

MagaDebug32,Æ,Í,H

“®ŠÂ<<

fCf“fXfg[f<•û-@

fAf“fCf“fXfg[f<•û-@

, ±, ì“x, ÌuMagaDebug32v, ðf_fEf“f[]fh, µ, Ä, ç, ½, ¾, «, , è, ð, Æ, x, ², ´, ç, Ü, ·D

MagaDebug32, Ì, ²D%ôî

[]@, » , Ì[]C, c, n, rfAfvfŠfP[]fVf#f“[]î[]-Žž[]CŽèÇEy, É[]o—^, éfffofbfOŽè-
@, Æ, µ, Äfvf[]fOf%of€, Ì, , ç, ±, ç, É printf() , ð´}“ü, µ[]C, » , Ì·\Ž! , Äfvf[]fOf%of€
, Ì“® , « , â·î[]” , Ì! , ð·ß, ç, ! , é, ±, Æ, ð, æ, , â, è, Ü, µ, ½, æ, É[]D
[]uMagaDebug32v, Ì[]C, v, %o, Ž, , , , [] , — , “fvf[]fOf%of~f“fO, É, Ä, ±, è, Æ“´ , ¶, ±, Æ, ð[]o
—^, é, æ, x, É, µ, ½ printf()Ç^ , ÌfffofbfOfc[]f< , Ä, ·[]D
VisualC++ , É, Ç, Ì“[]±ŠÄ<« , Ä, àfufÇ[]fNf|fCf“fg, âfEfHfbf` , É, æ, Á, Ä, ±, è, ç, Ì, ±, Æ, ð
%oÄ“\ , Ä, · , ð[]C[]uMagaDebug32v, ðŽg—p, · , è, Ìfvf[]fOf%of€
, Ì“® , « , ð“r’t , ÄŽ~ , ß, , , ±, è, ç, ÌfffofbfO, ð[]o—^ , é, ½, ß[]C

[]E´É[]M[]\$Çä, È, Ç“r’t , ÄfufÇ[]fN, · , é, Æf^fCf€fAfEfg, µ, Ä, µ, Ü, x
[]Ef^fCf} , È, Ç[]^è[] , Æ·î%o» , · , é[]ó´Ô, ð·ß, ç, ! , é
[]EWM_PAINT%oŽ“šŽž , ÉfffofbfOfEfBf“fhfE, Æ[]Ø, è´Ö, í, Á, Ä, Ì[]ç, é
[]EfVfXfef€ftfbfN, È, Ç“[]±ŠÄ<« , Ä, ÌfffofbfO, Ä, Ì·s^Ä´è
[]Ef, f~ , Ä“® , , , c, k, k

, È, Ç, ÌfffofbfO, É“Á, É—LÇø—~—p[]o—^ , é, ÆŽv, ç, Ü, ·[]D
MessageBox() , ðŽg—p, µ, ÄfffofbfO, ³, è, Ä, ç, é·û, É, à”ñ[]í, É—LÇø, Ä, ·[]D

, Ü, ½[]Cf[]fO, ðftf@fCf< , ÉŽc, · , ±, Æ, ð%oÄ“\ , È, ±, Æ, © , ç[]C

[]EWindows[]l—¹Žž , ÌfAfvfŠfP[]fVf#f“[]^—[]

, ÌfffofbfO, à%oÄ“\ , Æ, È, è, Ü, ·[]D[]iWM_QUERYENDSESSION , Ìf[]fbfZ[]fW[]^—
[] , ð<L~^[]j

, à, ç, è, ñ·É , ÌfEfBf“fhfEfAfvfŠfP[]fVf#f“ , Ä, à“[]±ŠÄ<« , Ìffj , çfEfBf“fhfE, ð·\
Ž! , ³ , ¹ , , ÉfffofbfO, Ä, « , Ü, · , Ì, Ä[]C, ç, , , è, ð, Æ, Á, Ä, à—L—
p, ÉfffofbfOfc[]f< , Æ, µ, ÄŽg, ! , Ü, ·[]D

[“! , ÉÇ¾ , ! , Ì, P, Ufrfbfg, r, c, j, É·t´® , µ, Ä, ç, ½[]uDBWIN[]v, É—l[]X, È·t%oÄ<@“\ , ð·t, ´
%oÄ, ! , ½fffofbfOfc[]f< , Æ, È, Á, Ä, ” , è, Ü, ·[]D

[]@- {fvf[]fOf%of€, Ì[]CVisualC++[]i, l, e, b-çŽg—p[]j, É, ÄŠj” , µ, Ü, µ, ½[]D

“®ŠÂ«

^È%º,ì\¬,Åì¬EfefXfgiffofbfOfc[f<,lffofbfO@^ ^;j,ðs,ç,Ü,µ,½D

Ver1.31^È'O

□EPC-9821Xp + Windows95 + VisualC++4.1

□EPC-9821La10 + Windows95 SP1

Ver1.32^È□~

□EŽ©ì,`sĚÝŠ·<@ + Windows95 OSR2.1 + VisualC++4.1

□EŽ©ì,`sĚÝŠ·<@ + WindowsNT4.0 Workstation SP3

□EPC-9821La10 + Windows95 SP1

Ver1.40^È□~

□EŽ©ì,`sĚÝŠ·<@ + Windows98 + VisualC++4.1

□EŽ©ì,`sĚÝŠ·<@ + WindowsNT4.0 Workstation SP4

□EPC-9821La10 + Windows98

Ver1.41^È□~

□EŽ©ì,`sĚÝŠ·<@ + Windows98 SP1 + VisualC++6.0

□EŽ©ì,`sĚÝŠ·<@ + WindowsNT4.0 Workstation SP5

□EPC-9821La10 + Windows98 SP1

“Á,ÉŠJ”ŠÂ«,Å,·,ª□CìŽÒ,ìŠÂ«,ì“s□#□ã□CVisualC++6.0/4.1—p,ÆBorlandC++
—p,lf%ofCfuf%ofŠ,ð—p^Ó,µ,Ä,“,è,Ü,·□D

,»„è^ÈŠO,lfRf“fpfCf%□C,È,ç,Ñ,É“□#ŠÂ«„É,Â,ç,Ä,Í□C,“'m,ç,¹,ðŽQ□Æ,µ,Ä,-
,¾,¾,ç□D

,È,“□C^È%º,lfwf<fv,Í VisualC++ ,ð'O'ň,Æ,µ,Ä□',©,è,Ä,“,è,Ü,·□DBorlandC+
+ft□[fU,ì•ù,í□C“K“-„É“Ç,Ý'Ö,¡,ÄŠÂ«„ð□®,¡,Ä,,¾,¾,ç□D

f^□[fQfbfgfAfvfŠfP□[fvf#f“„í,l,e,b,ìŽg—p□E-çŽg—p□i,r,c,jf\

□[fX□j□A,d,w,d,â,c,k,k“™fAfvfŠfP□[fvf#f“f^fCfv,í-â,ç,Ü,¹,ň□D,È,ň,Å,à,n,j,Å,·□D

fAf“fCf“fXfg[]f<•û-@

WindowsftfHf<f_É,Í,h,m,hftf@fCf<“™,ì[]’,«[]ž,Ý,đ[]s,Á,Ä,ç
,Ü,¹,ñ,ª[]CVer1.35,æ,èvf[]fOf
%of€[]î•ñ,đfCfWfXfgfŠ,É[]’,«[]ž,ñ,Å,“ ,è,Ü,.,ì,Å[]C•t’® ,ìfAf“fCf“fXfg[]f%o
unreg.exe []ifCfWfXfgfŠ,ì[]í[]œ,ì,Ý[]j,đžÀ[]s,.,é,©[]CfCfWfXfgfŠfGfffBf^ ,æ,è^È
%oº,ìfL[][,đ[]í[]œ,μ,Ä,,³/₄,³,ç[]D[]ifvf[]fOf%of€
,ª[]’,-,é[]IÆü,-,ìfc[]f<,Å,.,ì,Å[]CfCfWfXfgfŠfGfffBf^,ì’€[]ì,Í,Å,« ,é,Æžv,ç
,Ü,·[]D^^;[]j

\\HKEY_CURRENT_USER\\Software\\MNCT-S\\MagaDebug32

žÀ’ìftf@fCf<,ìfAf“fCf“fXfg[]f%o,Í, ,è,Ü,¹,ñ,ì,Å[]Cžè“® ,Å[]Á<ž,μ,Ä,,³/₄,³,ç[]D

VisualC++, ìÿ'è
fvfWfFfNfg'P^É, ìÿ'è
fCf" fNf<[fhftf@fCf<
,b{
,b
f}fNf
SCEAZ-€

VisualC++, iY'è

ŠefvfWfFfNfg<α'É, iY'è, Æ, μ, Äft[fUf%ofCfuf
%ofŠ, âfwfbf_[ftf@fCf<, İft[f`fjX, ðY'è, μ, Ä, ,, Æ, », İ-¼'O, ¾, -, ÄŽw'è, Ä, «, é, æ, α
, É, È, è, Ü, ·DVisualC++, Ä—p^Ó, ³, è, Ä, ç, éf%ofCfuf
%ofŠ, âfwfbf_[ftf@fCf<, Æ“ , ¶İêŠ, Éft[fUf%ofCfuf%ofŠ, ð'u, ç, Ä, à-â'è, È, ç
, Ä, ·, æC, ,, ·, ·, ß, Ä, «, Ü, ¹, ñD

ft[fUf%ofCfuf%ofŠê—p, İftfHf<f_, ði—, μC, », è, ðVisualC++, İft[f`fjX, É
%oÄ, İ, Ü, ·D

ft[fUf%ofCfuf%ofŠ, İŠi”[ftfHf<f_, ðuB:\USR\MSC\USR\LIBv
fwfbf_[ftf@fCf<, İŠi”[ftfHf<f_, ðuB:\USR\MSC\USR\INCLUDEv
, Æ, μ, ½, Æ, «CVisualC++f[fj...[, İufc[f<v”ufIfvfVfj”v, Ä·\
Ž, ³, è, éf_cfAfO, İuffBfCefNfgfŠv^fO, Ä^É%o, İ, æ, α, ÉfT[f`fjX, ð'Ç
%oÄ, μ, Ü, ·D



