

## [ft][fU][ DSN] f^fu

ft[fU][ DSN ,É,Â,ç,Äff[ f^ f[fX,ì'Ç%ÁAíœAØ¬,ðs,ç,Ü,·B,±,é,ç,ìff[ f^ f[fX,ìfRf"fsf...  
 [f^,É'í,μ,Äff[fj<,É,È,èAÇ»Ý,ìft[fU[,ì,Ý,žg—p,Á,«,Ü,·B

### fjvfVjtf"

à-¾

[ft][fU][ ff[f^ f[fX] f{fbfNfX	,cSN ,ì-¼'O,Æ,»,é,É'í%ž,·,éfhf %ofCfo,ðšÜ,þAft[fU][ DSN ,ì^ê— ,Á,·Bft[fU][ DSN ,ðf_fuf<NfšfbfN,·,é,ÆAfhf%ofCfoEÅ— L,ìff[f^ f[fX,ìfzfbfgfAfbfv f_fCfAfffO f{fbfNfX,ž·\žì,³,è,Ü,·B
[ 'Ç%Á	ØV,μ,ft[fU][ ff[f^ f[fX,ð'Ç %Á,μ,Ü,·B[ 'Ç%Á] ,ðfNfšfbfN,·,é,ÆA[ff[f^ f[fX,ìØV<KØ¬] f_fCfAfffO f{fbfNfX,ž·\žì,³,è,Ü,·B,± ,ìf_fCfAfffO f{fbfNfX,É,ìfhf%ofCfo,ž^ê—·\ žì,³,è,Ü,·Bft[fU][ ff[f^ f[fX—p,É'Ç %Á,·,éfhf%ofCfo,ð'ì'ð,μ,Ü,·B[š@—¹] ,ðfNfšfbfN,·,é,ÆA,»,ìfhf%ofCfoEÅ— L,ìff[f^ f[fX,ìfzfbfgfAfbfv f_fCfAfffO f{fbfNfX,ž·\žì,³,è,Ü,·B
[ííœ]	šù'¶,ìff[f^ f[fX,ðííœ,μ,Ü,·B[ííœ] ,ðfNfšfbfN,·,é'O,ÉAííœ,·,éft[fU][ ff[f^ f[fX,ðfšfXfg f{fbfNfX,Á'ì'ð,μ,Ä,·,·K— v,ž, ,è,Ü,·B
[Ø¬]	fhf%ofCfoEÅ—L,ìff[f^ f[fX,ìfzfbfgfAfbfv f_fCfAfffO f{fbfNfX,ð·\žì,μ,Ü,·B,± ,ìf_fCfAfffO f{fbfNfX,Á,íAšù'¶,ìft[fU][ ff[f^ f[fX,ìØ ¬,ð·ìØX,·,é,±,Æ,ž,Á,«,Ü,·B[Ø¬] ,ðfNfšfbfN,·,é'O,ÉA'íØÜ,Æ,È,éft[fU][ ff[f^ f[fX,ðfšfXfg f{fbfNfX,Á'ì'ð,μ,Ä,·,·K— v,ž, ,è,Ü,·B
[OK]	[ODBC ff[f^ f[fX fAfhf~fjXfgfœ[f^] f_fCfAfffO f{fbfNfX,ð·Á,¶,Ü,·B[ft[fU][ ff[f^ f[fX] f{fbfNfX,É'í,·,é·ìØX,ð"K—p,·,é,½,β,É [OK] ,ðfNfšfbfN,·,é·K—v,í, ,è,Ü,¹,ñBfšfXfg f{fbfNfX,É'í,·,é·ìØX,íAfff[f^ f [fX,ìfzfbfgfAfbfv f_fCfAfffO f{fbfNfX,Á [OK] ,ðfNfšfbfN,μ,½žž"_,Á"K—p,³,è,Ü,¹,ñB
[fLfff"fzf<]	[ODBC ff[f^ f[fX fAfhf~fjXfgfœ[f^] f_fCfAfffO f{fbfNfX,ð·Á,¶,Ü,·B[fLfff"fzf<] ,ðfNfšfbfN,μ,Ä,à [ft[fU][ ff[f^ f[fX] f{fbfNfX,Ö,ì·ìØX,ížæ,èÁ,³,è,Ü,¹,ñB
[fwf<fv]	fwf<fv%œ-È,ð·\žì,μ,Ü,·B

## [fvXfef€ DSN] f^fu

VfXfef€ DSN ,É,Á,č,Äff[]f^ f[]fX,ì'Ç%ÁA[]íœ[]A[]- ,ðs,ç,Ü,·B,±,ê,ç,ìff[]f^ f[]fX,ðAf+[]fU[][,Á,Í,È,fRf"fsf...[]f^,É'í,μ,Äf[]fj<,É,μ,Ü,·BfVfXfef€[]A,Ü,½,ÍCE CEÀ,ðŽ,Áf+[]fU[][,íAf VfXfef€ DSN ,ìff[]f^ f[]fX,ðŽg—p,Á,«,Ü,·B

<b>f{fVfVfj}</b>	<b>à-¾</b>
[fVfXfef€ ff[]f^ f[]fX] f{fbfNfX	,cSN ,ì-¼'0,Æ,»,ê,É'í%ž,·,éfhf %ofCfo,ðŠÜ,p[]AfVfXfef€ DSN ,ì'ê— ,Á,·BfVfXfef€ DSN ,ðf_fuf<fNfŠfbfN,·,é,Æ[]Afhf%ofCfoCEÁ— L,ìff[]f^ f[]fX,ìfZfbfgfAfbfv f_fCfAf[]fO f{fbfNfX,ª•\Ž!,ª,ê,Ü,·B
[ 'Ç%Á	[]V,μ,fVfXfef€ ff[]f^ f[]fX,ð'Ç %Á,μ,Ü,·B,± ,ìf{f^f",ðfNfŠfbfN,·,é,Æ[]Af[]f^ f[]fX,ì[]V<K[]í[]-] f_fCfAf[]fO f{fbfNfX,ª•\ Ž!,ª,ê,Ü,·B,±,ìf_fCfAf[]fO f{fbfNfX,É,ìfhf %ofCfo,ª^ê—•\Ž!,ª,ê,Ü,·BfVfXfef€ ff[]f^ f[]fX,ð'Ç%Á,·,éfhf%ofCfo,ð'í'ð,μ,Ü,·B[Š@ —] ,ðfNfŠfbfN,·,é,Æ[]A,»,ìfhf%ofCfoCEÁ— L,ìff[]f^ f[]fX,ìfZfbfgfAfbfv f_fCfAf[]fO f{fbfNfX,ª•\Ž!,ª,ê,Ü,·B
[[]í[]œ]	Šù'¶,ìff[]f^ f[]fX,ð[]í[]œ,μ,Ü,·B[[]í[]œ] ,ðfNfŠfbfN,·,é'O,É[]A[]í[]œ,·,éVfXfef€ ff[]f^ f[]fX,ðfŠfXfg f{fbfNfX,Á'í'ð,μ,Ä, ",•K— v,ª, ,è,Ü,·B
[[]-]	fhf%ofCfoCEÁ—L,ìff[]f^ f[]fX,ìfZfbfgfAfbfv f_fCfAf[]fO f{fbfNfX,ª•\Ž!,μ,Ü,·B,± ,ìf_fCfAf[]fO f{fbfNfX,Á,í[]AŠù'¶,ìfVfXfef€ ff[]f^ f[]fX,ì[]- ,ð'í[]X,·,é,± ,Æª,Á,«,Ü,·B[[]-] ,ðfNfŠfbfN,·,é'O,É[]A'í[]Ü,Æ,È,éVfXfef€ ff[]f^ f[]fX,ðfŠfXfg f{fbfNfX,Á'í'ð,μ,Ä, ",•K— v,ª, ,è,Ü,·B
[OK]	[ODBC ff[]f^ f[]fX fAfhf~fjXfgfCE[]f^] f_fCfAf[]fO f{fbfNfX,ð•Á,¶,Ü,·B[fVfXfef€ ff[]f^ f[]fX] f{fbfNfX,É'í,·,é'í[]X,ð"K— p,·,é,½,B,É [OK] ,ðfNfŠfbfN,·,é•K— v,í, ,è,Ü,ª,ñ[]BfŠfXfg f{fbfNfX,É'í,·,é'í[]X,í[]Af[]f^ f[]fX,ìfZfbfgfAfbfv f_fCfAf[]fO f{fbfNfX,Á [OK] ,ðfNfŠfbfN,μ,½Žž" _ ,Á"K—p,ª,ê,Ü,·B
[fLfff"fZf<]	[ODBC ff[]f^ f[]fX fAfhf~fjXfgfCE[]f^] f_fCfAf[]fO f{fbfNfX,ð•Á,¶,Ü,·B[fLfff"fZf<] ,ðfNfŠfbfN,μ,Á,à [fVfXfef€ ff[]f^ f[]fX] f{fbfNfX,Ö,ì'í[]X,Ížæ,è[]Á,ª,ê,Ü,ª,ñ[]B
[fwf<fv]	fwf<fv%æ-É,ð•\Ž!,μ,Ü,·B

**[ftf@fcf< DSN] f^fu**

ftf@fCf< DSN ,É,Â,ç,Äff[]f^ f[]fX,ì'Ç%ÁA[]í[]œ[]A[]V[]-,ð[]s,ç,Û,-B""` ,lhf  
 %ofCfo,ðfCf"fXfg[]f<,µ,½,·, x,Ä,ìft[]fU[][,ª«—L,Ä,«,éftf@fCf< fx[]fX,ìff[]f^ f  
 []fX,Á, ,è[]Aft[]fU[][,É,æ,éff[]f^fx[]fX,Ö,ìfAfNfZfX,ª%Á",Á,·B,±,è,ç,ìff[]f^ f  
 []fX,ð[]Aft[]fU[][,É'í,µ,Äê—p,É,·,é·K—v,à[]Afrf"fsf...[]f^ ,É'í,µ,Äf[]fj<,É,·,é·K—v,à, ,è,Û,¹,ñB

**fifvfVfjf''**      []à-¾

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ftf@fCf< ff[]f^ f[]fX f{fbfNfX ,É·\ Žì,³,è,éftfHf<f\_ ,ÉSÜ,Û,è,éftf@fCf< DSN ,ÆfTfuftfHf<f\_ ,ð,·, x,Ä·\Žì,µ,Û,·Bftf@fCf< DSN ,ðf\_fuf<fNfŠfbfN,·,é,Æ[]Afhf%ofCfoCEÁ—L,ìff[]f^ f[]fX,ìfZfbfgfAfbfv f\_fCfA[]fO f{fbfNfX,ª·\Žì,³,è,Û,·B

['Ç%Á] []V,µ,çftf@fCf< ff[]f^ f[]fX,ð'Ç %Á,µ,Û,·B,± ,ìf{f^f",ðfNfŠfbfN,·,é,Æ[]A[]ff[]f^ f[]fX,ì[]V<K[]í[]-] f\_fCfA[]fO f{fbfNfX,ª·\ Žì,³,è,Û,·B,±,ìf\_fCfA[]fO f{fbfNfX,É,ìfhf %ofCfo,ª^è—·\Žì,³,è,Û,·Bftf@fCf< DSN —p,É'Ç%Á,·,éfhf %ofCfo,ð'ìð,µ,Û,·B[]Ú×Ý'è] ,ðfNfŠfbfN,·,é,Æ[]Aftf@fCf< DSN ,É'í,·,éfl[]f[]fh,ðŽw'è,Ä,«,Û,·B

[]í[]œ] Šù'¶,ìff[]f^ f[]fX,ðí[]œ,µ,Û,·B[]í[]œ] ,ðfNfŠfbfN,·,é'O,ÉA[]í[]œ,·,éftf@fCf< ff[]f^ f[]fX,ðfŠfXfg f{fbfNfX,Á'ìð,µ,Ä,·,·K—v,ª, ,è,Û,·B

[]V[]-] fhf%ofCfoCEÁ—L,ìff[]f^ f[]fX,ìfZfbfgfAfbfv f\_fCfA[]fO f{fbfNfX,ª·\Žì,µ,Û,·B,± ,ìf\_fCfA[]fO f{fbfNfX,Á,ìAŠù'¶,ìftf@fCf< ff[]f^ f[]fX,ì[]V[]-,ð'ì[]X,·,é,± ,Æ,ª,Ä,«,Û,·B[]V[]-] ,ðfNfŠfbfN,·,é'O,ÉA'ì[]Ú,Æ,È,éftf@fCf< ff[]f^ f[]fX,ðfŠfXfg f{fbfNfX,Á'ìð,µ,Ä,·,·K—v,ª, ,è,Û,·B

[fffBfÇefNfgfŠ, Ì []Ý'è] ·\Žì't,ìftfHf<f\_ ,ðAODBC fAfhf~fjfxfgfCE[]f^ ,ìŽÀ[]sŽž,É·\ Žì,·,éŠù'èftfHf<f\_ ,É[]Ý'è,µ,Û,·B

[ff[]f^ f []fX,ìé[]Š] fjfCEf"fg ftfHf<f\_ ,ð·\Žì,µ,Û,·B,»ì %ª,ìfEfBf"fhfE,É,ìA[]fjCEf"fg ftfHf<f\_ ,ìTfuftfHf<f\_ ,Æftf@fCf< DSN ,ª·\ Žì,³,è,Û,·BfefLfxfg f{fbfNfX,ì%E'ª,É, ,é %ªCEü,«- î'ó,ðfNfŠfbfN,·,é,Æ[]AfffBfÇefNfgfŠ[]'ç'S'ì,ª·\ Žì,³,è,Û,·BODBC fAfhf~fjfxfgfCE[]f^ ,ìŽÀ[]s"-[]%ª,ÉA[]%ª,É·\ Žì,³,è,éŠù'èftfHf<f\_ ,ìA[]VfxfefE[]·ñ,ÉŽù,ß,ç, è,Ä,ç,Û,·,ª[]A[]fffBfÇefNfgfŠ,ì[]Ý'è] f{f^f",Á·ì[]X,·,é,±,Æ,ª,Ä,«,Û,·B

[1 ,Á[]ä,ì [ff[]f^ f[]fX,ìé[]Š] f{fbfNfX,É·\

ftfHf<f\_Ö) Žl,³,é,éftfHf<f\_δACE»Ÿ'1'ð,μ,Ä,ç,éftfHf<f\_ì  
 (fAfCfRf“) 1 ,Äã,ìftfHf<f\_É•ïX,μ,Ü,·B  
 [OK] [ODBC ff[]f^ f[]fX fAfhf~fjXfgfCE[]f^]  
 f\_fCfAf[]fO f{fbfNfX,ð•Ä,¶,Ü,·Bftf@fCf<  
 ff[]f^ f[]fX f{fbfNfX,É'í,·,é•ïX,ð“K—  
 p,·,é,½,B,É [OK] ,ðfNfŠfbfN,·,é•K—  
 v,í, ,è,Ü,¹,ñBfŠfXfg  
 f{fbfNfX,É'í,·,é•ïX,íAfff[]f^ f  
 []fX,ìfZfbfgfAfbfv f\_fCfAf[]fO f{fbfNfX,Ä  
 [OK] ,ðfNfŠfbfN,μ,½Žž“\_„Ä“K—p,³,è,Ü,·B  
 [fLfff“fZf<] [ODBC ff[]f^ f[]fX fAfhf~fjXfgfCE[]f^]  
 f\_fCfAf[]fO f{fbfNfX,ð•Ä,¶,Ü,·B[fLfff“fZf<]  
 ,ðfNfŠfbfN,μ,Ä,àAftf@fCf< ff[]f^ f[]fX  
 f{fbfNfX,Ö,ì•ïX,íŽæ,èÄ,³,è,Ü,¹,ñB  
 [fwf<fv] fwf<fv%œ-É,ð•Žl,μ,Ü,·B

