,·,Ä,É[]Š—L,μ,Ä,ç,éRf“f|[]|f|f“fg,Æ“-,¶-
¼‘O,ìfRf“f|[]|f|f“fg,đ‘}“ü,μ,æ,æ,Æ,·,é,Æ[]CValidateRename ,í—áŠO,đ[]¶[]-,μ,Ü,·[]B

```
procedure TComponent.InsertComponent (AComponent: TComponent);  
begin  
    ValidateRename (AComponent, ' ', AComponent.FName^);      { []V,μ,ç-  
¼‘O,đŠm“F,μ,Ü,· }  
    Insert (AComponent);      { -¼‘O,ª,·,Ä,ÉŽg,í,ê,Ä,ç,é,ÆŽÀ[]s,³,ê,Ü,¹,ñ }  
    ...  
end;
```

ŽQÆ15261

Name fvfpfefB

FindComponent ffbfh

Write f\fbfh15262

“K—p

TStream, TWriter

à-¾

Write f\fbfh,ÍŽ—,½,æ,æ,È<@”\,ðŽ,Â,à,ì²,Â, ,è,Ü,·B1
,Â,ÍXfgfŠ[f€flfufWfFfNfg,²fXfgfŠ[f€,Éff[f^,ð’,«ž,½,ß,lf\fbfh,Â,·B,à,æ 1 ,Â,Íf
%ofCf^[flfufWfFfNfg,²f%ofCf^[flfufWfFfNfg,ìŠÖ~A•t, ,ç,è,½fXfgfŠ[f€
,Éff[f^,ð“n, ,½,ß,lf\fbfh,Â,·B

Stream flfufWfFfNfg,ì Write f\fbfh

Writer flfufWfFfNfg,ì Write f\fbfh

Write f\fbfh15263

ŽQÆ

“K—p

TStream

é¾

function Write(**const** Buffer; Count: Longint): Longint; **virtual**; **abstract**;

à-¾

Write f\fbfh, í Buffer , ©, ç Count , Åžw'è, , éfofCfg” , ðfXfgfŠ[f€ , É’ , «ž, ÝCfXfgfŠ[f€ , ìCE»Ý^É'u, ð Count , Åžw'è, , éfofCfg” , ¾, i, ßC’ , «ž, ñ, ¾fofCfg” , ð•Ô, µ, Ü, ·B

TStream.Write , í ŠÛf\fbfh, Å, ·BŠe%º^ÊfXfgfŠ[f€CE^ , í“Á'è, ìL%º-” }'ì

(f\ , fŠCffBfXfNftf@fCf< , È, Ç) , Éff[f^ , ð’ , «ž, p Write f\

fbfh, ð'è< , µ, Ü, ·B, » , é^ÈŠO, ìfXfgfŠ[f€ , ìff[f^ , «ž, Ýf\fbfh (WriteBuffer , WriteComponent) , íŽÀÛ , É’ , «ž, p, ½, ß Write , ðCEÄ, Ño, µ, Ü, ·B

ŽQÆ15264

Read f\fbfh

Write f\bfbh15265

ŽQÆ

“K—p

TWriter

é¾

procedure Write(**const** Buf; Count: Longint);

à-¾

Write f\bfbh,í Buf ,©,ç Count ,ÅŽw'è,·,éfofCfg”,ďf

%ofCf^[f]ufWfFfNfg,İŠÖ~A•t,¯,ç,ê,½fXfgfŠ[f€,É',«ž,Ý,Ü,·B

ŽQÆ15266

Read ffbfh

WriteBoolean f\bfbfh15267

ŽQÆ

“K—p

TWriter

é¾

procedure WriteBoolean(Value: Boolean);

à-¾

WriteBoolean f\bfbfh,í Value ,ÅŽw'è,·,é~_—l,đf%ofCf^[fufWfFfNfg,lfXfgfŠ[f€
,É',«ž,Ý,Ü,·B

ŽQÆ15268

fXfgfŠ[f€lfufWfFfNfg.ìWrite f[f\bfh

ReadBoolean f[f\bfh

WriteBuffer f\fbfh15269

ŽQÆ

“K—p

TStream

é¾

procedure WriteBuffer(**const** Buffer; Count: Longint);

à-¾

WriteBuffer f\fbfh,í Buffer , ©,ç Count ,ÅŽw'è, .,éfofCfg” ,ðfXfgfŠ[f€,É’ ,«ž,ÝfXfgfŠ[f€
,ìE»Ý^Ê'u,đ Count ,ÅŽw'è, .,éfofCfg” ,¾, i,ß,Ü, ·BŽw'è,³,ê,½, ·,x,Ä,ìfofCfg,ìfXfgfŠ[f€
,ª’ ,«ž,ß,È,ç,ÆCWwriteBuffer ,í EWriteError —áŠO,ð¶¬,μ,Ü, ·B

ŽQÆ15270

fXfgfŠ[f€]fufWfFfNfg.ìWrite f[]\bfh

ReadBuffer f[]\bfh

WriteChar f\fbfh15271

ŽQÆ

“K—p

TWriter

é¾

procedure WriteChar(Value: Char);

à-¾

WriteChar f\fbfh, í Value , ÅŽw'è, , é•¶Žš, ðf%ofCf^ [fufWfFfNfg, ðXfgfŠ [f€
, É', «ž, Ý, Ü, ·B

ŽQÆ15272

fXfgfŠ[f€fufWfFfNfg.ìWrite f\fbfh

ReadChar f\fbfh

WriteCollection f\fbfh15273

ŽQÆ

“K—p

TWriter

é¾

procedure WriteCollection(Value: TCollection);

à-¾

WriteCollection f\fbfh,íCValue ,É“n,µ,½lfufWfFfNfg,ìRfÆfNfVf#f“,ðCf
%ofCf^[]lfufWfFfNfg,ìXfgfŠ[]f€,É‘,«ž,Ý,Û,·B

ŽQÆ15274

f%ofCf^[]fifufWfFfNfg,ì Write f[]fbfh

WriteComponent f\fbfh15275

“K—p

TStream, TWriter

WriteComponent ,É,í 2 ,Â,lf\fbfh,^a, ,è,Ü,·BfXfgfŠ[feflfufWfFfNfg—p,ì WriteComponent ,ÍŽw'è,μ,½fRf“f|[]f|f“fg,Æ[]Š—LfRf“f|[]f|f“fg,ðfXfgfŠ[]f€,É[],«[]ž,Ý,Ü,·[]Bf %oofCf^[]f|fufWfFfNfg—p,ì WriteComponent ,ÍŽw'è,μ,½fRf“f|[]f|f“fg,É[]CŠefvf[]fpfefB,ì'l,ðf %oofCf^[]f|fufWfFfNfg,Ö[],«[]ž,Ü,¹,Ü,·[]B

Stream flfufWfFfNfg,ì WriteComponent f\fbfh

Writer flfufWfFfNfg,ì WriteComponent f\fbfh

WriteComponent f\fbfh15276

ŽQÆ

“K—p

TStream

é¾

procedure WriteComponent (Instance: TComponent);

à-¾

WriteComponent f\fbfh,Í Instance ,ÅŽw'è,·,éfRf“f|f“fg,Æ Instance ,ªŠ—
L,·,élfufWfFfNfg,đfXfgfŠ[f€,É‘,«ž,Ý,Ü,·BWriteComponent ,Íf
%ofCf^fufWfFfNfg,đì¬,μ,» ,ì WriteRootComponent f\fbfh,đEÄ,Ño,μ,Ä Instance
,Æ,»,ìŠ—LlfufWfFfNfg,đ‘,«ž,Ý,Ü,·B

ŽQÆ15277

WriteRootComponent f\fbfh

ReadComponent f\fbfh

WriteComponent f\fbfh15278

ŽQÆ

“K—p

TWriter

é¾

procedure WriteComponent (Component: TComponent);

à-¾

WriteComponent f\fbfh, í Component , ÅŽw'è, , éfRf“f| [fif“fg, ì WriteState f\fbfh, ðÆÄ, Ño, μC, » , è, ð Writer fpf%of [f^ , Æ, μ, Ä“n, μ, Ü, ·B, Ä, Ü, è Component.WriteState(Self) , ðÆÄ, Ño, μ, Ü, ·BWriteComponent , í Component , ì ComponentState fvf\pfefB, É csWriting [ó'Ô, ð'Ý'è, μ, Ä WriteState , ðÆÄ, Ño, μCWriteState , ©, ç\$Æä, º•Ô, é, Æ csWriting [ó'Ô, ðfNfŠfA, μ, Ü, ·B

ŽQÆ15279

WriteState f\fbfh

ReadComponent f\fbfh

WriteComponentRes f\fbfh15280

ŽQÆ

“K—p

TStream

é¾

procedure WriteComponentRes(**const** ResName: **string**; Instance: TComponent);

à-¾

WriteComponentRes f\fbfh,í•W€,ì Windows fŠ\Xftf@fCf·fwfbf_[][,É Instance
,ÅŽw'è,·,éRf“f[]lf“fg,ðÆã,ë,É•t, ,ÄXfgfŠ[]f€,É',«ž,Ý,Ü,·BWriteComponentRes
,ðŽg,Á,Ä',«ž,ñ,¾fRf“f[]lf“fg,ð“Ç,Ýo,·,É,íCReadComponentRes f\fbfh,ðÆÄ,Ño,μ,Ü,·B

WriteComponentRes ,í ResName ,ÅŽw'è,μ,½•¶Žš—ñ,ðŠf\Xftf@fCf·fwfbf_[][,lfŠ\X-
¾,Æ,μ,ÄŽg,ç,Ü,·BWriteComponent f\fbfh,ðÆÄ,Ño,μ,ÄRf“f[]lf“fg,Æ,»,ìŠ—Lrf“f[]lf“fg,ð',«ž,Ý,Ü,·B

ŽQÆ15281

fXfgš[f€lfufWfFfNfg.ì WriteComponent f\fbfh

ReadComponentRes f\fbfh

WriteComponentResFile Žè'±,«15282

ŽQÆ

ftfjfbfg

Classes

□éŒ¾

procedure WriteComponentResFile(**const** FileName: **string**; Instance:
TComponent);

□à-¾

WriteComponentResFile Žè'±,«Í Instance ,ÅŽw'è,·,éfRf"f□[fjf"fg,Æ,»,ìfRf"f□[fjf"fg,ªŠ—
L,·,éfRf"f□[fjf"fg,đ FileName ,ÅŽw'è,·,éftf@fCf<,É Windows fŠf\
□[fXftf@fCf<Œ`Ž®,Å□',«□ž,Ý,Ü,·□B Delphi ,Í WriteComponentResFile ,đŽg,Á,ÄftfH□[f€
,Æ,»,ìfRf"f□[fjf"fg,đftfH□[f€ftf@fCf<,É□',«□ž,Ý,Ü,·□BftfH□[f€fRf"f□[fjf"fg,Æ,»,ìfRf"f□
□[fjf"fg,đ□i□→,μ□CWriteComponentResFile
,đŽg,Á,Ä,»,è,đftfH□[f€ftf@fCf<,É□',«□ž,ß,Î□CfAfvfŠfP□[fvf†f",Í Delphi ,ª"Ç,Ý□o,μ%oÅ"\
,ÉftfH□[f€ftf@fCf<,đ□¶□→,Å,«,Ü,·□B

WriteComponentResFile ,Í FileName ,ÅŽw'è,·,é-
¼'O,đŽ□,Äftf@fCf<fXfgfŠ□[f€flfufWfFfNfg,đ□i□→,μ□CfXfgfŠ□[f€,ì WriteComponentRes f□f\
fbfh,đŒÄ,Ň□o,μ,Ä Instansce ,đftf@fCf<,É□',«□ž,Ý,Ü,·□B

ŽQÆ15283

ReadComponentResFile ŠÖ”

WriteComponentRes f\fbfh

WriteComponents f\fbfh15284

ŽQÆ

à-¾

Delphi 1.0 ,lfRf“f|□[flf“fg,ÅŽg,Á,Ä,ç,½ WriteComponents f\fbfh,í□CftfH□[f€,ìCEp□³,ðfTf|
□[fg,·,é GetChildren f\fbfh,É‘u,«Š·,í,è,Û,μ,½□B

WriteComponents ,ðŽg,Á,Ä,ç,½fRf“f|□[flf“fg,í□CCE»□Ý,í GetChildren ,Æ SetChildOrder
,ðŽÀ‘•,μ,È,¯,ê,î,Ë,è,Û,¹,ñ□BHasParent ,©,ç True ,ð•Ô,·Žq,í□CCE»□Ý,í GetParentComponent
,Æ SetParentComponent ,ðŽÀ‘•,μ,È,¯,ê,î,Ë,è,Û,¹,ñ□B

ŽQÆ15285

GetChildren ffbfh

SetChildOrder ffbfh

HasParent ffbfh

GetParentComponent ffbfh

SetParentComponent ffbfh

WriteDescendant f\fbfh15286

“K—p

TStreamCTWriter

WriteDescendent ,Æ,ç,ıf\fbfh,í 2 ,Â, ,è,Û,·BfXfgfŠ[f€flfufWfFfNfg,ì WriteDescendent ,íCŽw'è,³,ê,½fRf“f|flf“fg,Æ,»),lfRf“f|flf“fg,ªŠ—L,·,éfRf“f|flf“fg,ðfXfgfŠ[f€ ,É',«ž,Ý,Û,·Bf%ofCf^flfufWfFfNfg,ì WriteDescendent ,Å,íCŽw'è,³,ê,½fRf“f| flf“fg,ªC,»,lfRf“f|flf“fg,ìŠefvf|pfefB,ì'l,ðf%ofCf^flfufWfFfNfg,lfXfgfŠ[f€ ,É',«ž,Ý,Û,·B

fXfgfŠ[f€flfufWfFfNfg,ì WriteDescendent f\fbfh

f%ofCf^flfufWfFfNfg,ì WriteDescendent f\fbfh

WriteDescendant f\fbfh15287

ŽQÆ

“K—p

TStream

é¾

procedure WriteDescendent (Instance, Ancestor: TComponent);

à-¾

fXfgfŠ[f€flfufWfFfNfg,ì WriteDescendent f\fbfh,íCInstance ,É“n,³,ê,½fRf“f|
|[flf“fg,ðfXfgfŠ|[f€,É‘,«ž,p,½,ß,ÉCf%ofCf^[flfufWfFfNfg,ðì¬,μC,»,
WriteDescendent f\fbfh,ðĀ,Ño,μ,Û,·BInstance ,íCAncestor
,©,çEp³,μ,½Ep³ftfH[f€,©C,Û,½,Íă^ÊftfH[f€,ì Ancestor fRf“f|[flf“fg,É‘
%ož,·,éEp³ftfH[f€“à,ìfRf“f|[flf“fg,ì,ç,ì,ç,©,Å,·B

ŽQÆ15288

WriteDescendentRes f\fbfh

f%oCf^[\fufWfFfNfg,ì WriteDescendent f\fbfh

WriteDescendant f\fbfh15289

ŽQÆ

“K—p

TWriter

é¾

procedure WriteDescendent (Root: TComponent; AAncestor: TComponent);

à-¾

f%ofCf^[fifufWfFfNfg,ì WriteDescendent f\fbfh,íCAAncestor ,É“n,³,ê,½'l,ðf
%ofCf^[fifufWfFfNfg,ì Ancestor fvf\pfefB,Æ RootAncestor fvf\pfefB,É‘,«ž,ÝCRoot
fvf\pfefB,ð Root ,É“n,³,ê,½'l,ÉÝ'è,μ,Ä,©,çCRoot ,“,æ,Ñ Root ,ªŠ—L,·,éRf“f\lf“fg,ðf
%ofCf^[fifufWfFfNfg,ìXfgfŠ[f€,É‘,«ž,p,½,ß,É WriteSignature ,Æ WriteComponent
,ðÄ,Ño,μ,Ü,·B

WriteDescendent ,íCRoot ,ìÉ^,Å'è<` ,³,ê,évf\pfefB'l,Å,í,È,CAncestor ,ðÝ'è,·,é,±
,Æ,É,æ,Á,Ä Ancestor fvf\pfefB,ì'l,ðfftfHf<fg,Æ,μ,ÄŽg,ª“_ª WriteComponent
,Æ^Ü,È,è,Ü,·B

ŽQÆ15290

f%oCf^[]fufWfFfNfg,ì WriteComponent f[]fbfh

WriteSignature f[]fbfh

Ancestor fv[]fpfefB

Root fv[]fpfefB

RootAncestor fv[]fpfefB

WriteDescendantRes f\fbfh15291

ŽQÆ

“K—p

TStream

é¾

```
procedure WriteDescendentRes(const ResName: string; Instance, Ancestor:
    TComponent);
```

à-¾

```
fXfgš[f€flfufWfFfNfg,ì WriteDescendentRes f\fbfh,íCResName ,đš\[]fX,ì-
¼'O,Æ,μCWindows fš\[]fXfwfbf_[][,đXfgš[f€,É',«ž,Ý,Û,·B,» ,ìĀâCInstance ,đ
Ancestor ,ì%º^Ê,Æ,μ,ÄfXfgš[f€,É',«ž,p,½,β,É WriteDescendent ,đĀ,Ńo,μ,Û,·B
```

ŽQÆ15292

fXfgfŠ[f€lfufWfFfNfg.ì WriteDescendent f\fbfh

WriteFloat f\bfbfh15293

ŽQÆ

“K—p

TWriter

é¾

procedure WriteFloat(Value: Extended);

à-¾

WriteFloat f\bfbfh,í Value ,ÅŽw'è,·,é•,“@-““ _'l,đf%ofCf^[fifuWfFfNfg,ìXfgfŠ[f€
,É',«ž,Ý,Ü,·B

ŽQÆ15294

fXfgš[f€lfufWfFfNfg.ìWrite f\fbfh

ReadFloat f\fbfh

WriteIdent f\fbfh15295

ŽQÆ

“K—p

TWriter

é¾

```
procedure WriteIdent(const Ident: string);
```

à-¾

WriteIdent f\fbfh, í Ident , ÅŽw'è, ·, éŽ·•ÊŽq, ðf%fCf^ [flfufWfFfNfg, ìXfgfŠ [f€
, É', «ž, Ý, Ü, ·B

ŽQÆ15296

fXfgfŠ[f€]fufWfFfNfg.ìWrite ffbfh

ReadIdent ffbfh

WriteInteger f\bfbfh15297

ŽQÆ

“K—p

TWriter

é¾

procedure WriteInteger(Value: Longint);

à¾

WriteInteger f\bfbfh,í Value ,ÅŽw'è,·,é@“”l,đ%ofCf^[fufWfFfNfg,ìXfgfŠ[f€
,É',«ž,Ý,Ü,·B

ŽQÆ15298

fXfgfŠ[f€lfufWfFfNfg.ìWrite ffbfh

ReadInteger ffbfh

WriteListBegin f\fbfh15299

ŽQÆ =á

“K—p

TWriter

é¾

procedure WriteListBegin;

à-¾

WriteListBegin f\fbfh,ÍŠfXfg,ÌŠŽnf} [fj[,đf
%ofCf^[fjfufWfFfNfg,ÌŠÖ~A•t, ¯,ç,ê,½fXfgfŠ[f€,É‘,«ž,Ý,Ü,·BWriteListBegin
,đÆÄ,Ño,μ,½ê#C•K, ‚í%ž, ‚é WriteListEnd ,đÆÄ,Ño,³,È,,Ä,Í,È,è,Ü,¹,ñB

—á15300

TStrings fJfufWfFfNfg, í WriteListBegin ,Æ WriteListEnd ,ðŽg,Á,Ä,» ,ì•ŕŽš—
ň,ðŠi”[,μ,Û,·□BŽŸ,ì WriteData ,í DefineProperties f□f□fbfh,Ä•ŕŽš—ň,ðŠi”[,·,é,½,β TStrings
,â“o~^,·,éf□f□fbfh,Ä,·□B

```
procedure TStrings.WriteData(Writer: TWriter);  
var  
  I: Integer;  
begin  
  Writer.WriteListBegin; { fŠfXfg,ìŠJŽnf}□[ff□l,ð□',«□ž,Ÿ,Û,· }  
  for I := 0 to Count - 1 do { •ŕŽš—ň,²,Æ,É”½•œ,μ,Û,· }  
    Writer.WriteString(Get(I)); { ,»,é,¼,êfXfgfŠ□[f€,É□',«□ž,Ÿ,Û,· }  
  Writer.WriteListEnd; { fŠfXfg,ì□l,í,è,ðŽ,·f}□[ff□l,ð□',«□ž,Ÿ,Û,· }  
end;
```

ŽQÆ15301

fXfgfŠ[f€lfufWfFfNfg.ìWrite f\fbfh

ReadListBegin f\fbfh

WriteListEnd f\fbfh

WriteListEnd f\fbfh15302

ŽQÆ =á

“K—p

TWriter

é¾

procedure WriteListEnd;

à-¾

WriteListEnd f\fbfh,íŠXfg,ì,í,è,ðŽ,·f} [f] [,ðf

%ofCf^[f]fufWfFfNfg,ÌŠ~A•t, ¯,ç,ê,½fXfgfŠ[f€,É‘,«ž,Ý,Ü,·BWriteListEnd

,ðÆÄ,Ño,·,É,ÍCæ,É‘í%ž,·,é WriteListBegin ,ðÆÄ,Ño,μ,Ä,ç,È,,Ä,Í,È,è,Ü,¹,ñB

ŽQÆ15303

fXfgfŠ[f€fufWfFfNfg.ìWrite f\fbfh

ReadListEnd f\fbfh

WriteListBegin f\fbfh

WriteRootComponent f\fbfh15304

ŽQÆ

“K—p

TWriter

é¾

procedure WriteRootComponent (Root: TComponent);

à-¾

WriteRootComponent f\fbfh, í Root , ÅŽw'è, ., éfRf“f|[]f|f“fg, Éf%ofCf^[]f|fufWfFfNfg, ì Root
fvf[]fpfefB, ð[]Ý'è, µ[]CWriteSignature , ðÆÄ, Ñ[]o, µ, Ä Delphi ftf@fCf% ID , ðfXfgfŠ[]f€
, É[]', «[]ž, Ý[]C[]ÅÆã, Éf%ofCf^[]f|fufWfFfNfg, ì WriteComponent f\fbfh, ðÆÄ, Ñ[]o, µ, Ä Root
, ðfXfgfŠ[]f€, ÉŠi“l, µ, Ü, ·[]B

ŽQÆ15305

Root_fvf\fpfefB

WriteSignature_f\fbfh

ReadRootComponent_f\fbfh

WriteSignature f\fbfh15306

ŽQÆ

“K—p

TWriter

é¾

procedure WriteSignature;

à-¾

WriteSignature f\fbfh,í Delphi ftj@fCf% ID ,đf
%ofCf^[fifufWfFfNfg,ÌŠÖ~A•t, ¯,ç,ê,½fXfgfŠ[f€,É‘,«ž,Ý,Ü,·BWriteRootComponent f\fbfh,í WriteSignature ,đĀ,Ño,μ,Ä,©,çRf“f|[f“fg,đfXfgfŠ[f€,É‘,«ž,Ý,Ü,·BfifufWfFfNfg,đf|[fh,·,é‘O,É-¼,đŠm”F,·,é,ì,ÅCfŠ[f|[fifufWfFfNfg,Í-¾ø,È,Ü,½,Í%ó,è,½ff[f^,đ“Ç,Ýo,³,È,ç,Åİ,Ý,Ü,·B
ftj@fCf%o,ì-¼,í 4 •¶Žš,Å,·B,±,ìfo|[fWf+f“,ì Delphi ,Å,í TPFO ,Å,·B

ŽQÆ15307

fXfgfŠ[f€lfufWfFfNfg.ìWrite f\fbfh

ReadSignature f\fbfh

WriteState f\fbfh15308

ŽQÆ

“K—p

TComponent

é¾

procedure WriteState(Writer: TWriter); **virtual**;

à-¾

WriteState f\fbfh,í,·,×,Ä,lfRf“f[fif“fg,lfpfufŠfbVf...

fvf\fpfefB,ì‘C,»,ì‘¾,lfXfgfAfhff[f^CŠ—Lfrf“f[fif“fg,ø Writer ,ÅŽw’è,·,é[

%ofCf^ [fifufWfFNfg,É‘,«ž,Ý,Ü,·B

ŽQÆ15309

ReadState ffbfh

WriteStr f\fbfh15310

žQÆ

“K—p

TWriter

é¾

procedure WriteStr(**const** Value: **string**);

à-¾

WriteStr f\fbfh, í Value ,ÅŽw'è, ., é•ŕŽš—ň, ðf%ofCf^ [flfufWfFfNfg, ðfXfgfŠ [f€
, É', «ž, Ý, Ü, ·B