—á, Ä, İfCf“fNf<[fhfjX, İ, Y, Ä, ·, æC“—İ, İ·û-@, Äf%ofCfuf%ofŠfjX, àŽw'è, μ, Ü, ·D

BorlandC++ , İê±, İCfj...[, İufIfvfVfj”v”ufvfWfFfNfgv, ©, ç“—
İ, İY'è, æ%oÄ“, Ä, ·D

プロジェクト外設定

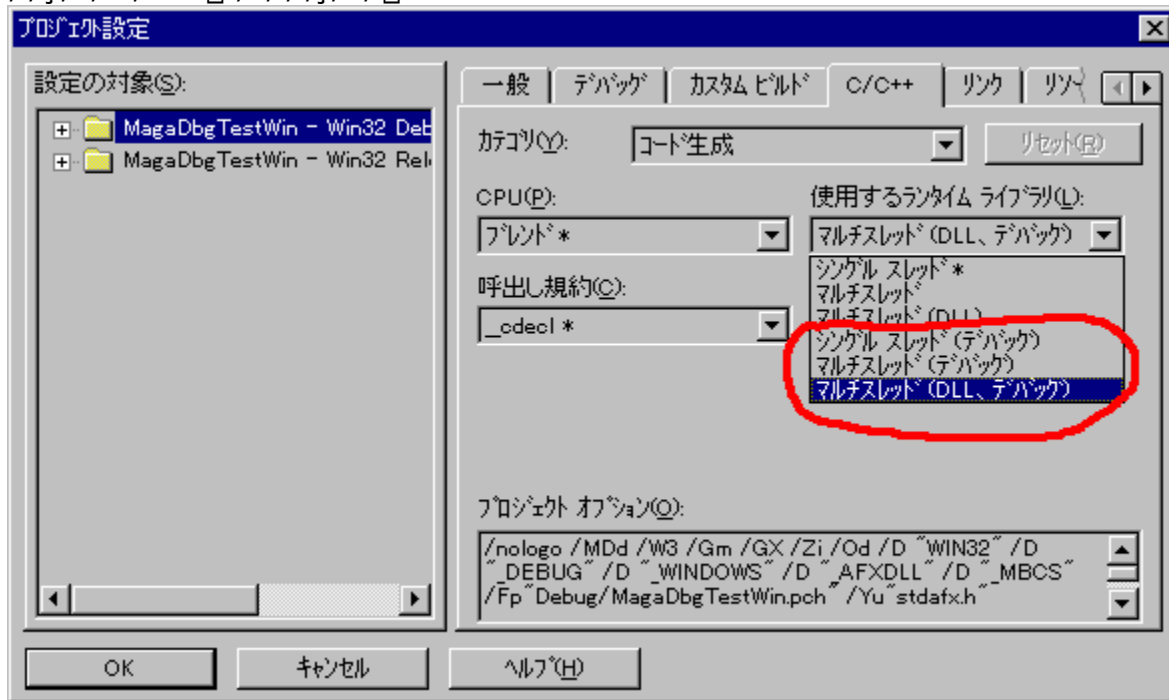
Ver1.20

プロジェクト名: MagaDbgTestWin - Win32 Deb

呼び出し規約: _cdecl

使用するランタイム ライブラリ: マルチスレッド (DLL、デバッグ)

プロジェクト オプション: /nologo /MDd /W3 /Gm /GX /Zi /Od /D "WIN32" /D "DEBUG" /D "_WINDOWS" /D "AFXDLL" /D "MBCS" /Fp "Debug/MagaDbgTestWin.pch" /Yu "stdafx.h"

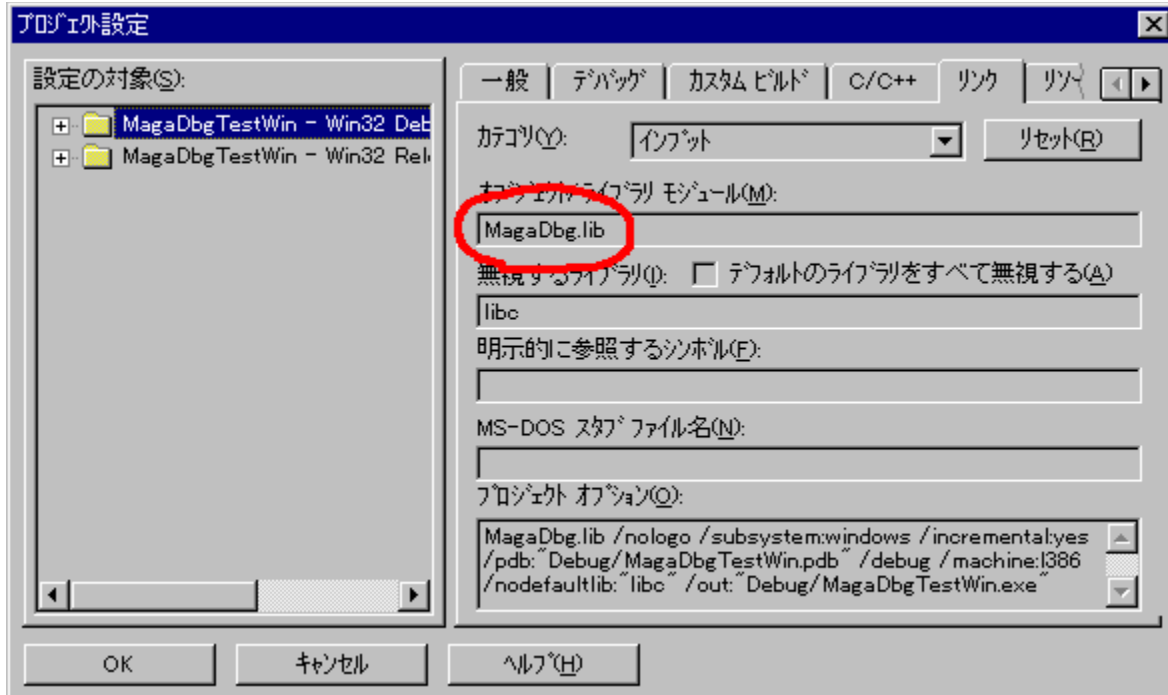


プロジェクト名: MagaDbgTestWin - Win32 Rel

呼び出し規約: _cdecl

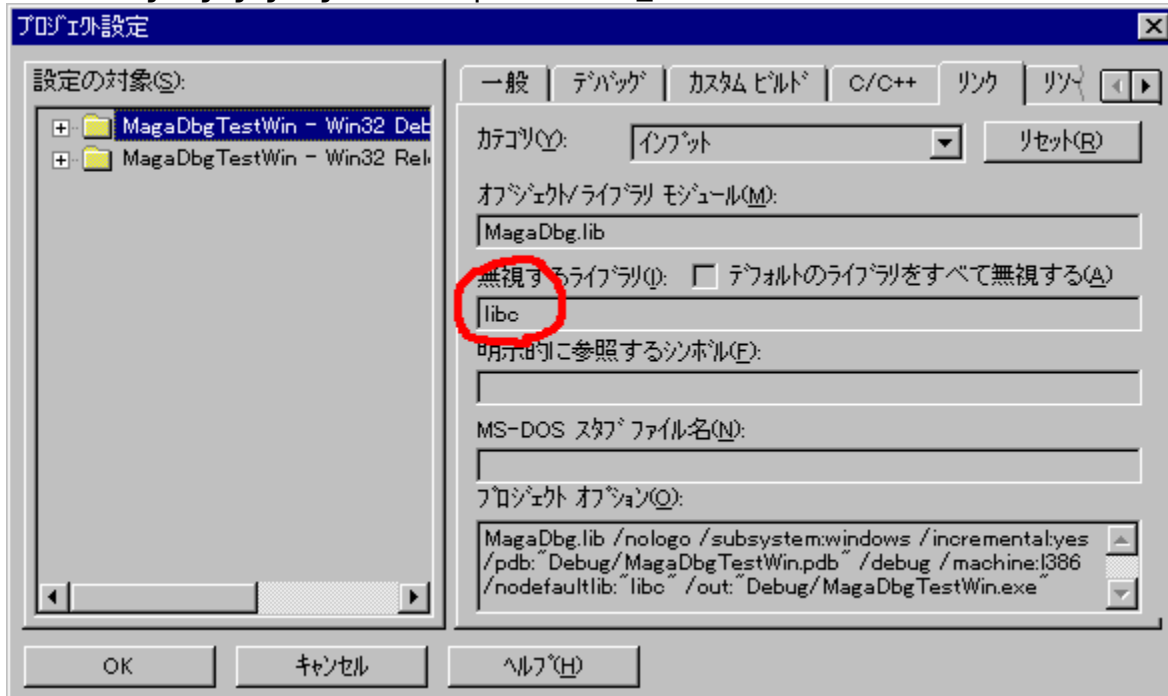
使用するランタイム ライブラリ: マルチスレッド (DLL、リリース)