**[fhf%ofCfo] f^fu**

fCf“fXfg[]f<,³,é,½ ODBC fhf%ofCfo,ÉŠÖ,·,éî•ñ,ð•Žl,μ,Ü,·B[±,ìfRf“fsf...[]f^,ÉfCf“fXfg[]f<,³,è,Ä,ç,é  
 ODBC fhf%ofCfo] f{fbfNfX,É,íAfrf“fsf...[]f^,ÉfCf“fXfg[]f<[]í,Ý,ìfhf%ofCfo,ª•Žl,³,è,Ü,·B

**fLfvfVfjf“**      **à-¾**

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[±,ìfRf“fsf... fRf“fsf...[]f^,ÉfCf“fXfg[]f<,³,è,Ä,ç,éSe  
 []f^,ÉfCf“fXfg ODBC fhf%ofCfo,É,Ä,ç,ÄA-  
 []f<,³,è,Ä,ç,é ¼'O[]Afo[]fWfjf“[]A%ïžĐ-¼[]Aftf@fCf<-  
 ODBC fhf ¼[]Aftf@fCf<[]X[]V“úŽž,ð•Žl,μ,Ü,·B  
 %ofCfo]  
 f{fbfNfX  
 [OK] [ODBC ff[]f^ f[]fX fAfhf~fjXfgfCE[]f^]  
 f\_fCfAf[]fO f{fbfNfX,ð•Ä,¶,Ü,·B  
 [fLfff“fZf<] [ODBC ff[]f^ f[]fX fAfhf~fjXfgfCE[]f^]  
 f\_fCfAf[]fO f{fbfNfX,ð•Ä,¶,Ü,·B  
 [fwf<fv] fwf<fv%œ-É,ð•Žl,μ,Ü,·B

fhf%ofCfo,ì'Ç%Ä,Æ[]íœ,Éžg—p,·,é [Ç%Ä] f{f^f“,Æ [íœ] f{f^f“,íA,±,ìf\_fCfAf[]fO  
 f{fbfNfX,É,í, ,è,Ü,¹,ñBODBC fhf%ofCfo,ì'Ç%Ä,â[]íœ,íAfhf%ofCfo,ìfZfbfgfAfbfv fv[]fOf%of€,ðžg—  
 p,μ,Äs,π•K—v,ª, ,è,Ü,·B

## [fgfCE[fX] f^fu

ODBC fhf%ofCfo f}f[]fWff,<sup>a</sup> ODBC ŠÖ[] ,ìCEÄ,Ñ[]o,μ,ðfgfCE[fX ('Ç[]Ö) ,.é•û-@,ðžw'è,μ,Ü,·[]BffjXf^f€ fgfCE[fX DLL ,ðžg—p,μ,Ä[]ACEp'±“l,ÈfgfCE[fX[]A^è“x,ì,Ý,ìfgfCE[fX[]A“@“ìfgfCE[fX[]A,Ü,½,ìffjXf^f€ fgfCE[fX,ðžw'è,Ä,«,Ü,·[]B

### fjfvfVfjf“

□à-¾

[fgfCE[fX,ð[]i,·,® ŠjŽn,·,é]

“®“ìfgfCE[fX,ð—  
LCEø,É,μ,Ü,·[]B“®“ìfgfCE[fX,í[]A[ODBC  
ff[]f^ f[]fX fAfhf~fjXfgfCE[f^]  
f\_fCfAf[]fO f{fbfNfX,<sup>a</sup>•Ž!,<sup>3</sup>,è,Ä,ç  
,é[]Ä't,ÉŽÄ[]s,<sup>3</sup>,è,Ü,·[]B“®“ìfgfCE[fX,í[]A  
[]Ú'±,ì—L-<sup>3</sup>,É,©,©,í,ç,·—  
LCEø,É,Ä,«,Ü,·[]B[fgfCE[fX,ð[]i,·,®ŠjŽn,·,  
é] ,ðfNfŠfbfN,·,é,Æ[]Af{f^f“,<sup>a</sup>  
[fgfCE[fX,ì'âŽ~]  
f{f^f“,É•ì,í,è,Ü,·[]B[fgfCE[fX,ì'âŽ~]  
,ðfNfŠfbfN,·,é,Ü,Ä“®“ìfgfCE[fX,í—  
LCEø,Ä,·[]B

[Visual Studio Analyzer ,ìŠjŽn]

Visual Studio Analyzer ,ð—  
LCEø,É,μ,Ü,·[]B[Visual Studio Analyzer  
,ìŠjŽn] ,ðfNfŠfbfN,·,é,Æ[]Af{f^f“,<sup>a</sup>  
[Visual Studio Analyzer ,ì'âŽ~]  
f{f^f“,É•ì,í,è,Ü,·[]B,±  
,ìf{f^f“,ðfNfŠfbfN,·,é,Æ[]AVisual Studio  
Analyzer ,í-<sup>3</sup>CEø,É,É,è,Ü,·[]B[Visual  
Studio Analyzer ,ì'âŽ~]  
,ðfNfŠfbfN,·,é,Ü,Ä Visual Studio  
Analyzer ,í—LCEø,Ä,·[]B

[f[]fO ftf@fCf<,ìpfX]

fgfCE[fX[]î•ñ,ìŠi“[ftf@fCf<,ìpfX,Æftf@fC  
f<-¼,ð•\  
Ž!,μ,Ü,·[]BfVfXfef€[]î•ñ,©,çŠù'è,ìpfX,Æf  
tf@fCf<-¼ (SQL.LOG) ,<sup>a</sup>Š,,è—  
,Ä,ç,è,Ü,·,[]A•É,ìpfX,Æftf@fCf<-¼,ð“ü  
—í,·,é,©[]A[ŽQ[]Æ]  
,ðfNfŠfbfN,μ,ÄftfHf<f\_,Æftf@fCf<,ð'l'ð,μ[]  
A•É,ìftf@fCf<,ðžw'è,Ä,«,Ü,·[]B

[ŽQ[]Æ]

fRf“fsf...[]f^,ìftfHf<f\_,ðžQ[]Æ,μ,Ä[]Af[]fO  
ftf@fCf<,ìpfX,Æftf@fCf<-  
¼,ð'l'ð,·,é,Æ,«,Éžg—p,μ,Ü,·[]B

[ffjXf^f€ fgfCE[fX DLL]

fgfCE[fX,ìŽÄ[]s,Éžg—p,·,éftf@fCf<,ð  
ODBCTRAC.DLL ftf@fCf<^ÈŠO,ìfgfCE[fX  
DLL ,©,ç'l'ð,·,é,Æ,«,Éžg—  
p,μ,Ü,·[]BMicrosoft Data Access SDK  
,É•t'®,·,é ODBCTRAC.DLL  
ftf@fCf<,ð[]A“C^Ó,ìffjXf^f€ DLL  
,É'u,«Š·,ì,é,±,Æ,<sup>a</sup>Ä,«,Ü,·[]BffjXf^f€ DLL  
,ìpfX,“,æ,Ñftf@fCf<-¼,ð“ü—  
í,·,é,©[]A[DLL ,ì'l'ð]  
,ðfNfŠfbfN,μ,ÄftfHf<f\_,ð'l'ð,μ,Ü,·[]B

[DLL ,ì'ò] fffBfCEfNfgfŠ\‘č,đŽQ□Æ,μ,ÄffjXf^f€  
fgfCE□[fX DLL ,đ'ì'ò,·,é,Æ,«,ÉŽg—  
p,μ,Ü,·□BDLL  
,đ'ì'ò,·,é,Æ□A,»,ìfpfX,Æftf@fCf<-¼,ª  
[fjXf^f€ fgfCE□[fX DLL] f{fbfNfX,É•\  
Ž!,³,è,Ü,·□B

[OK] fgfCE□[fX,ì□Ý'è,ì•ï□X,đ“K—p,μ,Ä,©,ç  
[ODBC ff□[f^ f□[fX fAfhf~fjXfgfCE□[f^]  
f\_fCfAf□fO f{fbfNfX,đ•Â,¶,Ü,·□B

[fLfff“fZf<] fgfCE□[fX,ì□Ý'è,ì•ï□X,đ“K—p,¹,,É [ODBC  
ff□[f^ f□[fX fAfhf~fjXfgfCE□[f^]  
f\_fCfAf□fO f{fbfNfX,đ•Â,¶,Ü,·□B

[“K—p] [ODBC ff□[f^ f□[fX fAfhf~fjXfgfCE□[f^]  
f\_fCfAf□fO  
f{fbfNfX,đ•Â,¶,,É□AfgfCE□[fX,Ö,ì•ï□X“à  
—e,đ“K—p,μ,Ü,·□B•ï□X,ª^è□□s,í,è,Ä,č  
,È,~,è,î□A,±,ìf{f^f“,í'W□F•Ž!,³,è,Ü,·□B

[fwf<fv] fwf<fv%œ-Ê,đ•Ž!,μ,Ü,·□B

## ff[]fU[] ff[]f^ f[]fX] f{fbfNfX

,±,İfŠfXfg,ÍADSÑ ,ì-¼'O,Æ,»,ê,É'î%ž,·,éfhf%oCfo,È,ÇAft[]fU[] DSN ,đ,·,×,Ä•\  
Ž!,μ,Û,·Bft[]fU[] ff[]f^ f[]fX,É'î,μ,Äfhf%oCfoEÅ—L,İff[]f^ f[]fX,İfZfbfjgfAfbfv f\_fCfAfofO  
f{fbfNfX,đ•Ž!,·,é,É,ÍAft[]fU[] DSN ,đ\_fuf:fNfŠfbfN,μ,Û,·B

## 【\□¬】

fhf%oCfoĀ—L,ìff□[f^ f□[fX,ìfZfbfgfAfbfv f\_fCfAf□fO f{fbfNfX,đ•\Ž!,·,é,É,í□A[□\□¬]  
,đfNfŠfbfN,μ,Û,·□B,±,ìf\_fCfAf□fO f{fbfNfX,Ā,í□AŠù'¶,ìft□[fU□[ ff□[f^ f□[fX,ì\□¬,đ•í□X,·,é,±  
,Æ,ª,Ā,«,Û,·□B'î□Û,Æ,È,éft□[fU□[ ff□[f^ f□[fX,đfŠfXfg f{fbfNfX,Ā'í'đ,μ,Ā,¨,•K—v,ª, ,è,Û,·□B



## ['Ç%oÁ]

□V,μ,ff□[f^ f□[fX,δ'Ç%oÁ,·,é,É,í□A['Ç%oÁ] ,đfNfŠfbfN,μ,Ü,·□B[ff□[f^ f□[fX,ì□V<K□ì□-] f\_fCfAf□fO  
f{fbfNfX,<sup>a</sup>•\Ž!,<sup>3</sup>,é,Ü,·□B,±,ìf\_fCfAf□fO f{fbfNfX,É,ífhf%oCfo,<sup>a</sup>ê—•\Ž!,<sup>3</sup>,é,Ü,·□Bft□[fU□[ ff□[f^ f□[fX  
—p,É'Ç%oÁ,·,éfhf%oCfo,đ'l'đ,μ,Ü,·□B[Š@—<sup>1</sup>] ,đfNfŠfbfN,·,é,Æ□A,»,ìfhf%oCfoCEÅ—L,ìff□[f^ f\  
□[fX,ìfZfbfgfAfbfv f\_fCfAf□fO f{fbfNfX,<sup>a</sup>•\Ž!,<sup>3</sup>,é,Ü,·□B

## 【íœ】

Šù'¶,ìff[]f^ f[]fX,ðfŠfXfg f{fbfNfX,©,ç[]íœ,·,é,É,íA[]íœ] ,ðfNfŠfbfN,μ,Ü,·B[]íœ,·,éff[]f^ f  
[]fX,ðfŠfXfg f{fbfNfX,Å'l'ð,μ,Ä,¨,•K—v,ª, ,è,Ü,·B

**[OK]**

[ODBC ff[f^ f[fX fAfhf~fjfXfgf[f^] f\_fCfAf[fO f{fbfNfX,ð•Â,¶,é,É,íA[OK]  
.đNfŠfbfN,μ,Û,·Bff[f^ f[fX fŠfXfg f{fbfNfX,É'í,·,é•ïX,đ“K—p,·,é,½,ß,É [OK] ,đNfŠfbfN,·,é•K—  
v,í, ,è,Û,¹,ñBfŠfXfg f{fbfNfX,É'í,·,é•ïX,íAff[f^ f[fX,lfZfbfgfAfbfv f\_fCfAf[fO f{fbfNfX,Å [OK]  
.đNfŠfbfN,μ,½Žž“\_„Å“K—p,³,è,Û,·B

## [fLfff“fZf<]

[ODBC ff□[f^ f□[fX fAfhf~fjfXfgf□□[f^] f\_fCfAf□fO f{fbfNfX,ð•À,¶,é,É,í□A[fLfff“fZf<]  
,ðfNfŠfbfN,μ,Û,·□B[fLfff“fZf<] ,ðfNfŠfbfN,μ,Ä,à□Afff□[f^ f□[fX fŠfXfg  
f{fbfNfX,Ö,ì•ï□X,íŽæ,è□Á,<sup>3</sup>,é,Û,<sup>1</sup>,ñ□B

**[fwf<fv]**

,±,lf^fu,ÉŠÖ,·,éfwf<fv,đ•\Ž|,·,é,É,Í□A[fwf<fv] ,đNfŠfbfN,μ,Û,·□B

## [fVfXfef€ ff[f^ f[fX] f{fbfNfX

,±,lfŠfXfg f{fbfNfX,íADSÑ ,ì-¼'O,Æ,»è,É'í%ž,·,éfhf%ofCfo,đŠÜ,pAfVfXfef€ DSN ,đ,·,×,Ä•\  
Ž!,μ,Ü,·BfVfXfef€ ff[f^ f[fX ,É'í,μ,Äfhf%ofCfoEÅ—L,íf[f^ f[fX,lfZfbfgfAfbfv f\_fCfAf□fo  
f{fbfNfX,đ•Ž!,·,é,É,íAfVfXfef€ DSN ,đf\_fuf·fNfŠfbfN,μ,Ü,·□B

## 【□□→】

fhf%oCfoEĀ—L,ìff□[f^ f□[fX,ìfZfbfgfAfbfv f\_fCfAf□fO f{fbfNfX,đ•\Ž!;·,é,É,í□A[□□→]  
,đNfŠfbfN,μ,Û,·□B,±,ìf\_fCfAf□fO f{fbfNfX,Ā,í□AŠù'¶,ìfVfXfef€ ff□[f^ f□[fX,ì□□→,đ•'í□X,·,é,±  
,Æ,ª,Ā,«,Û,·□B'î□Û,Æ,È,éfVfXfef€ ff□[f^ f□[fX,đfŠfXfg f{fbfNfX,Ā'í'đ,μ,Ā,¨,•K—v,ª, ,è,Û,·□B