'^Ó: fXfgfŠ [f€, Å, ðfRf"fl [flf"fg •ŕŽš—ň, ð"Ç, Ýo, µ, Æ', «ž, Ý, É, í•K, , ReadString ,Æ
WriteString ,ðŽg, ç, Ü, ·B" , ŕ, æ, x, È-¼'O, ð ReadStr f\fbfh, Æ WriteStr f\fbfh,
í"Á'è, ð VCL fRf"fl [flf"fg, ð, » , ð"à•" , ÅŽg, x, à, ð, È, ð, ÅC, ±, è, ðŽg, x, Æff [f^ , ð"j'1, ., é
%oÁ" \« , ð, è, Ü, ·B

ŽQÆ15311

fXfgfŠ[f€lfufWfFfNfg.ìWrite ffbfh

ReadStr ffbfh

WriteString ffbfh

WriteString f\fbfh15312

ŽQÆ

“K—p

TWriter

é¾

procedure WriteString(**const** Value: **string**);

à-¾

WriteString f\fbfh, í Value , Åžw'è, , é•ŕŽš—ň, ðf%oCf^ [fifufWfFfNfg, ifXfgfŠ [f€
, É', «ž, Ý, Ü, ·B

'^Ó: fXfgfŠ [f€, Å, ifRf" f [fif" fg • ŕŽš—ň, ð" Ç, Ý o, µ, Æ', «ž, Ý, É, í • K, , ReadString , Æ
WriteString , ðŽg, ç, Ü, ·B" , ŕ, æ, x, È-¼' O, ð ReadStr f\fbfh, Æ WriteStr f\fbfh,
fbfh, í "Á'è, ð VCL fRf" f [fif" fg, ð, » , ð "à • " , Åžg, x, à, ð, È, ð, Å C, ±, è, ðŽg, x, Æff [f^ , ð" j'1, , é
%oÁ" \ «, ð, , è, Ü, ·B

ŽQÆ15313

fXfgfŠ[f€lfufWfFfNfg.ìWrite f\fbfh

ReadString f\fbfh

WriteStr f\fbfh

Windows Messages

Windows

Messages

Messages

Delphi Windows Messages

<u>TMessage</u>	<u>TWMHScrollClipboard</u>	<u>TWMNCRButtonUp</u>
<u>TWMActivate</u>	<u>TWMIconEraseBkgnd</u>	<u>TWMNextDlgCtl</u>
<u>TWMActivateApp</u>	<u>TWMInitDialog</u>	<u>TWMNoParams</u>
<u>TWMAskCBFormatName</u>	<u>TWMInitMenu</u>	<u>TWMPaint</u>
<u>TWMCancelMode</u>	<u>TWMInitMenuPopup</u>	<u>TWMPaintClipboard</u>
<u>TWMChangeCBChain</u>	<u>TWMKey</u>	<u>TWMPaintIcon</u>
<u>TWMChar</u>	<u>TWMKeyDown</u>	<u>TWMPaletteChanged</u>
<u>TWMCharToItem</u>	<u>TWMKeyUp</u>	<u>TWMPalettesChanging</u>
<u>TWMChildActivate</u>	<u>TWMKillFocus</u>	<u>TWMParentNotify</u>
<u>TWMChooseFont_GetLogFont</u>	<u>TWMLButtonDownClk</u>	<u>TWMPaste</u>
<u>TWMClear</u>	<u>TWMLButtonDown</u>	<u>TWMPower</u>
<u>TWMClose</u>	<u>TWMLButtonUp</u>	<u>TWMQueryDragIcon</u>
<u>TWMCommand</u>	<u>TWMMButtonDbClk</u>	<u>TWMQueryEndSession</u>
<u>TWMCommNotify</u>	<u>TWMMButtonDown</u>	<u>TWMQueryNewPalette</u>
<u>TWMCompacting</u>	<u>TWMMButtonUp</u>	<u>TWMQueryOpen</u>
<u>TWMCompareItem</u>	<u>TWMMDIActivate</u>	<u>TWMQueueSync</u>
<u>TWMCopy</u>	<u>TWMMDICascade</u>	<u>TWMQuit</u>
<u>TWMCreate</u>	<u>TWMMDICreate</u>	<u>TWMRButtonDbClk</u>
<u>TWMCtlColor</u>	<u>TWMMDIDestroy</u>	<u>TWMRButtonDown</u>
<u>TWMCut</u>	<u>TWMMDIGetActive</u>	<u>TWMRButtonUp</u>
<u>TWMDDE_Ack</u>	<u>TWMMDIIconArrange</u>	<u>TWMRenderAllFormats</u>
<u>TWMDDE_Advise</u>	<u>TWMMDIMaximize</u>	<u>TWMRenderFormat</u>
<u>TWMDDE_Data</u>	<u>TWMMDINext</u>	<u>TWMScroll</u>
<u>TWMDDE_Execute</u>	<u>TWMMDIRestore</u>	<u>TWMSetCursor</u>
<u>TWMDDE_Initiate</u>	<u>TWMMDISetMenu</u>	<u>TWMSetFocus</u>
<u>TWMDDE_Poke</u>	<u>TWMMDITile</u>	<u>TWMSetFont</u>
<u>TWMDDE_Request</u>	<u>TWMMeasureItem</u>	<u>TWMSetRedraw</u>
<u>TWMDDE_Terminate</u>	<u>TWMMenuChar</u>	<u>TWMSetText</u>
<u>TWMDDE_Unadvise</u>	<u>TWMMenuSelect</u>	<u>TWMShowWindow</u>
<u>TWMDeadChar</u>	<u>TWMMouse</u>	<u>TWMSize</u>

<u>TWMDeleteltem</u>	<u>TWMMouseActivate</u>	<u>TWMSizeClipboard</u>
<u>TWMDestroy</u>	<u>TWMMouseMove</u>	<u>TWMSpoolerStatus</u>
<u>TWMDestroyClipboard</u>	<u>TWMMove</u>	<u>TWMSysChar</u>
<u>TWMDevModeChange</u>	<u>TWMNCActivate</u>	<u>TWMSysColorChange</u>
<u>TWMDrawClipboard</u>	<u>TWMNCCalcSize</u>	<u>TWMSysCommand</u>
<u>TWMDrawItem</u>	<u>TWMNCCreate</u>	<u>TWMSysDeadChar</u>
<u>TWMDropFiles</u>	<u>TWMNCCDestroy</u>	<u>TWMSysKeyDown</u>
<u>TWMEnable</u>	<u>TWMNCHitTest</u>	<u>TWMSysKeyUp</u>
<u>TWMEndSession</u>	<u>TWMNCHitMessage</u>	<u>TWMSystemError</u>
<u>TWMEnterIdle</u>	<u>TWMNCLButtonDbIClk</u>	<u>TWMTimeChange</u>
<u>TWMEraseBkgnd</u>	<u>TWMNCLButtonDown</u>	<u>TWMTimer</u>
<u>TWMFontChange</u>	<u>TWMNCLButtonUp</u>	<u>TWMUndo</u>
<u>TWMGetDlgCode</u>	<u>TWMNCMButtonDbIClk</u>	<u>TWMVKeyToItem</u>
<u>TWMGetFont</u>	<u>TWMNCMButtonDown</u>	<u>TWMVScroll</u>
<u>TWMGetMinMaxInfo</u>	<u>TWMNCMButtonUp</u>	<u>TWMVScrollClipboard</u>
<u>TWMGetText</u>	<u>TWMNCMouseMove</u>	<u>TWMWindowPosChanged</u>
<u>TWMGetTextLength</u>	<u>TWMNCPaint</u>	<u>TWMWindowPosChanging</u>
<u>TWMHelp</u>	<u>TWMNCRButtonDbIClk</u>	<u>TWMWindowPosMsg</u>
<u>TWMHScroll</u>	<u>TWMNCRButtonDown</u>	<u>TWMWinIniChange</u>

ŽQÆ15315

Windows ffbfZ[fW,Æ,í

TMessage Ć^15316

ŹQĀÆ

ftfjfbfg

Messages

□éĆ¾

```
TMessage = record
  Msg: Word;
  case Integer of
    0: (
      WParam: Word;
      LParam: Longint;
      Result: Longint);
    1: (
      WParamLo: Byte;
      WParamHi: Byte;
      LParamLo: Word;
      LParamHi: Word;
      ResultLo: Word;
      ResultHi: Word);
  end;
```

□à-¾

TMessage Ć^,Í□C<α'Êf□fbfZ□[fWfĆfR□[fh Ć^,Å,·□B,·,x,Ä,ì•W□€ Windows f□fbfZ□[fW,Æ
Delphi ,Å'è< ,¾,ê,½f□fbfZ□[fW,É, ,é,ì,Í□C-¼'O•t,«fpf
%of□□[f^,ÅŹw'è,¾,ê,½f□fbfZ□[fWfĆfR□[fhĆ^,Å,·□BTmessage
Ć^"à,ìf□fbfZ□[fWfĆfR□[fh,í,Å,ê,Å,àŠ,,è"-,Ä,é,±,Æ,^a,Å,«□C'I'ð,·,é,Æ,«,Íf□fbfZ□[fW,ìfpf
%of□□[f^,ÉŠö~A,·,é-¼'O,ì<α'Êfpf%of□□[f^,ðŹg—p,μ,Ü,·□B

ŽQÆ15317

f[]b[]f[]Z[]f[]w[]f[]e[]f[]R[]f[]h[]e[]^

TWMActivate Ć^15318

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMActivate = record
  Msg: Cardinal;
  Active: WORD;    { WA_INACTIVE, WA_ACTIVE, WA_CLICKACTIVE }
  ActiveWindow: HWND;
  Minimized: BOOL;
  Result: Longint;
end;
```

à-¼

TWMActivate Ć^,í WM_ACTIVATE ffbfZ[fW,ifbfZ[fWfĆfR[fh,Å,·B

TWMActivateApp Ć^15319

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¼

type

TWMActivateApp = **record**

Msg: Cardinal;

Active: BOOL;

Task: THANDLE;

Unused: Word;

Result: Longint;

end;

Āà-¼

TWMActivateApp Ć^,í WM_ACTIVATEAPP fĀfbfZĀ[fw,ĪfĀfbfZĀ[fwfĆfRĀ[fh,Ā,·ĀB

TWAskCBFormatName Ć^15320

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWAskCBFormatName = **record**

Msg: Cardinal;

NameLen: Word;

FormatName: PChar;

Result: Longint;

end;

à-¼

TWAskCBFormatName Ć^,í WM_ASKCBFORMATNAME

fjfbfZ[fW,ifjfbfZ[fWfĆfR[fh,Å,·B

TWMCancelMode $\text{CE}^{\wedge}15321$

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMCancelMode = TWMNoParams;

à¾

TWMCancelMode $\text{CE}^{\wedge},\text{í}$ WM_CANCELMODE ffbfZfw,ifbfZfwfCEfRfh,Å,·B

TWMChangeCBChain Ć^15322

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMChangeCBChain = **record**

Msg: Cardinal;

Remove: HWND;

Next: HWND;

Unused: Word;

Result: Longint;

end;

à-¼

TWMChangeCBChain Ć^, í WM_CHANGECHAIN ffbfZ[fW, iffbfZ[fWfĆfR[fh, Å, ·B

TWMChar Ć^15323

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMChar = TWMKey;

à-¼

TWMChar Ć^,í WM_CHAR ffbfZfw,ifbfZfwĆfRfh,Å,·B

TWMCharToItem Ć^15324

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMCharToItem = **record**

Msg: Cardinal;

Key: Word;

ListBox: HWND;

CaretPos: Word;

Result: Longint;

end;

à-¼

TWMCharToItem Ć^, í WM_CHARTOITEM ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMChildActivate Ć^15325

ŹQĀÆ

ftjfbfg

Messages

□éĆ¾

type

TWMChildActivate = TWMNoParams;

□à-¾

TWMChildActivate Ć^,í WM_CHILDACTIVATE f□fbfZ□[fW,ì□fbfZ□[fWfĆfR□[fh,Å,·□B

TWMChooseFont_GetLogFont Ć^15326

ŽQÆ

ftjfbfg

Messages

éĆ¼

type

```

TWMChooseFont_GetLogFont = record
  Msg: Cardinal;
  Unused: Word;
  LogFont: PLogFont;
  Result: Longint;
end;

```

à-¾

TWMChooseFont_GetLogFont Ć^,í WM_CHOOSFONT_GETLOGFONT
 ffbfZ[fW,ifbfZ[fWfĆfR[fh,Å,·B

TWMClear CE^15327

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMClear = TWMNoParams;

à¾

TWMClear CE^,í WM_CLEAR ffbfZfW,ìfbfZfWfRfh,Å,·B

TWMClose ^15328

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMClose = TWMNoParams;

à¾

TWMClose ^,í WM_CLOSE ffbZfW,ifbZfWfEfRfh,Å,·B

TWMCommand CE^15329

ŽQAE

ftjfbfg

Messages

é¾

type

TWMCommand = **record**

Msg: Cardinal;

ItemID: Word;

Ctl: HWND;

NotifyCode: Word;

Result: Longint;

end;

à¾

TWMCommand CE^, WM_COMMAND ffbzfw, ifbzfwfRfh, Å, ·B

TWMCommNotify Ć^15330

ŹQĀÆ

ftfjfbfg

Messages

□éĆ¾

type

TWMCommNotify = **record**

Msg: Cardinal;

Device: Word;

NotifyStatus: Word;

Unused: Word;

Result: Longint;

end;

□à-¾

TWMCompacting Ć^,í WM_COMMNOTIFY f□fbfZ□[fW,ì□fbfZ□[fWfĆfR□[fh,Å,·□B

TWMCompacting $\text{C}^{\wedge}15331$

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMCompacting = **record**

Msg: Cardinal;

CompactRatio: Word;

Unused: Longint;

Result: Longint;

end;

à¾

TWMCompacting C^{\wedge} , WM_COMPACTING ffbfZ[fW,iffbfZ[fWfCfR[fh,Å,·B

TWMCompareItem Ć^15332

ŹQĀÆ

ftfjfbfg

Messages

□éĆ¾

type

```
TWMCompareItem = record
  Msg: Cardinal;
  Ctl: Word;
  CompareItemStruct: PCompareItemStruct;
  Result: Longint;
end;
```

□à-¾

TWMCompareItem Ć^, í WM_COMPAREITEM f□fbfZ□[fW, ì□fbfZ□[fWfĆfR□[fh, Å, □B

TWMCopy Ć^1533

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMCopy = TWMNoParams;

à-¼

TWMCopy Ć^,í WM_COPY ffbfZfW,ifbfZfWfĆfRfh,Å,·B

TWMCreate CE^15334

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMCreate = record
  Msg: Cardinal;
  Unused: Integer;
  CreateStruct: PCreateStruct;
  Result: Longint;
end;
```

à¾

TWMCreate CE^,í WM_CREATE ffbfZlfW,iffbfZlfWfCEfRlfh,Å,.B

TWMctlColor CE^15335

ŽQAE

ftjfbfg

Messages

éCE¾

type

TWMctlColor = **record**

Msg: Cardinal;

ChildDC: HDC;

ChildWnd: HWND;

CtlType: Integer;

Result: Longint;

end;

à-¾

TWMctlColor CE^, í WM_CTLCOLOR ffbfZ[fW, ìfbfZ[fWfCEfR[fh, Å, ·B

TWMCut Ć^15336

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMCut = TWMNoParams;

à-¼

TWMCut Ć^,í WM_CUT ffbfZ[fW,lfbfZ[fWfĆfR[fh,Å,·B

TWMDDE_Ack Ć^15337

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMDDE_Ack = record
  Msg: Cardinal;
  PostingApp: HWND;
  case Word of
    WM_DDE_INITIATE: (
      App: Word;
      Topic: Word;
      Result: Longint);
    WM_DDE_EXECUTE {and all others }: (
      Status: Word;
      case Word of
        WM_DDE_EXECUTE: (
          Commands: THANDLE);
        0 { all others }: (
          Item: Word));
  end;
```

à-¼

TWMDDE_Ack Ć^,í WM_DDE_ACK ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDDE_Advise Ć^15338

ŹQÆ

ftfjfbfg

Messages

éĆ¼

type

TWMDDE_Advise = **record**

Msg: Cardinal;

PostingApp: HWND;

Options: THANDLE;

Item: Word;

Result: Longint;

end;

à-¼

TWMDDE_Advise Ć^,í WM_DDE_ADVISE ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDDE_Data Ć^15339

ŹQÆ

ftfjfbfg

Messages

éĆ¼

type

TWMDDE_Data = **record**

Msg: Cardinal;

PostingApp: HWND;

Data: THANDLE;

Item: Word;

Result: Longint;

end;

à-¼

TWMDDE_Data Ć^, í WM_DDE_DATA ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMDDE_Execute Ć^15340

ŹQÆ

ftfjfbfg

Messages

éĆ¼

type

```

TWMDDE_Execute = record
  Msg: Cardinal;
  PostingApp: HWND;
  Commands: THANDLE;
  Unused: Word;
  Result: Longint;
end;

```

à-¼

TWMDDE_Execute Ć^,í WM_DDE_EXECUTE ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDDE_Initiate Ć^15341

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDDE_Initiate = **record**

Msg: Cardinal;

PostingApp: HWND;

App: Word;

Topic: Word;

Result: Longint;

end;

à-¼

TWMDDE_Initiate Ć^,í WM_DDE_INITIATE ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDDE_Poke Ć^15342

ŹQĀÆ

ftfjfbfg

Messages

□éĆ¾

type

TWMDDE_Poke = **record**

Msg: Cardinal;

PostingApp: HWND;

Data: THANDLE;

Item: Word;

Result: Longint;

end;

□à-¾

TWMDDE_Poke Ć^, í WM_DDE_POKE f□fbfZ□[fW, ìf□fbfZ□[fWfĆfR□[fh, Å, ·□B

TWMDDE_Request Ć^15343

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMDDE_Request = **record**

Msg: Cardinal;

PostingApp: HWND;

Format: Word;

Item: Word;

Result: Longint;

end;

à¾

TWMDDE_Request Ć^,í WM_DDE_REQUEST ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDDE_Terminate ^15344

ŽQÆ

ftjfbfg

Messages

é¾

type

```

TWMDDE_Terminate = record
  Msg: Cardinal;
  PostingApp: HWND;
  Unused: Longint;
  Result: Longint;
end;

```

à-¾

TWMDDETerminate ^,í WM_DDE_TERMINATE ffbfZ[fW,iffbfZ[fWfR[fh,Å,·B

TWMDDE_Unadvise $\text{CE}^{\wedge}15345$

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMDDE_Unadvise = TWMDDE_Advise;

à¾

TWMDDE_Unadvise CE^{\wedge} ,í WM_DDE_UNADVISE ffbfZ[fW,ìfbfZ[fWfCEfR[fh,Å,·B

TWMDeadChar Ć^15346

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDeadChar = TWMChar;

à-¼

TWMDeadChar Ć^,í WM_DEADCHAR ffbfZfW,ìfbfZfWfĆfRfh,Å,·B

TWMDeleteItem Ć^15347

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMDeleteItem = record
  Msg: Cardinal;
  Ctl: HWND;
  DeleteItemStruct: PDeleteItemStruct;
  Result: Longint;
end;
```

à-¼

TWMDeleteItem Ć^, WM_DELETEITEM ffbZfw, ifbZfwĆfRfh, Å, ·B

TWMDestroy Ć^15348

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMestroy = TWMNoParams;

à-¼

TWMDestroy Ć^,í WM_DESTROY ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDestroyClipboard Ć^15349

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDestroyClipboard = TWMNoParams;

à-¼

TWMDestroyClipboard Ć^,í WM_DESTROYCLIPBOARD

fjfbZ[fW,ifjfbZ[fWfĆfR[fh,Å,·B

TWMDevModeChanged Ć^15350

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDevModeChange = **record**

Msg: Cardinal;

Unused: Integer;

Device: PChar;

Result: Longint;

end;

à-¼

TWMDevModeChanged Ć^,í WM_DEVMODECHANGE

fjfbfZ[fW,ifjfbfZ[fWfĆfR[fh,Å,·B

TWMDrawClipboard Ć^15351

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDrawClipboard = TWMNoParams;

à-¼

TWMDrawClipboard Ć^,í WM_DRAWCLIPBOARD ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDrawItem Ć^15352

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¾

type

```
TWMDrawItem = record
  Msg: Cardinal;
  Ctl: HWND;
  DrawItemStruct: PDrawItemStruct;
  Result: Longint;
end;
```

Āà-¾

TWMDrawItem Ć^,Ā WM_DRAWITEM fĀfbfZĀ[fW,ĀfĀfbfZĀ[fWfĆfRĀ[fh,Ā,ĀB

TWMDropFiles Ć^15353

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¾

type

TWMDropFiles = **record**

Msg: Cardinal;

Drop: THANDLE;

Unused: Longint;

Result: Longint;

end;

Āà-¾

TWMDropFiles Ć^, Ā WM_DROPFILES fĀfbfZĀ[fW, ĀfĀfbfZĀ[fWfĆfRĀ[fh, Ā, ĀB

TWMEEnable Ć^15354

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMEenable = record
  Msg: Cardinal;
  Enabled: BOOL;
  Unused: Longint;
  Result: Longint;
end;
```

à-¾

TWMEEnable Ć^, í WM_ENABLE ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMEndSession CE^15355

ŽQÆ

ftjfbfg

Messages

é¾

type

```

TWMEndSession = record
  Msg: Cardinal;
  EndSession: BOOL;
  Unused: Longint;
  Result: Longint;
end;

```

à¾

TWMEndSession CE^,í WM_ENDSESSION ffbZ[fW,ìfbZ[fWfCEfR[fh,Å,·B

TWMEterIdle Ć^15356

ŹQÆ

ftjfbfg

Messages

é¾

type

TWMEterIdle = **record**

Msg: Cardinal;

Source: Word;

IdleWnd: HWND;

Unused: Word;

Result: Longint;

end;

à¾

TWMEterIdle Ć^, í WM_ENTERIDLE ffbfZ[fW, iffbfZ[fWfĆfR[fh, Å, ·B

TWMEraseBkgnd Ć^15357

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMEraseBkgnd = **record**

Msg: Cardinal;

DC: HDC;

Unused: Longint;

Result: Longint;

end;

à-¼

TWMEraseBkgnd Ć^,í WM_ERASEBKGND ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMFontChange Ć^15358

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMFontChange = TWMNoParams;

à-¼

TWMFontChange Ć^,í WM_FONTCHANGE ffbfZ[fW,ifbfZ[fWfĆfR[fh,Å,·B

TWMGetDlgCode Ć^15359

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMGetDlgCode = TWMNoParams;

à-¼

TWMGetDlgCode Ć^, í WM_GETDLGCODE ffbfZifW, iffbfZifWfĆfRfh, Å, ·B

TWMGetFont Ć^15360

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMGetFont = TWMNoParams;

à-¼

TWMGetFont Ć^, í WM_GETFONT ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMGetMinMaxInfo Ć^15361

ŹQÆ

ftjfbfg

Messages

éĳ

type

```
TWMGetMinMaxInfo = record
  Msg: Cardinal;
  Unused: Integer;
  MinMaxInfo: PMinMaxInfo;
  Result: Longint;
end;
```

à-ĳ

TWMGetMinMaxInfo Ć^, í WM_GETMINMAXINFO, ffbfZ[fW, iffbfZ[fWfĆfR[fh, Å, ·B

TWMGetText Ć^15362

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMGetText = record
  Msg: Cardinal;
  TextMax: Integer;
  Text: PChar;
  Result: Longint;
end;
```

à-¾

TWMGetText Ć^, í WM_GETTEXT ffbfZ[fW, iffbfZ[fWfĆfR[fh, Å, ·B

TWMGetTextLength Ć^15363

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMGetTextLength = TWMNoParams;

à-¼

TWMGetTextLength Ć^,í WM_GETTEXTLENGTH ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMHelp Ć^15364

ŹQĀÆ

ftjfbfg

Messages

□éĆ¾

type

```
TWMHelp = record
  Msg: Cardinal;
  Unused: Integer;
  HelpInfo: PHelpInfo;
  Result: Longint;
end;
```

□à-¾

TWMHelp Ć^, í WM_HELP f□fbZ□lfW, ìf□fbZ□lfWfĆfR□lfh, Å, ·□B

TWMHScroll Ć^15365

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMHScroll = TWMScroll;

à-¼

TWMHScroll Ć^,í WM_HSCROLL ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMHScrollClipboard Ć^15366

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMHScrollClipboard = **record**

Msg: Cardinal;

Viewer: HWND;

ScrollCode: Word;

Pos: Word;

Result: Longint;

end;

à-¼

TWMHScrollClipboard Ć^,í WM_HSCROLLCLIPBOARD

fjfbfZ[fW,ifjfbfZ[fWfĆfR[fh,Å,·B

TWMIconEraseBkgnd Ć^15367

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMIconEraseBkgnd = TWMEraseBkgnd;