プロジェクト オプション: /nologo /MDd /W3 /Gm /GX /Zi /Od /D "WIN32" /D "DEBUG" /D "_WINDOWS" /D "AFXDLL" /D "MBCS" /Fp "Debug/MagaDbgTestWin.pch" /Yu "stdafx.h"



“-R,Å,·,ª□C,±,ê,ç,·,×,ÄfffofbfOfvf□fwfFfNfg’α,Å□Ý’è,μ,Ü,·□D

frf<fh,μ,ÄfŠf“fN,ì,Æ,±,ë,Å□uLIBC,í’¼,ìf%ofCfuf%ofŠ,ìŽg—p,Æ<£□#,μ,Ä,ç,Ü,·□D; /NODEFAULT TLIB:library,ðŽg—p,μ,Ä,,¾,¾,ç□v,Æ□o,é□ê□#,í^È%º,ì,æ,α,É-³Ž<,·,éf%ofCfuf%ofŠ,ðŽw’è,μ,Ä,,«,Ü,·□D



,ªCVer1.20^È~C,±,ê,ð%ñ"ð,·,é,æ,¸ì,ç,ê,Ä,ç,é,½,ß,Û,·o,é,±,Æ,Í,
,è,Û,¹,ñD,·,Å,É-³Z<,·,éf%ofCfuf%ofŠ,ðY'è,³,ê,Ä,ç
,éê‡,íCfo[fWf‡f“fAfbfvÆã,ìf%ofCfuf
%ofŠ,ÆfŠf“fN,·,é'O,ÉY'è,ð,í,,µ,Ä,Ý,Ä,,¾,³,çD

,».,ê,Ä,ào,éê‡,íC,±,±,ì~A—æ,Û,Å,²~A—,,¾,³,çD

,È,“CBorlandC++ ,ìê‡,íCã<L,ì,æ,¸,È§ÆÀ,Í,È,ç,æ,¸,Å,·,ªCŽÀÛ,ì,Æ,±
,ë,æ,,í,©,è,Û,¹,ñD(^ ^;)

fCf“fNf<[]fhftf@fCf<

MagaDebug32 ,đŽg—p,·,é,É,Í[]Cf[]fX’P^Ê,ÉfCf“fNf<[]fhftf@fCf<,đ“Ç,Ý[]ž,þ•K—
v,^a, ,è,Ü,·[]DŠù,ÉVisualC++,ì[]Y’è,É,ÅfpfX,đ[]Y’è,μ,Ä,ç,é,Í, ,É,ì,Å^È%°ò,ì,æ,κ
,É<L[]q,μ,Ü,·[]D

```
#ifdef _DEBUG  
#include "MagaDbg.h"  
#endif
```

•K, []C#ifdef _DEBUG ,Æ #endif ,Å^Í,Á,Ä,,³/₄,³,ç[]D
,Ü,¹/₂[]CVer1.22^È[]~ ,ÅfTf|[]f_g,³,è,¹/₂f}fNf[],đŽg—p,·,é[]ê[]‡,Í

```
#include "MagaDbgMac.h"
```

,đ’Ç%°Á,·,é•K—v,^a, ,è,Ü,·[]D,±,ê,Í _DEBUG ftf%°ofO,^a[]Y’è,³,è,Ä,ç,È,ç
,Æ,« ,É,à[]uf}fNf[]-³CEø%°»[]v,Æ,ç,κŽdŽ-,^a, ,è,Ü,·,ì,Å[]C#ifdef _DEBUG ,Æ
#endif ,Å^Í,Ü,È,ç,Å,,³/₄,³,ç[]D

MagaDbgMac.h “à,Å,Í MagaDbg.h ,áfCf“fNf<[]fh,³,è,Ä,ç,é,©,Ç,κ
,©f`fFfbfN,μ,Ä,ç,Ü,·,ì,Å[]C[]V,μ,fR[]f[]ffBf“fO,·,é,Æ,« ,Í[]C[]ð[]fRf“f[]pfCf<,ì•K—
v,É,ç MagaDbgMac.h ,³/₄,⁻,Å,à,n,j,Å,·[]D

fRf“fXfgf%oofNf^
f f“foSÖ”
—á’è

ifRf“fXfgf%ofNf^

Ší- {fNf%ofX,lfRf“fXfgf%ofNf^,É,Í^È%o,ìŽí—p,ª, ,è,Û,·D

```
□ECMagaDbg(void);
□ECMagaDbg(char* lpszHead,
    BOOL fSep = FALSE,
    dbgColor eColor = DBG_BLACK,
    DWORD dwInterval = 0);
□ECMagaDbg(char* lpszHead, dbgColor eColor);
□ECMagaDbg(char* lpszHead, BOOL fSep);
□ECMagaDbg(BOOL fSep);
□ECMagaDbg(dbgColor eColor);
```

”h□ifNf%ofX,lfRf“fXfgf%ofNf^,É,Í^È%o,ìŽí—p,ª, ,è,Û,·D

```
□ECMagaDbgFile(
    char* lpszFilename,
    BOOL fOverwrite = TRUE,
    BOOL fDisplay = TRUE,
    char* lpszHead = NULL,
    BOOL fSep = FALSE,
    dbgColor eColor = DBG_BLACK,
    DWORD dwInterval = 0
);
□ECMagaDbgFile(MAGADBGOPT* lpMagaDbgOpt);
```

^ø□”

lpszHead

```
□@MagaDebug32,lfEfBf“fhfE,Öf□fO,ð•\Ží,³,¹,é,Æ,«□C□í,É,±,ì•qŽš—ñ,ð•t,
%oÁ,ì,é□D
'\n' ^È□~,ì•qŽš—ñ,í□CflfufWfFfNfg□q□~Žž,lfXf^□[fgf□bfZ□[fW,Æ,μ,Ä•\
Ží,³,é,Û,·D
```

fSep

```
□@flfufWfFfNfg,ª”jŠü,³,é,é,Æ,«□CMagaDebug32,Å□Ý'è,³,é,½fZfpf□□[f^□i<æ□
Ø,è•qŽš□j,ð
'}“ü(TRUE),·,é,©,μ,È,ç(FALSE),©
```

eColor

```
□@MagaDebug32,lfEfBf“fhfE,Öf□fO,ð•\
Ží,³,¹,é,Æ,«,ì□F□Denum□^,Å□CDBG_BLACK, DBG_BLUE, DBG_GREEN,
DBG_CYAN, DBG_RED, DBG_MAGENTA, DBG_YELLOW, DBG_WHITE ,ªŽw'è,Å,«,é
```

dwInterval

□@□f□bfZ□[fW•\Ž!Žž,ÉfXfŠ□[fv,·,éŽžŠÔ[ms]

lpszFilename

□@□o—Í,·,éf□fO,łftf@fCf<-¼

fOverwrite

□@□ã□'(TRUE),·,é,©□C'Ç%oÁ(FALSE),·,é,©

fDisplay

□@•\Ž!,à□s,κ(TRUE),©□Cftf@fCf<□o—Í,ì,Ý(FALSE),©

lpMagaDbgOpt

□@CMagaDbgFile,ì^ø□",ð,Ü,Æ,ß,½□\‘ç‘ì

%oð□à

^ø□",È,μ,łfRf“fXfgf

%ofNf^,Í□CŽă,É□L^æflfufWfFfNfg□i,·,È,í,žŠO•”•İ□”□j,Æ,μ,Ä□éĈ¾□D

^ø□”,·,è,łfRf“fXfgf%ofNf^,Í□CŠeŠÖ□””P^Ê,ÉflfufWfFfNfg,ð□¶□¬,·,é,Æ•Ö—
~ ,È,æ,κ,É□ì,ç,è,Ä,ç,Ü,·□D

”h□¶fNf%ofX(CMagaDbgFile),Í□Cf□fO,łftf@fCf<□o—Í,ð“~Žž,É□s,κ□€”ð,ð□s,ç
,Ü,·□D,Â,Ü,è,±,ê,É’® ,·,éf□f“foŠÖ□”,ðŽg—

p,·,é,Æ□iCMagaDbgFilełfufWfFfNfgĈo—R,¾,Æ□jftf@fCf<,Ö,ì□o—

Í,à“~Žž,É□s,ì,Ü,·□D

—á

```
#ifdef _DEBUG // fffofbfOf,□[fh,È,ç
#include "MagaDbg.h" // fCf“fNf<□[fh□i•K□{□j
CMagaDbg g_dbg; // □L^æflfufWfFfNfg,ì□¶□¬
#endif
```

```
int CMainFrame::OnCreate(...)
{
#ifdef _DEBUG
    CMagaDbg dbg("OnCreate", TRUE, DBG_YELLOW); //
    ŠÖ□””P^Ê,łfufWfFfNfg
#endif
    ...
}
```

```

void CMainFrame::OnTimer(...)
{
#ifdef _DEBUG
    CMagaDbgFile dbg("\\tmp\\timer.log", FALSE, FALSE);
    // Timerf[]fO,Íftf@fCf<[]o—Í,Ö[]C,©,Â[]C
    // 'Ç%oÁf,[]fh,Á,È,ç,Æ[]D[]D[]D^^;
    // •\Ž!,Í,ç,Á,Í,ç,É,È,é,©,çf,,f[]
    // ,½,¾[]CCEÄ,Î,ê,é"x,É OPEN-CLOSE ,ðÆJ,è•Ô,·,ì,Å'x,ç[]D[]D
    // ,±,ì[]é[]‡,í[]C,±,ç
,Â,ð[]L^æfIfufWfFfNfg[]iŠO•"•İ[]"[]j,É,·,é,ì,ªfxfXfg,Å,·,Ë[]D
#endif
    ...
}