## [ 'Ç%Á ]

V,µ,νfXfef€ ff[f^ f[fX,đ'Ç%Á,·,é,É,Í[A['Ç%Á] ,đNfŠfbfN,µ,Ü,·B[ff[f^ f[fX,ìV<K[]-]  
f\_fCfAf[]fO f{fbfNfX,ª•\Ž!,³,ê,Ü,·B,±,ìf\_fCfAf[]fO f{fbfNfX,É,ífhf%ofCfo,ª^ê—•\Ž!,³,ê,Ü,·BfVfXfef€  
ff[f^ f[fX,đ'Ç%Á,·,éfhf%ofCfo,đ'!đ,µ,Ü,·B[Š@—¹] ,đNfŠfbfN,·,é,Æ[A,» ,ìfhf%ofCfoCEÅ—L,ìff[f^ f[  
[fX,ìfZfbfgfAfbfv f\_fCfAf[]fO f{fbfNfX,ª•\Ž!,³,ê,Ü,·B



## 【íœ】

Šù'¶,jVfXfef€ ff[f^ f[fX,đŠfXfg f{fbfNfX,©,çíœ,.,é,É,íA[íœ]

,đNfŠfbfN,μ,Ü,·Bíœ,.,éVfXfef€ ff[f^ f[fX,đŠfXfg f{fbfNfX,Å'í'đ,μ,Ä,¨,•K—v,<sup>a</sup>, ,è,Ü,·B

**ftf@fCf< ff[]f^ f[]fX f{fbfNfX**

,±,lfŠfXfg f{fbfNfX,íA[]ff[]f^ f[]fX,ìê[]Š] f{fbfNfX,Å•\Ž!,³,ê,éftfHf<f\_,ÉŠÜ,Ü,ê,éftf@fCf< DSN  
,ÆfTfuftfHf<f\_đ,·,×,Ä•\Ž!,μ,Ü,·[]Bftf@fCf< DSN ,đf\_fuf<fNfŠfbfN,·,é,Æ[]Afhf%oofCfoĀ—L,ìff[]f^ f[]  
[]fX,ìfZfbfgfAfbfv f\_fCfAf[]fO f{fbfNfX,²•\Ž!,³,é,Ü,·[]B

【\□¬】

fhf%oCfoEĀ—L,ìff□[f^ f□[fX,ìfZfbfgfAfbfv f\_fCfAf□fO f{fbfNfX,đ•\Ž!,·,é,É,í□A[□\□¬]  
,đNfŠfbfN,μ,Û,·□B,±,ìf\_fCfAf□fO f{fbfNfX,Ā,í□AŠù'¶,ìftf@fCf< ff□[f^ f□[fX,ì□\□¬,đ•í□X,·,é,±  
,Æ,ª,Ā,«,Û,·□B'î□Û,Æ,È,éftf@fCf< ff□[f^ f□[fX,đfŠfXfg f{fbfNfX,Ā'í'đ,μ,Ā,¨,•K—v,ª, ,è,Û,·□B

## [ 'Ç%Á ]

V,µ,ftf@fCf< ff[f^ f[fX,ð'Ç%Á,µ,Ü,·B[ff[f^ f[fX,ìV<Kòì-] f\_fCfAfO f{fbfNfX,ª·\  
Ž,³,è,Ü,·B,±,ìf\_fCfAfO f{fbfNfX,É,ìfhf%ofCfo,ª^è—·Ž,³,è,Ü,·B,±,ìf\_fCfAfO f{fbfNfX,É,ìfhf  
%ofCfo,ª^è—·Ž,³,è,Ü,·B[V,µ,ftf@fCf< ff[f^ f[fX—p,É'Ç%Á,·,éfhf%ofCfo,ð'ì'ð,µ,Ä [Ú×Ý'è]  
,ðfNfŠfbfN,·,é,ÆAftf@fCf< DSN ,É'ì,·,éL[f[fh,ðŽw'è,Å,«,Ü,·B

## 【íœ】

Šù'¶,}ff[f^ f[fX,ðíœ,μ,Ü,·B[íœ] ,ðfNfŠfbfN,·,é'O,ÉAíœ,·,éftf@fCf< ff[f^ f[fX,ðfŠfXfg  
f{fbfNfX,Å'l'ð,μ,Ä,¨,•K—v,ª, ,è,Ü,·B



## [ff][f^ f][fX,ìéŠ]

fjfCef“fg ftfHf<f\_đ•\Žì,μ,Ü,·B,»ì%º,ìfEfBf“fhfE,É,íAjjfCef“fg ftfHf<f\_ìfTfuftfHf<f\_Æftf@fCf< DSN ,ª•\ Žì,³,è,Ü,·B%ŠúÝ’è,Å,íAfvfXfef€î•ñ,ÉŽù,ß,ç,è,½Šù’èftfHf<f\_ª•\Žì,³,è,Ü,·B

**[1 ,Âã,ìftHf<f\_Ö] (fAfCfRf“)**

[ff[f^ f\ [fX,ìêŠ] ,É•Ž|,³,ê,éftHf<f\_øACE»Ý‘I’ð,μ,Ä,ç,éftHf<f\_ì 1 ,Âã,ìftHf<f\_É•ïX,·,é,É,ÍA[1 ,Âã,ìftHf<f\_Ö] (fAfCfRf“) ,ðfNfŠfbfN,μ,Ü,·B



## [ftfHf<f\_]

ftfHf<f\_,"à—e,ð•\Ž|,·,é,É,í□A[ftfHf<f\_] f{fbfNfX,ÉftfHf<f\_,ìfpfX,ð“ü—í,μ,Ü,·□B□â'ìfpfX□AjjfCEf“fg  
ftfHf<f\_ ,©,ç,ì'Š'ìfpfX,ì,ç,·,ê,©,ð“ü—í,Å,«,Ü,·□B

**[ODBC fhf%ofCfo]/[Ú'±fv[f<,lf^fCf€fAfEfg]**

fRf“fsf...[f^,ÉfCf“fXfg[f<,³,è,Ä,ç,éŠe ODBC fhf%ofCfo,íAÚ'±fv[f<,lf^fCf€fAfEfg flfvfVf#f“,Æ<α,É^è  
—•\Ž!,³,è,Ü,·Bf^fCf€fAfEfg flfvfVf#f“,ðŸ'è,·,é,É,íA“C^Ó,ì ODBC fhf%ofCfo-  
¼,ðf\_fuf<fNfŠfbfN,μ,Ü,·B

[,±,ìfRf“fsf...[]f^,ÉfCf“fXfg[]f<,³,ê,Ä,ç,é ODBC fhf%ofCfo] f{fbfNfX

,±,ìfŠfXfg f{fbfNfX,í[]Afrf“fsf...[]f^,ÉfCf“fXfg[]f<,³,ê,Ä,ç,é ODBC fhf%ofCfo,ì-¼‘O[]Afo[]fWf#“[]A  
%oìŽĐ-¼[]Aftf@fCf<-¼[]A[]X[]V“ úŽž,đ•\Ž|,μ,Ü,·[]B

## [fgfCE[fX,đi,.,@ŠJŽn,.,é]

[ODBC ff[f^ f[fX fAfhf~fjXfgfCE[f^] f\_fCfAfO f{fbfNfX,ì)\\  
Ž!'+,ÉfgfCE[fX,đŽÀs,.,é,É,íA[fgfCE[fX,đi,.,@ŠJŽn,.,é] ,đfNfŠfbfN,μ,Ü,·B" @ "lfgfCE[fX,íAÚ'±,ì—  
L-³,É,©,©,í,ç,·—LCEø,É,Å,«,Ü,·B[fgfCE[fX,đi,.,@ŠJŽn,.,é] ,đfNfŠfbfN,.,é,ÆAf{f^f",<sup>a</sup>  
[fgfCE[fX,ì'âŽ~] f{f^f",É•ï,í,è,Ü,·B[fgfCE[fX,ì'âŽ~] f{f^f",đfNfŠfbfN,.,é,©A[ODBC ff[f^ f[fX  
fAfhf~fjXfgfCE[f^] f\_fCfAfO f{fbfNfX,đ•Å,¶,é,ÆA" @ "lfgfCE[fX,í-³CEø,É,È,è,Ü,·B

## [Visual Studio Analyzer ,İŠJŽn]

Visual Analyzer fCxf“fg” □s,ðĈep’±“l,ÉfgfĈ□[fX,·,é,É,Í□A[Visual Studio Analyzer ,İŠJŽn]  
,ðfNfŠfbfN,μ,Ü,·□B[Visual Studio Analyzer ,İŠJŽn] ,ðfNfŠfbfN,·,é,Æ□Af{f^f“,<sup>q</sup> [Visual Studio Analyzer  
,l’âŽ~] f{f^f“,É•İ,í,è,Ü,·□B[Visual Studio Analyzer ,l’âŽ~] ,ðfNfŠfbfN,·,é,Æ Visual Studio Analyzer ,l’  
³Ĉø,É,È,è,Ü,·□B

## [f fO ftf@fCf<,lfpfX]

f fO ftf@fCf<,lfpfX,Æftf@fCf<-¼,ð•ïX,·,é,É,íA[f fO ftf@fCf<,lfpfX] f{fbfNfX,ÉfefLfXfg,ð“ü—  
Í,μ,Ü,·B,±,lf{fbfNfX,íAfgfÆ[fXî•ñ,ª•Û'¶,³,ê,Ä,ç,éftf@fCf<,lfpfX,Æftf@fCf<-¼,ð•\  
Ž!,μ,Ü,·BfVfXfef€î•ñ,©,çŠù'è,lfpfX,Æftf@fCf<-¼ (SQL.LOG) ,ªŠ,,,è“-  
,Ä,ç,ê,Ü,·ªA•Ê,lfpfX,Æftf@fCf<-¼,ð“ü—Í,·,é,©A[ŽQÆ]  
,ðNfŠfbfN,μ,ÄftfHf<f\_,Æftf@fCf<,ð'!ð,μA•Ê,lfpf@fCf<,ðŽw'è,Å,«,Ü,·B

## [ŽQÆ]

fRf“fsf... [f^, ðŽQÆ, μ, ÄAfO ftf@fCf<, ð' l' ð, ·, é, Æ, «, ÉŽg—p, μ, Ü, ·B

## [fj]Xf^f€ fgf€[fX DLL]

fgf€[fX, ìŽÀs, ÉŽg—p, ., éftf@fCf<, ð ODBCTRAC.DLL ftf@fCf<^ÈŠO, ìfgf€[fX DLL  
, ©, ç'ì'ð, ., é, É, íA[fj]Xf^f€ fgf€[fX DLL] f{fbfNfX, É, »), ìpfX, ", æ, Ñftf@fCf<-¼, ð"ü—í, μ, Û, .BMicrosoft  
Data Access SDK , É•t' @, ., é ODBCTRAC.DLL ftf@fCf<, ðA"C^Ó, ìfj]Xf^f€ DLL , É'u, «Š, ì, é, ±  
, Æ, ð, Å, «, Û, .Bfj]Xf^f€ DLL , ìpfX, ", æ, Ñftf@fCf<-¼, ð"ü—í, ., é, ©A[DLL , ì'ì'ð]  
, ðfNfŠfbfN, μ, ÅftfHf<f\_ð'ì'ð, μ, Û, .B



## [DLL ,ì'ð]

ffBfÇfNfgfŠ\`ç,ðŽQÆ,μ,ÄjXf^f€ fgfÇ[fX DLL ,ð'ì'ð,·,é,É,íA[DLL ,ì'ð] ,ðfNfŠfbfN,μ,Ü,·BDLL  
,ð'ì'ð,·,é,ÆA,» ,ìpfX,Æftf@fCf<-¼,<sup>a</sup> [f]fXf^f€ fgfÇ[fX DLL] f{fbfNfX,É•\Ž,³,ê,Ü,·B

**[OK]**

fgf☒[fX,ì☒Ý'è•ï☒X,đŽó,~“ü,ê,Ä☒A[ODBC ff☒[f^ f☒[fX fAfhf~fjXfgf☒[f^] f\_fCfAf☒fO  
f{fbfNfX,đ•Â,¶,é,É,í☒A[OK] ,đfNfŠfbfN,μ,Ü,·☒B

## [fLfff“fZf<]

fgf☐☐[fX,ì☐Ý'è•ï☐X,đŽó,~“ü,ê,,É☐A[ODBC ff☐[f^ f☐[fX fAfhf~fjXfgf☐☐[f^] f\_fCfAf☐fO  
f{fbfNfX,đ•Â,¶,é,É,í☐A[fLfff“fZf<] ,đfNfŠfbfN,μ,Ü,·☐B

## ["K—p]

[ODBC f^ f\ fX fAfhf~fjfXfgf^] f\_fCfAfO  
f{fbfNfX,ð•Â,¶,„ÉAfgf^fX,ìY'è•ïX,ðŽó,~“ü,ê,éê‡,íA["K—p]  
,đNfŠfbfN,μ,Ü,·B•ïX,â^ê∅s,í,ê,Ä,ç,È,¯,ê,îA,±,lf{f^f“,í'W□F•Ž!,³,ê,Ü,·B

**[ftf@fCf< ff[]f^ f[]fX] f^fu**

ftf@fCf< DSN ,ðž,Äff[]f^ f[]fX,Éü'±,μ,Ü,·□B“~ ,ñfhf%ofCfo,ðfCf“fXfg[]f<,μ,½,·,×,Ä,ìft[]fU[][,ª<κ—  
 L,Ä,«,éftf@fCf< f[]fX,ìff[]f^ f[]fX,Ä, ,è□Aft[]fU[][,É,æ,éff[]f^f[]fX,Ö,ìfAfNfZfX,ª%Ä^,Ä,·□B,±  
 ,é,ç,ìff[]f^ f[]fX,ð□Aft[]fU[][,É'í,μ,Äè—p,É,·,é•K—v,à□Afrf“fsf...[]f^,É'í,μ,Äff[]fj<,É,·,é•K—  
 v,à, ,è,Ü,¹,ñ□B