à-¼

TWMIconEraseBkgnd Ć^,í WM_ICONERASEBKGND ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMInitDialog Ć^15368

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMInitDialog = **record**

Msg: Cardinal;

Focus: HWND;

InitParam: Longint;

Result: Longint;

end;

à-¼

TWMInitDialog Ć^, í WM_INITDIALOG ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMInitMenu Ć^15369

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```

TWMInitMenu = record
  Msg: Cardinal;
  Menu: HMENU;
  Unused: Longint;
  Result: Longint;
end;

```

à-¾

TWMInitMenu Ć^,í WM_INITMENU ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMInitMenuPopup Ć^15370

ŹQÆ

ftfjfbfg

Messages

éĆ¼

type

TWMInitMenuPopup = **record**

Msg: Cardinal;

MenuPopup: HMENU;

Pos: SmallInt;

SystemMenu: BOOL;

Result: Longint;

end;

à-¼

TWMInitMenuPopup Ć^, í WM_INITMENUPOPUP ffbfZ[fw, iffbfZ[fwfĆfR[fh, Å, ·B

TWMKey Ć^15371

ŹQÆ

ftfjfbfg

Messages

éĆ¼

type

```
TWMKey = record
  Msg: Cardinal;
  CharCode: Word;
  KeyData: Longint;
  Result: Longint;
end;
```

à-¾

TWMKey Ć^,íC,·,x,Ä,ì Windows

fL[f{[fhf[fbfZ[fW,ì[fbfZ[fWfĆfR[fh,Å,·BTWMKeyDown ,Æ TWMKeyUp ,íCTWMKey
,ìéĆ¼,Æ,Ü,Á,½,“¯,¶,Å,·B

TWMKeyDown Ć^15372

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMKeyDown = TWMKey;

à-¼

TWMKeyDown Ć^,í WM_KEYDOWN ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMKeyUp Ć^15373

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMKeyUp = TWMKey;

à-¼

TWMKeyUp Ć^,í WM_KEYUP ffbfZfW,ifbfZfWfĆRfh,Å,·B

TWMKillFocus Ć^15374

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMKillFocus = **record**

Msg: Cardinal;

FocusedWnd: HWND;

Unused: Longint;

Result: Longint;

end;

à-¼

TWMKillFocus Ć^, í WM_KILLFOCUS ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMLButtonDbIClk Ć^15375

ŹQÆ

ftjfbfg

Messages

é¼

type

TWMLButtonDbIClk = TWMMouse;

à-¼

TWMLButtonDbIClk Ć^,í WM_LBUTTONDOWNLCLK ffbZ[fW,ìfbZ[fWfĆfR[fh,Å,·B

TWMLButtonDown Ć^15376

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMLButtonDown = TWMMouse;

à-¼

TWMLButtonDown Ć^,í WM_LBUTTONDOWN ffbfZ[fW,ifbfZ[fWfĆfR[fh,Å,·B

TWMLButtonUp Ć^15377

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMLButtonUp = TWMMouse;

à-¼

TWMLButtonUp Ć^,í WM_LBUTTONDOWN ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMMButtonDbIClk Ć^15378

ŹQÆ

ftjfbfg

Messages

é¾

type

TWMMButtonDbIClk = TWMMouse;

à¾

TWMMButtonDbIClk Ć^,í WM_MBUTTONDBLCLK fZ[fW,ìfZ[fWfĆfR[fh,Å,·B

TWMMButtonDown Ć^15379

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMMButtonDown = TWMMouse;

à-¼

TWMMButtonDown Ć^,í WM_MBUTTONDOWN ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMMButtonUp Ć^15380

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMMButtonUp = TWMMouse;

à-¼

TWMMButtonUp Ć^,í WM_MBUTTONDOWN ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMMDIActivate Ć^15381

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¾

type

TWMMDIActivate = **record**

Msg: Cardinal;

Activate: BOOL;

ActiveWnd: HWND;

DeactiveWnd: HWND;

Result: Longint;

end;

Āà-¾

TWMMDIActivate Ć^,í WM_MDIACTIVATE fĀfbfZĀ[fw,ĪfĀfbfZĀ[fwfĆfRĀ[fh,Ā,·ĀB

TWMDICascade Ć^15382

ŹQĀÆ

ftfjfbfg

Messages

□éĆ¾

type

TWMDICascade = **record**

Msg: Cardinal;

Cascade: Word;

Unused: Longint;

Result: Longint;

end;

□à-¾

TWMDICascade Ć^,í WM_MDICASCADE f□fbfZ□[fW,ì□fbfZ□[fWfĆfR□[fh,Å,□B

TWMMDICreate CE^15383

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMMDICreate = record
  Msg: Cardinal;
  Unused: Integer;
  MDICreateStruct: PMDICreateStruct;
  Result: Longint;
end;
```

à¾

TWMMDICreate CE^, í WM_MDICREATE ffbfZ[fW, ìfbfZ[fWfCEfR[fh, Å, ·B

TWMDIDestroy Ć^15384

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¾

type

TWMDIDestroy = **record**

Msg: Cardinal;

Child: HWND;

Unused: Longint;

Result: Longint;

end;

Āà-¾

TWMDIDestroy Ć^, Ā WM_MDIDESTROY fĀfbfZĀ[fW, ĀfĀfbfZĀ[fWfĆfRĀ[fh, Ā, ·ĀB

TWMDIGetActive CE^15385

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMDIGetActive = TWMNoParams;

à¾

TWMDIGetActive CE^,í WM_MDIGETACTIVE ffbfZfW,ìfbfZfWfRfh,Å,·B

TWMDIIconArrange Ć^15386

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDIIconArrange = TWMNoParams;

à-¼

TWMDIIconArrange Ć^,í WM_MDIICONARRANGE ffbfZfW,ifbfZfWfĆfRfh,Å,·B

TWMDIMaximize Ć^15387

ŽQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDIMaximize = **record**

Msg: Cardinal;

Maximize: HWND;

Unused: Longint;

Result: Longint;

end;

à-¼

TWMDIMaximize Ć^,í WM_MDIMAXIMIZE ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMDINext Ć^15388

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDINext = **record**

Msg: Cardinal;

Child: HWND;

Next: Longint;

Result: Longint;

end;

à-¾

TWMDINext Ć^,í WM_MDINEXT ffbfZ[fW,ifbfZ[fWfĆfR[fh,Å,·B

TWMDIRestore Ć^15389

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMDIRestore = **record**

Msg: Cardinal;

IDChild: HWND;

Unused: Longint;

Result: Longint;

end;

à-¼

TWMDIRestore Ć^,í WM_MDIRESTORE ffbZfW,ìfbZfWfĆfRfh,Å,·B

TWMMDISetMenu CE^15390

ŽQÆ

ftjfbfg

Messages

é¾

type

```

TWMMDISetMenu = record
  Msg: Cardinal;
  MenuFrame: HMENU;
  MenuWindow: HMENU;
  Result: Longint;
end;

```

à¾

TWMMDISetMenu CE^,í WM_MDISETMENU ffbZ[fW,ífbZ[fWfR[fh,Å,·B

TWMDITile Ć^15391

ŹQĀÆ

ftjfbfg

Messages

□éĆ¾

type

TWMDITile = **record**

Msg: Cardinal;

Tile: Word;

Unused: Longint;

Result: Longint;

end;

□à-¾

TWMDITile Ć^,í WM_MDITILE f□fbfZ□[fW,if□fbfZ□[fWfĆfR□[fh,Å,·□B

TWMMeasureItem CE^15392

ŽQÆ

ftjfbfg

Messages

é¾

type

```

TWMMeasureItem = record
  Msg: Cardinal;
  IDctl: Word;
  MeasureItemStruct: PMeasureItemStruct;
  Result: Longint;
end;

```

à¾

TWMMeasureItem CE^, í WM_MEASUREITEM ffbZfw, ifbZfwfERfh, Å, B

TWMMenuChar Ć^15393

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMMenuChar = **record**

Msg: Cardinal;

User: Char;

Unused: Byte;

MenuFlag: Word;

Menu: HMENU;

Result: Longint;

end;

à-¼

TWMMenuChar Ć^, í WM_MENUCHAR ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMMenuSelect Ć^15394

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMMenuSelect = **record**

Msg: Cardinal;

IDItem: Word;

MenuFlag: Word;

Menu: HMENU;

Result: Longint;

end;

à-¼

TWMMenuSelect Ć^,í WM_MENUSELECT ffbfZfw,ifbfZfwfĆfRfh,Å,·B

TWMMouse **CE^15395**

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMMouse = record
  Msg: Cardinal;
  Keys: Word;
  case Integer of
    0: (
      XPos: Integer;
      YPos: Integer);
    1: (
      Pos: TPoint;
      Result: Longint);
  end;
```

à¾

TWMMouse **CE^**,í,.,x,Ä,lf}fEfXf fbfZ fW,lf fbfZ fWf **CEfR** fh,Å,·B

TWMMouseActivate CE^15396

ŽQAE

ftjfbfg

Messages

é¾

type

TWMMouseActivate = **record**

Msg: Cardinal;

TopLevel: HWND;

HitTestCode: Word;

MouseMsg: Word;

Result: Longint;

end;

à¾

TWMMouseActivate CE^, WM_MOUSEACTIVATE ffbfZ[fW, iffbfZ[fWfCEfR[fh, Å, ·B

TWMMouseMove Ć^15397

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMMouseMove = TWMMouse;

à-¼

TWMMouseMove Ć^,í WM_MOUSEMOVE ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMMove CE^15398

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMMove = record
  Msg: Cardinal;
  Unused: Integer;
  case Integer of
    0: (
      XPos: SmallInt;
      YPos: SmallInt);
    1: (
      Pos: TPoint;
      Result: Longint);
  end;
```

à¾

TWMMove CE^, í WM_MOVE ffbfZ[fW, ifbfZ[fWfCEfR[fh, Å, ·B

TWMNCActivate Ć^15399

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNCActivate = **record**

Msg: Cardinal;

Active: BOOL;

Unused: Longint;

Result: Longint;

end;

à-¼

TWMNCActivate Ć^,í WM_NCACTIVATE ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMNCCalcSize CE^15400

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMNCCalcSize = record
  Msg: Cardinal;
  CalcValidRects: BOOL;
  CalcSize_Params: PNCCalcSize_Params;
  Result: Longint;
end;
```

à¾

TWMNCCALCSIZE CE^, í WM_NCCALCSIZE ffbZfw, iffbZfwfCEfRfh, Å, ·B

TWMNCCreate $\epsilon^{\wedge}15401$

ŽQÆ

ftjfbfg

Messages

é¾

type

```

TWMNCCreate = record
  Msg: Cardinal;
  Unused: Integer;
  CreateStruct: PCreateStruct;
  Result: Longint;
end;

```

à-¾

TWMNCCreate ϵ^{\wedge} , í WM_NCCREATE ffbfZ[fW, iffbfZ[fWfR[fh, Å, ·B

TWMNCDestroy Ć^15402

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNCDestroy = TWMNoParams;

à-¼

TWMNCDestroy Ć^,í WM_NCDESTROY ffbfZ[fW,ifbfZ[fWfĆfR[fh,Å,·B

TWMNCHitTest $\text{C}^{\wedge}15403$

ŽQÆ

ftjfbfg

Messages

é $\text{C}^{\frac{3}{4}}$

type

TWMNCHitTest = **record**

Msg: Cardinal;

Unused: Cardinal;

case Integer **of**

0: (

XPos: SmallInt;

YPos: SmallInt);

1: (

Pos: TSmallPoint;

Result: Longint);

end;

à- $\frac{3}{4}$

TWMNCHitTest $\text{C}^{\wedge}, \acute{\text{I}}$ WM_NCHITTEST ffbfZ[fW,lfbfZ[fWf C^{\wedge} R[fh,Å,·B

TWMNHitMessage $\mathbb{C}^{\wedge}15404$

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMNHitMessage = **record**

Msg: Cardinal;

HitTest: Integer;

XCursor: SmallInt;

YCursor: SmallInt;

Result: Longint;

end;

à¾

TWMNHitMessage \mathbb{C}^{\wedge} , íC, ·, x, Ä, ì"ñfNf%ofCfAf"fg—

ì^æf}fEfXf fbfZ[fW, ìf fbfZ[fWfCfR[fh, Å, ·B

TWMNCLButtonDbIClk Ć^15405

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNCLButtonDbIClk = TWMNHitMessage;

à-¼

TWMNCLButtonDbIClk Ć^,í WM_NCLBUTTONDBLCLK

fjfbfZ[fW,ìfjfbfZ[fWfĆfR[fh,Å,·B

TWMNCLButtonDown CE^15406

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMNCLButtonDown = TWMNHitMessage;

à¾

TWMNCLButtonDown CE^,í WM_NCLBUTTONDOWN ffbZ[fW,ìfbZ[fWfR[fh,Å,·B

TWMNCLButtonUp Ć^15407

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNCLButtonUp = TWMNHitMessage;

à-¼

TWMNCLButtonUp Ć^, í WM_NCLBUTTONUP ffbfZfW, iffbfZfWfĆfRfh, Å, ·B

TWMNCMButtonDbIClk Ć^15408

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNCMButtonDbIClk = TWMNCHitMessage;

à-¼

TWMNCMButtonDbIClk Ć^, í WM_NCMBUTTONDBLCLK

fjfbfZfW, ìfjfbfZfWfĆfRfh, Å, ·B

TWMNCMButtonDown Ć^15409

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNCMButtonDown = TWMNHitMessage;

à-¼

TWMNCMButtonDown Ć^,í WM_NCMBUTTONDOWN ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMNCMButtonUp CE^15410

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMNCMButtonUp = TWMNHitMessage;
```

à¾

TWMNCMButtonUp CE^,í WM_NCMBUTTONUP ffbZfW,ifbZfWfRfh,Å,·B

TWMNCMouseMove Ć^15411

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNCMouseMove = TWMNHitMessage;

à-¼

TWMNCMouseMove Ć^,í WM_NCMOUSEMOVE ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMNCPaint CE^15412

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMNCPaint = TWMNoParams;

à¾

TWMNCPaint CE^,í WM_NCPaint ffbfZ[fW,ìfbfZ[fWfCEfR[fh,Å,·B

TWMNCRButtonDbIClk Ć^15413

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMNCRButtonDbIClk = TWMNCHitMessage;
```

à-¼

TWMNCRButtonDbIClk Ć^, í WM_NCRBUTTONDBLCLK

fZfW, ðfZfWfĆfRfh, Å, ·B

TWMNCRButtonDown CE^15414

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMNCRButtonDown = TWMNCHitMessage;
```

à¾

TWMNCRButtonDown CE^,í WM_NCRBUTTONDOWN ffbfZfW,iffbfZfWfCEfRfh,Å,·B

TWMNCRButtonUp CE^15415

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMNCRButtonUp = TWMNHitMessage;

à¾

TWMNCRButtonUp CE^,í WM_NCRBUTTONUP ffbZ[fW,ìfbZ[fWfEfr[fh,Å,·B

TWMNextDlgCtl Ć^15416

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMNextDlgCtl = **record**

Msg: Cardinal;

CtlFocus: Word;

Handle: BOOL;

Unused: Word;

Result: Longint;

end;

à-¼

TWMNextDlgCtl Ć^, í WM_NEXTDLGCTL ffbfZ[fw, iffbfZ[fwfĆfR[fh, Å, .B

TWMNoParams CE^15417

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMNoParams = record
  Msg: Cardinal;
  Unused: array[0..2] of Word;
  Result: Longint;
end;
```

à¾

TWMNoParams CE^,íCfpf%of[]f^,É,Ð,Æ,Â,àŽg,í,ê,Ä,ç,È,ç
,,x,Ä,ífbfz[]fW,ífbfz[]fWfCEfR[]fh,Ä,·B

TWMPaint Ć^15418

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¾

type

```
TWMPaint = record
  Msg: Cardinal;
  DC: HDC;
  Unused: Longint;
  Result: Longint;
end;
```

Āà-¾

TWMPaint Ć^, Ā WM_PAINT fĀfbfZĀ[fW, ĀfĀfbfZĀ[fWfĆfRĀ[fh, Ā, ĀB

TWMPaintClipboard CE^15419

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMPaintClipboard = **record**

Msg: Cardinal;

Viewer: HWND;

PaintStruct: THANDLE;

Unused: Word;

Result: Longint;

end;

à¾

TWMPaintClipboard CE^,í WM_PAINTCLIPBOARD ffbZ[fW,ìfbZ[fWfCEfR[fh,Å,·B

TWMPaintIcon CE^15420

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMPaintIcon = TWMNoParams;

à¾

TWMPaintIcon CE^,í WM_PAINTICON ffbZfW,ifbZfWfRfh,Å,·B

TWMPaletteChanged CE^15421

ŽQÆ

ftjfbfg

Messages

é¾

type

```

TWMPaletteChanged = record
  Msg: Cardinal;
  PalChg: HWND;
  Unused: Longint;
  Result: Longint;
end;

```

à¾

TWMPaletteChanged CE^, WM_PALETTECHANGED ffbZ[fW, iffbZ[fWfR[fh, Å, ·B

TWMPalettelsChanging Ć^15422

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¾

type

TWMPaletteIsChanging = **record**

Msg: Cardinal;

Realize: HWND;

Unused: Longint;

Result: Longint;

end;

Āà-¾

TWMPalettelsChanging Ć^,Ā WM_PALETTEISCHANGING

fĀbfZĀ[fW,ĀfĀbfZĀ[fWfĆfRĀ[fh,Ā,ĀB

TWMParentNotify CE^15423

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMParentNotify = record
  Msg: Cardinal;
  case Event: Word of
    WM_CREATE, WM_DESTROY: (
      ChildWnd: HWND;
      ChildID: Word);
    WM_LBUTTONDOWN, WM_MBUTTONDOWN, WM_RBUTTONDOWN: (
      XPos: Integer;
      YPos: Integer);
    0 { Name is MS DOC }: (
      Value1: Word;
      Value2: Word;
      Result: Longint);
  end;
```

à¾

TWMParentNotify CE^, WM_PARENTNOTIFY ffbZ[fW,ifbfZ[fWfCEfR[fh,Å,·B

TWMPaste Ć^15424

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMPaste = TWMNoParams;

à-¼

TWMPaste Ć^,í WM_PASTE ffbfZifW,iffbfZifWĆfRfh,Å,·B

TWMPower ^15425

ŽQÆ

ftjfbfg

Messages

é¾

type

```

TWMPower = record
  Msg: Cardinal;
  PowerEvt: Word;
  Unused: Longint;
  Result: Longint;
end;

```

à-¾

TWMPower ^, í WM_POWER ffbZ[fW, iffbZ[fWfR[fh, Å, ·B

TWMQueryDragIcon CE^15426

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMQueryDragIcon = TWMNoParams;

à¾

TWMQueryDragIcon CE^,í WM_QUERYDRAGICON ffbZ[fW,ìfbZ[fWfCEfR[fh,Å,·B

TWMQueryEndSession CE^15427

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMQueryEndSession = TWMNoParams;

à¾

TWMQueryEndSession CE^, WM_QUERYENDSESSION

fZfW, ifZfWfRfh, Å, ·B

TWMQueryNewPalette Ć^15428

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMQueryNewPalette = TWMNoParams;

à-¼

TWMQueryNewPalette Ć^,í WM_QUERYNEWPALETTE

fjfbfZ[fW,ifjfbfZ[fWfĆfR[fh,Å,·B

TWMQueryOpen CE^15429

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMQueryOpen = TWMNoParams;

à¾

TWMQueryOpen CE^,í WM_QUERYOPEN ffbfZfW,ifbfZfWfRfh,Å,·B

TWMQueueSync CE^15430

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMQueueSync = TWMNoParams;

à¾

TWMQueueSync CE^,í WM_QUEUESYNC ffbzfw,ìfbzfwfRfh,Å,·B

TWMQuit $\text{CE}^{\wedge}15431$

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMQuit = record
  Msg: Cardinal;
  ExitCode: Word;
  Unused: Longint;
  Result: Longint;
end;
```

à¾

TWMQuit CE^{\wedge} , í WM_QUIT ffbzfw, ifbzfwfRfh, Å, ·B

TWMRButtonDbIClk Ć^15432

ŹQÆ

ftjfbfg

Messages

é¼

type

TWMRButtonDbIClk = TWMMouse;

à-¼

TWMRButtonDbIClk Ć^,í WM_RBUTTONDOWNLCLK ffbZfW,ifbZfWfĆfRfh,Å,·B

TWMRButtonDown CE^15433

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMRButtonDown = TWMMouse;

à¾

TWMRButtonDown CE^,í WM_RBUTTONDOWN ffbZfW,ìfbZfWfCEfRfh,Å,·B

TWMRButtonUp ^15434

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMRButtonUp = TWMouse;

à¾

TWMRButtonUp ^, í WM_RBUTTONDOWN ffbZ[fW, ìfbZ[fWfÆfR[fh, Å, ·B

TWMRenderAllFormats Ć^15435

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMRenderAllFormats = TWMNoParams;
```

à-¼

TWMRenderAllFormats Ć^, WM_RENDERALLFORMATS

fZfW,ifZfWfĆfRfh,Å,·B

TWMRenderFormat Ć^15436

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```

TWMRenderFormat = record
  Msg: Cardinal;
  Format: Word;
  Unused: Longint;
  Result: Longint;
end;

```

à-¼

TWMRenderFormat Ć^, í WM_RENDERFORMAT ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMScroll CE^15437

ŽQÆ

ftfjfbfg

Messages

é¾

type

```
TWMScroll = record
  Msg: Cardinal;
  ScrollCode: SmallInt;
  Pos: SmallInt;
  ScrollBar: HWND;
  Result: Longint;
end;
```

à¾

TWMScroll CE^,íC,.,x,Ä,ìXfNf[]f<fbfZ[]fW,ìfbfZ[]fWfCfR[]fh,Å,·B

TWMSetCursor Ć^15438

ŹQĀÆ

ftfjfbfg

Messages

ĀéĆ¾

type

TWMSetCursor = **record**

Msg: Cardinal;

CursorWnd: HWND;

HitTest: Word;

MouseMsg: Word;

Result: Longint;

end;

Āà-¾

TWMSetCursor Ć^,Ā WM_SETCURS fĀfbfZĀ[fw,ĀfbfZĀ[fwfĀfRĀ[fh,Ā,ĀB

TWMSetFocus Ć^15439

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSetFocus = **record**

Msg: Cardinal;

FocusedWnd: HWND;

Unused: Longint;

Result: Longint;

end;

à-¼

TWMSetFocus Ć^, í WM_SETFOCUS ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMSetFont Ć^15440

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSetFont = **record**

Msg: Cardinal;

Font: HFONT;

Redraw: BOOL;

Unused: Word;

Result: Longint;

end;

à-¼

TWMSetFont Ć^, í WM_SETFONT ffbfZlfw, iffbfZlfwfĆfRlfh, Å, .B

TWMSetRedraw Ć^15441

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSetRedraw = **record**

Msg: Cardinal;

Redraw: Word;

Unused: Longint;

Result: Longint;

end;

à-¼

TWMSetRedraw Ć^,í WM_SETREDRAW ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMSetText Ć^15442

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSetText = **record**

Msg: Cardinal;

Unused: Integer;

Text: PChar;

Result: Longint;

end;

à-¼

TWMSetText Ć^,í WM_SETTEXT ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMSHOWWINDOW Ć^15443

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSHOWWINDOW = **record**

Msg: Cardinal;

Show: BOOL;

Status: Word;

Unused: Word;

Result: Longint;

end;

à-¼

TWMSHOWWINDOW Ć^,í WM_SHOWWINDOW ffbfZfw,ifbfZfwĆfRfh,Å,·B

TWMSize Ć^15444

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMSize = record
  Msg: Cardinal;
  SizeType: Word;
  Width: Word;
  Height: Word;
  Result: Longint;
end;
```

à-¼

TWMSize Ć^, í WM_SIZE ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMSizeClipboard Ć^15445

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSizeClipboard = **record**

Msg: Cardinal;

Viewer: HWND;

RC: THandle;

Unused: Word;

Result: Longint;

end;

à-¼

TWMSizeClipboard Ć^, í WM_SIZECLIPBOARD, ffbfZ[fW, ìfbfZ[fWfĆfR[fh, Å, ·B

TWMSpoolerStatus CE^15446

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMSpoolerStatus = **record**

Msg: Cardinal;

JobStatus: Word;

JobsLeft: Word;

Unused: Word;

Result: Longint;

end;

à¾

TWMSpoolerStatus CE^,í WM_SPOOLERSTATUS ffbfZ[fW,iffbfZ[fWfCEfR[fh,Å,·B

TWMSysChar Ć^15447

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSysChar = TWMKey;

à-¼

TWMSysChar Ć^,í WM_SYSCHAR ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMSysColorChange CE^15448

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMSysColorChange = TWMNoParams;