```

printf "fošÖ"

Ši- {fNf%ofX,lf"fošÖ",É,Í^È%º,İšÖ",ª, ,è,Ü,·D

void printf(char* szbuf, ...);

```
@'Éí,printf()“—|CŽ®•Źš—ñ,Æ,»,è,É'í%ž,μ,½•İ” ,δ<Lq,Å,«,Ü,·D
'A,μfGfXfP[fv•Źš(\n,È,Ç),ÍŽw'è,μ,Ä,à³,μ,•Ž!,³,è,Ü,¹,ñD
MagaDebug32,lfOfEfBf“fhfEã,Å,Í•K, ,%ü s,³,è,Ü,·D
i,±,è,δ<Lq,μ,·,¬,Ä- {•, ,printf(),đŽg,α,Æ,«C,æ,'n',đ-Y,è,Ü,·D ^ ^ ;j
```

void print(char* szbuf, const BOOL fCR = CR);

```
@Žã,ÉÆÄ'è•Źš—ñ,đ•Ž!,³,¹,éŽž,ÉŽg,φ
,Ü,·D'æ,Q^ø” ,ÉuCRNOv(FALSE),đŽw'è,·,é,Æ%ü s,³,è, ,ÉfO,ª•
Ž!,³,è,Ü,·D
iã<L,printf(),ª“à•”“l,É,àÆÄ,Ño,μ,Ä,φ,Ü,·Dj
```

void printStruct (LPRECT lpRect);

void printStruct (LPSIZE lpSize);

void printStruct (LPPPOINT lpPoint);

```
@,æ,Žg,í,é,é,Å, ,ë,α\‘φ'İ(RECT, SIZE, POINT),»,è,¼,è,lf“fo•İ” ,đ•\
Ž!,μ,Ü,·D,l,e,b,l“ÆŽ©\‘φ'İ(CRect, CSize, CPoint),Å,à,n,j,Å,·DSIZE ,â
POINT \‘φ'İ,lf“fo•İ” ,ª,Q,Å,È,Ì,Å,»,è,Ü,Ç%ŹÆb,Í, ,è,Ü,¹,ñ,ªCRECT
\‘φ'İ,l,S,Å,lf“fo•İ” ,đ,φ,ι,φ,ι<Lq,μ,È, ,Å,à,æ, ,È,è,Ü,·D
Ver1.3x^È'O,l<Æfo[fWfj” ,©,çšÖ”-¼,ª•İX,³,è,Ä,φ,Ü,·,ªC<ÆšÖ”-
¼,àf}fNf,Æ,μ,ÄéÆ¾,³,è,Ä,φ,Ü,·D
```

BOOL scanf(char* szbuf, char* szTitle = NULL);

```
@f_cfAfO,đ•Ž!,μC'l,ì“ü—í,ª%Å”\,É,È,è,Ü,·Dszbuf ,É,Í“ü—
Í,μ,½'l,đŠi”[ ,·,é,P,Q,WfofCfĝ ÈãŠm•Ü,μ,½fjfCf“f^ ,đŽw'è,μ,Ü,·DszTitle
,É,İŽ~È,·,éf%xf<•Źš—ñ,lfjfCf“f^ ,đŽw'è,μ,Ü,·DiÉ—ª%ÅjD“ü—
lf_cfAfO,Å,n,jf{f^f” ,ª
%Ÿ,³,è,é,Æu0v,đ•Ô,μ,Ü,·D,b,` ,m,b,d,kf{f^f” ,â,»,ì¼,lfGf%o[l,İžž,Íu-
1v,đ•Ô,μ,Ü,·D”l,ÅŽæ“¾,μ,½,φ,Æ,«,ÍC-ß,è'İŠm”FÆãCŠefvfOf%œ
,É,Ä•İŠ·,μ,Ä,¾,³,φD
®C,±,İšÖ” ,đÆÄ,Ño,·,ÆC“ü—lf_cfAfO•Ž!'t,lf^ [fQfbfgfvfOf
%œ'α,ì“ ®ì,Í'S,Ä'âŽ~ ,μ,Ü,·Dif^fCf}fCxf“fg,à<N,±
,è,Ü,¹,ñ,μfEfBf“fhfE'€ì,à,Å,«,Ü,¹,ñjD
```

void dump(void* lpStart, unsigned int byte, DWORD dmpflg = 0);

```
@lpStart ,©,ç byte •ª,đf_f“fv•Ž!,μ,Ü,·Df_f“fv•Ž!,İŽí—p,đ dmpflg
,ÉŽw'è,μ,Ü,·D
dmpflg ,É,Í^È%º,İŽí—p,ª, ,è,Ü,·D•K—v,Èftf%ofo,đ OR%o
%žžžq,ÅŽwŽ!,μ,Ä,¾,³,φD
```

DEBUG_NOHEADERDUMP

```
@@f_f“fv•Ž!,lfwbf_[ ,đ•Ž!,μ,Ü,¹,ñD
```


□EDBG_OCTDUMP

□@□@,WfofCfg,Ã,Â,Å□Ü,è•Ô,μ,Ü,·□D□iffftfHf<fg,Í,P,U□j

□EDBG_NOADDRESSDUMP

□@□@□¶'α,ÉfAfhfœfX,ð•Ž!,μ,Ü,¹,ñ□D

□EDBG_NOCHRDUMP

□@□@%E'α,É 0x20 ,©,ç 0x7e ,Ü,Å,lfLfff%ofNf^,ð•Ž!,μ,Ü,¹,ñ□D

□Evoid SetInterval(DWORD *dwInterval*);

□@flfufWfFfNfg□%Šú%»Žž,lfCf“f^□[fof<□Ý'è,ð•ï□X,μ,Ü,·□D

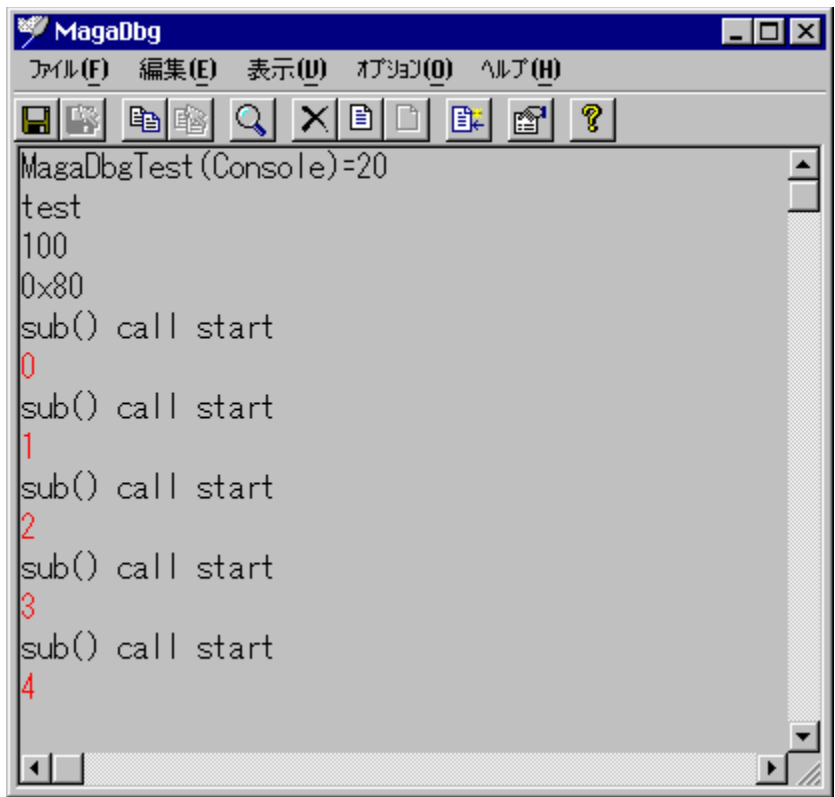
”h□¶fNf%ofX(CMagaDbgFile),lf□f“foŠÖ□”,ÍŠî-{fNf
%ofX,lf□f“foŠÖ□”,ðœp□³,μ,Å,ç,Ü,·□D,¹/₂,³/₄□Cftf@fCf<,É□o—
Í,³,è,é,ì,Æ□CfRf“fXfgf%ofNf^□i□%Šú
%»Žž□j,lfIfvfVf†f“,É,æ,Á,ÅMagaDebug32,lfEfBf“fhfE,É•\
Ž!,³,è,É,©,Á,¹/₂,è,μ,Ü,·□D