<b>flfvfVfjf“</b>	<b>□à-¾</b>
ftf@fCf< ff[]f^ f[]fX f{fbfNfX	[ff[]f^ f[]fX,ìè□Š] f{fbfNfX,É•\ Ž!,³,è,éftfHf<f_ ,ÉŠÜ,Ü,è,éftf@fCf< DSN ,ÆfTfufHf<f_ ,ð,·,×,Ä•Ž!,μ,Ü,·□BDSN ,ðf_fuf<fNfŠfbfN,·,é,Æff[]f^ f[]fX,Éü'± ,μ,Ü,·□B
[ff[]f^ f[] fX,ìè□Š]	fjfCEf“fg ftfHf<f_ ,ð•Ž!,μ,Ü,·□B,»,)ì %oo,ìfEfBf“fhfE,É,í□AfffCEf“fg ftfHf<f_ ,ìTfufHf<f_ ,Æftf@fCf< DSN ,ª•\ Ž!,³,è,Ü,·□BfefLfXfg f{fbfNfX,ì%oE'ª,É, ,é %ooCEü,«— î'ó,ðfNfŠfbfN,·,é,Æ□A,»,)ffffBfCEfNfgfŠ□\ 'ç' S' ì,ª•Ž!,³,è,Ü,·□B
[1 ,Ä□ä,ì ftfHf<f_ ,Ö] (fAfCfRf“)	[ff[]f^ f[]fX,ìè□Š] f{fbfNfX,É•\ Ž!,³,è,éftfHf<f_ ,ð□ACE»□Y'ì'ð,μ,Ä,ç,éftfHf<f_ ,ì 1 ,Ä□ä,ìftfHf<f_ ,É•ì□X,μ,Ü,·□B
[DSN -¾]	ftf@fCf< ff[]f^ f[]fX f{fbfNfX,Ä'ì'ð,³,è,Ä,ç ,éftf@fCf< DSN -¾,ð•\ Ž!,μ,Ü,·□B,Ü,½,í□A□V,μ,çftf@fCf< DSN - ¾,ð“ü—í,Ä,«,Ü,·□B
[□V<K□ì□~]	□V,μ,çftf@fCf< ff[]f^ f[]fX,ð'ç %oÄ,μ,Ü,·□B,± ,ìf{f^f“ ,ðfNfŠfbfN,·,é,Æ□A[ff[]f^ f[] f[]fX,ì□V<K□ì□~] f_fCfAf□fO f{fbfNfX,ª•\ Ž!,³,è,Ü,·□B,±,ìf_fCfAf□fO f{fbfNfX,É,ìfhf %ofCfo,ª^è—•Ž!,³,è,Ü,·□Bftf@fCf< DSN — p,É'ç%oÄ,·,éfhf %ofCfo,ð'ì'ð,μ,Ü,·□B[□ú□×□Y'è] ,ðfNfŠfbfN,·,é,Æ□Aftf@fCf< DSN ,É'í,·,éfl□[f□□fh,ðžw'è,Ä,«,Ü,·□B
[OK]	[ODBC ff[]f^ f[]fX fAfhf~fjXfgfCE[]f^] f_fCfAf□fO f{fbfNfX,ð•Ä,ñ□Af{fbfNfX,ÄfnfCf %ofCfg•Ž!,³,è,Ä,ç,éftf@fCf< ff[]f^ f[] f[]fX□A,Ü,½,í [DSN -¾] f{fbfNfX,É“ü— í,μ,½ftf@fCf< ff[]f^ f[]fX,Éü'±,μ,Ü,·□B ftf@fCf< ff[]f^ f[]fX f{fbfNfX,É'í,·,é•ì□X,ð“K—p,·,é,½,β,É [OK] ,ðfNfŠfbfN,·,é•K—v,í, ,è,Ü,¹,ñ□BfŠfXfg f{fbfNfX,É'í,·,é•ì□X,í□Afff[]f^ f[] f[]fX,ìfZfbfgfAfbfv f_fCfAf□fO f{fbfNfX,Ä [OK] ,ðfNfŠfbfN,μ,½žž“_ ,Ä“K—p,³,è,Ü,·□B
[flfff“fzf<]	ftf@fCf< ff[]f^ f[]fX,Éü'±,¹,·,É [ODBC

ff[]f^ f[]fX fAfhf~fjXfgf[]f^] f\_fCfAf[]fO  
 f{fbfNfX,ð•Å,¶,Ü,·[]B[fLfff"fZf<]  
 ,ðNfŠfbfN,µ,À,à[]Aftf@fCf< ff[]f^ f[]fX  
 f{fbfNfX,Ö,ì•ï[]X,Ížæ,è[]Á,³,è,Ü,¹,ñ[]B  
 [fwf<fv] fwf<fv%œ-Ê,ð•Ž!,µ,Ü,·[]B

**[fRf"fsf...[]f^ ff[]f^ f[]fX] f^fu**

ft[]fU[] [ DSN ,Ü,½,½fVfXfef€ DSN ,ðž[],Åff[]f^ f[]fX,É[]Ú'±,µ,Ü,·[]BfRf"fsf...[]f^ ff[]f^ f[]fX,í,±  
 ,ìRf"fsf...[]f^,É€Å-L,Å, ,è[]A<α-L,³,è,Ü,¹,ñ[]Bft[]fU[] [ ff[]f^ f[]fX,í,±,ìRf"fsf...[]f^ ,ìft[]fU[] [,É€Å  
 -L,Å,·[]B,±,ìRf"fsf...[]f^ ,ì,·,×,Å,ìft[]fU[] [,Ü,½,½fVfXfef€ f[]fCfh,ìft[]fX,ì[]AfvfXfef€ ff[]f^ f[]fX,ðžg  
 -p,·,é,±,Æ,³,Å,«,Ü,·[]B

**fifvfVfjf"      []à-¾**

fRf"fsf...[]f^      ft[]fU[] [ DSN ,ÆfvfXfef€ DSN ,ìfŠfXfg (DSN  
 ff[]f^ f[]fX      ,ì-¾'O,Æf^fCfv,ðŠÜ,p) ,Å,·[]BDSN  
 f{fbfNfX      ,ðf\_fuf·fNfŠfbfN,·,é,Æff[]f^ f[]fX,É[]Ú'±  
 ,µ,Ü,·[]B

[[]V<K[]i[]-]      []V,µ,çfRf"fsf...[]f^ ff[]f^ f[]fX,ð'Ç  
 %œÅ,µ,Ü,·[]B,±  
 ,ìf{f^f",ðfNfŠfbfN,·,é,Æ[]A[ff[]f^ f[]  
 []fX,ì[]V<K[]i[]-] f\_fCfAf[]fO f{fbfNfX,³•\  
 Ž!,³,è,Ü,·[]B,±,ìf\_fCfAf[]fO f{fbfNfX,É,ìfhf  
 %ofCfo,³è-—•\  
 Ž!,³,è,Ü,·[]Bft[]fU[] [,Ü,½,½fVfXfef€ DSN —  
 p,É'Ç%œÅ,·,éfhf%ofCfo,ð'ð,µ,Ü,·[]B[ŽŽ,Ö]  
 ,ðNfŠfbfN,·,é,Æ[]ADSN  
 ,É'í,·,éfl[]f[]f[]fh,³K[]Ø,Å, ,é,±  
 ,Æ,ðŠm"F,Å,«,Ü,·[]B

[OK]      [ff[]f^ f[]fX,ì'ð) f\_fCfAf[]fO  
 f{fbfNfX,ð•Å,¶[]Af{fbfNfX,ÅfnfCf%ofCfg•\  
 Ž!,³,è,Å,ç,éRf"fsf...[]f^ ff[]f^ f[]fX,É[]Ú'±  
 ,µ,Ü,·[]B  
 fRf"fsf...[]f^ ff[]f^ f[]fX  
 f{fbfNfX,É'í,·,é•ï[]X,ð"K-p,·,é,½,β,É [OK]  
 ,ðNfŠfbfN,·,é•K-v,í, ,è,Ü,¹,ñ[]BfŠfXfg  
 f{fbfNfX,É'í,·,é•ï[]X,ì[]Aft[]f^ f[]  
 []fX,ìfZfbfgfAfbfv f\_fCfAf[]fO f{fbfNfX,Å  
 [OK] ,ðNfŠfbfN,µ,½žž"\_,Å"K-p,³,è,Ü,·[]B

[fLfff"fZf<]      fRf"fsf...[]f^ ff[]f^ f[]fX,É[]Ú'±,¹,·,É  
 [ODBC ff[]f^ f[]fX fAfhf~fjXfgf[]f^]  
 f\_fCfAf[]fO  
 f{fbfNfX,ð•Å,¶,Ü,·[]B[]mfLfff"fZf<[]n  
 ,ðNfŠfbfN,µ,À,à[]Rf"fsf...[]f^ ff[]f^ f[]fX  
 f{fbfNfX,Ö,ì•ï[]X,Ížæ,è[]Á,³,è,Ü,¹,ñ[]B  
 [fwf<fv] fwf<fv%œ-Ê,ð•Ž!,µ,Ü,·[]B

**ftf@fCf< ff[]f^ f[]fX f{fbfNfX**

[ff[f^ f[fX,îêš] f{fbfNfX,É•Ž!,³,ê,éftfHf<f\_ÉšÜ,Ü,ê,éftf@fCf< DSN ,ÆfTfufHf<f\_đ,·,×,Ä•\  
Ž!,μ,Ü,·BDSN ,đf\_fuf<fNfšfbfN,·,é,Æff[f^ f[fX,ÉÚ'±,μ,Ü,·B

## [ff][f^ f][fX,ìéŠ]

fjfCEf“fg ftfHf<f\_ ,đ•\Žì,μ,Ü,·B,» ,ì%° ,ìfEfBf“fhfE,É,íAjjfCEf“fg ftfHf<f\_ ,ìfTfuftfHf<f\_ ,Æftf@fCf< DSN ,đ•\ Žì,³,é,Ü,·BfefLfXfg f{fbfNfX,ì%°E‘æ,É, ,é%°CEü,«-î^ó,đfNfŠfbfN,·,é,ÆA,» ,ìfffBfCEfNfgfŠ\‘ç‘S‘ì,đ•\ Žì,³,é,Ü,·B



# [1 ,Âã,ìftHf<f\_ ,Ö] (fAfCfRf“)

[ff[f^ f[fX,ìéŠ] f{fbfNfX,É•Ž!,³,é,éftHf<f\_ ,ðACE>Ý!‘ð,μ,Ä,ç,éftHf<f\_ ,ì 1  
,Âã,ìftHf<f\_ ,É•ïX,μ,Ü,·B

**[DSN -¼]**

ftf@fCf< ff[]f^ f[][fX f{fbfNfX,Å'1'ð,³,ê,Ä,ç,éftf@fCf< DSN -¼,ð•\Ž!,μ,Ü,·□B,Ü,½,Í□A□V,μ,çftf@fCf<  
DSN -¼,ð“ü—Í,Å,«,Ü,·□B

**[Connect]**

f{fbfNfX,ÅfnfCf%oofCf g•\Ž|,³,ê,Ä,č,éftf@fCf< DSN ,Ü,½,í [DSN -¼] f{fbfNfX,É“ü—í,³,ê,½ftf@fCf< DSN  
,É□Ú'±,μ,Ü,·□B

## [V<K]i]

V,μ,ϕftf@fCf< ff[f^ f[fX,δ'Ç%Á,μ,Ü,·B,±,lf{f^f“,ðfNfŠfbfN,·,é,ÆA[ff[f^ f[fX,i[V<K]i]  
f\_fCfAfO f{fbfNfX,ª•\Ž,³,ê,Ü,·B,±,lf\_fCfAfO f{fbfNfX,É,ífhf%oCfo,ª^ê—•\Ž,³,ê,Ü,·Bftf@fCf<  
DSN —p,É'Ç%Á,·,éfhf%oCfo,δ'l'ð,μ,Ü,·B[ŽŸ,Ö] ,ðfNfŠfbfN,·,é,ÆAftf@fCf< DSN  
,É'í,·,éL[f[fh,ðŽw'è,Á,«,Ü,·B

**[OK]**

[ODBC ff[]f^ f[]fX fAfhf~fjXfgf[]f^] f\_fCfAf[]fO f{fbfNfX,ð•Å,¶[]Af{fbfNfX,ÅfnfCf%oCfCg•\ Ž|,³,ê,Ä,č,éftf@fCf< ff[]f^ f[]fX[]A,Ü,½,Í [DSN -¼] f{fbfNfX,É“ü—Í,μ,½ftf@fCf< ff[]f^ f[]fX,É[]Ú’± ,μ,Ü,·[]B

ftf@fCf< ff[]f^ f[]fX f{fbfNfX,É’í,·,é•İ[]X,ð“K—p,·,é,½,ß,É [OK] ,ðfNfŠfbfN,·,é•K—v,Í, ,è,Ü,<sup>1</sup>,ñ[]BfŠfXfg f{fbfNfX,É’í,·,é•İ[]X,Í[]Aff[]f^ f[]fX,İfZfbfgfAfbfv f\_fCfAf[]fO f{fbfNfX,Å [OK] ,ðfNfŠfbfN,μ,½Žž“\_„Å“K —p,³,ê,Ü,·[]B

## [fLfff“fZf<]

ftf@fCf< ff[]f^ f[]fX,É[]Ú'±,¹,,É [ODBC ff[]f^ f[]fX fAfhf~fjfXfgfE[]f^] f\_fCfAf[]fO  
f{fbfNfX,ð•Â,¶,Ü,·[]B[]mfLfff“fZf<[]n ,ðfNfŠfbfN,μ,Ä,àfRf“fsf...[]f^ ff[]f^ f[]fX  
f{fbfNfX,Ö,ì•ï[]X,ÍŽæ,è[]Á,³,é,Ü,¹,ñ[]B

**fRf“fsf...[]f^ ff[]f^ f[]fX f{fbfNfX**

ft[]fU[][ DSN ,ÆfvfXfef€ DSN ,lfŠfXfg (DSN ,i-¼‘O,Æf^fCfv,ðŠÜ,þ) ,Å,·[]BDSN  
.ðf\_fuf·fNfŠfbfN,·,é,Æff[]f^ f[]fX,É[]Ú’±,µ,Ü,·[]B

## [V<K]i~]

V,μ,ϕfRf“fsf...[f^ ff[f^ f[fX,δ'Ç%Á,μ,Ü,·B,±,lf{f^f“,đfNfŠfbfN,·,é,Æ[A[ff[f^ f[fX,ìV<K]i~]  
f\_fCfAfO f{fbfNfX,ª•Ž,³,ê,Ü,·B,±,lf\_fCfAfO f{fbfNfX,É,ífhf%ofCfo,ª^ê—•\  
Ž,³,ê,Ü,·Bf+U[Ü,½,ífVfXfef€ DSN —p,É'Ç%Á,·,éfhf%ofCfo,đ'í'đ,μ,Ü,·B[ŽŸ,Ö]  
,đfNfŠfbfN,·,é,Æ[ADSN ,É'í,·,éL[f[fh,ª“K]Ø,Å ,é,±,Æ,đŠm”F,Å,«,Ü,·B



**[OK]**

[ff[]f^ f[][fX,ì'ð] f\_fCfAf[]fO f\_{fbfNfX,ð•Â,¶[]Af\_{fbfNfX,ÅfnfCf%ofCfg•\Ž!,³,ê,Ä,č,éfRf“fsf...[]f^ ff[]f^ f[][fX,É[]Ú'±,μ,Ü,·[]B

fRf“fsf...[]f^ ff[]f^ f[][fX f\_{fbfNfX,É'Î,·,é•İ[]X,ð“K—p,·,é,½,B,É [OK] ,ðfNfŠfbfN,·,é•K— v,Í, ,è,Ü,¹,ñ[]BfŠfXfg f\_{fbfNfX,É'Î,·,é•İ[]X,Í[]Aff[]f^ f[][fX,İfZfbfgfAfbfv f\_fCfAf[]fO f\_{fbfNfX,Å [OK] ,ðfNfŠfbfN,μ,½Žž“\_ ,Å“K—p,³,è,Ü,·[]B

## [fLfff“fZf<]

fRf“fsf...[f^ ff[f^ f[fX,ÉÚ±,1,,É [ODBC ff[f^ f[fX fAfhf~fjXfgfCE[f^] f\_fCfAfffO  
f{fbfNfX,ð•Â,¶,Ü,·BmfLfff“fZf<n ,ðfNfŠfbfN,μ,Ä,àfRf“fsf...[f^ ff[f^ f[fX  
f{fbfNfX,Ö,ì•ïX,ÍŽæ,èÁ,<sup>3</sup>,é,Ü,<sup>1</sup>,ñB