à¾

TWMSysColorChange CE^,í WM_SYSCOLORCHANGE ffbfZfW,ifbfZfWfRfh,Å,·B

TWMSysCommand Ć^15449

ŹQĀÆ

ftfjfbfg

Messages

ĀéĆ¾

type

```
TWMSysCommand = record
  Msg: Cardinal;
  case CmdType: Word of
    SC_HOTKEY: (
      ActivateWnd: HWND;
      Unused1: Word);
    SC_KEYMENU: (
      Key: Word;
      Unused2: Word);
    SC_CLOSE, SC_HSCROLL, SC_MAXIMIZE, SC_MINIMIZE, SC_MOUSEMENU,
SC_MOVE,
    SC_NEXTWINDOW, SC_PREVWINDOW, SC_RESTORE, SC_SCREENSAVE, SC_SIZE,
    SC_TASKLIST, SC_VSCROLL: (
      XPos: SmallInt;
      YPos: SmallInt;
      Result: Longint);
  end;
```

Āà-¾

TWMSysCommand Ć^,í WM_SYSCOMMAND fĀfbfZĀĀfW,ĪfĀfbfZĀĀfWfĆfRĀĀfh,Ā,ĀB

TWMSysDeadChar Ć^15450

ŹQÆ

ftfjfbfg

Messages

éĆ¼

type

```

TWMSysDeadChar = record
  Msg: Cardinal;
  DeadKey: Char;
  Unused: Byte;
  RepeatCount: Integer;
  AutoRepeat: Word;
  Result: Longint;
end;

```

à-¼

TWMSysDeadChar Ć^,í WM_SYSDEADCHAR ffbfZfw,iffbfZfwĆfRfh,Å,·B

TWMSysKeyDown CE^15451

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMSysKeyDown = TWMKey;

à¾

TWMSysKeyDown CE^,í WM_SYSKEYDOWN ffbZ[fW,ìfbZ[fWfCEfR[fh,Å,·B

TWMSysKeyUp Ć^15452

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMSysKeyUp = TWMKey;

à-¼

TWMSysKeyUp Ć^,í WM_SYSKEYUP ffbfZfW,ifbfZfWfĆfRfh,Å,·B

TWMSYSTEMERROR Ć^15453

ŹQĀÆ

ftjfbfg

Messages

ĀéĆ¾

type

```
TWMSYSTEMERROR = record
  Msg: Cardinal;
  ErrSpec: Word;
  Unused: Longint;
  Result: Longint;
end;
```

Āà-¾

TWMSYSTEMERROR Ć^,ĳ WM_SYSTEMERROR fĳfbfZĳ[fw,ĳfĳfbfZĳ[fwfĆfRĳ[fh,Ā,ĳB

TWMTIMECHANGE ^15454

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMTIMECHANGE = TWMNoParams;

à¾

TWMTIMECHANGE ^,í WM_TIMECHANGE ffbzfw,ifbzfwfRfh,Å,·B

TWMTimer CE^15455

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMTimer = record
  Msg: Cardinal;
  TimerID: Word;
  TimerProc: TFarProc;
  Result: Longint;
end;
```

à¾

TWMTimer CE^, í WM_TIMER ffbfZ[fW, iffbfZ[fWfCEfR[fh, Å, .B

TWMUndo CE^15456

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMUndo = TWMNoParams;

à¾

TWMUndo CE^,í WM_UNDO ffbZ[fW,ìfbZ[fWfR[fh,Å,·B

TWMVKeyToItem CE^15457

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMVKeyToItem = TWMCharToItem;

à¾

TWMVKeyToItem CE^,í WM_VKEYTOITEM ffbfZ[fW,ìfbfZ[fWfCEfR[fh,Å,·B

TWMSVScroll Ć^15458

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

```
TWMSVScroll = TWMSVScroll;
```

à-¼

TWMSVScroll Ć^,í WM_VSCROLL ffbfZ[fW,ìfbfZ[fWfĆfR[fh,Å,·B

TWMSVScrollClipboard CE^15459

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMSVScrollClipboard = **record**

Msg: Cardinal;

Viewer: HWND;

ScrollCode: Word;

ThumbPos: Word;

Result: Longint;

end;

à¾

TWMSVScrollClipboard CE^, WM_CSCROLLCLIPBOARD ffbZfw, iffbZfwfERfh, Å, B

TWMWindowPosMsg CE^15460

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMWindowPosMsg = record
  Msg: Cardinal;
  Unused: Integer;
  WindowPos: PWindowPos;
  Result: Longint;
end;
```

à-¾

TWMWindowPosMsg CE^,lfEfbf"fhfE^Ê'uffbfZ[fW,lffbfZ[fWfCEfR[fh,Å,·B
TWMWindowPosChanged ,Æ TWMWindowPosChanging ,íCTWMWindowPosMsg
CE^,ié¾,É, ,é,à,ì,Æ"~,¶,Å,·B

TWMWindowPosChanged Ć^15461

ŹQÆ

ftjfbfg

Messages

éĆ¼

type

TWMWindowPosChanged = TWMWindowPosMsg;

à-¼

TWMWindowPosChanged Ć^, WM_WINDOWPOSCHANGED

fZfW, ifZfWĆfRfh, Å, ·B

TWMWindowPosChanging $\text{CE}^{\wedge}15462$

ŽQÆ

ftjfbfg

Messages

é¾

type

TWMWindowPosChanging = TWMWindowPosMsg;

à¾

TWMWindowPosChanging CE^{\wedge} , WM_WINDOWPOSCHANGING

fZfW, ifZfWfRfh, Å, ·B

TWMWinIniChange CE^15463

ŽQÆ

ftjfbfg

Messages

é¾

type

```
TWMWinIniChange = record
  Msg: Cardinal;
  Unused: Integer;
  Section: PChar;
  Result: Longint;
end;
```

à¾

TWMWinIniChange CE^,í WM_WININICHANGE ffbfZ[fw,ìfbfZ[fwfCEfR[fh,Å,·B

BoxRect f\fbfh15464

"K—p

TCustomGrid

☐éĒ¾

function BoxRect (ALeft, ATop, ARight, ABottom: Longint): TRect;

☐à¾

BoxRect f\fbfh,íOfšfbfhZf<ĒQ,ìŽIšpĒ` ,đ%æ-Ê,ìfsfNfZf<,Å•Ô,μ,Û,·BALeft ,Æ ATop
,ìšfjpf%of☐☐f^ ,É,ìŽIšpĒ` ,ì☐☐ã<÷ ,ì—ñ,Æ☐s,ì”Ô☐t,đŽw'è,μ,Û,·BARight ,Æ ABottom ,ìšfjpf
%of☐☐f^ ,É,ìŽIšpĒ` ,ì%oE%o<÷ ,ì—ñ,Æ☐s,ì”Ô☐t,đŽw'è,μ,Û,·B

Žw'è,μ,½ŽIšpĒ` ,afOfšfbfh“à,Å^è•” ,μ,©•Ž!,³,è,È,☐ê☐☐CŽIšpĒ` ,ì\

Ž!•”•^a,ìfsfNfZf<',^{3/4}, -,^a•Ô,³,è,Û,·BŽw'è,μ,½ŽIšpĒ` ,^a,Û,Á,½,•\

Ž!,³,è,È,☐ê☐☐C<ó,ìŽIšpĒ` ,^a•Ô,³,è,Û,·B

CanEditAcceptKey f\fbfh15465

ŽQÆ

“K—p

TCustomGrid

éÆ¾

function CanEditAcceptKey(Key: Char): Boolean; **dynamic**;

à-¾

CanEditAcceptKey f\fbfh, íC•ÒW, ³, ê, Ä, ç, éOfŠfbfhfZf<, ²ft[fU[, ì
%oÿ, µ, ½fL[, ðŽó, ¯•t, ¯, é, ©, ð”»’è, µ, Ü, ·BCanEditAcceptKey , íCGoEditing , ² True
, ÉY’è, ³, ê, ½OfŠfbfh, ìfZf<, ÉftfH[fjX, ², , é, Æ, «, Éft[fU[, ²fL[, ð%oÿ, ·, ÆÆÄ, Ño, ³, ê, Ü, ·BKey
fpf%of[f^, í%oÿ, ³, ê, ½fL[, ðŽw’è, µ, Ü, ·B
, ½, Æ, ì, íCfOfŠfbfhfZf<, É”, ì“ü—í, ¾, ¯, ð<-, · EditMask , ², , éê#CCanEditAcceptKey , í 7 , ²
%oÿ, ³, ê, ½, Æ, «, É, í True, W , ²%oÿ, ³, ê, ½, Æ, «, É, í False , ð•Ô, µ, Ü, ·B

ŽQÆ15466

CanEditModify_f\fbfh

CanEditModify f\fbfh15467

ŽQÆ

“K—p

TCustomGrid

é¾

function CanEditModify: Boolean; **dynamic**;

à-¾

```
CanEditModify f\fbfh,ÍfOfŠfbfhfZf<,ªC³%Å"\,Å, ,é,©,ð"»'è,µ,Û,·BCanEditModify
,ÍfOfŠfbfh,ÌfZf<,ÉftfH[fjfX,ª, ,é,Æ,«,Éft[fU[,ªfL[,ð%Ÿ,·,ÆCEÄ,Ño,³,ê,Û,·BCanEditModify
,ÌfZf<,Ì"à—e,ªC³%Å"\,È,ç,Î TrueC“Ç,Ýo,µê—p,È,ç,Î False ,ð•Ô,µ,Û,·B
,½,Æ,|,ÎCft[fU[,ª goEditing ,ª False ,ÉŸ'è,³,ê,½fOfŠfbfh,ÌfZf<,ð•ÔW,µ,æ,ª
,Æ,·,é,ÆCCanEditModify ,Í False ,ð•Ô,µ,Û,·B
```

ŽQÆ15468

CanEditAcceptKey ffbfh

CanEditShow f\fbfh15469

ŽQÆ

“K—p

TCustomGrid

é¾

function CanEditShow: Boolean; **virtual**;

à-¾

CanEditShow f\fbfh,í•ÖW,³,ê,Ä,ç,éfZf<,ì TInPlaceEdit fRf“f[fif“fg,ª\

Ž|,³,ê,é,©,đ”»’è,μ,Û,·BfCf“fvfCE[fXfGfffBf^,ª\Ž|,³,ê,éê#CCanEditShow ,í True

,đ•Ô,μ,Û,·BfCf“fvfCE[fXfGfffBf^,ª\Ž|,³,ê,È,çê#CCanEditShow ,í False ,đ•Ô,μ,Û,·B

CanEditShow f\fbfh,đŽg,æ,ÆCfOfŠfbfhfZf<,ª’Éí,Å, ,ê,îfftfHf<fg,Å\Ž|,³,ê,é,ì,đ•\Ž|,³,ê,È,ç

,æ,æ,É,Å,«,Û,·B,±,ì,½,ß,É CanEditShow ,đ•ïX,·,é,É,íC,Û, ,CEp³,³,ê,½ CanEditShow f\

fbfh,đCEÄ,Ño,μC,» ,é,©,çAfvfŠfP[fVf#f“ ,ìóμ,É,æ,èCf“fvfCE[fXfGfffBf^ ,đ•\Ž|,μ,È,ç,æ,æ

,É,·,éfR[fh,đ’Ç%oÁ,μ,Û,·B

ŽQÆ15470

HideEditor ffbfh

ShowEditor ffbfh

ColumnMoved f\fbfh15471

ŽQÆ

“K—p

TCustomGrid

é¾

procedure ColumnMoved(FromIndex, ToIndex: Longint); **dynamic**;

à-¾

ColumnMoved f\fbfh, íjfx^f€Ofšfbfh, ì OnColumnMoved fCxf“fgfnf”fhf%—
p, ìvf\fefNfgf\fbfh, Å, ·BColumnMoved f\fbfh, í OnColumnMoved
fCxf“fg, ÉfA^bf` , ³, è, ½fCxf“fgfnf”fhf% , ðÆÄ, Ño, ·^ÈŠO, í%½, à, μ, Ü, ¹, ñBColumnMoved
, ðf\fo\%fCfh, ·, è, îCCEp³, ³, è, ½fCxf“fgfnf”fhf%ÆÄ, Ño, μ, ì, Ù, ©, É, à%ž”š, ², Å, «, Ü, ·B
ColumnMoved f\fbfh, í Options fvf\pfefB, ì goColMoving , ²Ý’è, ³, è, ½Ofšfbfh, Åft\U\ , ²—
ñ, ð^Ú“® , ·, é, ÆÆÄ, Ño, ³, è, Ü, ·BFromIndex fpf%of\^, í^Ú“®’O, ì—ñ, ìfCf“ffbfNfX (Col
fv\pfefB, É’í%ž) , ðžw’è, μ, Ü, ·BToIndex fpf%of\^, í^Ú“®æ, ì—
ñ, ìfCf“ffbfNfX, ðžw’è, μ, Ü, ·BColumnMoved f\fbfh, í—
ñ, ð^Ú“® , ·, é, Æ, «, ÉŠî, É, È, éff\^, ð^Ú“® , ·, é, ½, ß, Éžg, ç, Ü, ·B

ŽQÆ15472

RowMoved_f\fbfh

ColWidthsChanged f\fbfh15473

ŽQÆ

“K—p

TCustomGrid

é¾

procedure ColWidthsChanged; **dynamic**;

à-¾

ColWidthsChanged f\fbfh,íCOptions fvf\pfefB,ì goColSizing

,áÝ'è,³,ê,½fOfŠfbfh,Åft[fU[,ª—ñ,ì•,ð•ïX,·,é,ÆEÄ,Ño,³,ê,Ü,·BColWidthsChanged ,íC
—ñ,ì•,É,æ,Á,Ä,Í—ñ,ìfZf<,ðÄ•`%æ,·,éK—v,ª, ,éê±,É•ïX,µ,Ü,·B,½,Æ,ì,íC—
ñ,ì•,É±,í,¹,Ä^ø,«L,î,³,ê,éfrfbfgf}fbfv,ªfZf<,É, ,éê±±CColWidthsChanged f\fbfh,ðŽg,Á,Ä
—ñ,ìfZf<,ðÄ•`%æ,µ,Ü,·B

ŽQÆ15474

ColWidths fvfpfefB

RowHeightsChanged ffbfh

CreateEditor ffbfh15475

“K—p

TCustomGrid

☐é☐³⁄₄

function CreateEditor: TInplaceEdit; **virtual**;

☐à-³⁄₄

CreateEditor ffbfh,ÍfOfŠfbfh,ÌfCf“fvf☐[fxfgffBf^,ð☐☐¬,μ,Ü,·☐B

DrawCell f\fbfh15476

“K—p

TCustomGrid

□éĒ¾

```
procedure DrawCell(ACol, ARow: Longint; ARect: TRect;  
    AState: TGridDrawState); virtual; abstract;
```

□à-¾

DrawCell f\fbfh, íj\Xf^f€fOfŠfbfh, ì OnDrawCell fCxf“fgfnf“fhf%—p, ìvf\Nfgf\fbfh, Å, ·BDrawCell f\fbfh, í OnDrawCell fCxf“fg, ÉfA^fbf` , ³, è, ½fCxf“fgfnf“fhf% , ðĒÄ, Ño, ·ÈŠO, í%½, à, μ, Ü, ¹, ñBDrawCell , ðf\fo\%fCfh, ·, è, ìĒĒp³, ³, è, ½fCxf“fgfnf“fhf%ĒÄ, Ño, μ, ì, Ù, ©, É, à%Ž“š, ², Å, «, Ü, ·B

ACol fpf%of\^, Æ ARow fpf%of\^, íZf<, ì—ñ, Æs, ìÅ•W, ð, »è, ¼, èŽw’è, μ, Ü, ·BAREct fpf%of\^, í·`%æ, ·, éŽİSpĒ, ì—ì^æ (fsfNfZf<’P^Ê, ìÅ•W, ÅŽ|, ³, è, é) , Å, ·B AState fpf%of\^, ìCfZf<, ÉŠÖ, ·, éó’Ôî•ñ (‘l’ð, ³, è, Å, ç, éCftfH\ffX, ², , éĒĒÄ’è, ³, è, Å, ç, é) , ðŽw’è, μ, Ü, ·B

FGridState ftfB [f<fh15477

“K—p

TCustomGrid

□éCE¾

FGridState: TGridState;

□à-¾

FGridState ftfB [f<fh, ÍfOfŠfbfh, ìCE»□Ý, ì□ó'Ô, ð"½%of, μ, Ü, ·□BGridState , ì'l, ðŽŸ, ÉŽl, μ, Ü, ·□B

'l

^Ó-i

gsNormal	fOfŠfbfh, Í'Ê□í, ì□ó'Ô (^Ú"®, ¾, ê, Ä, ç, È, ç□CfTfCfY, ð•ï□X, ¾, ê, Ä, ç, È, ç□C'í'ð, ¾, ê, Ä, ç, È, ç) , Å•Žl, ¾, ê, Ä, ç, é
gsColMoving	fOfŠfbfh, ì—ñ, ð^Ú"®'†
gsColSizing	fOfŠfbfh, ì—ñ, ìfTfCfY, ð•ï□X'†
gsRowMoving	fOfŠfbfh, ì□s, ð^Ú"®'†
gsRowSizing	fOfŠfbfh, ì□s, ìfTfCfY, ð•ï□X'†
gsSelecting	fOfŠfbfh, ÅfZf<, Ü, ½, ìfZf<, ìfOf<□[fv, ¾'í'ð, ¾, ê, Ä, ç, é

FSaveCellExtents ftfB[f<fh15478

“K—p

TCustomGrid

□éCE¾

FSaveCellExtents: Boolean;

□à-¾

FSaveCellExtents ftfB[f<fh,ÍfOfŠfbfh,ÌfZf<”Í^Í□î•ñ,ª .DFM

ftf@fCf<,ÉŠi”[,³,ê,é,©,ðCE^,ß,Ü,·□BfZf<”Í^Í□î•ñ,ð .DFM ftf@fCf<,É•Ú’¶,·,é,É,Í

FSaveCellExtents ,ð True ,É□C,»,’¾,ì□ê□Š,É•Ú’¶,·,é,É,Í False

,É□Ý’è,µ,Ü,·□B,½,Æ,!,Í□CTDBGrid ,ÌfZf<”Í^Í□î•ñ ,Í .DFM ftf@fCf<,ÌfOfŠfbfh□î•ñ,Æ,Å,Í,È, TField

fIfufWfFfNfg□î•ñ,Æ^ê□□,É•Ú’¶,³,ê,Ü,·□B

GetEditLimit f\fbfh15479

ŽQÆ

“K—p

TCustomGrid

é¾

function GetEditLimit: Integer; **dynamic**;

à-¾

GetEditLimit f\fbfh, íOfŠfbfh, ìZf<, ìCf“fvfCE[]fXfGfffBf^, É•\

Ž!, Å, «, é•¶Žš, ìÅ’å”, ð•Ô, µ, Ü, ·BGetEditLimit f\

fbfh, ífefLjXfg, ì•¶Žš”, ì§CEÀ, ð”»’è, ·, é, ½, ß, É[]CfZf<, ð•\Ž|, ·, é’¼’O, ÉCEÄ, Ño, ³, é, Ü, ·B

ŽQÆ15480

GetEditMask ffbfh

GetEditText ffbfh

GetEditMask f\fbfh15481

ŽQÆ

“K—p

TCustomGrid

é¾

function GetEditMask(ACol, ARow: Longint): **string**; **dynamic**;

à¾

GetEditMask f\fbfh, íOfŠfbfh, ìZf<, ì•ÒWf}fXfN, ð•Ô, µ, Ü, ·BACol fpf%of[f^, Æ ARow fpf
%of[f^, ìZf<, ì—ñ, Æ[s, ð, »é, ¼, êŽw'è, µ, Ü, ·B•Ô, ³, é, é•¶Žš—ñ, í EditMask fvfpfefB, ì<@“\
, ðŽÀ[s, ·, éfZf<, ì•ÒWf}fXfN, Å, ·BGetEditMask f\fbfh, ìZf<, ìfefLfxfg, ð, Ç, l, æ, x, É•\
Ž!, ·, é, ©, ð”»'è, ·, é, ½, ß, ÉCfZf<, ð•Ž!, ·, é'¼'O, ÉÉÄ, Ño, ³, é, Ü, ·B

ŽQÆ15482

GetEditLimit ffbfh

GetEditText ffbfh

GetEditText f\fbfh15483

ŽQÆ

“K—p

TCustomGrid

é¾

function GetEditText (ACol, ARow: Longint): **string; dynamic;**

à-¾

GetEditText f\fbfh, íOfŠfbfh, ìZf<, ì•ÒWf}fXfN, ð•Ô, µ, Ü, ·BACol fpf%of[f^, Æ ARow fpf
%of[f^, ìZf<, ì—ñ, Æ[s, ð, »é, ¼, êŽw'è, µ, Ü, ·B•Ô, ¾, é, é•¶Žš—ñ, ìZf<, É•\
Ž!, ¾, é, éfefLjXfg, Å, ·BGetEditText f\fbfh, ìZf<, ìfefLjXfg, ð»'è, ·, é, ½, ß, ÉCfZf<, ð•\
Ž!, ·, é'¼'O, ÉÆÄ, Ño, ¾, é, Ü, ·B

ŽQÆ15484

GetEditLimit ffbfh

GetEditMask ffbfh

SetEditText ffbfh

HideEditor f\fbfh15485

ŽQÆ

“K—p

TCustomGrid

é¾

procedure HideEditor;

à¾

HideEditor f\fbfh,íZf<,ìCf“fvfE[]fXfGfffBf^,đ”ñ•\Ž,É,μ,Ü,·B

ŽQÆ15486

ShowEditor ffbfh

ShowEditorChar ffbfh

InvalidateCell f\fbfh15487

ŽQÆ

“K—p

TCustomGrid

é¾

procedure InvalidateCell(ACol, ARow: Longint);

à-¾

InvalidateCell f\fbfh,ÍfOfŠfbfhfZf<,ì•\Ž!•”•ª,đÄ•`%æ,µ,Ü,·BfZf<,ª%æ-Êä,É•\Ž!,³,ê,Ä,ç

,È,ç,ÆÄ•`%æ,³,ê,Ü,¹,ñBACol fpf%of[f^,Æ ARow fpf%of[f^,ÍfZf<,ì—
ñ,Æ[s,đ,»ê,¼,êŽw’è,µ,Ü,·B

ŽQÆ15488

InvalidateRow_f\fbfh

InvalidateRow f\fbfh15489

ŽQÆ

“K—p

TCustomGrid

é¾

procedure InvalidateRow (ARow: Longint);

à-¾

InvalidateRow f\fbfh,íOfŠfbfhfZf<,ìs,ì\Ž!•”•ª,ðÄ•`%œ,μ,Û,·B s,ª%œ-Êã,É\Ž!,³,ê,Ä,ç,È,ç,ÆÄ•`%œ,³,ê,Û,¹,ñBARow fpf%of[]f^,í s,ðŽw’è,μ,Û,·B

ŽQÆ15490

InvalidateCell_fbfh

MaxCustomExtents 'è"15491

ŽQÆ

é¾

const

```
MaxCustomExtents = 65520 div SizeOf(Integer);
```

à-¾

MaxCustomExtents 'è", íC'P^ê, ðfŠfbfh, É"ü, ê, é, ±, Æ, Ì, Å, «, éCfjXf^f}fCfY, ³, ê, ½—
ñ•Ü, ½, Ís•, ÌÅ'â", ð•\, µ, Ü, •B, ±, Ì'è", Í 64KB , ðf, fŠZfOf"fg, É"ü, é, ±
, Æ, Ì, Å, «, é@", Ì", Å, •BfOfŠfbfh, ÍffftfHf<fg, ÌTfCfY, Æ, Í^á, s, Æ—ñ, ÌTfCfY, ðŠi"[, •, é, ±
, Æ, ³, Å, «, Ü, •B

ŽQÆ15492

ColWidths fv[]pfefB

RowHeights fv[]pfefB

MouseCoord f\fbfh15493

“K—p

TCustomGrid

☐é☐^{3/4}

function MouseCoord(X, Y: Integer): TGridCoord;

☐à-^{3/4}

MouseCoord f\fbfh,í☐Cf}fEfx,ì☐À•W^Ê'u,É, ,éfZf<,lfOfŠfbfh☐À•W,đ•Ô,μ,Ü,·☐BX fpf
%of☐☐[f^ ,Æ Y fpf%of☐☐[f^ ,í☐, '¼,Æ☐... •½,ìfsfNfZf<☐À•W,đ,» ,ê,¼,êŽw'è,μ,Ü,·☐B

MoveColRow f\fbfh15494

“K—p

TCustomGrid

□éCE¾

procedure MoveColRow(ACol, ARow: Longint; MoveAnchor, Show: Boolean);