—á'è

^È%º,ì,æ,α,ÈfefXfgfvf[]fOf%of€„,δ[]¬,μ,Ä,Ý,Ü,μ,½[]DŽQ[]l,É,μ,Ä,-
,¾,¾,ç[]D[]ifvf[]fWfFfNfgf^fCfv,í[]ufRf“f[]f<[]i,c,n,r'<ŽÀ[]s—p[]j[]v,Å,·[]D[]j

```
/*  
    MagaDbg Test  
*/  
#include <windows.h>  
#include <stdio.h>  
#include "MagaDbg.h"  
  
CMagaDbg g_dbg;           // fOf[][]f<fifufWfFfNfg  
  
void sub(int i) {  
    CMagaDbg    dbg(DBG_RED); // f[][]fj<fifufWfFfNfg  
    dbg.printf("%d", i);  
}  
  
void main(void) {  
    static char msg[] = {  
        "MagaDbgTest(Console)"  
    };  
    g_dbg.printf("%s=%d", msg, lstrlen(msg));  
    g_dbg.print("test");  
    g_dbg.printf("%d", 100);  
    g_dbg.print("0x%X", GetDesktopWindow());  
    for (int i=0; i<5; i++) {  
        g_dbg.print("sub() call start");  
        sub(i);  
    }  
}
```

[]@,±,ìfvf[]fOf%of€ŽÀ[]s,ÅMagaDebug32,É•\Ž|,¾,è,éf[]fO,í^È%º,ì'È,è,Å,·[]D
[]ifTf“fvf<%ºæ-È,ÍĈÄ,çfo[]fWfFfj“ ,ì,à,ì,Å,·[]D^^;[]j



„bCE¾CEêTf|[fgŠÖ“

,bĉ¼ĉĕŕŕf|[]fgšö"

,bĉ¼ĉĕ, ©, çĉÄ, Ñ[]o, ¹, éffofbföšö", É, Í^È%º, ìšö", ª, , è, Ü, ·[]D

```
[]Evoid Dbg_printf(char *szbuf, ...);
[]@'É[]í,[]lprintf()“~—|[]C[]Ž®•[]Žš—ñ,Æ,»,è,É'í
%ºž,µ,½•Ī[]",đ<L[]q,Å,«,Ü,·[]D'A,µfGfXfP[]fV•[]Žš(\n,È,Ç),Ížw'è,µ,Ä,à[]³,µ,•\
Ž!,³,è,Ü,¹,ñ[]D
MagaDebug32,[]f[]f[]Of[]E[]f[]B[]f[]fhfE[]ä,Å,Í•K, , %ü[]s,³,è,Ü,·[]D
```

```
[]Evoid Dbg_sep(void);
[]@MagaDebug32,Å[]Ý'è,³,è,½fZfpfĉ[]f^(<æ[]Ø,è•[]Žš[]j,đ' }“ü,µ,Ü,·[]D
```

```
[]EBOOL Dbg_scanf(char *szbuf, char *szTitle);
[]@f_fCfAf[]fO,đ•\Ž!,µ[]C'í,ì“ü—í,ª%ºÅ“\,É,È,è,Ü,·[]Dszbuf ,É,Í“ü—
Í,µ,½'í,đŠi"[],·,é,P,Q,WfofCfg^È[]ăŠm•Ü,µ,½f[]fCf“f^,đžw'è,µ,Ü,·[]DszTitle
,É,Íž~•Ē,·,é%ºxf<•[]Žš—ñ,[]f[]fCf“f^,đžw'è,µ,Ü,·[]D“ü—
[]f_fCfAf[]fO,Å,n,[]f{f^f“,ª
%ºÿ,³,è,é,Æ[]u0[]v,đ•Ô,µ,Ü,·[]D,b,`,m,b,d,kf{f^f“,â,»,ì¼,[]fGf%º[][,ìžž,í[]u-
1[]v,đ•Ô,µ,Ü,·[]D[]“'í,Åžæ“¾,µ,½,ç,Æ,«,í[]C-ß,è'íŠm"FCĕă[]CŠefvf[]fOf%ºfĉ
,É,Ä•Īš,µ,Ä,,¾,³,ç[]D
[]@[]C,±,ìšö",đĉÄ,Ñ[]o,·,Æ[]C“ü—[]f_fCfAf[]fO•\Ž!'t,[]f^[]fQfbfgfvf[]fOf
%ºfĉ'¸,ì“®[]ì,í'S,Ä'âž~,µ,Ü,·[]if^fCf}fCfxf“fg,à<N,±
,è,Ü,¹,ñ,µfE[]f[]B[]f[]fhfE'ĉ[]ì,à,Å,«,Ü,¹,ñ[]j[]D
```

```
[]Evoid Dbg_dump(void* lpStart, unsigned int byte, DWORD dmpflg);
[]@lpStart , ©, ç byte •ª,đf_f“fv•\Ž!,µ,Ü,·[]Df_f“fv•\Ž!,ìží—p,đ dmpflg
,Éžw'è,µ,Ü,·[]D
dmpflg ,É,Í^È%ºº,ìží—p,ª, ,è,Ü,·[]D•K—v,Èftf%ºfO,đ OR%º
%ºžžžq,Åžwž!,µ,Ä,,¾,³,ç[]D
```

```
[]EDBG_NOHEADERDUMP
[]@[]@f_f“fv•\Ž!,[]f[]w[]f[]_[][,đ•\Ž!,µ,Ü,¹,ñ
```

```
[]EDBG_OCTDUMP
[]@[]@,WfofCfg,Å,Å,Å[]Ü,è•Ô,µ,Ü,·[]iff[]f[]H[]f<fg,í,P,U[]j
```

```
[]EDBG_NOADDRESSDUMP
[]@[]@%ºE'¸,ÉfAfhfĉfX,đ•\Ž!,µ,Ü,¹,ñ
```

```
[]EDBG_NOCHRDUMP
[]@[]@[]ŕ'¸,É 0x20 , ©, ç 0x7e ,Ü,Å,[]fLfff%ºfNf^,đ•\Ž!,µ,Ü,¹,ñ
```

,bĉ¼ĉĕ—p,É—p^Ó,µ,½ffofbföšö", Å,·,ª[]C,æ,Ü,Ç,ì—[]—
R,ª,È,çĉÄ,è,b[]{[]f[]o[]f[]W[]f[]f“ ,[]fffof[]b[]f[]N[]f%ºfX,ì•û,đ—~—p,·,é,±,Æ,đ<,-

, "§, β, μ, Ü, ·D
, r, c, jf\ [fX, Å, à, b { {, ì < @ " \, ð Ž g, í, È, , Ä, à C f [fXftf @ fCf <, ì Š g' £ Ž q, ð CPP, Æ, ·, é, ±
, Æ, Å, b { { f, [fh, ì Rf " f p f C f <, ª, È, º, ê, Ü, ·D

, ½, ¾, μ C f l f u f W f F f N f g [[- , ì • K - v, È, †
, b E ¾ E ê S Ö " , Å, ·, ©, ç, ÿ, å, Á, Æ, μ, ½ f f o f b f O, É Ž g - p, ·, é, É, í • Ö -
~, ©, à ' m, ê, Ü, ¹, ñ D ^ ê % ž Ver1.23 , æ, è, b { {, ©, ç, à E Ä, Ñ o, ¹, é, æ, x, É, È, Á, Ä, †
, Ü, ·D

,b^,b_{\{x'Ê\}}fNf

,b^,b{ {<κ'Éf}fNf

fTf][fg,³,ê,Ä,ç,éŠÖ",É,æ,è—lX,Èfgf%ofbfv,ðŽdŠ|,¯,é,±,Æ,^a,Ä,«,Ü,·,^aC,ç
,©,ñ,¹,ñfR[fBf"fo,l"x,É

```
#ifdef _DEBUG
    dbg.printf("hogegege=%s", hoge);
#endif
```

,Æ,È,,Æ,à,Rs-^%ñ<Lq,·,é•K—v,^a, ,èC"ñí,É-É"|,Ä,·D

Ver1.22,æ,è^È%^o,lf}fNf,ði¬,μ,Ü,μ,½D
-{f}fNf[fwbf_[(MagaDbgMac.h),ÅfTf][fg,³,ê,éf}fNf,íCðCEfRf"fpfCf<,ð•K
—
v,Æ,μ,Ü,¹,ñD'P'lfR[fBf"fo,ÄCffofbfOŠÂ««,ì,ÝfRf"fpfCf<,³,ê,é,æ,κ<Lq,³,ê,Ä,
ç,Ü,·D

EDBGASSERT(*expr*, *str*);

%oðà

@Ž®*expr*,^a<U(FALSE or NULL),ì,Æ,«C*str*,ð\Ž|,·,éD•\
Ž|,lf}fNf[fwbf_][ftf@fCf<,É<Lq,³,ê,Ä,ç,é,Æ," ,èCÔF,Ä "DBGASSERT:"•¶Žš
—ñ,Æftf@fCf<-¼E"s"Ô†,Æ,Æ,à,É•\Ž|,³,ê,éD
VisualC++,ÅfTf][fg,³,ê,Ä,ç,é-{•",lASSERTf}fNf,ì,æ,κ,ÉfvfOf%of€
,ð'âŽ~,³,¹,Ü,¹,ñD