**[Ů±fv[f<] f^fu**

Ů±fv[f<,đŽg—p,μ,Ä,č,é,Æ,«,ÉA'í'đ,μ,½fhf  
 %ofCfo,ìŮ±'ò,žžšô,“,æ,ŇŮ±f^fCf€fAfEfg,ìžžšô,đ•ïX,Ä,«,Ü,·B,Ü,½AŮ±±  
 %oň“”,ì“v,đ~L^,·,épfH[f]f“fX f,fj^,đ—LCEø,Ü,½,Í-³CEø,É∅,è'Ö,ì,é,±,Æ,ª,Ä,«,Ü,·B

<b>fjfvfj“</b>	<b>à-¾</b>
[ODBC fhf %ofCfo] f{fbfNfX	fRf“fsf...[f^,ÉfCf“fXfg[f<,³,è,Ä,č,éŠe ODBC fhf%ofCfo,É,Ä,č,ÄA- ¼'O,“,æ,Ňfv[f< f^fCf€fAfEfg,đ•\ Ž!,μ,Ü,·B
[Ů±fv[f<,]f^f Cf€fAfEfg]	'í'đ,μ,½fhf%ofCfo,ìŮ±fv[f< f^fCf€fAfEfg,đ•b'P^É,ÄŸ'è,μ,Ü,·BŮ±fv [f<,ì'@<,đŸ'è,·,é,É,íAfhf%ofCfo- ¼,đf_fuf<fNfŠfbfN,μ,Ü,·B
[—LCEø,É,·,é]	fpftfH[f]f“fX f,fj^,đ—LCEø,É,μ,Ü,·B
[-³CEø,É,·,é]	fpftfH[f]f“fX f,fj^,đ-³CEø,É,μ,Ü,·B
[ÄŽŽs,Ü,Ä,ì' ò,žžšô]	ODBC fhf%ofCfo f}f[fWff,É,æ,èff[f^fx[fX fT[fó[,ìŽg— p,ªs%oÄ“\,Ä, ,é,± ,Æ,ªCEŸ'm,³,è,é,ÆA^è'è,ì'ò,žžšô,ìCEä,É Ů±± ,ªÄŽŽs,³,è,Ü,·B[ÄŽŽs,Ü,Ä,ì'ò,žžšô] ,Ä•b'P^É,ÄŸ'è,μA'ò,žžšô,đ'²B,Ä,«,Ü, B“ü—í,·,é'l,íA“Žš,Ä 6 CE...-č-ž,É,·,é•K —v,ª, ,è,Ü,·B
[fwf<fv]	fwf<fv,đ•Ž!,μ,Ü,·B

**[Ů±fv[f<,]f^fCf€fAfEfg]**

'í'đ,μ,½fhf%ofCfo,]f^fCf€fAfEfgžžšô,đ•b'P^É,Äžw'è,μ,Ü,·B“ü—í,·,é'l,í“žš,É,·,é•K—v,ª, ,è,Ü,·B

**[—LŒø,É,·,é]**

□Ú'±,ìjpfH□[f}f“fX f,ffj^,ø—LŒø,É,μ,Û,·□B

**[-³Œø,É,·,é]**

□Ú'±,ìfpftfH□[f}f“fX f,ffj^,ð-³Œø,É,μ,Û,·□B

[ÄŽŹs,Ü,Ä,ì'ò,žžšô]

ÄÜ'±,Ü,Ä,ì'ò,žžšô,ð•b'P^Ê,ÄŽw'è,µ,Ü,·B

**[OK]**

[ODBC ff[f^ f\lfX fAfhf~fjfXfgfCE[f^] f\_fCfAfO f{fbfNfX,ð•Â,¶A'l'ð,µ,½Ú'±fv[f<,}f|fvfVf‡f“,ð—  
LCEø,É,µ,Û,·B

## [fLfff“fZf<]

'l'ö,µ,½f|fvfVf†f“,ð—LÆø,É,¹,.,É [ODBC ff□[f^ f□[fX fAfhf~fjfXfgfÆ□[f^] f\_fCfAf□fO  
f{fbfNfX,ð•Â,¶,Ü,·□B



## [fo][fWfjf“[i•ñ] f^fu

ODBC fRf“f[fif“fg,É,Â,ç,Ä,Ì[i•ñ,ð•\Ž!,μ,Û,·□B[i•ñ,a•\Ž!,³,ê,éRf“f[fif“fg,É,Í□Afhf%ofCfo  
f}f□[fWff□A]□[f\< f%ofCuf%ofŠ□AfCf“fXfg□[f% DLL□A,“,æ,ÑfRfA fRf“f[fif“fg,ð\  
□¬,·,é,»,ì¹¼,ìftf@fCf<,ªŠÛ,Û,ê,Û,·□B

### fifvfVfjf“

□à-¾

[ODBC fRfA Še ODBC fRfA fRf“f[fif“fg,ì□à-  
fRf“f[fif“fg ¾□Afo□[fWfjf“□Aftf@fCf<-  
fo□[fWfjf“[i•ñ ¼□A,“,æ,Ñ□ê□Š,ð•\Ž!,μ,Û,·□B  
]

f{fbfNfX

[OK] [ODBC ff□[f^ f□[fX fAfhf~fjfXfgf□[f^]  
f\_fCfAf□fO f{fbfNfX,ð•\Ž!,μ,Û,·□B

[fLfff“fZf<] [ODBC ff□[f^ f□[fX fAfhf~fjfXfgf□[f^]  
f\_fCfAf□fO f{fbfNfX,ð•\Ž!,μ,Û,·□B

[wf<fv] fwf<fv,ð•\Ž!,μ,Û,·□B

## —pCEêW

**2 ftjF[]fY fRf~fbfg** • aŽUfgf%of“fUfNfVf#f”, đ 2 ftjF[]fY (‘Š) ,ÁfRf~fbfg, ,éfvf[]fZfX[]B[]Á%o ,ìftjF[]fY,Á,í[]Afgf%of“fUfNfVf#f” fvf[]fZfbfT,É,æ,è[]Afgf%of“fUfNfVf#f”,ì, ,x,Á,ì”•a,afRf~fbfg%oÁ\ ,Á, ,é,±,Æ,ªSm“F,³,è,Û,·[]BŽÿ,ìftjF[]fY,Á,í[]Afgf%of“fUfNfVf#f”,ì, ,x,Á,ì”•a,afRf~fbfg,³,è,Û,·[]B[]Á%o ,ìftjF[]fY,Á[]Afgf%of“fUfNfVf#f”,ì^è”•a,afRf~fbfg•s%oÁ\,Á, ,é,Æ”»f,³,è,é,Æ[]AZÿ,ìftjF[]fY,íŽA[]s,³,è,Û,¹, ñ[]BODBC ,Á,í 2 ftjF[]fY fRf~fbfg,ìftjF[]fY,³,è,Û,¹,ñ[]B

## A

**ANSI** • Ä[]<KŠi<!%oi (American National Standards Institute) ,ì—ª[]BODBC API ,í ANSI ÇÄ,Ñ[]o,µfÇfxf< fCf“f^[]ftjFfCfX,É[]€<’,µ,Ä,ç,Û,·[]B

**APD** fAfVfŠfP[]fVf#f“ fpf%of[]f^<L[]qŽq (Application Parameter Descriptor) ,ì—ª[]B

**API** fAfVfŠfP[]fVf#f“ fvf[]fOf%of~f“fO fCf“f^[]ftjFfCfX (Application Programming Interface) ,ì—ª[]BfAfVfŠfP[]fVf#f“,ªf[]fÇfxf< fT[]fRfX,ì—v<[],ÆŽÄ[]s,ÉŽg—p, ,é[]A^è~A,ìf<[]f“f“,Á,·[]BODBC API ,í ODBC ŠÖ[]”,Á[]\→,³,è,Ä,ç,Û,·[]B

**ARD** fAfVfŠfP[]fVf#f“ []s<L[]qŽq (Application Row Descriptor) ,ì—ª[]B

## B

**BLOB** fofCfifŠ f%o[]fW flfufWfFfNfg (Binary Large Object) ,ì—ª[]B255 fofCfif,È,Ç[]A“Á^è,ìfofCfifg[]”,đ’ ,ì,éfofCfifŠ ff[]f^,Á,·[]B’É[]([]A^âÇ^,ìff[]f^,ðŽw,µ,Û,·[]B,±,ì,æ,ª ,Éff[]f^,ðff[]f^ f[]fX,É’—[]M, ,é[]è[]#,â[]Aff[]f^ f[]fX,©,çŽæ“¾, ,é[]è[]#[]Aff[]f^,í•ªŠ,,³,è,Û,·[]B,± ,ì,æ,ª,Éff[]f^,í “f[]f“fO ff[]f^” ,Æ,àÇÄ,ì,è,Û,·[]B

## C

**C ff[]f^Ç^** C fvf[]fOf%of€ ( ,±,ì[]è[]#[]AfAfVfŠfP[]fVf#f”) ,ÉŠÛ,Û,è,é•ì[]”,ìff[]f^Ç^[]B

**CLI** []uAPI[]v,ðŽQ[]Æ,µ,Ä,,¾,³,ç[]B

## D

**DBMS** ff[]f^fx[]fXŠÇ—[]fVfXfef€ (Database Management System) ,ì—ª[]B•— []“l,Éff[]f^fx[]fX,Æf[]fU[][ŠÔ,É’¶[]Ý, ,éfvf[]gfEfffA,ìfÇfCf,,Á,·[]BDBMS ,Á,í[]Aff[]f^fx[]fX,Ö,ì, ,x,Á,ìfAfNfZfX,ªŠÇ—[],³,è,Û,·[]B

**DBMS fx[]fX,ìfhf%ofCfo** fx^f“fhfAf[]f”,ìff[]f^fx[]fX fGf“fwf”,ðÇe—R,µ,Ä•— []“l,Éff[]f^,ÉfAfNfZfX, ,éfhf%ofCfo[]B

**DDL** ff[]f^è<`Ç¾Çè (Data Definition Language) ,ì—ª[]BSQL “à,Áff[]f^,ð’€[]i, ,é,ì,Á,í,È,- []A’è<’, ,éfxfe[]f[]fgf[]f”fg,Á,·[]B—á,ì,í[]ACREATE TABLE[]ACREATE INDEX[]AGRANT[]AREVOKE ,È,Ç,Á,·[]B

**DML** ff[]f^€[]iÇ¾Çè (Data Manipulation Language) ,ì—ª[]BSQL “à,Áff[]f^,ð’è<’, ,é,ì,Á,í,È,- []A’€[]i,ðs,È,ª,½,ß,ìfxfe[]f[]fgf[]f”fg,Á,·[]B—á,ì,í[]AINSERT[]AUPDATE[]ADELETE[]ASELECT ,È,Ç,Á,·[]B

## F

**Fat fj[]fj<** []ufuf[]fbfN fj[]fj<[]v,ðŽQ[]Æ,µ,Ä,,¾,³,ç[]B

## I

**IPD** fCf“fvfŠf[]f“fe[]fVf#f“ fpf%of[]f^<L[]qŽq (Implementation Parameter Descriptor) ,ì—ª[]B

**IRD** fCf“fvfŠf[]f“fe[]fVf#f“ []s<L[]qŽq (Implementation Row Descriptor) ,ì—ª[]B

**ISO/IEC** — (International Standards Organization)/ (International Electrotechnical Commission), ISO/IEC CEÄ, Ño, µfCExf< fCf^f^ftfFfCfX, É€', µ, Ä, ç, Ü, ·B

## N

**NULL 'I** — ¼Ž! 'I, ÉŠ,, è" —, Ä, ç, è, ½ 'I, ä, È, ç, ±, ÆB NULL 'I, A0, Ü, ½, Í<ó" , Æ, Í^Ü, È, è, Ü, ·B

## O

**ODBC** — fllfjvf" fflf^fxllfX fRfjNfefBfrefB (Open Database Connectivity), Ì— ãBf<llf" f", Ì•W€fZfbfg, ð'è<` , , é API, ÌŽd—l, Ä, ·B, ±, Ìf<llf" f", Ì•W€fZfbfg, ðfAfvfŠfPllfjvf" , Äžg— p, µ, ÄAfffllf^ flfX, ÉŠÜ, Ü, è, éffllf^ , ÉfAfnfZfX, , , é, ±, Æ, ä, Å, «, Ü, ·B

**ODBC SDK** — ODBC Software Development Kit, Ì—ãBODBC fAfvfŠfPllfjvf" , Æfhf%ofCfo, ÌŠj" , ðŽx %o‡, , é»•i, Ä, ·B

**ODBC fAfhf~fjXfgfCEllf^** — fCf"fxfgllf% DLL , ðCEÄ, Ño, µ, ÄAfffllf^ flfX, ðÝ'è, , éŽÀs%oÄ" \ fvfllf%of€B

## S

**SAG** — SQL Access Group, Ì—ãBSQL DBMS , ÉŠÖs, ðŽ, ÄŠé<Æ, ÌH<Æ<æ"~'ì, Ä, ·BX/Open CEÄ, Ño, µfCExf< fCf" f^ftfFfCfX, ÌASQL Access Group , É, æ, éCEæ<t, ÉŠî, Ä, ç, Ä, ç, Ü, ·B

**SQL** — ll'ç%o»llÆ%oiCE¾CEê (Structured Query Language), Ì—ãBffllf^ , ÌNfGfŠAAXVVA, , æ, ÑŠÇ —, ðs, æ, ½, ß, ÉAfvfŠfCEllfjvfjif< fflf^fxllfX, Äžg—p, ¾, è, éCE¾CEê, Ä, ·B

**SQLSTATE** — "Á'è, ÌfGf%o, ðŽ!, ·A5 •Ÿš, Ì'ìB

**SQL fxfeollfgfllf"fg** — flfllfllfh, Äžn, Ü, èAŽÀs, ¾, è, éfAfnfVfj" , ðŠ@'S, É<Lllq, , éASQL , ÌŠ@'S, ÉftfCEllfYB—á, Ì, ÌASELECT \* FROM Orders , È, Ç, Ä, ·BSQL fxfeollfgfllf"fg, Æfxfeollfgfllf"fg, Ì^Ü, È, è, Ü, ·B

**SQL fflf^CE^** — ñ, Ü, ½, Ìfpf%ofllf^ , Ìffllf^CE^Bffllf^ flfX, É•Ü'Ÿ, ¾, è, Ä, ç, éffllf^CE^ , Æ" — Ì, Ä, ·B

**SQL "KffCExf<** — fhf%ofCfo, ÄfTfllfg, ¾, è, é SQL92 •Ÿ-@, ÌfCExf<BfCExf<, É, ÌAEntryAFIPS TransitionalAlIntermediateA, Ü, ½, Í Full , æ, è, Ü, ·B

## X

**X/Open** — W€Æ, È, èllCE, ð" s, , éŠé<ÆBSAG Šî€ , ð" s, µ, Ü, ·B

**fAfnfZfX fvf%of"** — SQL fxfeollfgfllf"fg, ðŽÀs, , é, ½, ß, Éffllf^fxllfX fGf"fwf" , Äll—, ¾, è, éfvf%of"BC CE¾CEê, È, Ç, Ì'æ 3 llç'äCE¾CEê, ÄfRf"fpfCf<, ¾, è, éŽÀs%oÄ"vRllfh, Æ"~"™ , Ìjvf%of" , Ä, ·B