□à-¾

MoveColRow f\fbfh, í Col ,Æ Row ,lŠefvf\fpfefB,lžw'è,É□],Á,ÄfOfŠfbfh,l—
ñ,Æ□s,đ•í□X,μ,Ü,·□BACol fpf%of□□[f^,Æ ARow fpf%of□□[f^,í□V,μ,fjfCEf“fg,É,·,é—
ñ,Æ□s,đ,»,è,¾,èžw'è,μ,Ü,·□B

MoveAnchor fpf%of□□[f^,lfAf“fj□[,đ□V,μ,č^É'u,É^Ú“@,·,é,©□CE»□Ý,ì^É'u,É'u,č,Ä,“, -
,©,đžw'è,μ,Ü,·□BfAf“fj□[,í□CfZf<,ì'í'đ"í^í,đŠg'£,·,éfZf<,Ä,·□BfOfŠfbfh,Ä•j□",lfZf<,ª'í'đ,³,è,Ä,č
,é□é□#□C'í'đ"í^í,lfH□[fjX,ì, ,éfZf<,©,čfAf“fj□[,Ü,Ä,Ä,·□B'í'đ,³,è,Ä,č,éfZf<,ª 1
,Ä,¾, ,Ä, ,é□é□#□CftfH□[fjX,ì, ,éfZf<,ÆfAf“fj□[,í“~ ,lfZf<,Ä,·□BfAf“fj□[,đ^Ú“@,·,é,É,í
MoveAnchor ,É True ,đžw'è,μ□CfAf“fj□[,đCE»□Ý,ì^É'u,É'u,č,Ä,“, ,É,í (,»,μ,Ä'í'đ"í^í,đŠg'£
,·,é,É,í) False ,đžw'è,μ,Ü,·□B

Show fpf%of□□[f^,í□C□V,μ,čfjfCEf“fgfZf<,ªfOfŠfbfh,ì•\
ž,³,è,É,č•”•ª,É, ,é□é□#,ÉfOfŠfbfh,đfXfNf□□[f<,μ,Ä,»,lfZf<,đ•\
ž,·,é,©,đžw'è,μ,Ü,·□BfOfŠfbfh,đfXfNf□□[f<,·,é,É,í Show ,É True
,đžw'è,μ□CfOfŠfbfh,đfXfNf□□[f<,μ,É,č□é□#,í False ,đžw'è,μ,Ü,·□B

RowHeightsChanged f\fbfh15495

ŽQÆ

“K—p

TCustomGrid

é¾

procedure RowHeightsChanged; **dynamic**;

à-¾

RowHeightsChanged f\fbfh,íCOptions fvfpfefB,ì goRowSizing
,áÝ'è,¾,½fOjŠfbfh,Åft[fU[,ás•,ð•ïX,·,é,ÆEÄ,Ño,¾,ê,Ü,·BRowHeightsChanged
,íCás•,É,æ,Á,Ä,í[s,lfZf<,ðÄ•`%æ,·,é•K—v,¾, ,éê#É•ïX,μ,Ü,·B,½,Æ,¡,íCás•,É#,í,¹
,Ä^ø,«L,í,³,éfrfbfgf}fbfv,¾Zf<,É, ,éê#CRowHeightsChanged f\fbfh
fbfh,ðŽg,Á,Ä[s,lfZf<,ðÄ•`%æ,μ,Ü,·B

ŽQÆ15496

RowHeights fvf\fpfefB

ColWidthsChanged f\fbfh

RowMoved f\fbfh15497

ŽQÆ

“K—p

TCustomGrid

é¾

procedure RowMoved(FromIndex, ToIndex: Longint); **dynamic**;

à-¾

RowMoved f\fbfh,íjffXf^f€fOfŠfbfh,ì OnRowMoved fCxf“fgfnf“fhf%—p,ífvf[]fNfgf[]f
fbfh,Å,·BRowMoved f\fbfh,í OnRowMoved fCxf“fg,ÉfAf^fbf` ,³,è,½fCxf“fgfnf“fhf%
,ðÆÄ,Ñ[]o,^ÈŠO,Í%½,à,μ,Û,¹,ñ[]BRowMoved ,ðf[]fo[]f
%ofCfh,·,è,î[]CÆp[]³,³,è,½fCxf“fgfnf“fhf%ÆÄ,Ñ[]o,μ,ì,Û,©,É,à%ž“š,ª,Å,«,Û,·B

RowMoved f\fbfh,í Options fvf[]pfefB,ì goRowMoving
,ª[]ý'è,³,è,½fOfŠfbfh,Åft[]fU[][,ª[]s,ð^Ú“® ,·,é,ÆÆÄ,Ñ[]o,³,è,Û,·BFromIndex fpf
%of[]f^,í^Ú“®‘O,ì[]s,ìfCf“ffbfNfX (Row fvf[]pfefB,É'í%ž) ,ðžw'è,μ,Û,·BToIndex fpf
%of[]f^,í^Ú“®[]æ,ì[]s,ìfCf“ffbfNfX,ðžw'è,μ,Û,·BRowMoved f\fbfh,í[]s,ð^Ú“® ,·,é,Æ,«,ÉŠì,É,È,éff[]f^,ð^Ú“® ,·,é,½,ß,Éžg,ç,Û,·B

ŽQÆ15498

ColumnMoved_f\fbfh

ScrollData f\fbfh15499

“K—p

TCustomGrid

□éĒ¾

procedure ScrollData(DX, DY: Integer);

□à-¾

ScrollData f\fbfh,ÍfOfŠfbfh,Ìff[f^•”•ª,đfXfNf□□[f<,μ,Û,·□BDX fpf%of□□[f^,Í□...

•½,ÉfXfNf□□[f<,·,é—ñ,ì□”,đŽw’è,μ,Û,·□B%°E,ì—ñ,đ•\Žì,·,é,É,Í□³,ì□”,đ□C□¶,ì—ñ,đ•\Žì,·,é,É,Í•
%°,ì□”,đŽw’è,μ,Û,·□BDY fpf%of□□[f^,Í□,¼,ÉfXfNf□□[f<,·,é—ñ,ì□”,đŽw’è,μ,Û,·□B%°°,ì—ñ,đ•\
Žì,·,é,É,Í□³,ì□”,đ□C□ã,ì—ñ,đ•\Žì,·,é,É,Í•%°,ì□”,đŽw’è,μ,Û,·□B

SelectCell f\fbfh15500

“K—p

TCustomGrid

☐é☐¾

function SelectCell(ACol, ARow: Longint): Boolean; **virtual**;

☐à-¾

SelectCell f\fbfh,íft☐fU☐[,☐fOfšfbfh,ífZf<,đ'í'đ,Å,«,é☐é☐±,É True ,đ•Ô,μ,Û,☐BACol fpf
%of☐☐f^,Æ ARow fpf%of☐☐f^,ífZf<,í—ñ,Æ☐s,đ,» ,é,¼,êŽw'è,μ,Û,☐BSelectCell f\fbfh
fbfh,íft☐fU☐[,☐fZf<,đ'í'đ,μ,æ,π,Æ,·,é,Æ☐Ā,Ñ☐o,³,ê,Û,☐B

SelectCell ,ífOfšfbfh,í'í'đ%Ā"\,È—í^æ,đ☐Ā'è,·,é,½,β,ÉŽg,☐
,Û,☐B,½,Æ,í,í☐CfAfvfšfP☐[fvf±",Ā 3☐~3 (9 ,Ā,ífZf<) ,ífOfšfbfh,đ•\Ž|,·,é,Æ,«,É 8
,Ā,ífZf<,É,μ,☐ff☐f^,ª,È,☐é☐±☐CSelectCell ,đ•í☐X,μ,Āff☐f^,ì"ü,Ā,Ā,☐,È,☐fZf<,í'í'đ,ª,Ā,«,É,☐
,æ,π,É,Ā,«,Û,☐B

SetEditText f\fbfh15501

ŽQÆ

“K—p

TCustomGrid

é¾

procedure SetEditText (ACol, ARow: Longint; **const** Value: **string**); **dynamic**;

à-¾

SetEditText f\fbfh, íOfŠfbfh, ìZf<, ìfefLfXfg'l, ðŽw'è, μ, Ü, ·BACol fpf%of[f^, Æ ARow fpf
%of[f^, ìZf<, ì—ñ, Æ[s, ð, »ê, ¼, êŽw'è, μ, Ü, ·BValue fpf%of[f^, ìZf<, ÉŠ,, è“-
, Ä, éfefLfXfg'l, ðŽw'è, μ, Ü, ·B

ŽQÆ15502

GetEditText ffbfh

ShowEditor ffbfh15503

ŽQÆ

“K—p

TCustomGrid

é¾

procedure ShowEditor;

à¾

ShowEditor ffbfh,íZf<,ìCf“fvfE[fXfGfffBf^,ð•Žì,μ,Û,·B

ŽQÆ15504

HideEditor_f\fbfh

ShowEditorChar f\fbfh15505

ŽQÆ

“K—p

TCustomGrid

é¾

procedure ShowEditorChar (Ch: Char);

à-¾

```
ShowEditorChar f\fbfh,ífZf<,lfCf“fvfCE[]fXfGfffBf^,ð•\Ž|,μCCh fpf
%of[]f^,ÅŽw'è,μ,½•¶Žš,əft[]fU[],É,æ,Á,ÄfCf“fvfCE[]fXfGfffBf^,É“ü—í,3ê,½,©,ì,æ,κ
,ÉfGfffBf^,ðfAfNfefBfu,É,μ,Ü,·B
,½,Æ,|,îCShowEditorChar ,í goEditing ,a True ,ÉÝ'è,3ê,½fOfŠfbfh,ì'ð,í,3ê,Ä,ç
,é,əftfH[]fjfx,í,È,çfZf<,Åft[]fU[],a¶Žš,ð“ü—í,·,é,Æ,«,ÉCEÄ,Ño,3ê,Ü,·B,±
,ìè[]fCf“fvfCE[]fXfGfffBf^,í•\Ž|,3êCft[]fU[],a“ü—í,μ,½•¶Žš,lfGfffBf^,É“ü—í,3ê,é•K—v,a
,è,Ü,·BShowEditorChar ,íCgoEditing ,a True
,ÉÝ'è,3ê,½fOfŠfbfh,ífZf<,ÉftfH[]fjfx,a ,é,Æ,«,Éft[]fU[],a¶Žš,ð“ü—
í,μ,Ä,àCEÄ,Ño,3ê,Ü,1ñBfGfffBf^,í,·,Å,É•\Ž|,3ê,Ä,“,èC“ü—
í,3ê,½•¶Žš,ðŽ©“®“l,ÉŽó,“ü,ê,é,©,ç,Å,·B
```

ŽQÆ15506

HideEditor ffbfh

ShowEditor ffbfh

SizeChanged f\fbfh15507

“K—p

TCustomGrid

□éĒ¾

procedure SizeChanged(OldColCount, OldRowCount: Longint); **dynamic**;

□à-¾

SizeChanged f\fbfh,íOfŠfbfh,ì—ñ,Ü,½,Í[s,ì” ,â•ïX,³,ê,é,ÆĒÄ,Ño,³,ê,Ü,·BOldColCount
fpf%of[f^,Æ OldRowCount fpf%of[f^,íOfŠfbfh,ì•ïX'O,ì—
ñ,Æ[s,ì” ,ð,» ,ê,¼,êŽw'è,μ,Ü,·B•ïXĒâ,ì—ñ,Æ[s,ì” ,í ColCount fvfpfefB,Æ RowCount
fvfpfefB,Å,» ,ê,¼,êŽw'è,μ,Ü,·B

Sizing f\fbfh15508

“K—p

TCustomGrid

□éĒ¾

function Sizing(X, Y: Integer): Boolean;

□à-¾

Sizing f\fbfh,ÍŽw'è,¾,ê,½fsfNfZf<□À•W,Å□s,Ü,½,Í—ñ,ÌTfCfY•İ□X,ª<-¾,ê,Ä,ç,é,Æ True
,đ•Ô,μ,Ü,·□BX fpf%of□□[f^,Æ Y fpf%of□□[f^,Í□...

•½•ûĒü,İfsfNfZf<□À•W,đ,»¾,ê,¼,êŽw'è,μ,Ü,·□B

X ,Æ Y ,ª□CgoRowSizing ,Ü,½,Í goColSizing ,ª True ,É□Ý'è,¾,ê,½fOfŠfbfh,İ□s,Ü,½,Í—

ñ,İf^fCfç<,İŠÖ,İ<«ŠE□ă,İf}fEfXf|fCf“f^,İ^É'u,đŽw'è,·,é□ê□#□CSizing ,Í True

,đ•Ô,μ,Ü,·□BSizing ,ª True ,đ•Ô,·□ê□#□Cf}fEfXf|fCf“f^,Í crHSplit ,Ü,½,Í crVSplit Cursor

,É•İ□X,·,é•K—v,ª, ,è,Ü,·□B

TCustomGrid fRf“f|[]lf“fg15509

ŽQ□Æ ftfB□lf<fh f□\fbfh fRf“f|[]lf“fg

ftfjfbfg

Grids

□à-¾

TCustomGrid fRf“f|[]lf“fg,í□CTDrawGrid, TStringGrid,
TDBGrid□Cf+□lfU□[‘è<` ,lfOfŠfbfhfRf“f|[]lf“fg,đŠÜ,p,·,x,Ä,lfOfŠfbfh,ì‘Š□ÚŠî- {œ^,Ä,·□B

TCustomControl , ©,çœp□³,·,é,·,x,Ä,ì,à,ì,ì,Ù, ©,É□CTCustomGrid ,í•¶Žš—
ñfOfŠfbfh,È,Ç,lfOfŠfbfhfRf“f|[]lf“fg,ì VCL fŠtf@fœf“fX,É□à-¾,¾,è,Ä,ç
,évf□pfefB,đ’ñ<Ÿ,μ,Ü,·□B,Ü,½,ç,·,Ä, ©,ìœp□³,μ,½vf□fefNfgf□fbfh,đf□fo□f
%ofCfh,μ□C,» ,ì,Ù, ©,É□V,μ,çf□fbfh,à’ñ<Ÿ,μ,Ü,·□B

ftfB[]f<fh15510

EGridState

ESaveCellExtents

fjfbfh15511

BoxRect

CanEditAcceptKey

CanEditModify

CanEditShow

ColumnMoved

ColWidthsChanged

CreateEditor

CreateParams

DbClick

DefineProperties

DrawCell

GetEditLimit

GetEditMask

GetEditText

HideEditor

InvalidateCell

InvalidateRow

KeyDown

KeyPress

MouseCoord

MouseDown

MouseMove

MouseUp

MoveColRow

Paint

RowHeightsChanged

RowMoved

ScrollData

SelectCell

SetEditText

ShowEditor

ShowEditorChar

SizeChanged

Sizing

TimedScroll

TopLeftChanged

ŽQÆ15512

TCustomControl fR“f|□[f|f“fg

TGridCoord \mathbb{C}^2

ŽQ

ftjfbfg

Grids

é \mathbb{C}^2

type

TGridCoord = **record**

X: Longint;

Y: Longint;

end;

à \mathbb{C}^2

TGridCoord \mathbb{C}^2 , ífOfŠfbfh, ðŽw'è, µ, Ü, · BX ftfB [f<fh, ífOfŠfbfh, ð—ñ, ðŽw'è, µ CY
ftfB [f<fh, ífOfŠfbfh, ðs, ðŽw'è, µ, Ü, · B

ŽQÆ15514

TPoint CE^

TGridScrollDirection $\mathbb{C}^{\wedge}15515$

ftfjfbfg

Grids

□ $\acute{e}\mathbb{C}^{3/4}$

type

```
TGridScrollDirection = set of (sdLeft, sdRight, sdUp, sdDown);
```

□ $\grave{a}^{-3/4}$

TGridScrollDirection \mathbb{C}^{\wedge} , í□CTimedScroll f□\

fbfh, $\grave{a}\mathbb{C}^{\acute{A}}$, Ñ□o, \grave{e} , $\frac{1}{2}$, \acute{A} , «, ÉfOjŠfbfh, \grave{a} fXfNf□□[f<, \acute{A} , «, $\acute{e}\cdot\acute{u}\mathbb{C}^{\acute{u}}$, $\delta'\grave{e}\grave{e}'$, μ , \acute{U} , \cdot □B

TGridState $\text{CE}^{\wedge}15516$

ftfjfbfg

Grids

$\square \acute{e} \text{CE}^{3/4}$

type

```
TGridState = (gsNormal, gsSelecting, gsRowSizing, gsColSizing,  
gsRowMoving, gsColMoving);
```

$\square \grave{a}^{-3/4}$

TGridState $\text{CE}^{\wedge}, \acute{I}$ FGridState ftfB $\square \square [f \langle fh, \grave{I} \acute{I}, \delta' \grave{e} \langle \grave{,} \mu, \ddot{U}, \cdot \square B$

TimedScroll f\fbfh15517

“K—p

TCustomGrid

☐é☐¾

procedure TimedScroll (Direction: TGridScrollDirection); **dynamic**;

☐à-¾

TimedScroll f\fbfh,í☐Cf+☐[fU☐[,☐OfŠfbfh,ì'í'đ"í^í,đŠg'£,μ,Ä,ç,é,Æ,«,Éf}fEfXf|
fCf"f^,☐OfŠfbfh,ìŠO,É, ,é,Æ'èŠú"í,É☐Ä,Ñ☐o,³,è,Ü,·☐BDirection fpf
%☐f☐☐[f^,í☐OfŠfbfh,đfXfNf☐☐[f<,·,é•û☐ü,đŽw'è,μ,Ü,·☐BfftfHf<fg,Ä,í☐CfOfŠfbfh,í TopRow
fvf☐pfefB,Ü,½,í LeftCol fvf☐pfefB,đ•í☐X,·,é,±,Æ,ÄfXfNf☐☐[f<,³,è,Ü,·☐B
fOfŠfbfh,íf}fEfXf|fCf"f^,ì•û☐ü,ÉfXfNf☐☐[f<,³,è,Ü,·☐B,½,Æ,í,î☐Cf}fEfXf|fCf"f^,☐OfŠfbfh,ì☐ä,É,
,é☐ê☐‡,É,í Direction ,É,í sdUp ,ª"ü,è,Ü,·☐Bf}fEfXf|fCf"f^,☐OfŠfbfh,ì%☐E%☐☐,É, ,é☐ê☐‡,É,í
Direction ,É,í sdDown ,Æ sdRight ,ª"ü,è,Ü,·☐B

TInplaceEdit fRf“f|[]lf“fg15518

ŽQÆ fRf“f|[]lf“fg

ftfjfbfg

Grids

à-¾

TInPlaceEdit fRf“f|[]lf“fg,íCfCf“fvfÆ[]fX•ÒW,^aÅ,«,éOfŠfbhfRf“f|
[]lf“fg,Å“à•“I,ÉŽg,í,ê,éNf%ofX,Å,·BfOfŠfbfh,ì Options fvf[]fpfefB,lfZfbfg,É goEditing
,^aŠÜ,Ü,ê,é[]ê[]CfOfŠfbfh,lfZf<,lfCf“fvfÆ[]fX•ÒW,Å,«,Ü,·BfZf<,^afCf“fvfÆ[]fX•ÒW,³,ê,é,
Æ,«,É,Í TInPlaceEdit flfufWfFfNfg,^aŽg,í,ê,Ü,·B

ŽQÆ15519

CreateEditor ffbfbh

TopLeftChanged f\fbfh15520

“K—p

TCustomGrid

□éĒ¾

procedure TopLeftChanged; **dynamic**;

□à-¾

TopLeftChanged f\

fbfh, íOfŠfbfh, íf[f^, ³fXfNf[f<, ³, è, é, ÆĒÄ, Ño, ³, è, Ü, ·BTopLeftChanged , í TopRow
fvf\fpfefB, Ü, ½, í LeftCol fvf\fpfefB, ³•íX, ³, è, é, ÆĒÄ, Ño, ³, è, Ü, ·B

Changed f\fbfh1521

“K—p

TCanvas, TGraphic, TPicture

à-¾

Changed f\fbfh,É,Í 2 ,Â, ,è,Ü,·B1 ,Â,Í TCanvas flfufWfFfNfg,ÅŽg,í,êC,à,¼ 1 ,Â,Í TGraphic
flfufWfFfNfg,Æ TPicture flfufWfFfNfg,ÉŽg,í,ê,Ü,·B

Canvas flfufWfFfNfg,Ì Changed f\fbfh

Graphic ,Æ Picture flfufWfFfNfg,Ì Changed f\fbfh

Changed f\fbfh1522

ŽQÆ

“K—p

ICanvas

é¾

procedure Changed; virtual;

à-¾

Changed f\fbfh,íLfff“fofX,ì OnChange fCxf“fgfnf“fhf%—p,ívf[]fefNfgf[]\fbfh,Å,·BChanged f\fbfh,í OnChange fCxf“fg,ÉfAf^fbf` ,³,ê,½fCxf“fgfnf“fhf% ,ðÆÄ,Ño,·^ÈŠO,í%½,à,μ,Ü,¹,ñBChanged ,ðf[]fo[]f %ofCfh,·,ê,îCÆp³,³,ê,½fCxf“fgfnf“fhf%ÆÄ,Ño,μ,ì,Ù,©,É,à%ž“š,ª,Å,«,Ü,·B

ŽQÆ15523

Changing_fbfh

Changed f\fbfh15524

“K—p

TGraphic, TPicture

é¾

procedure Changed (Sender: TObject);

à¾

Changed f\fbfh,ÍOf%ftfBfbfN,Ü,½,Í%æ'œ,ì OnChange fCxf“fgfnf“fhf%—
p,Ívf\fefNfgf\fbfh,Á,·BChanged f\fbfh,Í OnChange
fCxf“fg,ÉfAf^fbf` ,³,ê,½fCxf“fgfnf“fhf%œ,ðÉÄ,Ño,·`ÈŠO,Í%½,à,µ,Ü,¹,ñBChanged
,ðf\fo\%fCfh,·,ê,ÍCÉp³,³,ê,½fCxf“fgfnf“fhf%ÉÄ,Ño,µ,ì,Ù,©,É,à%Ž“š,ª,Å,«,Ü,·B

Changed f\fbfh,ÍOf%ftfBfbfN,Ü,½,Í
%æ'œ,ª·İX,³,ê,½,Æ,«,ÉÉÄ,Ño,µ,Ü,·B,½,Æ,!,ÍCImage fRf“f\lf“fg,ì Picture
fv\fpfefB,É,æ,Á,ÄŽw'è,³,ê,½ TBitmap flfufWfFfNfg,ì Changed f\fbfh,
ÍCfrfbf}fbfv,ª·İX,³,ê,½,Æ,«,É TImage fRf“f\lf“fg,ðÄ·`%æ,µ,Ü,·B

Changing f\fbfh15525

ŽQÆ

“K—p

ICanvas

é¾

procedure Changing; **virtual**;

à-¾

Changing f\fbfh,íLfff“fofX,ì OnChanging fCxf“fgfnf“fhf%—p,lfvf\fefNfgf\fbfh,Å,·BChanging f\fbfh,í OnChanging fCxf“fg,ÉfAf^fbf` ,³,è,½fCxf“fgfnf“fhf% ,ðÆÄ,Ño,·^ÈŠO,í%½,à,μ,Ü,¹,ñBChanging ,ðf\fo\fofCfh,·,è,îCÆp³,³,è,½fCxf“fgfnf“fhf%ÆÄ,Ño,μ,ì,Ù,©,É,à%ž“š,ª,Å,«,Ü,·B

ŽQÆ15526

Changed ffbfh

ColorToIdent ŠÖ"15527

ŽQÆ

ftfjfbfg

Graphics

é¾

```
function ColorToIdent (Color: Longint; var Ident: string): Boolean;
```

à-¾

```
ColorToIdent ŠÖ",í"l,Å·\,³,ê,½F,ìl,ðC"o~^,³,ê,Ä,ç,ê,Î,»,ìF,ìŽ·ÊŽq,ì·ŕŽš—  
ň,É·İŠ·,μ,Û,·BColor fpf%of[f^,É"n,³,ê,½"l,É'Í%ž,·,éŽ·ÊŽq,ª, ,ê,ÎCIdent fpf  
%of[f^,ì·ŕŽš—ň,Í,»,ìŽ·ÊŽq,ðŽw'è,·,é,æ,¼,É·İX,³,êCCColorToIdent ,Í True  
,ð·Ô,μ,Û,·B"l,É'Í%ž,·,éŽ·ÊŽq,ª,È,çêþ,É,Í Ident fpf%of[f^,ì·ŕŽš—  
ň,Í·İX,³,ê,·CCColorToIdent ,Í False ,ð·Ô,μ,Û,·B
```

```
f:f: ColorToIdent ,Í"à·",ÅŽg,¼,½,ß,ì,à,ì,Å,·B"·,ŕ<@"\,ðŽÀ[s,·,é,É,Í ColorToString  
ŠÖ",ðŽg,Ä,Ä,,¾,¾,çB
```