—á

```
DBGASSERT(hwnd, "WindowHandle NULL!"); // hwnd ,a NULL  
,ì,Æ,«f[fBfZ[fW•\Ž|  
DBGASSERT(0, "hogegege OK!"); // í,É•\Ž|
```

EDBGBOOL(*OBJ*, *str*, *expr*)

%oðà

@Ž®*expr*,ì'l,ðC*str* = "TRUE",©"FALSE" ,Ä•\
Ž|,·,éD□u,O□v,Æ,©□u,P□v,Ä,í¼Š´"l,É%ð,è,Ä,ç,ç,Æ,«,É•Ö—~D
C++,ì,Æ,«,íC□¶□¬,μ,½lfufWfFfNfg-¼,^a•K—v,Ä,·D
CE¾CEè,ì,Æ,«,íC^ø"OBJ,í•K—v, ,è,Ü,¹,ñD

fifolizsca

f fO,ì\Ž!sCEÀ

E f fO,ì' ~ ì Ì Å 'å s", í, P, O, O, O s, Å, · D % o z, !, é, Æ, P s-Ú, ©, ç ä ' , «, ³, ê, Ü, · D

E, P s, ì Å 'å · ¶ Ž š", í, m, t, k, k Š Ü, p, P, Q, W f o f C f g, Å, · D % o z, !, é, Æ-³ Ž <, ³, ê, Ü, · D

f f f ... [f R f} f " f h
f L [' € i

ftf@fCf<
•O□W
•\Ž!
'}“ü
f!fvfVf#f“

ftf@fCf<f fjf... [

□E f□fO, ì□o—í(S) Ctrl+S

□@CE>□Y' ~□ĩ, ³, ê, Ä, ç, é□fO, ðftf@fCf<, É□o—í, μ, Ü, ·□D

□E 'l' ðf□fO□o—í(A) Ctrl+A

□@f}fEfX, Å 'l' ð, μ, ½f□fO, ¾, ¯, ðftf@fCf<, É□o—í, μ, Ü, ·□D

f□fO, ð□o—í, ·, éffftfHf<fg, ìfffBfCEfNfgfŠ, ðŽw'è, ·, é□ê□#, í□CMagaDbg.EXE
, ðŽÅ□s, ·, éfVf#□[fgfjfbfg, Å^É%o°, ì, æ, x

, É□i<ÆftfHf<f_, ðŽw'è, ·, é, î, » , ê, æffftfHf<fg, ìf□fO□o—

ìftfHf<f_, Æ, É, è, Ü, ·□D□i, Ü, Æ, ñ, Ç, ìWindowsfAfvfŠfP□[fvf#f", Æ"¯, ¶, Å, ·□j



□E ^ó□ü(P) Ctrl+P

□@·\Z!f□fO, ð^ó□ü, μ, Ü, ·□D^ó□ü'O, É□C

%o°, ìfy□[fW□Y'è, Åf}□[fWf", âftfHf"fg, È, Ç, ð□Y'è, μ, Ä, ¯, «, Ü, μ, å, x□D

□Efy□[fW□Y'è(U)

□@f}□[fWf"□Efwfbf_□[□Eftfbf_□[□EftfHf"fg, È, Ç, ð□Y'è, ·, éf_fCfA□fO, a·\

Z!, ³, ê, Ü, ·□D□ó<μ^É'¶fwf<fv, aŽg—p, Å, «, Ü, ·□D

• Ö w f f j f ... [

E f R f s [(C) Ctrl+C
@ > Y ~ ĩ, ³, ê, Ä, ç, é f O, ð f N f Š f b f v f { [f h, É "] ' —, μ, Ü, · D

E ' I ' ð f f O f R f s [(X) Ctrl+X
@ f } f E f X, Å ' I ' ð, μ, ½ f f O, ¾, ¯, ð f N f Š f b f v f { [f h, É "] ' —, μ, Ü, · D

E ' S ' I ' ð (M) Ctrl+M
@ ' ~ ĩ f f O ' S ' I, ð ' I ' ð ó ' Ô, É, μ, Ü, · D

E ' I ' ð % ð ð œ (D) Ctrl+D
@ ' I ' ð ó ' Ô, ĩ f f O, ð ' S, Ä % ð ð œ, μ, Ü, · D

E f f O, ĩ f N f Š f A (C) Shift+DEL
@ ' ~ ĩ f f O, ð ' S Å < Ž, μ, Ü, · D

E Ć Ÿ ð ö (F) Ctrl+F
@ f f O, ĩ Ć Ÿ ð ö, ð s, ç, Ü, · D
Ć Ÿ ð ö, Å f q f b f g, μ, ½ • ¶ Ž š — ñ, ð Š Ü, p s, a f E f B f " f h f E, ĩ Å ð ä ' i, É ^ Ê ' u, Ä, ¯, ³, ê, Ü, · D

•\Ž!f[]ff...[]

[]Efc[]f<fo[](T)

[]@fc[]f<fo[],đ•\Ž!,·,é,©,μ,È,ç

,©,đŽw'è,μ,Ü,·[]Dfc[]f<fo[],ÍŽc"O,È,ª,çftf[][]fefBf"fO,Å,Í, ,è,Ü,¹,ñ[]D

[]E[]s"Ô[]+(L)

[]@[]¶'[,É[]s"Ô[]+,đ•\Ž!,·,é,©,μ,È,ç,©,đŽw'è,μ,Ü,·[]Dfrf...

[][]fEfBf"fhfE[]ä,Å[]¶f_fuf<fNfSfbfN,Å,à[]Ø'Ö,ª%oÅ"\,Å,·[]D

[]EftfBf<f^(S) Ctrl+L

[]@•\Ž!,³,ê,Ä,ç,é[]fbfZ[]fW,ÉftfBf<f^,đ,©,¯,Ü,·[]BftfBf<f^,Í[]F,ÅŽ¯•Ê,³,ê,Ü,·[]D

[]EftfBf<f^%ođ[]œ(R) Ctrl+R

[]@ftfBf<f^•\Ž!,đ%ođ[]œ,μ,Ü,·[]D

[]EftfHf"fg(F) Ctrl+O

[]@•\Ž!f[]fO,ÍftfHf"fg,ª•ï[]X,Å,«,Ü,·[]D,O(f[]f[]),Æ,n(f[]f[]),ì<æ•Ê,ª,Å,ftfHf"fg,ª-]

,Ü,μ,ç,Å,μ,â,æ[]DfTfCfY,à•ï[]X,Å,«,Ü,·[]D

[]Efi[]f[]gfXfNf[]f[]f<(A) Ctrl+U

[]@f[]fOŽó[]MŽž,ÉŽ©"®"I,ÉfXfNf[]f[]f<,μ,Ü,·[]Bf`fffbfN,μ,Ä,¯,«,Ü,μ,â,æ[]D

[]E[]fbfZ[]fWŽó[]MŽž

[]@f[]fbfZ[]fWf[]fOŽó[]MŽž,ÉfEfBf"fhfE,đ,Ç,æ,·,é,©,đŽw'è,μ,Ü,·[]D

[]@1)%o½,à,μ,È,ç(N)

[]@[]@Ö¯¾°¼p,đŽó,¯Žæ,Å,Ä,à%o½,à,μ,Ü,¹,ñ[]D,Å,Ü,è[]CfEfBf"fhfE,ª%oB,ê,Ä,ç,Å,à,»,ì,Ü,Ü,Å,·[]D

[]@[]@[]iÖ¯¾°¼p,đŽó,¯Žæ,ç,È,ç/•\Ž!,μ,È,ç,Æ,ç,æ^Ó-;Å,Í, ,è,Ü,¹,ñ[]D

[]@[]@ —á,ì,Î[]Å[]-%o»[]ó'Ö,ÅŽó[]M,³,¹,é,È,ÇÇ»[]Ý,ì³"YÄp³[]ó'Ö,đ•Ü,Å,±

,Æ,đŽw,μ,Ü,·[]D[]j

[]@2)fAfNfefBfu(A)

[]@[]@Ö¯¾°¼pŽó[]MŽž[]C[]í,ÉfAfNfefBfu,É,μ,ÄfEfBf"fhfE,đŠJ,«,Ü,·[]D

[]@[]@~A'±Ö¯¾°¼p,đ"ç^¬,μ,½,ç,Æ,«,È,Ç,É,Ç,æ,¼[]D

[]@[]@[]i[]Å'â%o»•\Ž!,Å,±,ê,É,·,é,Æ[]CfGf%oofC-Ú,É, ,ç,Ü,·[]B^ ^;)

[]@3)fI[]fvf"(O)

[]@[]@Ö¯¾°¼pŽó[]MŽž[]CfEfBf"fhfE,ª[]Å[]-%o»],žž,¾,¯fEfBf"fhfE,đŠJ,«,Ü,·[]D

[]@'Êí,Í[]ufI[]fvf"[]v,Å,ç,ç,Å,μ,â,æ[]D

[]E[]í,ÉŽè'O,É•\Ž!