**fAfvfŠfPllfjvf"** — ODBC API , ÄŠÖ" , ðCEÄ, Ño, ·ŽÀs%oÄ"vfvllf%of€B

**fAfvfŠfPllfjvf"lls<LllqŽq (ARD)** — ñ, Ìfllf^ffllf^ , , æ, ÑfAfvfŠfPllfjvf" , Ìfofbftf@ , ÉŠÜ, Ü, è, éffllf^ , ð\ , <LllqŽqBfAfvfŠfPllfjvf" , É, æ, Ä, Äžw'è, ¾, è, éffllf^ •İŠ , ÌCEä, Éffllf^lls, ð•\, µ, Ü, ·B

**fAfvfŠfPllfjvf" fpf%ofllf^<LllqŽq (APD)** — fAfvfŠfPllfjvf" , É, æ, Ä, Äžw'è, ¾, è, é•İŠ , Ì'O, É SQL fxfeollfgfllf"fg, Äžg—p, ¾, è, é"llfpf%ofllf^ , ð•\, <LllqŽqB

**^É'užw'èXVfxfeollfgfllf"fg** — CE»Ÿ, Ìs, ÉŠÜ, Ü, è, é'ì, ðXV , , é SQL fxfeollfgfllf"fgB

**^É'užw'èllæfxfeollfgfllf"fg** — CE»Ÿ, Ìs, ðllæ , , é SQL fxfeollfgfllf"fgB

^É'užw'è'€ CE»Ÿ,ìs,Ås,í,ê,é,·,x,Ä,Ì'€ B—  
á,ì,ÎA^É'užw'èXV,“,æ,Ñ^É'užw'èœfXfe[f]fgf“fgASQLGetDataASQLSetPos ,È,Ç,Å,·B

**fCf“fXfg[f]%** DLL ODBC frf“f[f]f“fg,ðfCf“fXfg[f],μAff[f]^ f[f]X,ðŸ'è,·,é DLLB

**fCf“f^ [ftfFfCfX“K]fCfxf<** fhf%ofCfo,ÅTf[f]fg,³,è,é ODBC 3.7  
fCf“f^ [ftfFfCfX,ìfCfxf<BfCfxf<,É,ìfRfA AfCfxf< 1A,Ü,½,ìfCfxf< 2 ,ª ,è,Ü,·B

**fCf“fvfŠf[f]“fe [fVf]f“s<Lqžq (IRD)** fAfvfŠfP[fVf]f“ ,É,æ,èŽw'è,³,è,é•İŠ·,ì'O,Éff[f]^s,ð·\ ,<LqžqB

**fCf“fvfŠf[f]“fe [fVf]f“ fpf%o[f]^<Lqžq (IPD)** fAfvfŠfP[fVf]f“ ,É,æ,èŽw'è,³,è,é•İŠ·,ìCEä,É SQL fXfe[f]fgf“fg“à,ÅŽg—p,³,è,é“®“ìfpf%o[f]^ ,ð·\ ,<LqžqB

**^ø—p•„•t,«Žˆ•ÉŽq ^ø—**  
pŽˆ•ÉŽq,Å'í,Ü,è,½Žˆ•ÉŽqB<æ∅,è<L+•t,«Žˆ•ÉŽq,Å,ìA“ÁŽè•ŸŽš,ðŠÜ,ß,½,èAfl[f]f[f]fh,ð^è'v,³,¹, é,±,Æ,ª,Å,«,«,Ü,· (SQL92 ,Å,ìA<æ∅,è<L+•t,«Žˆ•ÉŽq,Æ,àCEÄ,Ì,è,Ü,·)B

**-„„ßž,ŸCE^ SQL** COBOLAC ,È,Ç,ì•È,ìCE¾CEè,Å<Lq,³,è,½fvf[f]Of%of€,É'¼Ú—„„ßž,Ü,è,Ä,ç,é SQL fXfe[f]fgf“fgBODBC ,Å,ìA—„„ßž,ŸCE^ SQL ,ìŽg—p,μ,Ü,¹,ñB[u]Ä“l SQLv,“,æ,Ñ[u]“®“l SQLv,àŽQÆ,μ,Ä,¾,¾,çB

**fGfXfP[fv<â** SQL fXfe[f]fgf“fg,ì<âB

**fìfNfefbfg** 8 frfbfg,Ü,½,í 1 fofCfB[u]f ofCfB[u]v,àŽQÆ,μ,Ä,¾,¾,çB

**fìfNfefbfg'** fìfNfefbfg,Å·\,³,è,é Afofbftf@,Ü,½,í,»,è,ÉŠÜ,Ü,è,éff[f]^ ,ì',³B

**fìfvfefBf~fXfefBfbfN“ŽžŽÀs§CEä** “ŽžŽÀs§CEä,ðCEüä,³,¹,é,½,ß,ì•û-@B,±,ì•û- @,Å,ìAAs,ìfBfbfN,³,è,Ü,¹,ñ,ªAAs,ªXV,Ü,½,ìíœ,³,è,é'O,É Afj[f]f f<,É,æ,èAAs,ìA“C,ŸŽæ,èŽžˆÈ~ ,Éps,ª•ìX,³,è,Ä,ç,é,©,Ç,ª,©,ªSm“F,³,è,Ü,·B•ìX,³,è,Ä,ç ,éè±,ìAAXV,Ü,½,ìíœ,ìŽÀs,Å,«,«,Ü,¹,ñB[u]fyfVf~fXfefBfbfN“ŽžŽÀs§CEäv,ðŽQÆ,μ,Ä,- ¾,¾,çB

, ©

**fì[f]f<** fAfvfŠfP[fVf]f“ ,Éff[f]^s,ð·Ô·fvtfgfEfffA,ì^è•“B“fì[f]f<“ ,ÆCEÄ,Ì,è,é,ì AfRf“fsf... [f]^'—,Å·\Ž,³,è,é“ \_Afj[f]f<,ª%æ-Éä,Å,ìCE»Ÿ^É'u,ðŽ!,·,æ,ª,É ACE<%Éfzfbfg,ìfj[f]f f<,ªCE<%Éfzfbfg“à,Å,ìCE»Ÿ^É'u,ðŽ!,·,½,ß,Å,·B

**ŠO•“fL** [ ,Ü,©,ìfe[f]uf<,ìžâfL[,Æ^è'v,·,é Afef[f]uf<“à,ì 1 ,Å,Ü,½,í•;],ì—ñB

**ŠO•“CE<#** ^è'v,·,éps,“,æ,Ñ^è'v,μ,È,çps,ì—¼•û,ª•Ô,³,è,éCE<#B^è'v,μ,È,çps,ÉŠÜ,Ü,è,éè'v,μ,È,ç ,·,x,Ä,ì—ñ,ì'ì,ì NULL ,ÉŸ'è,³,è,Ü,·B

**CE^fCf“fwfP[f]^** fAfvfŠfP[fVf]f“•ì“ Afpf%o[f]^A,Ü,½,í—ñ,ìff[f]^CE^ ,ðŽ!,·,½,ß,É ODBC ŠÖ“ ,É^ø,«“n,·A,Ü,½,ì ODBC ŠÖ“ ,©,ç•Ô,³,è,é@““lBODBC ,Å,ìAC ,“,æ,Ñ SQL ,ì— ¼•û,ìCE^fCf“fwfP[f]^ ,ª'è<,³,è,Ü,·B

**fìf^fìfo** ff[f]^fX[f]X,ìCEˆŽ@,ð·\ , Af[f]^fX[f]X,ÉŠÜ,Ü,è,éè~A,ìfvXfef€ fe[f]uf<B“fXfL[f]” ,Ü,½,í “ff[f]^Ž<““ ,Æ,àCEÄ,Ì,è,Ü,·B

**fìf^fìfoŠÖ“** ff[f]^fX[f]X,ìfìf^fìfo,©,çî•ñ,ðŽæ“¾,·,é ODBC ŠÖ“B

**ŠÄ«** ff[f]^ ,Ö,ìfAfNfzfx,ðps,xfOf[f]of<,ÈfRf“fefLxfgBŠÄ« ,ÉŠÜ,Ü,è,Ä,ç,é,·,x,Ä,ìÚ'± ,ìfšXfg,È,Ç AfOf[f]of<,Éî•ñ,ªŠÄ« ,ÉŠÖ~A•t,·,ç,è,Ä,ç,Ü,·B

**ŠÄ«fnf“fhf<** ŠÄ« ,ÉŠÖ,·,éî•ñ,ðŠÜ,þff[f]^<“ç,É'í,·,éfnf“fhf<B

**fL** [ ps,ðŽˆ•È,·,é'ì,ðŠÜ,þ 1 ,Å,Ü,½,í•;],ì—ñB[u]žâfL[v],“,æ,Ñ[u]ŠO•“fL[v],àŽQÆ,μ,Ä,- ¾,¾,çB

**fL[fZfbfg** p,s,lfTfFbf,đŽÀs,·,é·;□#f□[f^,Ü,½,ÍfL[fZfbfgfhfŠfuf“ f□[f^,ÁŽg—  
p,³,é,é^è~A,ÍfL□□B

**fL[fZfbfgfhfŠfuf“ f□[f^** fL[fZfbfg,đŽg—  
p,μ,Ä□A□X□V,“,æ,Ñ□í□œ,³,é,½□s,ðCEŸ□o,·,éXfNf□□[f^%Ä“\f□[f^□B

**<L□qŽq** —ñff□[f^,Ü,½,Í“@“lfpf%□□[f^,ì,Ç,ì,ç,©,ÉŠÖ,·,é□í·ñ,đŠÜ,þff□[f^□\‘□B<L□qŽq,ì·” —  
□“í,É·\Ží,í’è<“,³,é,Ü,¹,ñ□BfAfVfŠfP□[fVfj“,©,ç<L□qŽq,Ö,ì’¼□Ú“í,ÉfAfNfZfX,í□AODBC  
ŠÖ□“,Æ<L□qŽqfñf“fhf<,ðCEÄ,Ñ□o,μ,ÄftfB□[f^fh,ð’€□í,·,é,±,Æ,É,æ,Ä,Ä,ì,Y%Ä“\,É,É,è,Ü,·□B

**Ší□** “íEn,ìŠí□□BfRf“fsf...□[f^,Á,í 2 (2 □í□)“,â 10 (10 □í□)“,ª½,Žg,í,é,Ü,·□B

**□s** “Á’è,ìŽÀ’ì,ð·\,·□A’è~A,ìŠÖ~A,μ,½—ñ□B“fCEfR□[f^h“,Æ,àCEÄ,í,é,Ü,·□B

**□s<L□qŽq** fAfVfŠfP□[fVfj“,É,æ,èŽw’è,³,é,é·İŠ·,ì’O (fCf“fvfŠfj“fe□[fVfj“□s<L□qŽq,Ü,½,Í  
IRD)□A,Ü,½,í·İŠ·,ìCEä (fAfVfŠfP□[fVfj“□s<L□qŽq,Ü,½,Í ARD) ,ì,ç,·,é,©,É□ACE<%ÉfZfbfg,ì—ñ,ð·\  
,<L□qŽq□B

**□sfXfe□[f^fX”z—ñ SQLFetch□ASQLFetchScroll□A,Ü,½,Í SQLSetPos**  
,ðCEÄ,Ñ□o,μ,½CEä,ì□s,ÍfXfe□[f^fX,đŠÜ,p”z—ñ□B

**□sfZfbfg** fuf□fbfN f□[f^,É,æ,è□A’P’è,lfTfFbf,·Ä·Ö,³,é,é^è~A,ì□s□B

**□sfZfbfg fofbftf@** CE<%ÉfZfbfg,ì—ñ,ÉCE<□#,μ,Ä,ç,éfofbftf@□B□sfZfbfg’S’ì,Íff□[f^,ª·Ö,³,é,Ü,·□B

**□s’€□ì”z—ñ** “Á’è,ì’ì,đŠÜ,p”z—ñ□B,±,ì’ì,í□AfAfVfŠfP□[fVfj“,É,æ,Ä,ÄŸ’è,³,é□ASQLSetPos  
,ðŽÀ□s,·,é□Ú,É□A’í%ž,·,é□s,ª-³Ž<,³,é,é,±,Æ,ðŽí,μ,Ü,·□B

**fNfGfŠ** SQL fXfe□[fgf□f“fg□BSELECT fXfe□[fgf□f“fg,ì^Ó-;ÁŽg—p,³,é,é□é□#,à,·,è,Ü,·□B

**<æ□Ø,è<L□t·t,«Ž~·ÉŽq** ^ø—  
pŽ~·ÉŽq,Á’í,Ü,è,½Ž~·ÉŽq□B<æ□Ø,è<L□t·t,«Ž~·ÉŽq,Á,í□A’ÁŽè·¶Žš,ðŠÜ,ß,½,è□AfL□[f□□[fh,ð^è’v,³,¹,  
é,±,Æ,ª,Ä,«,·,Ü,· (“ø—p·,·,·t,«Ž~·ÉŽq“,Æ,àCEÄ,í,é,Ü,·)□B

**fNf%□CfAf“fg/fT□[fo□[** ff□[f^fX□[fX,ÍfAfNfZfX·ú-@,ì^èŽí□B1,·Ä,Ü,½,í·;□“,ÍfNf  
%□CfAf“fg,ªfT□[fo□[CEo—R,Áff□[f^,ÉfAfNfZfX,μ,Ü,·□B’É□□AfNf  
%□CfAf“fg,Ä,Íft□[fU□[ fCf“f^□[ftfFfCfX,ðŽÀ’·,μ□AfT□[fo□[,Ä,Íff□[f^fX□[fX,Ö,ÍfAfNfZfX,ð□sCEä,μ,Ü,·□B

**CE<%ÉfZfbfg SELECT** fXfe□[fgf□f“fg,ðŽÀ□s,·,é,±,Æ,É,æ,è□í□-³,é,é^è~A,ì□s□B

**CE<□#** fŠfCE□[fVfjif< ff□[f^fX□[fX“à,Ä□s,ª’€□□BfŠfCE□[fVfjif< ff□[f^fX□[fX“à,Ä□A’è,ì—  
ñ,ÉŠÜ,Ü,è,é’ì,ð^è’v,³,¹,é,±,Æ,É,æ,è□A·;□“,Ífe□[fuf“à,ì□s,ðCEŸ,ç,ÉfŠf“fN,³,¹,Ü,·□B

**CE»Ÿ,ì□s** f□[f^,ÁCE»ŸÍfCf“fg,³,é,Ä,ç,é□s□B^É’uŽw’è’€□í,íCE»Ÿ,ì□s,ÁŽÀ□s,³,é,Ü,·□B

**fRf~fbfg (,·,é)** fgf%□f“fUfNfVfj“,·Ä,ì·í□X,ð%□i<v“í,É·Ú·¶,·,é,±,Æ□B

,<sup>3</sup>

**fT□[fo□[ ff□[f^fX□[fX** fNf%□CfAf“fg/fT□[fo□[ŠÄ<<,ÁŽÀ□s,·,é,æ,ª,ÉffUfCf“,³,é,½ DBMS□BSQL  
,·,æ,Ñfgf%□f“fUfNfVfj“,ð’½□É,É<@“\,Áftf□[fg,·,éXf^f“fhfAf□f“,Íff□[f^fX□[fX  
fgf“fWf“,ªŠÜ,Ü,è,Ü,·□B,±,ì DBMS,í□ADBMS fX□[fX,Ífhf%□CfO,ðŽg—p,μ,ÄfAfNfZfX,Ä,«,Ü,·□B—  
á,ì,í□AOracle□Alformix□ADB/2□AMicrosoft SQL Server ,É,Ç,Ä,·□B