ŽQÆ15528

ColorToString ŠÖ

GetColorValues Žè'±,«

IdentToColor ŠÖ

ColorToString ŠÖ"15529

ŽQÆ

ftjfbfg

Graphics

é¾

function ColorToString(Color: TColor): **string**;

à¾

ColorToString ŠÖ", í Color fpf%of[]f^, É"n,³,ê,½F,É'í%ž,·,éŽ·ÊŽq,đŽw'è,·,é•ŕŽš—
ñ,đ•Ô,μ,Û,·BColor fpf%of[]f^,É,í"l,Û,½,íŽ·ÊŽq (,½,Æ,í,î cIBlue)
,đŽw'è,Å,«,Û,·B"l,É'í%ž,·,éŽ·ÊŽq,³,È,çê#CColorToString ,í Color fpf%of[]f^,ì 16
i",Å,ìl,đ•ŕŽš—ñ,É,μ,Ä•Ô,μ,Û,·B

ŽQÆ15530

ColorToIdent ŠÖ

GetColorValues Žè'±,«

IdentToColor ŠÖ

Dormant f\fbfh1531

ŽQÆ

“K—p

TBitmap

é¾

procedure Dormant;

à-¾

Dormant f\fbfh,írfbfgf}fbfv,ÉŠ,,è“-,Ä,ç,ê,½ HBITMAP (Handle
fvf\pfefB,É,æ,Á,ÄfAfNfZfX,·,é) ,ð%ð•ú,·,é^ê•ûCf,fŠ,Érfbfgf}fbfv,lfCf[W,ðì-,·,é,±
,Æ,Árfbfgf}fbfv,ð•Û‘¶,μ,Û,·BDormant ,ÍfAvfŠfP[fVf+f“,ÅŽg,í,ê,é GDI fŠ\{fX,ì—Ê,ðß-
ñ,·,é,Æ,«,ÉŽg,ç,Û,·B

ŽQÆ15532

FreelImage_f\fbfh

Draw f\fbfh15533

“K—p

TGraphic

□éĒ¾

procedure Draw(ACanvas: TCanvas; **const** Rect: TRect); **virtual**; **abstract**;

□à-¾

Draw f\fbfh, íLfff“fofX, ÉfOf%oftfBfbfN, ð•`%œ, μ, Û, ·BfLfff“fofX, í ACanvas fpf
%of□□[f^, ÅŽw’è, μ□CfOf%oftfBfbfN, ð•`%œ, ·, éLfff“fofX, ìŽİSpĒ`, ì—ì^æ, í Rect fpf
%of□□[f^, ÅŽw’è, μ, Û, ·BRect , ìŽİSpĒ`, ìTfCfY, ðfOf%oftfBfbfN, ìTfCfY, Æ^Ù, È, éê□#□CfOf
%oftfBfbfN, ìŽİSpĒ` “à, É, Ò, Á, ½, è, í, Û, é, æ, x, É^ø, «□L, î, ³, ê, Û, ·□B

FreelImage f\fbfh15534

ŽQÆ

“K—p

TBitmap

é¾

procedure FreeImage;

à-¾

FreelImage f\fbfh,ífrfbfgf}fbfv,É,æ,Á,Äf,f,š,ÉŠi”[,³,ê,½fLfffbfVf...ftf@fCf<fCf[fW,ð
%ø•ú,μ,Û,·Bfrfbfgf}fbfv,³frfbfgf}fbfvf!ufWfFfNfg,Éf[fh,³,ê,é,ÆCDelphi
,íff,š,Éf[fh,³,ê,½frfbfgf}fbfv,íCf[fW,ð[-,μ,Û,·Bfrfbfgf}fbfv,³·ìX,³,ê,È,©,Á,½ê±
Cfrfbfgf}fbfv,ð•Ú‘¶,·,é,Æ,«,É,ífrfbfgf}fbfv,ìF%ø‘œ“x,³Ž,í,è,È,ç,æ,x
,Éff,š,íCf[fW,³Žg,í,è,Û,·BFreeImage ,ífrfbfgf}fbfvfCf[fW,ÉŠ,,è“-,Ä,ç,è,½ff,š,ð
%ø•ú,μ,Û,·BFreeImage ,ðÆÄ,Ño,·,ÆCfAfvfŠfP[fVf#“,Å•K—
v,Éff,š,íCf,è,Û,·,³Cfrfbfgf}fbfv,ìF%ø‘œ“x,íŽ,í,è,é%Å“\«,³,Å,Ä,«,Û,·B

ŽQÆ15535

Dormant ffbfh

GetColorValues Žè'±,«15536

ŽQÆ

ftfjfbfg

Graphics

é¾

procedure GetColorValues (Proc: TGetStrProc);

à-¾

GetColorValues Žè'±,«,Í“o~^,³,ê,½F,ìŽ•ÊŽq,ìšfXfg,ð”½•œ^—,μCŠeŽ•ÊŽq,ð Proc
Žè'±,«,É•ŕŽš—ňĀ^,ìfpf%of[f^,Æ,μ,Ä“n,μ,Ü,·BGetColorValues ,Í clBlue ,â clBtnFace
,Æ,ç,Á,½F,ìŽ•ÊŽq,É'í%ž,·,é•ŕŽš—ň,ì“üŽè,ÉŽg,ç,Ü,·B

ŽQÆ15537

ColorToIdent ŠÖ

ColorToString ŠÖ

IdentToColor ŠÖ

GetDIB ŠÖ"15538

ŽQÆ

ftjfbfg

Graphics

é¾

```
function GetDIB(Bitmap: HBITMAP; Palette: HPALETTE; var BitmapInfo; var Bits): Boolean;
```

à-¾

GetDIB ŠÖ", í Bitmap fpf

```
%f[f^, ÅŽw'è,³,ê,éfrfbfgf}fbfv, lfrfbfg, ðŽæ, è[o, µ[C,»,ê,ç,ðffofCfX, É^È'¶, µ, È, çÆ`Ž®, Å  
Bits [\'ç, ÉfRfs[., µ, Ü, ·BPalette fpf%f[f^, lfrfbfgf}fbfv, lfpfÆfbfg, ðCBitmapInfo fpf  
%f[f^, lfrfbfgf}fbfv, lî•ñfwfbf_[., ðŽw'è, µ, Ü, ·B
```

```
f:f: GetDIB ,ðÆÄ, Ñ[o, ·'O, É[CGetDIBSizes Žè'±  
,«, ðŽg, Á, Äî•ñfwfbf_[., Æfrfbfgf}fbfv, lftfCfY, ð'², x[MemAlloc  
ŠÖ", ðŽg, Á, Äf[f, fŠ, ðŠ,, è"- , Ä, Ä,¾,¾, ç[B
```

ŽQÆ15539

GetDIBSizes Žè'±,«

MemAlloc ŠÖ"

GetDIBSizes Žè‘±,«1540

ŽQÆ

ftfjfbfg

Graphics

é¾

```
procedure GetDIBSizes(Bitmap: HBITMAP; var InfoHeaderSize: Integer; var
    ImageSize: Longint);
```

à-¾

GetDIBSizes

```
ŠÖ", Ífrfbfgf}fbfv, ìî•ñfwfbf_[][, ÆfCf[][]fW, ìTfCfY, ðfofCfg, Å•Ô, µ, Ü, ·[]Bfrfbfgf}fbfv, Í Bitmap
fpf%of[][]f^, ÅŽw'è, µ, Ü, ·[]BInfoHeaderSize fpf
%of[][]f^, É, íîî•ñfwfbf_[][, ìfofCfg", º•Ô, º, è, Ü, ·[]BImageSize fpf
%of[][]f^, É, ìfCf[][]fW, ìfofCfg", º•Ô, º, è, Ü, ·[]B
```

îî•ñfwfbf_[][, Æfrfbfgf}fbfv, ìTfCfY, Í[]CGetDIB

```
ŠÖ", ðŽg, Å, Åfrfbfgf}fbfv, ðfffofCfX, É^É'¶, µ, È, çÆ`Ž®, ÅŽæ, è[]o, ·'O, É[]CMemAlloc
ŠÖ", Åf[]f, fŠ, ðŠ,, è"-, Å, é, ½, ß, ÉŽæ, è[]o, µ, Ü, ·[]B
```


ŽQÆ15541

GetDIB ŠÖ

MemAlloc ŠÖ

GetEmpty f\fbfh15542

“K—p

TGraphic

□é☒¾

function GetEmpty: Boolean; **virtual**; **abstract**;

□à-¾

GetEmpty f\fbfh,ÍfOf%oftfBfbfN,ÉfCf□□[fW,ª“ü,Á,Ä,ç,È,¯,ê,Î True□CfOf
%oftfBfbfN,ÉfCf□□[fW,ª“ü,Á,Ä,ç,ê,Î False ,ð•Ô,μ,Û,·□BGetEmpty f\fbfh,Í Empty
fvf□fpfefB,ðŽw’è,·,é,½,ß,É☒Ä,Ñ□o,³,ê,Û,·□B

GetHeight f\fbfh15543

ŽQÆ

“K—p

TGraphic

é¾

function GetHeight: Integer; **virtual**; **abstract**;

à-¾

GetHeight f\fbfh, íOf%oftfbfN, ì, ,³, ðfsfNfZf<, Å•Ô, μ, Ü, ·BGetHeight f\fbfh, í Height
fvf\pfefB, ðŽw'è, ·, é, ½, ß, ÉÆÄ, Ño,³, ê, Ü, ·B

ŽQÆ15544

GetWidth ffbfh

SetHeight ffbfh

SetWidth ffbfh

GetWidth f fbfh15545

ŽQÆ

“K—p

TGraphic

é¾

function GetWidth: Integer; **virtual**; **abstract**;

à-¾

GetWidth f fbfh, íOf%oftfBbfN, ì•, ðsfNfZf<, Å•Ô, µ, Ü, ·BGetWidth f fbfh, í Width
fvfpfefB, ðŽw'è, ·, é, ½, ß, ÉÆÄ, Ño, ³, ê, Ü, ·B

ŽQÆ15546

GetHeight ffbfh

SetHeight ffbfh

SetWidth ffbfh

IdentToColor ŠÖ"15547

ŽQÆ

ftjfbfg

Graphics

é¾

```
function IdentToColor(const Ident: string; var Color: Longint): Boolean;
```

à-¾

```
IdentToColor ŠÖ",íF,ìŽ•ÊŽq,ì•ŕŽš—ñ,đC“o~^,¾,ê,Ä,ç,ê,î"l,Å•\  
,¾,ê,½F,ìl,É•İŠ•,μ,Ü,·BIdent fpf%of[f^,É“n,¾,ê,½Ž•ÊŽq,ì•ŕŽš—ñ,É“î  
%ož,·,é"l,¾,ê,îCColor fpf%of[f^,í,»,"l,đŽw'è,·,é,æ,π,É•İX,¾,êCIdentToColor ,í True  
,đ•Ô,μ,Ü,·BŽ•ÊŽq,ì•ŕŽš—ñ,É“î%ož,·,é"l,¾,ê,çêê‡,É,í Color ,ìl,í•ïX,¾,ê,·CIdentToColor  
,í False ,đ•Ô,μ,Ü,·B
```

ŽQÆ15548

ColorToIdent ŠÖ

GetColorValues Žè'±,«

InitGraphics Žè'±,«15549

ftfjfbfg

Graphics

□éĒ¾

procedure InitGraphics;

□à-¾

InitGraphics Žè'±,«í Delphi ,ì Graphics ftfjfbfg,đ□%Šú

%»μ,Û,·□B'Ê□í□C,·,×,Ä,lfvf□fWfFfNfg,ÉŠÛ,Û,ê,é Controls ftfjfbfg,©,ç InitGraphics

,ž©“@“l,ÉĒÄ,Ñ□o,³,ê,Û,·□B

'□^Ó: InitGraphics ,lfR□[fh,ÄĒÄ,Ñ□o,³,È,ç,Ä,,¾,¾,ç□BĒÄ,Ñ□o,·,ÆfGf%□[,³"□¶,μ,Û,·□B

LoadFromClipboardFormat f\fbfh1550

ŽQÆ

“K—p

TGraphic

é¾

procedure LoadFromClipboardFormat (AFormat: Word; AData: THandle; APalette: HPALETTE); **virtual; abstract;**

à-¾

LoadFromClipboardFormat f\fbfh,ÍfNfŠfbfvf{[fh,©,çfOf
%ftfBfbfN,ðf[fh,μ,Ü,·BLoadFromClipboardFormat ,ÍjfEf“fgfCf[fW,ð AData fpf
%f[f^,Žw,·ff[f^,Á'u,«Š,·,Ü,·BfOf%ftfBfbfN,ÍpfEfbg,Í APalette fpf
%f[f^,Žw'è,μ,Ü,·BLoadFromClipboardFormat ,ÍCTGraphic ,
RegisterClipboardFormat f\fbfh,ðŽg,Á,Ä TPicture flfufWfFfNfg,É“o~^,³,è,Ä,ç
,éê‡,ÉÄ,Ño,³,è,Ü,·B

ŽQÆ1551

SaveToClipboardFormat ffbfh

SupportsClipboardFormat ffbfh

MemAlloc ŠÖ"1552

ŽQÆ

ftfjfbfg

Graphics

é¾

function MemAlloc(Size: Longint): Pointer;

à¾

MemAlloc ŠÖ",Í Size fpf%of[]f^,É"n,³,ê,½fofCfg",ðfq[]fv,ÅŠ,,,è"-,Ä,Ü,·B

ŽQÆ1553

GetDIB ŠÖ

GetDIBSizes Žè'±,«

ReadData f\fbfh1554

ŽQÆ

“K—p

TGraphic

é¾

procedure ReadData (Stream: TStream); **virtual**;

à-¾

ReadData f\fbfh, í WriteData f\fbfh, Žg, Á, Ä, «ž, Ü, ê, ½XfgfŠ[f€, ©, cfOf
%ftfBfbfNfCf[fW, Ž“Ç, Ýo, μ, Ü, ·BReadData , íV, μ, ç WriteData f\fbfh, Ž'è` , μ, ½, Æ, «, ¾, V, ½, É'è` , ·, é•K—v, ¢, , è, Ü, ·B, » , ê^ÈŠO, ìê, íCReadData , íP, É
LoadFromStream (WriteData , í SaveToStream) , ŽEÄ, Ño, μ, Ü, ·B

ReadData f\fbfh, ŽV, μ, 'è` , ·, é•K—v, ¢, , é, ì, íCfOf%ftfBfbfN, Ž .DFM
ftf@fCf<, ÉŠi”[, ·, é•ûŽ® , Ž•ïX, μ, ½ê, ¾, , Á, ·B, Á, Ü, èCfXfgfŠ[f€
, É'P, É, «ž, ñ, ¾, è“Ç, Ýo, μ, ½, è, ·, é, ì, Á, í, É, Cff[f^, Ž .DFM ftf@fCf<, ÉŠi”[, ·, é'Ö, ÉfOf
%ftfBfbfNff[f^ , Ž•ïX, μ, ½, è³k, μ, ½, è, ·, é, Æ, «, Á, ·B

ŽQÆ1555

WriteData ffbfh

RegisterClipboardFormat f\fbfh1556

ŽQÆ

“K—p

TPicture

é¾

```
class procedure RegisterClipboardFormat(AFormat: Word; AGraphicClass:
  TGraphicClass);
```

à-¾

RegisterClipboardFormat f\fbfh, í TGraphic , ì LoadFromClipboardFormat f\fbfh, Æ
SaveToClipboardFormat f\fbfh, ÅŽg, ¼ TGraphic fNf%ofX, ðV, µ, “o~^, µ, Ü, ·BAFormat fpf
%f[]f^, í Windows API ŠÖ“CEÄ, Ño, µ, ì RegisterClipboardFormat , Å Windows
, É“o~^, ³, è, ½fNfŠfbvf{[]fhCE`Ž®, ðŽw'è, µ, Ü, ·BAGraphicClass fpf%of[]f^, í“o~^, ·, éfOf
%ftfBfbfNfNf%ofX, ðŽw'è, µ, Ü, ·B

fNfŠfbvf{[]fh, ©, çfOf%ftfBfbfNff[]f^, ðf[]fh, µ, ½, è, •Ú'¶, ·, é, É, íCTBitmap, TIcon, TMetafile
^ÈŠO, ìfOf%ftfBfbfNfNf%ofX, íV, µ, “o~^, µ, È, , Ä, í, È, è, Ü, ¹, ñB

ŽQÆ1557

SupportsClipboardFormat ffbfh

RegisterFileFormat f\fbfh1558

ŽQÆ

“K—p

TPicture

é¾

```
class procedure RegisterFileFormat(const AExtension, ADescription: string;  
    AGraphicClass: TGraphicClass);
```

à¾

```
RegisterFileFormat f\fbfh, íCTPicture ,É,Â,ç  
,ÄmOpennf_fCfAfOf{fbfNfX,Ü,½,ÍmSavenf_fCfAfOf{fbfNfX,ÅŽg,!,éOf  
%ftfBfbfNftf@fCf<Æ`Ž®,ð“o~^,μ,Ü,·BAExtension fpf%of[]f^,ÍfOf%ftfBfbfNfNf  
%ofX,ÆŠÖ~A•t,~,é DOS ,ì 3 •¶Žš,Íftf@fCf<Šg'£Žq,ðŽw'è,μ,Ü,· (,½,Æ,!,,ÍCBMP ,Í TBitmap  
,ÆŠÖ~A•t,~,ç,è,Ü,·)BADescription fpf%of[]f^,Íf_fCfAfOf{fbfNfX,Ífhf\fbfvf_fEf“fŠXfg,É•\  
Ž!,³,è,éOf%ftfBfbfN,íà¾,ðŽw'è,μ,Ü,· (,½,Æ,!,,ÍCTBitmap ,íà¾,Í Bitmaps  
,Ä,·)BAGraphicClass fpf%of[]f^,Íftf@fCf<Æ`Ž®,ÆŠÖ~A•t,~,éV,μ,çfOf%ftfBfbfNfNf  
%ofX,ð“o~^,μ,Ü,·B
```

ŽQÆ15559

RegisterClipboardFormat_fbfh

SaveToClipboardFormat f\fbfh15560

ŽQÆ

“K—p

TGraphic

é¾

```
procedure SaveToClipboardFormat(var AFormat: Word; var AData: THandle;  
    var APalette: HPALETTE); virtual; abstract;
```

à-¾

SaveToClipboardFormat f\fbfh,íOf%oftfBfbfN,đfNfŠfbfvf{[fhĚ`Ž®,Å•Ů‘¶,μ,Ů,·BfOf
%oftfBfbfN,ìpfĚfbfg,í APalette fpf%of[f^,ÅŽw’è,μ,Ů,·BTGraphic
,đfNfŠfbfvf{[fhĚ`Ž®,Å•Ů‘¶,·,é,É,íCRegisterClipboardFormat f\fbfh,đŽg,Á,Ä TPicture
fJufWfFfNfg,É,»,)Ě`Ž®,đ“o~^,·,é•K—v,^a, ,è,Ů,·B

ŽQÆ15561

LoadFromClipboardFormat ffbfh

SupportsClipboardFormat ffbfh

SetFontHeight 15562

ŽQÆ

“K—p

TGraphic

É¾

procedure SetHeight (Value: Integer); **virtual; abstract;**

à-¾

SetFontHeight (Value: Integer); **virtual; abstract;**

SetFontHeight (Value: Integer); **virtual; abstract;**

SetFontHeight (Value: Integer); **virtual; abstract;**

SetFontHeight (Value: Integer); **virtual; abstract;**

ŽQÆ15563

GetHeight ffbfh

GetWidth ffbfh

SetWidth ffbfh

SetWidth f\fbfh15564

ŽQÆ

“K—p

TGraphic

é¾

procedure SetWidth(Value: Integer); **virtual**; **abstract**;

à-¾

SetWidth f\fbfh,ÍOf%ftfBfbfN,ì•,đ•ïX,μ,Û,·B•ïXCEä,ì•,Í Value fpf

%f[f^,ÉfsfNfZf<,ÅŽw'è,μ,Û,·BSetWidth f\fbfh,Í Width

fvf\fpfefB,ì'l,ª•ïX,μ,½,Æ,«,ÉCEÄ,Ño,³,è,Û,·B

ffftfHf<fg,Å,ÍC•ïXCEä,ì•,ª•ïX'O,æ,è<·,çêë,É,ÍOf%ftfBfbfNfCf[fW,Í,»),ìª¾,∅,è—

Ž,Æ,³,è,Û,·B•ïXCEä,ì•,ª•ïX'O,æ,èL,çêë,à^ø,«L,Í,μ,Í, ,è,Û,¹,ñB,»,ì,©,í,èCfOf

%ftfBfbfN,É“\$%ßF,ªŽg,í,è,Ä,ç,éêë,ðœ,ç,ÄCPL,μ,½,Æ,«,ÉV,μ,ïï-,³,è,½—ì^æ,ªfOf

%ftfBfbfN,ì Brush ,ìF,ðŽg,Ä,Ä“h,è,Ä,Ô,³,è,Û,·B“\$%ßF,ªŽg,í,è,Ä,ç,éêë,ÍCV,μ,ç—

ì^æ,Í,»,ìF,Ä“h,è,Ä,Ô,³,è,Û,·B

ŽQÆ15565

GetHeight ffbfh

GetWidth ffbfh

SetHeight ffbfh

StringToColor ŠÖ"15566

ŽQÆ

ftfjfbfg

Graphics

é¾

function StringToColor(S: **string**): TColor;

à-¾

StringToColor ŠÖ", Í S fpf%ff[f^,É“n,³,ê,½Ž`•ÊŽq,ì•ŕŽš—ň,É‘î
%ož,·,éF,đ•Ô,μ,Û,·B,½,Æ,ì,îCclBlue ,đŽæ,èo,·,É,Í S fpf%ff[f^,É clBlue ,đŽw’è,μ,Û,·B

ŽQÆ15567

ColorToIdent ŠÖ

ColorToString ŠÖ

GetColorValues Žè'±,«

SupportsClipboardFormat f\fbfh15568

ŽQÆ

“K—p

TPicture

é¾

class function SupportsClipboardFormat(AFormat: Word): Boolean;

à¾

SupportsClipboardFormat f\fbfh, í AFormat fpf%of[f^, ÅŽw'è,³,ê,½fNfŠfbfvf{[fhÆ`Ž®,ª

LoadFromClipboardFormat f\fbfh, ÅTf|[fg,³,ê,Ä,ç,éê‡,É True

,ð•Ô,µ,Ü,·BfNfŠfbfvf{[fhÆ`Ž®,ªTf|[fg,³,ê,é,É,íC,»ª RegisterClipboardFormat f\fbfh, Å“o~^,³,ê,Ä,ç,È,,Ä,Í,È,è,Ü,¹,ñB

ŽQÆ15569

SaveToClipboardFormat_fbfh

TBitmap flfufWfFfNfg (fvf fefNfg)15570

ŽQÆ ffbfh flfufWfFfNfg

ftfjbfq

Graphics

à-¾

TBitmap flfufWfFfNfg, í CWindows ,lfrfbfgf}fbfv, ð^—
 , , , é, ½, ß, ÉffXf^f}fCfY, ¾, è, ½ CTGraphic , ©, ç" h 1, µ, ½ fOf
 %oftfBfbfNflfufWfFfNfg, Å, · BTBitmap flfufWfFfNfg, ì VCL fŠtf@fCf" fX, É à-
 ¾, ¾, è, ½ p fufŠfbfN €-Ú, Æ p fufVfbfVf... €-Ú, ì, Ù, ©, É CTBitmap , í 3
 , Å, Ì Cp ¾, ¾, è, ½ fvf fefNfg ffbfh, ð f [fo [f%ofCfh, µ, Ù, · B

TBitmap ,lfrfbfgf}fbfvfCf [fW, ì · ` %æ, É, í Draw f f\
 fbfh, ð Cfrfbfgf}fbfvff [f^ , ì "Ç, Ý o, µ, Æ ' , « ž, Ý, É, í ReadData , Æ WriteData
 , ð, » , è, ¼, é f [fo [f%ofCfh, µ, Ù, · B

f\fbfh15571

Draw

ReadData

WriteData

ŽQÆ15572

TGraphic flfufWfFfNfg

TBitmap flfufWfFfNfg VCL fŠtf@fĈf“fX

TCanvas flfufWfFfNfg (fvf fefNfg)15573

ŽQÆ ffbfh flfufWfFfNfg

ftfjbfq

Graphics

à-¾

TCanvas flfufWfFfNfg, í Delphi fRf“f] f“fg•\ -Ê, É, Í, , é, ` %œ, ð ^ —
 , μ, Ü, · B ä Ê flfufWfFfNfg, ì TPersistent , ©, ç, ·, x, ÄEp³, ·, é, à, ì, ù, ©, É CTCanvas , Å, Í “ ½, -
 , ì fvf f p f e f B C f f b f h C f C x f “ f g, ð “ Ñ < Ÿ, μ, Ü, · B, » , ì, ù, Æ, ñ, Ç, ì f p f u f Š f b f N, Ü, ½, ì f p f u f Š f b f V f ...
 , É Ÿ ‘ è, ³, ê, Ä, “, è CTCanvas flfufWfFfNfg, ì VCL fŠftf@fEf“fX, É à-¾, ³, ê, Ä, ç, Ü, · B