[]@³"YÄp³[]Å'â%o»[]ó'Ö,Å,Í,μ,È,ç,Ü,æ,ª,ç,ç,Å,μ,â,æ

[]E"w[]Ei[]F(F)

[]@"w[]Ei[]F,ì•ï[]X,ª%oÅ"\,Å,·

'}“üf[]fjf...[][

[]E fZ f p f C E [] f ^ (Z) Ctrl+Z

[]@ f l f v f V f f f “ , ì < æ [] Ø , è • ¶ Ž š [] i f Z f p f C E [] f ^ [] j , ð ' } “ ü , µ , Ü , · [] D

[]E • ¶ Ž š — ñ ' } “ ü (l) Ctrl+l

[]@ “ C ^ Ó • ¶ Ž š — ñ , ð ' } “ ü , · , é , ½ , ß , ì f , [] [f h f C E f X f _ f C f A f [] f O , ¢ , , ç , í , ê , Ü , · [] D

[]@ , » , ì f _ f C f A f [] f O [] ä , Å [] ¶ % o E , ì • ¶ Ž š — ñ , ð [] Ý ' è , · , é , Æ [] C [] í , É , » , ê , ð ' Ç % o Á , µ , Ä • ¶ Ž š — ñ , ð ' } “ ü , Å , « , Ü , · [] D [] ó < µ ^ È ' ¶ f w f < f v , ¢ Ž g — p , Å , « , Ü , · [] D

[]E < [] § Ò ^ ¾ ° ¼ p ' — [] M (S)

[]@ —

ñ < “ , ¢ , é , ½ f E f B f “ f h f E , © , ç , í [] Û f E f B f “ f h f E , ð ' l ' ð , µ (• i [] “ % o Â) [] C Ž w ' è , ¢ , é , ½ f [] f b f Z [] [f W

[] C w P a r a m [] C l P a r a m , ð f j f X f g ' — [] M , µ , Ü , · [] D

fifvfVf#f“f[]jf...[]

[]EŠÂ<<[]Ý'è(S)
[]@MagaDebug32 ,ìŠÂ<<,ð[]Ý'è,μ,Û,·[]D[]ó<μ^È'[]fVf<fv,ªŽg—p,Â,«,Û,·[]D

[]i,P[]j<N“ @[]|—¹
[]@1)<N“ @ Žž[]í,É[]Á[]¬%»(M)
[]@[]@f`fFfbfN,·,é,Æ[]í,É[]Á[]¬%»μ,Û,·[]D[]ifVf#[][fgfjfbfg,Â,à[]o—^,Û,·,É[]j
[]@2)'O%ñ[]|—¹Žž,ìfEfbf“fhfEfTfCfY,Æ^È'u,Â<N“ @ (S)
[]@[]@,º,Đf`fFfbfN,μ,Â,“,«,Û,μ,â,κ[]D
[]@3)<N“ @ ŽžftfBf<f^·\Ž,ð—LCEØ(F)
[]@[]@, ,é“ö“x<l,ì,ß,ìfffofbfOŽž,Éf`fFfbfN,ð“ü,ê,Ä,“,.,Æ·Ö—~ ,Â,·[]D
[]@4)Ó°ÄpU½Äp²±Û ,p,ì^È'u,ð·Û'[](I)
[]@[]@MagaDebug32 ,ÂŽg—p,·,éÓ°ÄpU½Äp²±Û ,p[]iCEÿ[]ð,ÆŽè“ @ ·[]Žš—
ñ'“ü[]j,ì^È'u,ð·Û'[]μ,Û,·[]D

[]i,Q[]jftfBf<f^
[]@1)f[]fO[]o—í,ì,Æ,«,à—LCEØ,É,·,é(F)
[]@2)^ó[]ü,ì,Æ,«,à—LCEØ,É,·,é(P)
[]@3)fRfs[][,ì,Æ,«,à—LCEØ,É,·,é(C)
[]@ftfBf<f^<@“\,ð,»,ê,¼,ê,ì[]o—í<@“\,É,àŠ,,è“- ,Ä,Û,·[]D

[]i,R[]jĭÆ±Û¾ÊßÚ°À
[]@1)ĭÆ±Û¾ÊßÚ°À·[]Žš—ñ
[]@[]@Žè“ @ ,Â'}“ü,·,é<æ[]Ø,è·[]Žš[]ifZfpfCE[][f^[]j,ðŽw'è,μ,Û,·[]D
[]@[]@[]u//////////[]v,Æ,©,ª,ç,ç,©,à
[]@2),P%ñ,ì'€[]ì,Â
[]@[]@%½%ñfZfpfCE[][f^,ð'}“ü,·,é,©Žw'è,μ,Û,·[]D
[]@[]@,Q[]`,R%ñ,ª,ç,ç,©,à
[]@3)fZfpfCE[][f^,ì[]F
[]@[]@,“,Û,©,¹,Â,·[]D

[]i,S[]jµìp¼pª ,Ä¾ÊßÚ°À[]iC++x²ìp×Ø,ðŽg—p,μ,½,Æ,«,ì,Ý—LCEØ[]j
[]@1)Žè“ @ ,Æµìp¼pª ,Ä[]Á-Â,ì¾ÊßÚ°À[]Ý'è,ð·ª,·,é
[]@[]@µìp¼pª ,Ä[]Á-Âžž,ì[]Ý'è,ÆŽè“ @ ,Â'}“ü,·,é¾ÊßÚ°À,ì[]Ý'è,ð·ª,·,Û,·[]D
[]@2)µìp¼pª ,Ä[]Á-Â¾ÊßÚ°À·[]Žš—ñ
[]@[]@1),ìf`fFfbfN,ª“ü,Á,Ä,ç,È,ç,Æ[]Ý'è,Â,«,Û,¹,ñ[]D
[]@3),P%ñ,ì'€[]ì,Â
[]@[]@“~[]ã
[]@4)µìp¼pª ,Ä[]Ý'è,Æ,ì^á,κ[]F,ðŽg,κ
[]@[]@µìp¼pª ,Ä[]Á-Â¾ÊßÚ°À,ðµìp¼pª ,Ä[][]¬,ìžž,É[]Ý'è,μ,½[]F,Æ,ì^á,κ[]F,Â·\
Ž,³,¹,½,ç,Æ,«,ÉŽg—p,·,é
[]@5)µìp¼pª ,Ä¾ÊßÚ°À,ì[]F
[]@[]@,“,Û,©,¹

fVf#[]fgf]fbfgfL[]

fVf#[]fjgffbfjgfl[]

f[]fj...[][<@”\,Æ,Í•Ê,ÌfVf#[]fjgffbfjgfl[][,ð[]Ð%ô,μ,Û,·[]D

[]E,e,PfL[]

[]@f[]f<fv-ÚŽŸ,ð•\Ž!,μ,Û,·

[]E[]ã%°•ûÆüfL[]

[]@f[]fO,ì,P[]s’P^Ê[]ã%°fXfNf[][]f<

[]E[]¶%E•ûÆüfL[]

[]@f[]fO,ì,P•¶Žš’P^Ê[]¶%EfXfNf[][]f<

[]Ef[]f[]fWfAf[]bfvf_fEf“fL[]

[]@f[]fO,ì,P%æ-Ê’P^ÊfXfNf[][]f<

[]E,g,n,l,dfL[]

[]@[]s,ì[]æ“^a,É^Ê’u,Ã,¯,³,ê,Û,·

[]E,d,m,c[]i,g,d,k,o[]jfL[]

[]@[]s,ì[]ÅÆã,É^Ê’u,Ã,¯,ç,ê,Û,·

[]E,b,”,’,Æ[]{,g,n,l,dfL[]

[]@f[]fO,ì[]æ“^a,É^Ê’u,Ã,¯,³,ê,Û,·

[]E,b,”,’,Æ[]{,d,m,cfL[]

[]@’~[]í[]f[]fO,ì--”ö[]s,É^Ê’u,Ã,¯,ç,ê,Û,·

fZfpfCE[]f^
Žè“®•¶Žš—ň’}“ü
ftfBf<f^•\Ž!

fZfpfCE[f^,âF,đŽg,“,x

Ver1.11 ,©,çCMagaDbgfNf%ofXfIfufWfFfNfg’P^Ê,ÉF,đŽw’è,Å,«,é,æ,x
,É,È,èC,Ü,½,»,İfIfufWfFfNfg,ª”jŠü,³,ê,½,Æ,«<æ∅,è•ŕŽšifZfpfCE[f^j,đ’}“ü,
Å,«,é,æ,x,É,È,è,Ü,µ,½D

,±,ê,í“Á,É,l,e,b,İfİfbfZ[fW^—
ŠÖ”,Å,»,İŠÖ””P^Ê,ÉffofbfOfIfufWfFfNfg,đŕİ¬,.,é,Æ,«,É•Ö—~,ÉŽg,!,Ü,.D
,Á,Ü,èCfİfbfZ[fW^—ŠÖ””P^Ê,İfİfO,ÉF,đ•t,~,Ä,æ,è,í,©,è,â,.-
C,Ü,½A<æ∅,è•ŕŽš,ÅfİfbfZ[fW^—ŠÖ”,İl,í,è,đ,æ,è-¾Šm,É”c^¬,.,é,±
,Æ,ª%oÁ”\,Æ,È,è,Ü,µ,½D

,³,ç,ÉCŽè“®,Å<æ∅,è•ŕŽš,đŕ”%oñ-,,,ßž,P,±
,Æ,É,æ,èCİs,Á,½fefXfg“®İ,ªŠù,É’~İ,³,ê,Ä,ç,éfİfO,İ,Ç,±,©,çŠJŽn,³,ê,Ä,ç
,é,İ,©,à•ß,ç,!,é,±,Æ,ªo—^,é,æ,x,É,È,è,Ü,µ,½D

•Ö—~,È<@”\,đ%ž—p,µCCEø—!,æ,çffofbfO,đs,Á,Ä,Ý,Ä,,¾,³,çD

Žè“®•ŕŽš—ň’}“ü

Ver1.20^È~CŽè“®•ŕŽš—ň’}“ü,ª%oÂ“\,Æ,È,è,Ü,µ,½DfZfpfÆ[f^,Å,í,È,-
fRf“fg,ď’}“ü,µ,½,çŽž,È,Ç,Éžg,ı,Ü,·D

ftfBf<f^•\Ž!