**ftf“fLf”fo** 16 frfbfg fAfVfŠfP□[fVfj“,·Ä 32 frfbfg ODBC fhf%□Cfo,ªŽg—p,³,é,Ä,ç,é□é□#,ì□A16  
frfbfg fAfhfCEfX,©,ç 32 frfbfg fAfhfCEfX,Ö,ì·İŠ·□A,Ü,½,í,·,ì<t□B

**ŽÀ□s (,·,é)** SQL fXfe□[fgf□f“fg,ð^—□,·,é,±,Æ□B

**ŽÀ□sŽžff□[f^ fpf%□f□[f^** SQLExecute ,Ü,½,Í SQLExecDirect ,ªCEÄ,Ñ□o,³,é,½CEä,Éff□[f^,ª’ —  
□M,³,é,épf%□f□[f^□Bff□[f^,ªpf%□f□[f^ fofbftf@,É’u,©,·,é,é,ì,Ä,í,É,□ASQL  
fXfe□[fgf□f“fg,ìŽÀ□sŽž,Éff□[f^,ª’ —□M,³,é,é,½,ß□A”ŽÀ□sŽžff□[f^ fpf%□f□[f^”

,ÆCEÄ,î,ê,Û,·□B'Ê□□A□f"fo f□□f^,í,•ªš,,,³,ê,ÄŽÄ□sŽž,É'—□M,³,ê,Û,·□B

**ŽÄ□sŽžff□f^—ñ SQLSetPos**,ªCEÄ,Ñ□o,³,ê,½CEä,Éff□f^,ª'—□M,³,ê,é—ñ□Bff□f^,ª□sfZfbfg fofbftf@,É'u,©,ê,é,í,Ä,í,È,□AZÄ□sŽž,É'—□M,³,ê,é,½,β□A"ŽÄ□sŽžff□f^—ñ" ,ÆCEÄ,î,ê,Û,·□B'Ê□□A□f"fo f□□f^,í,•ªš,,,³,ê,ÄŽÄ□sŽž,É'—□M,³,ê,Û,·□B

**Ž"®fRf~fbfg f,□lfh** fgf%of"fuFNFVf+f" fRf~fbfg f,□lfh,î^èží□Bfgf %of"fuFNFVf+f",ªŽÄ□s,³,ê,½'¼CEä,É□A,»,lfgf%of"fuFNFVf+f",ªfRf~fbfg,³,ê,Û,·□B

**□WCEvŠÖ□"** 'l,lfOf□□fv,©,ç'P^è,ì'l,ð□□-,·,éšÖ□"□B½,,ì□é□□AGROUP BY ,",æ,Ñ HAVING <ã,Æ·¹ —p,³,ê,Û,·□B□WCEvŠÖ□",É,í AVG□ACOUNT□AMAX□AMIN□A, ",æ,Ñ SUM ,ªŠÛ,Û,ê,Û,·□B□WCEvŠÖ□",í "fzfbbfgšÖ□" ,Æ,àCEÄ,î,ê,Û,·□B□ufXjff%šÖ□"□v,àžQ□Æ,μ,Ä,,¾,³,ç□B

**□C□üžq** 1 ,Ä,Û,½,í,□",lfe□[fuf<,ªŠÛ,Û,ê,éff□f^fx□lfX□B

**ŽáfL□[** fe□[fuf<,ì□s,ð^è^Ó,Éž·Ê,·,é 1 ,Ä,Û,½,í,□",ì—ñ□B

**Žè"®fRf~fbfg f,□lfh** fgf%of"fuFNFVf+f" fRf~fbfg f,□lfh,î^èží□Bfgf%of"fuFNFVf+f",í□ASQLTransact ,ðCEÄ,Ñ□o,·,±,Æ,É,æ,è□A-¾ž"l,ÉfRf~fbfg,³,ê,é•K—v,ª, ,è,Û,·□B

**□€"ö (,·,é)** SQL fXfe□[fgf□f"fg,ðfRf"fpfCf<,·,é,±,Æ□BSQL fXfe□[fgf□f"fg,ð□€"ö,·,é,± ,Æ,É,æ,è□AfAfNFzfx fvj%of",ð□□-,μ,Û,·□B

**□ó'Ö** □Ü,μ,□à-¾,³,ê,½□AfAfCfef€,lfRf"fffBfVf+f"□B—á,ì,í□A□Ú'±,É,í 7 ,Ä,ì□ó'Ö (Š,,,è"- ,Ä,É,μ□AŠ,,,è"-,Ä□í,Ý□A□Ú'±□í,Ý□A—vff□f^,È,Ç) ,ª, ,è,Û,·□BfAfCfef€ ,ª"Á'è,ì□ó'Ö,Ä, ,é□é□#,É,ì,ÝŽÄ□s,³,ê,é€□í,à, ,è,Û,·□B—á,ì,í□A□Ú'±,ì%ð□œ,í□A□Ú'±,ì□ó'Ö,ª "Š,,,è"- ,Ä□í,Ý" ,Ä, ,é□é□#,É,ì,Ý%Ä"\,Ä, ,è□A"□Ú'±□í,Ý" ,ì□ó'Ö,È,Ç,Ä,íŽÄ□s,³,ê,Û,¹,ñ□B

**□ó'Ö,ì•iš·** fAfCfef€,ì□ó'Ö,ì•ì%»□BODBC ,Ä,í□AŠÄ«□A□Ú'±□A, ",æ,ÑfXfe□[fgf□f"fg,ìCEμ-š,È□ó'Ö,ì•iš·,ª'è<,³,ê,Û,·□B

**□š—LžÒ** fe□[fuf<,ì□š—LžÒ□B

**□f'f** □ACEä,ÉCEÄ,Ñ□o,³,ê,½□A'Á'è,lfnf"fhf<,ðžg—p,·,éšÖ□",É,Ä,ç ,Ä,ì□f'f□í•ñ,ðšÛ,pfCEfR□lfh□B□f'fCEfR□lfh,í□AŠÄ«□A□Ú'±□AfXfe□[fgf□f"fg□A, ",æ,Ñ<L□qžqfnf"fhf<,Æš Ö~A•t, ,ç,ê,Ä,ç,Û,·□B

**fXjff%šÖ□"**

'P^è,ì'l,©,ç'P^è,ì'l,ð□□-,·,éšÖ□"□B—á,ì,í□A•¶žš—ñff□f^,ì'á•¶žš/□-•¶žš,ð•İš·,·,éšÖ□",È,Ç,Ä,·□B

**fXfL□[f}** □ufj^f□fO□v,ðžQ□Æ,μ,Ä,,¾,³,ç□B

**fXfNf□□[f<%Ä"vf□[fV<** CE<%ÉfZfbfg,Á'O•ù,Û,½,íCEä•ù,É^Ú"® ,Ä,«,éj□[fV<□B

**fXfe□[fgf□f"fg** SQL fXfe□[fgf□f"fg,ÉšÖ,·,é,·,x,Ä,ì□í•ñ,ð•Ú'¶,·,éfRf"fefi□BfXfe□[fgf□f"fg,Æ SQL fXfe□[fgf□f"fg,í^Û,È,è,Û,·□B

**fXfe□[fgf□f"fg fnf"fhf<** fXfe□[fgf□f"fg,ÉšÖ,·,é□í•ñ,ðšÛ,pff□f^□\ç,É'í,·,éfnf"fhf<□B

**fXfgfAfh fv□fV□[fWff** □ufv□fV□[fWff□v,ðžQ□Æ,μ,Ä,,¾,³,ç□B

**□®□#<<%»<@"** \ f□□f^fx□lfX,ì□®□#<<,ð^Ûž□,·,é,½,β,ÉfffUfCf",³,ê,½□ASQL ,lfTfufZfbfg□B

**□Ä"l SQL** -,β□ž,ÝCE^ SQL ,ì^èží□BSQL fXfe□[fgf□f"fg,ªfn□[fhfR□[fh%»»,³,ê,Ä, ",è□Afvf□fOf%of€ ,ì,Û,©,ì•"•ª,ªfRf"fpfCf<,³,ê,é,Æ,«,É SQL fXfe□[fgf□f"fg,àfRf"fpfCf<,³,ê,Û,·□B□u"®"l SQL□v,àžQ□Æ,μ,Ä,,¾,³,ç□B

**□Ä"lfj□[fV<** CE<%ÉfZfbfg"à,ì□X□V□A□í□œ□A,Û,½,í' }"ü,ðCEÿ□o,Ä,«,É,çfXfNf□□[f<%Ä"vf□[fV< f□B'Ê□□ACE<%ÉfZfbfg,lfRfs□[,ð□□-,·,é,±,Æ,É,æ,èžÁ'•,³,ê,Û,·□B

**□Ú'±** fhf%ofCfo,Æff□f^ f□lfX,ì"Á'è,lfCf"fxf^f"fx□B

□Ú'±fnf"fhf< □Ú'±,ÉŠÖ,·,é□î•ñ,đŠÜ,bff□f^□\^č,É'Í,·,éfnf"fhf<□B

□Ú'±fuf%oEfY □Ú'±,·,éff□f^ f□fX,đfifbfgf□□fN□ã,ÅCEÿ□đ,·,é,±,Æ□B□Ú'±,đfuf %oEfY,·,é□Ú,É,í□A,č,·,Ä,©,íXfefbfv,ª•K—v,È□è□#,ª, ,è,Ü,·□B—á,í,í□A□Å□%o ,Éfifbfgf□□fN□ã,ÅfT□f□□[.đfuf%oEfY,μ□AZÿ,É"Á"è,íT□f□□□□ã,Åff□f^fx□fX,đfuf%oEfY,μ,Ü,·□B

fZfbfgfAfbfv DLL □ufhf%oCfo fZfbfgfAfbfv DLL□v,·,æ,Ñ□ufgf%of"fxfCE□f^ fZfbfgfAfbfv DLL□v,đŽQ□Æ,μ,Ä,,¾,¾,¾,č□B

fZfbfgfŠÖ□" □u□WCEvŠÖ□"□v,đŽQ□Æ,μ,Ä,,¾,¾,¾,č□B

'O•ûfXfNf□□f< f^fcfv f□[f]f< CE<%oÉfZfbfg,đ'O•ú,É,ì,Ý^Ú"® ,Ä,«□A^è"x,É 1 ,Ä,ì□s,đftfFbf) ,·,éff□[f]f<□B,Ü,Æ,ñ,ç,íŠfCE□[f]f< f□[f^fx□fX,Ä,í□A'O•ûfXfNf□□f< f^fcfv f□[f]f< ,ì,Ý,đftf|□[fg,μ,Ü,·□B

'ŠCEY%o^—p%oÄ"□« ^Ú,È,é DBMS ,ÉŠÜ,Ü,è,éff□f^,Ö,íAfNfZfX't,É□AfAfvfšfP□[f]f< ,ª"·,íR□[f]h,đŽg—p,·,é<@"□B

### , 1/2

'½'wfhf%oCfo □uDBMS fx□fX,ífhf%oCfo□v,đŽQ□Æ,μ,Ä,,¾,¾,¾,č□B

'P'wfhf%oCfo □uftf@fCf< fx□fX,ífhf%oCfo□v,đŽQ□Æ,μ,Ä,,¾,¾,¾,č□B

'¾—ñ%o»%oÄ"□« 2 ,Ä,ífgf%of"fuNfVf#f",đ"~Žž,ÉŽÀ□s,μ,½□è□#,ìCE<%oÉ,ª□A,±,è,ç,ìfgf %of"fuNfVf#f",đ'±,·,Ä ("A'±,μ,Ä) ŽÀ□s,μ,½□è□#,ìCE<%oÉ,Æ"~^è,É,È,é,©,ç,ª ,©□Bff□f^fx□fX,ì□®□#□<,đ^ÚŽ□,·,é,É,í□A'¾—ñ%o»%oÄ"\\,Éfgf%of"fuNfVf#f",ª•K—v,Ä,·□B

ff□f^CE^ ff□f^,ìCE`Ž®□BODBC ,Ä,í□AC ,·,æ,Ñ SQL ff□f^CE^ ,ª'è<` ,¾,è,Ü,·□B□uCE^fCf"fwfP□f^□v,àŽQ□Æ,μ,Ä,,¾,¾,¾,č□B

ff□f^Ž<□' □ufjf^f□f□v,đŽQ□Æ,μ,Ä,,¾,¾,¾,č□B

ff□f^ f□[f]X ff□[f]U□[ ,ªAfNfZfX,·,éff□f^ ,Æ,» ,è,ÉŠÖ~A,·,éffyfCE□[fefBf"fo fvXfef€□ADBMS□A,·,æ,Ñfifbfgf□□fN fv%oBfgftfH□lf€ ("¶□Ý,·,é□è□#)□B

ff□f^'fofbftf@ 'í%ož,·,é "ff□f^ fofbftf@" ,ÉŠÜ,Ü,è,é'í,ì'·,¾^ø,«"n,fofbftf@□Bff□f^'fofbftf@,í□Aff□f^'í,ª NULL □'í,Ä ,·,é,©,ç,ª ,©,È,ç,đŽ!,·fCf"fwfP□f^,ì•Ü'¶,É,àŽg—p,¾,è,Ü,·□B

ff□f^ fofbftf@ ff□f^,ì^ø,«"n,μ,ÉŽg—p,¾,è,éfofbftf@□B'½,,ì□è□#□A"ff□f^'fofbftf@" ,ªff□f^ fofbftf@,ÉŠÖ~A•t,·,ç,è,Ä,č,Ü,·□B

ff□f^fx□fX DBMS ,ÉŠÜ,Ü,è,é□ACEÄ□X,íff□f^,ì□W□#^ì□B□uDBMS□v,àŽQ□Æ,μ,Ä,,¾,¾,¾,č□B

ff□f^fx□fX fgf"fwf" DBMS ,ÉŠÜ,Ü,è,éffvfgefEfF□BSQL fXfe□[fgf□f"fg,đ%ođ□í,μ,ÄŽÀ□s,μ□A•" —□"í,Éff□f^,ÉfAfNfZfX,μ,Ü,·□B

fe□[f]f< □s,íRfCEfNfVf#f"□B

"K□#fCEfxf< fhf%oCfo,Ü,½,íff□f^ f□[f]X,ÅfTf□[fg,¾,è,Ä,č,é^è~A,ì<@"□BODBC ,Ä,í□AAPI "K□#□<fCEfxf<,·,æ,Ñ SQL "K□#□<fCEfxf<,ª'è<` ,¾,è,Ü,·□B

ffXfNfgfbfv ff□f^fx□fX fp□[f]fif< fRf"fsf...□f^,ÄŽÀ□s,·,é,æ,ª,ÉfffUfCf",¾,è,½ DBMS□B,Ü,Æ,ñ,ç,ì□è□#□A,±,è,ç,ì DBMS ,É,íXf^f"fhfAf□f",íff□f^fx□fX fgf"fwf",í'•"ö,¾,è,Ä,·,ç,·□Aftf@fCf< fx□fX,ífhf%oCfo,đCe—R,μ,ÄfAfNfZfX,·,é•K— v,ª, ,è,Ü,·□B^é□í□A,±,è,ç,ìfhf%oCfo,ÉŠÜ,Ü,è,éfgf"fwf",Ä,í□ASQL ,·,æ,Ñfgf%of"fuNfVf#f",É'í,·,éTf| □[fg,ª□\$CEÄ,¾,è,Ä,č,Ü,·□B—á,í,í□AdBASE□AParadox□ABtrieve□AFoxPro ,É,ç,ª, ,è,Ü,·□B