TCanvas , É, ì f v f f e f N f g f f b f h, à 3 , Â, , è, Ü, · B Changed f f b f h, Æ Changing f f b f h, Ì
 OnChange f C x f “ f g, Æ OnChanging f C x f “ f g, ð, » , è, ¼, ê “ ¶, ³, ¹ CreateHandle f f \
 f b f h, ì f l f f f “ f o f X, ì f f f o f C f X f R f “ f e f l f X f g f n f “ f h f < , ð ì ñ , μ, Ü, · B

f\fbfh15574

Changed

Changing

CreateHandle

ŽQÆ15575

TPersistent flfufWfEfNfg

TCanvas flfufWfEfNfg VCL fŠtf@fÆf“fX

TGraphic flfufWfFfNfg (fvf fefNfg)15576

ŽQÆ fvf fpfefB f fbfh fCxf fg flfufWfFfNfg

ftfjfbfg

Graphics

à-¾

TGraphic flfufWfFfNfg, í CTBitmap, TIcon, TMetafile , È, Ç, ì Delphi , ì, ·, x, Ä, ìfOf %ftfBfbfNfCf fW, ì Š Ű Š î - { flfufWfFfNfg, Å, · BfOf %ftfBfbfNfCf fW, ì Ž í — p, ð TGraphic , ©, ç " h ¶ , ³, ¹ C V, µ, ' è ` , ·, é, ±, Æ, à, Å, «, Ü, · B

ã Ê flfufWfFfNfg, ì TPersistent , ©, ç, ·, x, Å Cp³, ·, é, à, ì, ì, Ü, ©, É CTGraphic , Å, Í, ·, x, Ä, ìfOf %ftfBfbfNfCf fW flfufWfFfNfg, É < α ' Ê, ì fvf fpfefB C f fbfh C f Cxf fg, ð ' ñ < Ÿ, µ, Ü, · B, » , ì, Ü, Æ, ñ, Ç, ì f p f u f Š f b f N, Ü, ½, ì f p f u f Š f b f V f ... , É Ÿ ' è, ³, è, Å, " , è CTGraphic flfufWfFfNfg, ì VCL fŠtf@fCf fX, É à-¾, ³, è, Å, ç, Ü, · B

TGraphic , ì fvf fefNfg f fbfh, í, ·, x, Ä, ìfOf %ftfBfbfNfCf flfufWfFfNfg, É < α ' Ê, ì f C f " f ^ [f t f F [f X [' ç , ð ' ñ < Ÿ, µ, Ü, · B, ç, , Å, ©, ì Cp³ f fbfh, ð f [f o [f % f C f h, ·, é, Ü, ©, É CTGraphic , ì OnChange fCxf fg, ð " ¶ , ³, ¹, é Changed f fbfh C f C f W, ð · ` % œ , ·, é Draw f fbfh C f o f C f i f Š f C f W, ð, » , è, ¼, ê f [f h C Š i " [, ·, é ReadData f fbfh, Æ WriteData f fbfh C, » , ì ¼ f X f g f Š [f € C f t f @ f C f · C f N f Š f b f v f { [f h, ð Š Ü, p Š e Ž i " } ' ì, ð f [f h C · Ü ' ¶ , ·, é f fbfh, ð ' ñ < Ÿ, µ, Ü, · B

fvf[]pfefB15577

Empty

Modified

Width

Height

f\bfbfh15578

Assign

LoadFromClipboardFormat

SaveToClipboardFormat

Changed

LoadFromFile

SaveToFile

Create

LoadFromStream

SaveToStream

DefineProperties

ReadData

WriteData

Draw

fCxf“fg15579

OnChange

ŽQÆ15580

TPersistent flfufWfEfNfg

TGraphic flfufWfEfNfg VCL fŠtf@fEf“fX

TGraphicClass **CE^15581**

ŽQÆ

ftjfbfg

Graphics

□éCE¾

type

```
TGraphicClass = class of TGraphic;
```

□à-¾

TGraphicClass CE^,Í TGraphic flfufWfFfNfg,Æ,»,ì%°^ÊflfufWfFfNfg,lfRf“fefjfNf
%ofX,Å,□BTGraphicClass ,Í GraphicExtension ŠÖ□”,Æ GraphicFilter ŠÖ□”,ìpf
%of□□lf^,ìCE^,Å,□B

ŽQÆ15582

TGraphic flfufWfFfNfg (fvf fefNfg)

Tlcon flfufWfFfNfg (fvf fefNfg)15583

ŽQÆ ffbfh flfufWfFfNfg

ftfjbfq

Graphics

à-¾

Tlcon flfufWfFfNfg, í CWindows , í AfCfRf“ , ð^ — , · , é, ½, ß, ÉjXf^f}fCfY, ¾, é, ½ CTGraphic
, ©, ç”h ¶, µ, ½ fOf%oftfBfbfNflfufWfFfNfg, Å, · BTlcon flfufWfFfNfg, ì VCL fŠtf@fCf“fX, É à-
¾, ¾, é, ½ pfufŠfbfN€-Ú, ÆpfufŠfbfVf...€-Ú, ì, ù, ©, É CTlcon , í 2 , Å, ì Ep³fvf fefNfgf ¶
fbfh, ðf ¶fo ¶f%ofCfh, µ, ù, · B

Tlcon , í AfCfRf“fCf ¶fw, ì · %æ, É, í Draw ffbfh, ð CfAfCfRf“ , ì NfŠfbfVf{ ¶fh, Ö, ì Rfs ¶, É, í
SaveToClipboardFormat ffbfh, ðf ¶fo ¶f%ofCfh, µ, ù, · B

fifbfh15584

Draw

SaveToClipboardFormat

ŽQÆ15585

TGraphic flfufWfFfNfg (fvf fefNfg)

Tlcon flfufWfFfNfg VCL fŠtf@fÆf“fX

TMetafile flfufWfFfNfg (fvf fefNfg)15586

ŽQÆ ffbfh flfufWfFfNfg

ftfjbfq

Graphics

à-¾

TMetafile flfufWfFfNfg, íCWindows ,íf^ftf@fCf<,đ^—
 , , ,é,½,ß,ÉffXf^f}fCfY,³,è,½CTGraphic ,©,ç”h¶,μ,½fOf
 %oftfBfbfNflfufWfFfNfg,Å,·BTMetafile flfufWfFfNfg,ì VCL fŠtf@fCf“fX,Éà-
 ¾,³,è,½pfufŠfbfN€-Ú,ÆpfufVfbfVf...€-Ú,ì,Ù,©,ÉCTMetafile ,í 3 ,Â,ìEp³vf fefNfgf\
 fbfh,đf[fof[f%ofCfh,μ,Û,·B

TMetafile ,íf^ftf@fCf<fCf¶[fW,ì•`%œ,É,í Draw f\fbfh,đCf^ftf@fCf<ff[f^,ì“Ç,Ýo,μ,Æ‘,«ž,Ý,É,í ReadData ,Æ WriteData
 ,đ,»,è,¼,éfI[fof[f%ofCfh,μ,Û,·B

f\fbfh15587

Draw

ReadData

WriteData

ŽQÆ15588

TGraphic flfufWfFfNfg (fvf fefNfg)

TMetafile flfufWfFfNfg VCL fŠtf@fEf“fX

TPicture flfufWfFfNfg (fvf fefNfg)15589

ŽQÆ ffbfh flfufWfFfNfg

ftfjfbfg

Graphics

à-¾

TPicture flfufWfFfNfg, íC“o~^,³,ê,½ftf@fCf<,ìŽí—p,©,çCf fW,ðf ffh,Å,«,éC(TGraphic
,Å'è< ,³,ê,½) fOf%oftfBfbfNflfufWfFfNfg,ìRf“fefe,Å,·B ä^ÊflfufWfFfNfg,ì TPersistent
,©,çCp³,·,é,·,x,Ä,ì,à,ì,ì,Ü,©,ÉCTPicture ,Å,í”“½,,ìfvf fpfefB C f f
fbfh C f C x f “ fg,ð'ñ<Ÿ,μ,Ü,·B,»,ì,Ü,Æ,ñ,Ç,ìpfufŠfbfN,Ü,½,ìpfufŠfbfVf...
,ÉY'è,³,ê,Ä,“,èCTPicture flfufWfFfNfg,ì VCL fŠftf@fCf“fX,Éà-¾,³,ê,Ä,ç,Ü,·B

TPicture ,ìfvf fefNfg ffbfh DefineProperties ,àf fof f%ofCfh,·,é,Ü,©COnChange
fCxf“fg,ð” f ,³,¹,é Changed ,Æ,ç,xfvf fefNfg ffbfh,ð 1 ,Å'ñ<Ÿ,μ,Ü,·B

f\fbfh15590

Changed

DefineProperties

ŽQÆ15591

TPersistent flfufWfEfNfg

TGraphic flfufWfEfNfg

TPicture flfufWfEfNfg VCL fŠtf@fEf“fX

WriteData f\fbfh15592

ŽQÆ

“K—p

TGraphic

é¾

procedure WriteData(Stream: TStream); **virtual**;

à-¾

WriteData f\fbfh,ÍOf%ftfBfbfNfCf[]fW,ð Stream fpf%ff[]f^,ÅŽw'è,³,ê,½fXfgfŠ[]f€
,É',«o,μ,Û,·BfftfHf<fg,Å,ÍCWriteData ,ÍP[]f,É SaveToStream ,ðÆÄ,Ño,μ,Û,·BfOf
%ftfBfbfNfCf[]fW,ð .DFM ftf@fCf<,ÉŠi"[,·,é•úŽ®,ð•íX,·,éê[]f,É,ÍC[]V,μ,ç WriteData f\fbfh,ð'è<`
fbfh,ð'è<` ,μ,È,·,ê,Î,È,è,Û,¹,ñB[]V,μ,ç WriteData f\fbfh,ð'è<` ,μ,½ê[]fC,»,ÍOf
%ftfBfbfN,É'í%ž,·,é ReadData f\fbfh,à[]V,μ,'è<` ,μ,È,·,ê,Î,È,è,Û,¹,ñB
,½,Æ,Í,ÍCfOf%ftfBfbfNfCf[]fWff[]f^,ð .DFM ftf@fCf<,ÉŠi"[,·,é[]Û,É•K—
v,ÈfofCf[]f",ð^³[]k,μ,½,çê[]fCWriteData f\fbfh,É^³[]kAf<fSfŠfYf€,ð'Ç%Á,μ,Ä,©,ç
SaveToStream ,ðÆÄ,Ño,μC^³[]k,³,ê,½[]f'ç,ðfXfgfŠ[]f€,É•Û'¶,μ,Û,·BfOf
%ftfBfbfN,ðŽæ,è[]o,·,Æ,«,É,ÍCReadData f\fbfh,ÅfOf%ftfBfbfNfCf[]fWff[]f^,ð[]L',·,é•K
—v,^a, ,è,Û,·[]B

ŽQÆ15593

ReadData_f\fbfh

Activate f\bfbh15594

ŽQÆ

“K—p

IForm

é¾

procedure Activate; **dynamic**;

à-¾

Activate f\bfbh,íftH[f€Rf“f|[f“fg,ì OnActivate fCxf“fg—p,ífvf[fefNfgf\fbfh,Å,·BftH[f€Rf“f|[f“fg,íCCM_ACTIVATE f\bfbZ[fW,ðŽó,~Žæ,é,Æ Activate

,ðCEÄ,Ño,μ,Ü,·BCM_ACTIVATE

f\bfbZ[fW,íCfAfvfŠfP[fVf+““à,ÅfAfNfefBfufEfBf“fhfE,ª•ïX,³,è,½,½,βC,Ü,½,íAfvfŠfP[fVf+““ªfAfNfefBfu,É,È,Á,½,½,β,ÉftH[f€,ÉftH[fjX,ª^Ú,Á,½,Æ,«,É’—,ç,è,Ü,·B

ffftHf<fg,ìÝ’è,Å,íCActivate f\bfbh,íft[fU[,ª OnActivate

fCxf“fg,ÉfA^fbf` ,μ,½fCxf“fgfnf“fhf%o,ðCEÄ,Ño,μ,Ü,·B

ŽQÆ15595

Deactivate ffbfh

OnActivate fCxf“fg

AllocateHWND ŠÖ"15596

ŽQÆ

ftfjfbfg

Forms

é¾

function AllocateHWND (Method: TWndMethod): HWND;

à-¾

AllocateHWND ŠÖ", íCMethod fpf%of[]f^, É"n,³,ê,½fEfBf"fhfEfvf[]fV[]fWfff[]f\fbfh,Å"ñ•\ Ž!fEfBf"fhfE,š Windows ,É[]i[]¬,μ[]C,» ,lfEfBf"fhfE,lfEfBf"fhfEfnf"fhf<,š•Ô,μ,Ü,·[]B

AllocateHWND ,í[]Cf[]fbfZ[]fW,ìŽó, ~Žæ,è,ÉfEfBf"fhfEfnf"fhf<,š•K—v,Æ,·,é,ª[]C%œ-Ê•\Ž!,ì•K —v,í,È,çfRf"f[]f"fg,ÉŽg,ç,Ü,·[]B,½,Æ,!,î[]CTimer fRf"f[]f"fg,í WM_TIMER f[]fbfZ[]fW,šŽó, ~Žæ,è,Ü,·,ª[]C%œ-Ê,É,í\Ž!,³,ê,Ü,¹,ñ[]B

AllocateHWND ,ÅŠ,,è"-,Ä,ç,ê,½fEfBf"fhfE,í DeallocateHWND Žè'±,«,Å%š•ú,μ,Ü,·[]B

ŽQÆ15597

DeallocateHWND Žè'±,«

AutoScrollInView f\fbfh15598

ŽQÆ

“K—p

TScrollingWinControl

é¾

procedure AutoScrollInView(AControl: TControl);

à-¾

AutoScrollInView f\fbfh,íCŽ©“@fXfNf[f<,É,æ,Á,ÄfRf“fgf[f< (AControl ,ÅŽw'è)
,Æ,»,ìfRf“fgf[f<,đŠÜ,bfXfNf[f<fRf“fgf[f<,đ,·,×,ÄfXfNf[f<,μCfRf“fgf[f<,ÉftfH[f]fX,^a,
,é,Æ,«,É,Í,»,ê,^a•K,·\Ž,³,ê,é,æ,α,É,μ,Ü,·BAutoScrollInView ,Å,Í•K—v,ÈfXfNf[f<,ì,½,ß,É
ScrollInView f\fbfh,ðCEÄ,Ño,μ,Ü,·B

ŽQÆ15599

ScrollView_fbfh

Deactivate f\fbfh15600

ŽQÆ

“K—p

IForm

é¾

procedure Deactivate; **dynamic**;

à-¾

Deactivate f\fbfh,íftH[f€Rf“f|[flf“fg,ì OnDeactivate fCxf“fg—p,ìvf□fefNfgf□\
fbfh,Å,·□BftfH□[f€Rf“f|[flf“fg,í□CCM_DEACTIVATE f□bfZ□[fW,ðŽó,˘Žæ,é,Æ Deactivate
,ðCEÄ,Ñ□o,μ,Ü,·□BCM_DEACTIVATE
f□bfZ□[fW,í□CfAfvfŠfP□[fvf+““à,ÅfAfNfefBfufEfBf“fhfE,ª•ï□X,³,è,½,½,ß□C,Ü,½,ífAfvfŠfP□[fv
f+“,ªfAfNfefBfu,É,È,Á,½,½,ß,ÉftfH□[f€,ÉftfH□[fjX,ª^Ú,Á,½,Æ,«,É’—,ç,è,Ü,·□B
ffftfHf<fg,Å,í□CDeactivate f\fbfh,íft□[fU□[,ª OnDeactivate
fCxf“fg,ÉfA^fbf` ,μ,½fCxf“fgfnf“fhf%o,ðCEÄ,Ñ□o,μ,Ü,·□B

ŽQÆ15601

Activate ffbfh

OnDeactivate fCxf“fg

DeallocateHWND Žè'±,«15602

ŽQÆ

ftfjfbfg

Forms

é¾

procedure DeallocateHWND (Wnd: HWND);

à-¾

DeallocateHWND Žè'±,«í AllocateHWND ŠÖ",É,æ,Á,Äî-³,ê,½"ň\

Ž|fEfBf"fhfE,ð"jŠü,µ,Ü,·BWnd fpf%of[]f^,í AllocateHWND

,É,æ,Á,Ä•Ô,³,ê,½fEfBf"fhfEfñf"fhf<,Å,·B

ŽQÆ15603

AllocateHWnd ŠÖ

DialogHandle fvf[]pfefB15604

ŽQ[]Æ —á

“K—p

TApplication

□é☒¾

property DialogHandle: HWnd;

□à-¾

DialogHandle fvf[]pfefB, đŽg, x, Æ[]C Delphi fAfvfŠfP[]fVf#f““à, Å”ñ Delphi

f_fCfAf[]fOf{fbfNfX, đŽg, x, ±, Æ, ¢, Å, «, Ü, ·[]B CreateDialog API

ŠÖ[]”, đŽg, Á, Ä[][]¬, μ, ½f_fCfAf[]fOf{fbfNfX, đf, []fh, È, μf_fCfAf[]fOf{fbfNfX, Æ, μ, Ä“®[]ì, ¢, ¢, é, É, í[]

CfAfvfŠfP[]fVf#f“, ì[]fbfZ[]fWf<[]fv, ©, ç, ì[]fbfZ[]fW, đ[]^—[], ·, é•K—v, ¢, , è, Ü, ·[]B

f, []fh, È, μf_fCfAf[]fOf{fbfNfX, ¢fAfNfefBfu, É, È, Á, ½, ç (WM_NCACTIVATE , đŽó, ~Žæ, Á, ½[]ê[]#)

, », ìfnf“fhf<, đ DialogHandle , ÉŠ,,, è“—, Ä[]C”ñfAfNfefBfu, É, È, Á, ½, ç DialogHandle , đ 0

, É[]Ý’è, μ, Ü, ·[]B

—á15605

Delphi ,Á Windows ,l msearch-and-

replace nfRf,f" f_CfAf fOf {fbfNfX,dfjfvfZf<%o>, ,éEfbf"fhfEŽè'±,«,l^ê•",đŽŸ,ÉŽ!,μ,Ü,· B

```
function SearchAndReplaceWndProc(Wnd: HWND; Msg, WParam: Word; LParam:
Longint): Longint;
begin
  try
    case Msg of
      WM_DESTROY: Application.DialogHandle := 0; {
        "jšü,ìû,Éfnf"fhf<,đfNfŠfA,μ,Ü,· }
      WM_NCACTIVATE:
        if Bool(WParam) then { <N"®,;,éêê#... }
          Application.DialogHandle := Wnd { ..fnf"fhf<,đš,,è"-,Ä,Ü,· }
        else Application.DialogHandle := 0; { ,»,é^ÉŠO,ìêê#,íNfŠfA,μ,Ü,· }
      ...
    end;
    Result := CallDefDialogProc;
  except
    Application.HandleException(nil);
  end;
end;
```

ŽQÆ15606

HookMainWindow ffbfh

UnhookMainWindow ffbfh

DisableTaskWindows ŠÖ"15607

ŽQÆ

ftfjfbfg

Forms

é¾

function DisableTaskWindows (ActiveWindow: HWnd): Pointer;

à-¾

DisableTaskWindows ŠÖ",íCActiveWindow fpf%of[]f^,É“n,³,ê,½fEfBf“fhfE,ðœ,ç
 ,ÄCfAfvfŠfP[]fVf#f““à,ì,·,×,Ä,lfEfBf“fhfE,ðŽg—p•s%oÄ,É,μ,Ü,·BDisableTaskWindows ,í
 Delphi fAfvfŠfP[]fVf#f“,Å”ñ Delphi
 f_fCfAf[]fOf{fbfNfX,ðf,[]fh•t,«f_fCfAf[]fOf{fbfNfX,Æ,μ,ÄŽg,ç,½,ç
 ,Æ,«,ÉCEÄ,Ñ[]o,μ,Ü,·BDelphi ,lf_fCfAf[]fOf{fbfNfX,ðŽg,æ,Æ,«,í ShowModal f[]\f
 fbh,²f,[]fh,ð^—[],·,é,ì,ÄCDisableTaskWindows ,ðŽg,æ•K—v,í, ,è,Ü,¹,ñB
 ,±,ìŠÖ“,ì-ß,è'l,íŽg—p•s%oÄfEfBf“fhfE,lfŠfXfg,ðŽw,·f|fCf“f^,Ä,·B,±
 ,ê,íf,[]fh•t,«f_fCfAf[]fOf{fbfNfX,ª•Ä,¶,½CEä,ÉCŽg—p•s%oÄ,É,È,Ä,Ä,ç,éfEfBf“fhfE,ðŽg—p
 %oÄ“,É,·,é,½,ß,É EnableTaskWindows Žè'±,«,É“n,μ,Ü,·Bf^fXfNfEfBf“fhfE,ðŽg—p•s
 %oÄ,É,·,é%ß'ö,Å—áŠO,²¶[]—,³,ê,é,ÆCDisableTaskWindows ,í,»,ìŽž“_,ÄŽg—p•s
 %oÄ,É,È,Ä,Ä,ç,éfEfBf“fhfE,ðŽ©“®“l,ÉŽg—p%oÄ“,É,μ,Ü,·B

ŽQÆ15608

EnableTaskWindows Žè'±,«

DoHide f\fbfh15609

ŽQÆ

“K—p

TForm

é¾

procedure DoHide; **dynamic**;

à-¾

DoHide f\fbfh,íftH[f€Rf“f|f|f“fg,ì OnHide fCxf“fg—p,ívfñfgf\fbfh,Å,·BftH[f€Rf“f|f|f“fg,íCCM_SHOWINGCHANGED ffbfZ[W,đŽó,~Žæ,é,Æ DoHide ,ðĀ,Ńo,μ,Ü,·BCM_SHOWINGCHANGED ffbfZ[W,íCfAvfŠP[fvff“ ,ÅftH[f€,ª\ Ž!,³,è,é,©”ñ•Ž!,É,³,è,½,Æ,«,É’—,ç,ê,Ü,·B

ffftHf<fg,Å,íCDoHide f\fbfh,íft[U[ª OnHide fCxf“fg,ÉfA^fbf` ,μ,½fCxf“fgfnf“fhf%o ,ðĀ,Ńo,μ,Ü,·B

ŽQÆ15610

OnHide fCxf“fg

DoShow f\fbfh

DoShow f\fbfh15611

ŽQÆ

“K—p

TForm

é¾

procedure DoShow; dynamic;

à-¾

DoShow f\fbfh,íftH[fRf“f|[f“fg,ì OnShow fCxf“fg—p,ífvf[efNfgf\fbfh,Å·BftH[fRf“f|[f“fg,íCCM_SHOWINGCHANGED ffbfZ[fW,ðŽó,~Žæ,é,Æ DoShow ,ðÄ,Ño,μ,Ü·BCM_SHOWINGCHANGED ffbfZ[fW,íCfAfvfŠfP[fVf“ ,ÅftH[fRf ,ñ·Ž,³,é,é,©“ñ·Ž,É,³,é,½,Æ,«,É’—,ç,é,Ü,·B

ffftHf<fg,Å,íCDoShow f\fbfh,íft[fU[,ª OnShow fCxf“fg,ÉfA^fbf` ,μ,½fCxf“fgfnf“fh%o ,ðÄ,Ño,μ,Ü,·B

ŽQÆ15612

OnShow_fCxf“fg

DoHide_f\fbfh

EnableTaskWindows Žè'±,«15613

ŽQÆ

ftfjfbfg

Forms

é¾

procedure EnableTaskWindows (WindowList: Pointer);

à-¾

EnableTaskWindows Žè'±,«Í WindowList fpf%of[]f^,Žw,·fŠfXfg“à,lfEjBf“fhfE,ðŽg—p
%oÂ“\,É,μ,Ü,·BWindowList ,É,Í DisableTaskWindows ŠÖ“,•Ô,μ,½f|fCf“f^,“ü,è,Ü,·B

ŽQÆ15614

DisableTaskWindows ŠÖ

FreeObjectInstance Žè'±,«15615

ŽQÆ

ftfjfbfg

Forms

é¾

procedure FreeObjectInstance(ObjectInstance: Pointer);