"®□ì,ÉŠÖ,·,é•í□X ODBC 3.x ,Æ ODBC 2.x ŠÔ,É,·,·,é"Á"è,ì<@"\\,ÉŠÖ,·,é•í□X□B,± ,ì•í□X,í□ASQL\_ATTR\_ODBC\_VERSION ŠÄ<<'®□«,ª•í□X,¾,è,é,±,Æ,É,æ,è"¶□¶,μ,Ü,·□B

“~ŽžŽÄs□SCEä •□”,lfgf%of“fUfNfVf#”,a“~Žž,É“^è,lf□[f^,ÉfAfNfZfX,·,é<@“\□B

“@“I SQL -,,,ß□ž,ÝCE^ SQL ,ì^èž□B“@“I SQL ,Á,í□AZÄ□sŽž,É SQL fXfe□[fgf□“fg,²□□□,³,è,ÄfRf“fpfCf<,³,è,Ü,·□B□□□Ä“I SQL□v,àŽQ□AE,μ,Ä,,¾,³,¢□B

“@“lf□[f< CE<%oÉfZfbfg“à,ì□X□V□A□□□□□A,Ü,½,í““ü,³,è,½□s,ðCEÿ□o,·,é,± ,AE,²,Ä,«,éfxfnf□□[f<%oÄ“\f□[f<□B

fhf%ofCfo ODBC API ,ìšÖ□”,ðCEöšJ,·,é<□[f“ f” f%ofCfuf%ofš□Bfhf%ofCfo,í 1 ,Á,ì DBMS ,Éí,μ,Ä“Ä’è,³,è,Ä,¢,Ü,·□B

fhf%ofCfo fzfbfgfAfbfv DLL fhf%ofCfo“Á—L,lfCf“fXfg□[f<□í•ñ,“,æ,Ñ□Ý’è<@“\,ðšÜ,p DLL□B

fhf%ofCfo f}f□[fWff fAfVfšfP□[fVf#“,Ážg—p,·,éfhf%ofCfo,Ö,lfAfNfZfX,ðšC—□,·,é<□[f“ f” f%ofCfuf %ofš□Bfhf%ofCfo f}f□[fWff,í□Afhf%ofCfo,lf□□[fh/fAf“f□□[fh,ð□s,¢□A“K□Ø,Éfhf%ofCfo,É ODBC šÖ□”,ìCEÄ,Ñ□o,μ,ð^ø,«“n,μ,Ü,·□B,Ä,Ü,è□Afhf%ofCfo f}f□[fWff,í□AODBC šÖ□”,ìCEÄ,Ñ□o,μ,ð^ø,«“n,μ,Ä,¢,éšÖ,É□Afhf%ofCfo,Ö,ì□Ú’± (□Ú’±%oð□□) ,ð□s,¢,Ü,·□B

fgf%of“fUfNfVf#” □□<AE,lfAfgf~fbfN’P^Ê□Bfgf%of“fUfNfVf#”,ì□□<AE,Á,í□A□<AE’S’ì,ðš@—¹,·,é•K— v,²,·,è,Ü,·□Bfgf%of“fUfNfVf#”,ì^è•”,²ž,“s,·,é,AE□Afgf%of“fUfNfVf#”“S’ì,²ž,“s,μ,Ü,·□B

fgf%of“fUfNfVf#”•a—£ fgf%of“fUfNfVf#”,ð□A,Ü,©,ì,·,x,Ä,lfgf%of“fUfNfVf#”,ì%oe<¿,©,ç•a—£ ,·,éfxfnfVf#“□B

fgf%of“fUfNfVf#”•a—£fCEfxf< fgf%of“fUfNfVf#”,²•a—£,³,è,é“x□#,¢□Bfgf%of“fUfNfVf#”•a— £fCEfxf<,É,í□ARead Uncommitted□ARead Committed□ARepeatable Read□ASerializable□A,“,æ,Ñ Versioning ,ì 5 Ží—p,²,·,è,Ü,·□B

fgf%of“fXfCE□[f^ DLL ff□[f^,ì•žšfZfbfg,ð•š,·,é DLL□B

fgf%of“fXfCE□[f^ fzfbfgfAfbfv DLL fgf%of“fXfCE□[f^“Á—L,lfCf“fXfg□[f<□í•ñ,“,æ,Ñ□Ý’è<@“\ ,ðšÜ,p DLL□B

# Í

fofCf 8 frfbfg,Ü,½,í 1 flfNfefbfg□B□uflfNfefbfg□v,àŽQ□AE,μ,Ä,,¾,³,¢□B

fofCf“fffBf“fo “@ŽCE,ì□ê□#,í□ACE<%oÉfZfbfg,ì—ñ,Ü,½,í SQL fXfe□[fgf□“fg,lfpf %of□□[f^ ,ðfAfVfšfP□[fVf#“•í□”,ÉšÖ~A•t,·,é“@□ì,ðžw,μ,Ü,·□B~¼ŽCE,ì□ê□#,í□A,»,ìšÖ~A,ðžw,μ,Ü,·□B

fofCf“fffBf“fo flftfZfbg ,·,x,Ä,ìCE<□#,³,è,½—ñ□A,Ü,½,lfpf%of□□[f^ ff□[f^,Éí,·,éff□[f^ fofbftf@ fAfhfCEfX,“,æ,Ñ’,¾fCf“fWfP□[f^ fofbftf@ fAfhfCEfX,É%oÄ,ì,ç,è,é’□B□V,μ,¢fAfhfCEfX,²□□□,³,è,Ü,·□B

fofbftf@ fAfVfšfP□[fVf#“,AEfhf%ofCfošÖ,Äff□[f^,ì^ø,«“n,μ,Éžg—p,·,éfxfnfVf#“ f□f,š,ì^è•“□B’É□□Afofbftf@,íí,É,É,Ä,Ä,¢,Ü,· (“ff□[f^ fofbftf@” ,AE “ff□[f^·fofbftf@” ,É,Ç)□B

fpf%of□□[f^ SQL fXfe□[fgf□“fg,ì•í□”□Bfpf%of□□[f^,É,í□Afpf%of□□[f^ f}□[f□[.Ü,½,í<^—â•,, (?) ,²•t,¢,Ä,¢,Ü,·□Bfpf %of□□[f^ ,í□AfxfnfVfšfP□[fVf#“•í□”□A,“,æ,Ñfxfe□[fgf□“fgŽÄ□sŽž,Éžæ“¾,³,è,é,»,ì’l,ÉCE<□#,³,è,Ä,¢,Ü,·□B

fpf%of□□[f^<L□qžq SQL fXfe□[fgf□“fg,Ážg—p,³,è,éžÄ□sžžfpf%of□□[f^,ð•v,·<L□qžq□Bfpf %of□□[f^ ,í□AfxfnfVfšfP□[fVf#“,É,æ,éžw’è,³,è,é•š,ì’O (fAfVfšfP□[fVf#“ fpf%of□□[f^<L□qžq,Ü,½,í APD)□A,Ü,½,í•š,ìCEä (fCf“fvfšf□“fe□[fVf#“ fpf%of□□[f^<L□qžq,Ü,½,í IPD) ,ì,¢,·,é,©,É•v,³,è,Ü,·□B

fpf%of□□[f^ fXfe□[f^fX”z—ñ SQLExecDirect ,Ü,½,í SQLExecute ,ðCEÄ,Ñ□o,μ,½CEä,lfpf %of□□[f^ ,lfXfe□[f^fX,ðšÜ,p”z—ñ□B

fpf%of□□[f^“€□”z—ñ “Ä’è,ì’l,ðšÜ,p”z—ñ□B,± ,ì’l,í□AfxfnfVfšfP□[fVf#“,É,æ,Ä,Ä□Ý’è,³,è□ASQLExecDirect ,Ü,½,í SQLExecute ,ðžÄ□s,·,é□Ú,É□Aí %ož,·,éfpf%of□□[f^ ,²~ž<,³,è,é,±,AE,ðžì,μ,Ü,·□B



**fnf"fhf<** ftf@fCf<,Ü,½,Íff[]f^[]\ç,È,Ç,ð^è^Ó,ÉŽ^•É,·,é'[]Bfnf"fhf<,í[]Afnf"fhf<,ð[][]-,μ,ÄŽg—p,·,é\ ftfgfEfffA,É'í,μ,Ä,ì,Ý—L—p,Ä,·,ª[]A,Ü,©,ì\ftfgfEfffA,É,æ,è^ø,«"n,ª,è,Ä[]A fAfCfef€,ðŽ^•É,·,é[]è[]#,à, ,è,Ü ,·,[]BODBC ,Ä,í[]AŠÄ<«[]AÚ'±[]AfXfe[]f[]g[]f"fg[]A,·,æ,Ñ<L[]qŽq,ìfnf"fhf<,ª'è<,ª,è,Ü,·,[]B

**frf...[]** 1 ,Ä,Ü,½,í,·,[]",ìfe[]fuf<,ÉŠÜ,Ü,è,éff[]f^,ð\Ž!,·,é•û-@[]B'É[][]Afrf...[][,í[]A1 ,Ä,Ü,½,í,·,[]",ìfe[]fuf<,É'¶[]Ý,·,é—ñ,ì\TfufZfbfg,Æ,μ,Ä,ü[]-,ª,è,Ü,·,[]BODBC ,Ä,í[]A^è"É"í,Éfrf... [][,Æfe[]fuf<,í"~"™,Ä,·,[]B

**ftf@fCf< f[]f[]f^ f[]fX** []Ú'±[]î•ñ,ª .DSN ftf@fCf<,É•Ü'¶,ª,è,éff[]f^ f[]fX[]B

**ftf@fCf< fX[]fX,ìfhf%ofCfo** •" —[]"í,Éff[]f^,É'¼[]ÚfAfNfZfX,·,éfhf%ofCfo[]B,±,ì[]è[]#[]Afhf %ofCfo,É,ìff[]f^fX[]fX fGf"fwf",ªŠÜ,Ü,è,Ä,·,è[]Afhf%ofCfo,Æff[]f^ f[]fX,ì-¼•û,ì-ðŠ,,ð %oÉ,½,μ,Ü,·,[]B

**ftfB[]f<fh** []u—ñ[]v,ðŽQ[]Æ,μ,Ä,,ª/4,ª,ç[]B

**ftfFbf` (,·,é)** Ç<%oÉfZfbfg,©,ç 1 ,Ä,Ü,½,í,·,[]",ì[]s,ðŽæ"ª/4,·,é,±,Æ[]B

**fvf[]fV[]fWff** f[]f[]f^fX[]fX,ì-¼'0•t,«fìfufWfFfNfg,Æ,μ,Ä•Ü'¶,ª,è,é[]A1 ,Ä,Ü,½,í,·,[]",ìfvfŠfRf"fpfCf<[]í,Ý SQL fXfe[]f[]g[]f"fg,ìfOf<[]fv[]B

**fvf[]fV[]fWff—ñ**  
fvf[]fV[]fWffÇÄ,Ñ[]o,μ,ì^ø[]"[]Afvf[]fV[]fWff,Ä•Ô,ª,è,é'í[]A,Ü,½,ìfvf[]fV[]fWff,Ä[]i[]-,ª,è,éÇ<%oÉfZfbfg,ì —ñ[]B

**fuf[]fbfN f[]f[]f<** ^è"x,É•,[]",ìff[]f^[]s,ðftfFbf` ,Ä,«,éff[]f<[]B

**fyfvf~fXfefBfbfN"ŽŽŽÄ[]s[]ÇEä** '¼—ñ%o»%oÄ"\[]«,ðŽÄ'•,·,é•û-@[]B,±,ì•û- @,Ä,í[]A[]s,ªf[]fbfN,ª,è,Ä[]A,Ü,©,ìfgf%of"fUfNfVf#f",Ä,±,è,ç,ì[]s,ð•ì[]X,Ä,«,É,- ,É,è,Ü,·,[]BufìfvfefBf~fXfefBfbfN"ŽŽŽÄ[]s[]ÇEä[]v,àŽQ[]Æ,μ,Ä,,ª/4,ª,ç[]B

## ,Ü

**f[]fVf" f[]f[]f^ f[]fX** fCefWfXfgfŠ,È,Ç[]AfvfXfef€,É•Ü'¶,ª,è,é[]Ú'±[]î•ñ,ìff[]f^ f[]fX[]B

**f[]f^ff[]f^** SQL fXfe[]f[]g[]f"fg,ìfpf%of[]f^,Ü,½,ìÇ<%oÉfZfbfg,ì—ñ,ð•\,ff[]f^[]B— á,ì,ì[]Aff[]f^Ç^[]Aff[]f^'[]Afpf%of[]f^,ì, "x,È,Ç,Ä,·,[]B

**-B,è'í** ODBC ŠÖ[]",Ä•Ô,ª,è,é'í[]B

## ,Ç

**fŠfef%of<** SQL fXfe[]f[]g[]f"fg,ÉŠÜ,Ü,è,éŽÄ[]Ü,ìff[]f^'í,ð•\,·,¶Žš[]B

**fÇfR[]fh** []u[]s[]v,ðŽQ[]Æ,μ,Ä,,ª/4,ª,ç[]B

**—ñ** []s,ÉŠÜ,Ü,è,é[]î•ñ,ì'P^èfAfCfef€,ð•Ü'¶,·,éfrf"fefi[]B"ftfB[]f<fh" ,Æ,àÇEÄ,ì,è,Ü,·,[]B

**f[]f<f[]fbfN (,·,é)** fgf%of"fUfNfVf#f",Ä•ì[]X,ª,è,½'í,ðÇ³,ì[]ó'Ô,É-B,·,±,Æ[]B

**f[]fbfN** f[]f<f[]f[]fU[][ŠÄ<<,Ä[]A[]s,Ö,ìfAfNfZfX,ð[]ÇEÄ,·,é,½,β,É DBMS ,ªŽg— p,·,éfvf[]fZfX[]B'É[][]ADBMS ,Ä,ì[]s,©[]A[]s,Ü,½,ìfy[]fW,ªf[]fbfN,ª,è,Ä,ç,é,±,Æ,ðŽ!,·,[]s,ªŠÜ,Ü,è,Ä,ç,é•" —[]"í,Éfy[]fW,Éfrfbbfg,ð[]Ý'è,μ,Ü,·,[]B

**f[]f"fo f[]f[]f^** 255 fofCfg,Ü,½,í•¶Žš,È,Ç[]A'Á'è,ì'•,ª,ð'í,ì,éfofCfifŠ,Ü,½,í•¶Žš— ñff[]f^[]B'É[][]A'âÇ^,ìff[]f^,ðŽw,μ,Ü,·,[]B,±,ì,æ,ª,Éff[]f^,ì[]Aff[]f^ f[]fX,É'—[]M,·,é[]è[]#,â[]Aff[]f^ f[]fX,©,çŽæ"ª/4,·,é[]è[]#,É•ªŠ,,ª,è,Ä'—[]M,ª,è,Ü,·,[]B,±,ì,æ,ª,Éff[]f^,ì[]A"BLOB" ,Ü,½,í "CLOB" ,Æ,àÇEÄ,ì,è,Ü,·,[]B