à¾

FreeObjectInstance Žè'±,«MakeObjectInstance

ŠÖ",É,æ,Á,Äi¬,³,ê,½fufWfFfNfgfCf"fXf^f"fX,ð"jŠü,µ,Ü,·BObjectInstance fpf%of[f^,í

MakeObjectInstance ,É,æ,Á,Ä•Ô,³,ê,½fEfBf"fhfEfvfV[fWfff|fCf"f^,Å,·B

ŽQÆ15616

MakeObjectInstance ŠÖ”

HintWindowClass • ĩ"15617

ŽQÆ

ftjfbfg

Forms

é¾

const

```
HintWindowClass: THintWindowClass = THintWindow;
```

à-¾

HintWindowClass • ĩ" ,ÍfAfvfŠfP[fVf+f" ,Å,Ífqf"fgfEfBf"fhfE,ì•\Ž!,ÉŽg,xfRf"f|f|f"fg,ìŽí—
p,ðCE^,ß,Û,·BHintWindowClass ,ÍfftfHf·fg'l,Í THintWindow ,Å,·BTHintWindow
,©,çV,μ,çŽí—p,Ífqf"fgfEfBf"fhfEfRf"f|
|[f|f"fg,ð" h□¶,μ,½ê□#□CfAfvfŠfP[fVf+f" ,ì<N" ®Žž,É,»,ì□V,μ,çŽí—p,ð HintWindowClass
,ÉŠ,,è"-,Ä,é,Æ□Cfqf"fgfEfBf"fhfE,ð□i□-,;éCEÄ,Ñ□o,μ,ª, ,é,Í□V,μ,çŽí—
p,ÍfCf"fxf^f"fx,ª□i□-,³,é,Û,·B

ŽQÆ15618

THintWindow fRf“f[]f“fg

THintWindowClass Ć^

HookMainWindow f\fbfh15619

ŽQÆ

“K—p

TApplication

é¾

procedure HookMainWindow (Hook: TWindowHook);

à-¾

HookMainWindow f\fbfh, Žg, æ, ÆC” ñ Delphi f_CfAfOf{fbfNfX, a, »), ìe

(fAfvfŠfP[fVf#“fifufWfFfNfg, ì Handle fvf\pfefB, ĀŽ!, ¾, ê, é) , ©, ç’—

, ç, ê, ½f\fbfZ[fW, Žó, Žæ, ê, é, æ, æ, É, È, è, Ü, ·B

f_Cf“fEfBf“fhfE, ÉftfbfN, μ, ½” ñ Delphi f_CfAfOf{fbfNfX, íC“Æ—s, μ, ½fEfBf“fhfE, Ā, Í, È,-

CfAfvfŠfP[fVf#“, ìŽq, æ, μ, Ā¾, μ, “ @ì, ·, é, ±, æ, a•ÜØ, ¾, è, Ü, ·B, ½, æ, !, ìCHookMainWindow

, ðÆĀ, Ño, μ, ½Æã, É Alt+Tab , ĀfAfvfŠfP[fVf#“, ðØ, è’Ö, !, é, æfAfvfŠfP[fVf#“‘S’ì, a 1

, Ā, ìf^fXfN, æ, μ, Ā^μ, í, êC” ñ Delphi f_CfAfOf{fbfNfX, a•ÉÆĀ, ìf^fXfN, æ, μ, Ā^μ, í, ê, é, ±

, æ, í, , è, Ü, ¹, ñB

f_CfAfOf{fbfNfX, ðf_Cf“fEfBf“fhfE, ÉuftfbfNv, μ, ½, Ü, Ü, É, ·, é, ±

, æ, É, íC, »), è, a’·ŠúŠÖ, É, í, ½, Ā, Ā, àC-â’è, í, , è, Ü, ¹, ñB, ½, ¾, μCf_CfAfOf{fbfNfX, ð•Ā, ¶, é, æ,

«, É, í UnhookMainWindow f\fbfh, ðÆĀ, Ño, μ, ĀftfbfN, ð%ðœ, μ, Ā, , ¾, ¾, çB

ŽQÆ15620

UnhookMainWindow_fbfh

IsAccel ŠÖ"15621

ftfjfbfg

Forms

☐éĒ¾

```
function IsAccel(VK: Word; const Str: string): Boolean;
```

☐à-¾

IsAccel ŠÖ" ,Í VK fpf%of☐☐[f^,É“n,³,ê,½%oo¼4’zfL☐[,ì•ŕŽš,ª Str ,É“n,³,ê,½•ŕŽš—ñ,ìfAfNfZf
%ofĒ☐☐[f^fL☐[,È,ç,Í True☐C,» ,ê^ÈŠO,ì☐ê☐‡,Í False ,đ•Ô,μ,Û,·☐BIsAccel ,Í Str ,ÉfAf“fh<L☐† (&
,ª , ,é,©,đf`fFfbfN,μ☐C, ,ê,ìfAf“fh<L☐†,ìŽŸ,ì•ŕŽš,ª VK ,ì•ŕŽš,Æ“˘,ŕ,©,đf`fFfbfN,μ,Û,·☐B

KeyDataToShiftState ŠÖ"15622

ŽQÆ

ftjfbfg

Forms

é¾

function KeyDataToShiftState (KeyData: Longint): TShiftState;

à-¾

KeyDataToShiftState ŠÖ", Í Windows , ©, çL{fhfbZfW, Å"n,³ê,½ KeyData
ftfB[f<fh,ð•İŠ,μCDelphi ,lfL[f{fhfCfxf"fg (OnKeyDown, OnKeyPress, OnKeyUp)
,ÅŽg,α,½,β,lfVftfgó'Ôî•ñ,É,μ,Û,·B

ŽQÆ15623

KeysToShiftState ŠÖ”

KeysToShiftState ŠÖ"15624

ŽQÆ

ftfjfbfg

Forms

é¾

function KeysToShiftState(Keys: Word): TShiftState;

à-¾

KeysToShiftState ŠÖ", Í Windows , ©, çL{fhfbZfW, Å“n,³ê,^{1/2} Keys
ftfB[f<fh, ð•İŠ, µCDelphi , lfL{fhfCfxf“fg (OnKeyDown, OnKeyPress, OnKeyUp)
, ÅŽg, α,^{1/2}, ß, ïVftfgó’Ôî•ñ, É, µ, Ü, ·B

ŽQÆ15625

KeyDataToShiftState ŠÖ

MakeObjectInstance ŠÖ"15626

ŽQÆ

ftfjfbfg

Forms

é¾

function MakeObjectInstance (Method: TWndMethod): Pointer;

à-¾

MakeObjectInstance ŠÖ", íCMMethod fpf%of[f^, É"n,³,ê,½fEfBf"fhfEfVfV[fWfff\fbfh,ðÆÄ,Ño,·fEfBf"fhfEfVfV[fWffŠÖ",ðŽw,·f|fCf"f^,ð·Ö,μ,Û,·B

Windows ,ífEfBf"fhfE,íffbfZ[fW,ðC,» ,ífEfBf"fhfE,ífEfBf"fhfEfVfV[fWff,Æ,ç ,æŠÖ",É"n,μ,Û,·BDelphi fRf"fl[f"fg,ífufWfFfNfg,Å, ,èCffbfZ[fW^—p,ífEfBf"fhfEfVfV[fWff,Æ,μ,ÅfufWfFfNfgf\fbfh,ðŽg,ç,Û,·BWindows ,ífEfBf"fhfEfVfV[fWff,Æ,μ,Åf\fbfh|fCf"f^,ðŽó,Žæ,é,È,ç,ì,ÅCDelphi ,Å,í,©,í,è,ÉfEfBf"fhfEfVfV[fWff,ð Windows ,æÄ,Ño,¹,éŠÖ",ìÆ` ,Åi—,μCŽw'è,·,éf\fbfh,ÉfbfZ[fW,ð"n,μ,Å,à,ç,ç,Û,·B

MakeObjectInstance ,Åi—,μ,½fEfBf"fhfEfVfV[fWffŠÖ", í FreeObjectInstance Žè'± ,«,Å•K, ,jŠü,μ,Ä,^¾,^¾,çB

ŽQÆ15627

FreeObjectInstance Žè'±,«

Resize f\fbfh15628

ŽQÆ

“K—p

TScrollBar, TForm, TCustomPanel

é¾

procedure Resize; dynamic;

à-¾

Resize f\fbfh, íCfXfNf[f{fbfNfX CftfH[f€Cfpflf<, ì OnResize fCxf“fg—p, ìfvf\feNfgf\fbfh, Å, ·B, ±, ê, ç, ìRf“fgf[f<, íCfRf“fgf[f<, Ü, ½, ìftfH[f€, ìTfCfY,ª•ïX,³,ê,½,±,Æ,ðŽ|,·

WM_SIZE f\fbfZ[fW,ðŽó, Žæ,é,Æ Resize ,ðCEÄ,Ño,µ,Ü,·B

ffftfHf<fg,Å, íCResize ,í OnResize fCxf“fg,ÉfAf^fbf` ,³,ê,½fCxf“fgfnf“fhf%

,ðCEÄ,Ño,·^ÈŠO,Í%½,à,µ,Ü,¹,ñBResize ,ðf\fo[f%ofCfh,·,ê,îCCEp³,³,ê,½fCxf“fgfnf“fhf%oCEÄ,Ño,µ,ì,Ü,©,É,à%ž“š,ª,Å,«,Ü,·B

ŽQÆ15629

OnResize_fCxf“fg

Application fRf“f|[]lfj“fg (fvf[]fefNfg)15630

ŽQ[]Æ fvf[]fpfefB f[]f[]fbfh fRf“f|[]lfj“fg

ftfjfbfg

Forms

□à-¾

TApplication fRf“f|[]lfj“fg,í,·,×,Ä,ì Delphi fAfvfŠfP[]fVf#f“,ìfAfvfŠfP[]fVf#f“fRf“f|
□lfj“fg,ìfRf“f|[]lfj“fgÆ^,Å,·□BfAfvfŠfP[]fVf#f“fRf“f|[]lfj“fg,ìŽg,¢•ù,ÉŠÖ,·,é VCL
fŠtf@fÆf“fX,ì□€-Ú,ì,Ù,©,É,à□CfRf“f|[]lfj“fg,ì□ì□-,ÉŠÖ,·,é“_í,¢,,Â,©, ,è,Ü,·□B

DialogHandle fvf[]fpfefB□CHookMainWindow f[]f[]fbfh□CUnHookMainWindow f[]f[]fbfh,đŽg,¤
,Æ□CDELphi fAfvfŠfP[]fVf#f“,Å”ñ Delphi f_fCfAf[]fOf{fbfNfX,ªŽg,ì,Ü,·□B,Ü,½□CTApplication
,ìfAfvfŠfP[]fVf#f“fIfufWfFfNfg,đXfgfŠ[]f€,É□’,«□o,·,±,Æ,đ-h,®,½,ß,É□CWriteComponents
f[]f[]fbfh,đf[]fo[]f%ofCfh,μ,Ü,·□B

fvf[]pfefB15631

DialogHandle

fjfbh15632

HookMainWindow

UnHookMainWindow

WriteComponents

ŽQÆ15633

Application •i”

TApplication fR“f|“f|“fg VCL fŠtf@fÆf“fX

TDesigner flfufWfFfNfg15634

ŽQAE flfufWfFfNfg

ftfjfbfg

Forms

à-¾

TDesigner flfufWfFfNfg, TObject , ©, ç¼Ú" h¶, µ, ½ŠÚflfufWfFfNfgĈ^, Å, ·BTDesigner flfufWfFfNfg, Í Delphi ŠÀ«"à, ì, ·, x, Ä, ìftfH[]f€fffUfCfi[]C"Á, É TFormDesigner , ÌŠ' b, ð' ñ<Ÿ, µ, Ü, ·B, ±, ÌŠÚffUfCfi flfufWfFfNfg, Í, ·, x, Ä, ìffUfCfi flfufWfFfNfg, ÅŽg, µfvf[]pfefB, ð 2 , Å' ñ<Ÿ, µCŽÀÚ, ìffUfCfi flfufWfFfNfg, ðf[]fo[]f%ofCfh, µ, È, , Å, Í, È, ç, È, ç ŠÚf[]fbfh, ð 5 , Å' è< , µ, Ü, ·B

fvf[]pfefB

fvf[]pfefB

Žg, ç • û

Form	Ĉ>[]Ÿ[]ŸĈv, ³, è, Ä, ç, éftfH[]f€, Ö, ÌŽQAE, ð' ñ<Ÿ, ·, é
IsControl	ftfH[]f€, ðftfH[]f€ó'Ô, ÆfRf"fgf[]f<ó'Ô, Ì, Ç, ÿ, ç, É, , é, Ì, ©, ð"½%of, ·, é

f[]fbfh

f[]fbfh

Žg, ç • û

IsDesignMsg	fffUfCfi"à, ìfRf" f[]f[]fg, É'— , ç, è, éf[]fbfZ[]fW, ², Æ, ÉĈÄ, Ñ[]o, ³, è, éBf[]fbfZ[]fW, ðŸĈv[]fbfZ[]fW, È, ç, Í True , ð•Ö, µC, » , ìf[]fbfZ[]fW, ðfffUfCfi, ð^—, µ, È, , Å, Í, È, ç, È, ç, ±, Æ, ðŽ!, ·
Modified	fvf[]pfefBfGffBf^, ÆfRf" f[]f[]fgfGffBf^, ÍCfRf" f[]f[]fg"à, Å•ìX, ð, , é, ÆCfffUfCfi, ð•ìX, ð"½%of, Å, «, é, æ, x, É, ±, ìf[]fbfh, ðĈÄ, Ñ[]o, ·
Notification	ŸĈv, ³, è, Ä, ç, éftfH[]f€, Ì Notification f[]fbfh, É, æ, Á, ÄĈÄ, Ñ[]o, ³, èCfffUfCfi, ðftfH[]f€, Ì, à, Ì, Æ" , ¶'É'm, É'í%ž, Å, «, é, æ, x, É, ·, é
PaintGrid	fffUfCfi, ðftfH[]f€, ìLfff"fofX, É'É'u[]#, í, fOfŠfbfh, ð•`%æ, ·, é•K—v, ð, , é, Æ, «, ÉĈÄ, Ñ[]o, ³, è, é
ValidateRename	—\ñĈè, ð<ÖŽ~ , ·, ééè[]#, È, Ç-¼'O, ÌSĈÄ, ð<%o», ·, é, ½, ß, ÉCftfH[]f€, Ì ValidateRename f[]fbfh, ©, çĈÄ, Ñ[]o, ³, è, é

ŽQÆ15635

TFormDesigner flfufWfFfNfg

TForm fRf“f[]lf“fg (fvf[]fefNfg)15636

ŽQ□Æ f[]f[]bfh fRf“f[]lf“fg

ftfjfbfg

Forms

□à-¾

TForm fRf“f[]lf“fg, í Delphi ŠÂ««, Å□ÝŒv, ³, è, é, ·, x, Ä, ìftfH□[f€, ì 1 , Å□ã^Ê, ìŒ^, Å, ·□BftfH□[f€
, ífXfNf□□[f<fEfBf“fhfEfRf“fgf□□[f<, ð“Á’è, ì-Ú“l, É□è-å%»», µ, ½, à, ì, Å, ·□BftfH□[f€fRf“f[]
□[lf“fg, ìŽg, ç •ù, ÉŠÖ, ·, é VCL fŠftf@fŒf“fX, ì□€-Ú, ì, Ù, ©, É, à□CTForm , Å’ñ<Ÿ, ³, è, é□C, Ù, ½, í
TForm , ²f[]fo□[f%ofCfh, ·, éfvf[]fefNfgf[]f[]bfh, í□“½,, , è, Ù, ·□B

f\bfbh15637

Activate

ChangeScale

CreateParams

CreateWindowHandle

CreateWnd

Deactivate

DefaultHandler

DefineProperties

DestroyWindowHandle

DestroyWnd

DoHide

DoShow

GetClientRect

Notification

Paint

PaintWindow

ReadState

Resize

SetName

ValidateRename

VisibleChanging

WndProc

ŽQÆ15638

TFormClass Ć^

TScrollingWinControl fRf“f|□[lf“fg

TForm fRf“f|□[lf“fg VCL fŠtf@fĆf“fX

TFormClass Ć^15639

ŹQĀÆ

ftfjfbfg

Forms

□éĆ¾

type

TFormClass = **class of** TForm;

□à-¾

TFormClass Ć^,íftfH□[f€fRf“f|□[fj“fgĆ^,ìfufWfFfNfgĆ^ŹQĀÆĆ^,Å,·□B

ŽQÆ15640

TForm fR“f|“lf“fg (fv“fefNfg)

TScrollBox fRf“f|□[lfj“fg (fvf□fefNfg)15641

ŽQ□Æ f□\fbfh fRf“f|□[lfj“fg

ftfjfbfg

Forms

□à-¾

TScrollBox fRf“f|

□[lfj“fg,íj}Xf^f}fCfY,³,é,^½fXfNf□□[f<fEfBf“fhfEfRf“fg□□[f<,Å,·□BfXfNf□□[f<f{fbfNfXfRf“f|

□[lfj“fg,ìŽg,¢•ù,ÉŠÖ,·,é VCL fŠftf@fCf“fX,ì□€-Ú,ì,Ù,©,É□CfRf“f|

□[lfj“fg,ì□□¬,ÉŠÖ,·,éfvf□fefNfgf□\fbfh,í,¢,,Å,©, ,è,Ü,·□B

TScrollBox ,É,Í OnResize fCxf“fg,ðŽÀ□s,·,é Resize f□\fbfh,^a, ,è,Ü,·□B,Ü,^½□CTScrollBox ,Í Create fRf“fXfgf%ofNf^,Æ CreateParams f□\fbfh,ðf□[fo□[f%ofCfh,μ,Ü,·□B

fifbfh15642

Create

CreateParams

Resize

ŽQÆ15643

TScrollingWinControl fRf“f|□[lf“fg

TScrollBox fRf“f|□[lf“fg VCL fŠtf@fĈf“fX

TScrollingWinControl fRf“f|[]f|f“fg15644

ŽQ□Æ fv□fpfefB f□\fbfh fRf“f|[]f|f“fg

ftfjfbfg

Forms

□à-¾

TScrollingWinControl fRf“f|[]f|f“fg,Í□CTForm ,Æ TScrollBox ,Æ,ç,æ 2 ,Â,ì•Ö—~ ,ÉfRf“f|
□f|f“fg,ìŠîˆb,Â, ,é’Š□ÚfRf“f|[]f|f“fgCE ^ ,Â,·□BTWinControl ,©,çCEp□³,³,é,é□€-
Ú,ì,Ù,©,É□CfXfNf□□[f<fEfBf“fhfEfRf“fgf□□[f<,É,Í 3 ,Â,ìfvf□fpfefB,Æ,ç,,Â,©,ì□V,μ,çf□\
fbfh,ª, ,è,Ü,·□B

TScrollingWinControl ,Â’ñ<ÿ,³,é,é 3 ,Â,ìfvf□fpfefB,Í□CAutoScroll, HorzScrollBar,
VertScrollBar ,Â,·□BfXfNf□□[f<fo□[ŠÖEW,ìfvf□fpfefB,ìfpufšfbfVf...,É□Ý’è,³,é,Ä,ç
,é,ì,Â,·,x,Ä,ìfXfNf□□[f<fEfBf“fhfEfRf“fgf□□[f<,âftfH□[f€,É•\Ž!,³,é,Ü,·□BAutoScroll
,ìfvf□fefNfg,³,é,Ä,ç,Ü,·,ª□CTScrollBox ,Æ TForm ,ì—¼•û,ÂfpufšfbfVf...,É□Ý’è,³,é,Ä,ç,Ü,·□B

TScrollingWinControl ,Â,ìfXfNf□□[f<,ð□^—□,·,é□\fbfh,ð 2 ,Â’ñ<ÿ,μ,Ü,·□B1 ,Â,Í ScrollInView
,Â□CŽw’è,μ,½fRf“fgf□□[f<,ªŠ@’S,É•\Ž!,³,é,é,±,Æ,ð•Ú□Ø,μ□C,à,æ 1 ,Â,Í AutoScrollInView
,Â”~,¶,±,Æ,ðŽ©“@fXfNf□□[f<fRf“fgf□□[f<,É’í,μ,Ä,μ,Ü,·□BTScrollingWinControl ,Í Create
fRf“fXfgf%ofNf^ ,Æ AlignControls, CreateWnd, Destroy ,ìŠef□\fbfh,ðf□[fo□[f%ofCfh,μ,Ü,·□B

fvf[]pfefB15645

AutoScroll

HorzScrollBar

VertScrollBar

fjfbh15646

AlignControls

AutoScrollInView

Create

CreateWnd

Destroy

ScrollInView

ŽQÆ15647

TForm fRf“f|□[flf“fg (fvf□fefNfg)

TScrollBar fRf“f|□[flf“fg (fvf□fefNfg)

TWindowHook CE^15648

ŽQAE

ftfjfbfg

Forms

éCE¾

type

```
TWindowHook = function(var Message: TMessage): Boolean of object;
```

à-¾

TWindowHook CE^,í”ñ Delphi f_fCfAf□fOf{fbfNfX,lf_fCfAf□fOfvf□fV□fWff,Æ,μ,ÄŽg,xf□\fbfhfjfcf“f^CE^,Å,□Bf_fCfAf□fOfvf□fV□fWff,lf_fCfAf□fOf{fbfNfX,lf□fbfZ□fW,δ□^—□,·,é,Æ,ç,æ”_„Á,lfEfBf“fhfE,lfEfBf“fhfEfvf□fV□fWff,ÆŽ—,Ä,ç,Ü,·,ª□C□\•¶,É□,μ^á,ç,ª, ,è,Ü,·□B fAfvfŠfP□fVf#f“flfufWfFfNfg,ì HookMainWindow f□f\fbfh,Æ UnhookMainWindow f□f\fbfh,É,í TWindowHook CE^,lfpf%of□□f^,ðŽw’è,μ,Ü,·□B

ŽQÆ15649

HookMainWindow ffbfh

UnhookMainWindow ffbfh

TWndMethod CE^15650

ŽQÆ

ftfjfbfg

Forms

é¾

type

TWndMethod = **procedure** (var Message: TMessage) of object;

à-¾

TWndMethod CE^,ÍEjBf“fhfEfvfV[Wff,Í\fbfhf|fCf“f^CE^,Å,·BAllocateHWnd ŠÖ”,Æ
MakeObjectInstance ŠÖ”,Ípf%of[f^,É,Í TWndMethod CE^,ÍEjBf“fhfEfvfV[Wfff\fbfh,đŽw’è,μ,Ü,·B

ŽQÆ15651

AllocateHWND ŠÖ

MakeObjectInstance ŠÖ

UnhookMainWindow f\fbfh15652

ŽQÆ

“K—p

TApplication

é¾

procedure UnhookMainWindow (Hook: TWindowHook);

à-¾

UnhookMainWindow f\fbfh,í HookMainWindow f\

fbfh,Ö,ìĀ,Ño,μ,É,æ,èuftbfNv,³,ê,½f_CfAfOfvV[fWff,ð%ø•ú,μ,Ü,·B

ŽQÆ15653

HookMainWindow.f\fbfh



fgfsfbfN,ªCE©,Â,©,è,Û,¹,ñ00878

CEÿ□ð,µ,½fgfsfbfN,ªCE©,Â,©,è,Û,¹,ñ,Å,µ,½□Bfwf<fvftf@fCf<,É-â'è,ª, ,é,©□C,»,ìfgfsfbfN,Ö,ìfŠ
 f“fN,É-â'è,ª, ,é,Æ□l,!,ç,ê,Û,·□B□m-
 ÚŽÿ□n□C□mfL□[f□□[fh□n,Û,½,í□mfefLfXfgCEÿ□ð□nf^fu,ðŽg,x,Æ,±
 ,ìfgfsfbfN,ðCE©,Â,¯,ç,ê,é,©,à,µ,ê,Û,¹,ñ□B

fgfsfbfN,ðCEÿ□ð,·,é,É,í

- 1 fJfefSfŠ•Ê,ÉfgfsfbfN,ðfuf%ofEfY,·,é,½,ß,É□m-ÚŽÿ□nf^fu,ðfNfŠfbfN,µ,Û,·□B
- 2 □mfL□[f□□[fh□nf^fu,ðfNfŠfbfN,·,é,Æ□ð^ø□€-Ú,ìfŠfXfg,ª•Ž!,³,ê,Û,·□B
 'T,µ,Ä,ç,éCE¾—t,í“ü—í,·,é,©fŠfXfg,ðfXfNf□□[f<,µ,Ä'T,µ,Û,·□B
- 3 □mfefLfXfgCEÿ□ð□nf^fu,ðfNfŠfbfN,·,é,Æ,»,ì'PCEê,Û,½,íCEê<â,ªCEÿ□ð,³,ê,Û,· (Windows NT
 3.51,ì,Ý)□B

Welcome to RoboHELP. Click Topic (Ctrl+T) to add your first Help topic.
This is associated with the Delphi 95 project file document.