Ver1.32^È~□CŽó□M,μ,½f□fbfZ□[fW,ì□F,É,æ,Á,Ä•\Ž!□E"ñ•\
Ž!,đ'!đ,Å,«,éftfBf<f^•\Ž!<@"\,ª'Ç%oÁ,³,ê,Ü,μ,½□D
□ufffofbfO,ª□i,ñ,¾ŠÖ□",í,à,xf□fbfZ□[fW,đ•\Ž!,μ,È,,Ä,à—Ç,ç,ª□C#ifdef □`
#endif ,đŽæ,é,ì,í-Ê"□v
,Æ,ç,α,Æ,«,É,Ç,É□C,»,"ŠÖ□",É□Ý'è,μ,½□F,đ"ñ•\Ž!,É,·,é,±
,Æ,Å□C'¼,ìŠÖ□",©,ç,ìf□fbfZ□[fW,¾,¯,É□W't,·,é,±,Æ,ª%oÁ"\,Æ,È,è,Ü,·□D□-
,μ^á,α,©,à,μ,ê,Ü,¹,ñ,ª□FŽw'è,đ□ufffofbfOfÇfxf<□v,Æ□l,!,Ä,à,ç,ç
,©,à,μ,ê,Ü,¹,ñ□D

□i,Ü,ÅŠeŠÖ□",Å"K"-,ÉÇ^,β,Ä,ç,½□F,í□C,±,ê,©,ç□-
,μ□l,!,Ä□Ý'è,μ,Ä,â,é,ÆftfBf<f^<@"\,ª,æ,è^ê'w•Ö—~,É,È,é,Å,μ,å,α□D

'~ ò ì Ç , » , ì ' ¼ , É , Â , ç , Ä
• ì X - š - ð
, ' m , ç , 1

'~[]ìCE ,»,ì¼,É,Â,ç,Ä

[]E'~[]ìCE

[]@-{}fvf[]Of%of€,ÍftfŠ[]fEfFfA,Æ,μ,Ä'ñ<ÿ,ç,½,μ,Ü,·,ª[]C'~[]ìCE ,í•úŠü,ç,½,μ,Ä,¨,è,Ü,¹,ñ[]DáÁ•¿CE«^ê,ª•Ü—L,μ,Ä,ç,Ü,·[]D

[]E[]Ä"z•z

[]@[]Ä"z•z,ÉŠÖ,μ,Ä[]CŽÿ,ì[]ðCE[],ðŽç,Á,Ä,,¾,³,ç[]D

[]@[]EŠî-{"I,É[]Ä"z•z%oÄ"\,Å,·,ª[]C

[]@[]EŽæ"¾,μ,½fA[]fjfcfo,ì,Ü,Ü"z•z

[]@[]EŽ-CEã,Ä,à~A—[]

[]@,ª[]ðCE[],Å,·[]D

[]E-Æ[]Ó

[]@-{}fvf[]Of%of€<y,Ñf%ofCfuf%ofŠ,ðŽg—p,μ,½CE<%oÊ[]C,ç,ì,æ,α,È,±,Æ,É,È,ë,α,Æ,à[]iŽÖ,í[]Ó"C,ð•%o,í,È,ç,à,ì,Æ,μ,Ü,·[]D'A,μ[]C—ç[]S"I,É'í[]^,·,é,Ä,à,è,Å,·[]D,»,ì¼,ì,±,Æ,í[]C^ê"Ê,É[]o%oñ,éftfŠ[]fEfFfA,Æ""—I,Å,·[]D

[]E~A—[]æ

[]@ftfj[]fg[]EfofOfCEfj[]fg,È,ç'S,Äfcf"f^[]flfbfg[]ã,Å[]s,ç,Ü,·[]D^È%o°,lf[]f<fAfhfCEfX,É~A—[],ð,¨Šè,ç,μ,Ü,·[]D

e-mail: magara@maizuru-ct.ac.jp

HomePage: <http://s-gikan2.maizuru-ct.ac.jp/>

MagaD,...b,•g32•İX—š—đ

Ver 1.41 99/10/06

□@□@□EŠJ”ŠÂ<«„đ VC++6.0 ,É•İX
□@□@□E□ä<L,É”º,ç VC++6.0/4.1,BC++ ,ì,RŽí—p,ìf%ofCfuf%ofŠ,đ—p^Ó
□@□@□E,³,ç,ÉfŠfŠ□[fX—pf%ofCfuf%ofŠ,à—p^Ó(VC++CEn,ì,Ý)
□@□@□E<□§Ò^{-¾°¼p'}—□Mf_fCfAf□fO,đf,□[fhfCfX%o»
□@□@□E<□§Ò^{-¾°¼p'}—□M<@”\,ì□Y'è'l,đ•ÚŽ□□C'¼ŽáŠ±,ì□C□³
□@□@□E”wCei□F,ì•İ□XfIfvfvf#f””Ç%oÁ
□@□@□E”à•”fNf%ofX,Æf□f,fŠŠÖCfW,ì□^—□,đ'â•□•İX
□@□@□E,»„ì'¼fofO□i•ñ□□,³,ê,Ä,ç,È,çfofO,àŠÜ,p□j□C□³

Ver 1.40 99/07/16

□@□@□E<□§Ò^{-¾°¼p'}—□M<@”\
□@□@□EÒ^{-¾°¼p'}—□M,ì□,‘—%o»
□@□@□Eμip¼p²,Ä□¶□—(ºY½Äx ,À<N“®)ŽŽ,É½Ä°ÄÒ^{-¾°¼p'}
□@□@□EVer1.3x ,Á,ì□”□X,ì□i•ñ□□,³,ê,Ä,ç,È,ç,à,ì,àŠÜ,ß,½□jfofO,đftfBfbfNfX
□@□@□@□iVer1.4x“Á—L,ìfofO,²□ö,ñ,¾,©,à□@^ ^;□j

Ver 1.36 99/01/25

□@□@□E^ó□ü,Ü,í,èŽáŠ±,ì□C□³
□@□@□E,»„ì'¼fofO□i•ñ□□,³,ê,Ä,ç,È,çfofO,àŠÜ,p□j□C□³

Ver 1.35 98/12/04

□@□@□EBorlandC++—pf%ofCfuf%ofŠ,ì—p^Ó
□@□@□EY'è□î•ñ,ìfCfWfXfgfŠ%o»
□@□@□E,»„ì'¼fofO□C□³

Ver 1.34 98/09/01

□@□@□EWindows□I—¹ŽŽ,É³”YÄp³,ì^Ê'u“™ ,²•Û'¶,³,ê,È,©,Á,½fofO□C□³
□@□@□E,æ,Žg,¼□'ç'ì(RECT, SIZE, POINT),ìf□f“fo,đ•\Ž!,:„éŠÖ□”„đ'Ç%oÁ

Ver 1.33 98/08/11

□@□@□Ef□fj...□[□\□—,đ□,μ•İX
□@□@□Ef□fBf<f^<@”\,đf□fO□o—í□^ó□ü□^fRfs□[„É,à“K—p,·,é,©,Ç,¼
„©„ìfIfvfvf#f””Ç%oÁ
□@□@□E□u□í,ÉŽè'O,É•\Ž!□v<@”\,đ'Ç%oÁ
□@□@□EINIftf@fCf<,²,È,ç,Æ,«„í, ,é'ö“x,ìffftfHf<fgfIfvfvf#f””²Y'è,³,ê,é,æ,¼,É,μ,½
□@□@□E,»„ì'¼fofO□C□³

Ver 1.32 98/08/07

@@@EftfBf<f^•\Ž!,lftf|[]fg
@@@E%EfNfŠfbfNf|fbfvfAfbfvf[]jf...[],lftf|[]fg
@@@Ef[]jf...[][\-→,đ,μ•i[]X
@@@ECMagaDbgfNf%ofX,lfRf“fXfgf%ofNf^,đ,μ’Ç%oÁ
@@@Ef[]fbfZ[]fW•\Ž!,l’x%o,,,đŽw’è,·,éf[]f“fo SetInterval() ,đ’Ç%oÁ
@@@E[]F,lŽw’è,ª BLACK, BLUE... “™^ê”É“l,È-¼’O,È,ì,Å DBG_
,lfvfCEftfBfbfNfX,đ•t,¯,½
@@@E,»,l’¼fofoO[]C[]³

Ver 1.31 98/03/05

@@@E^óü<@“\<%o»íí-À°/ì-À° ,ÉCEÂ•Ê,ì«ÝÄ,đŽw’è,Å,«,é,æ,α,É,μ,½[]j
@@@Ef%ofCfuf%ofŠf[]fX,l’f...[]fjf“fo
@@@E[]ã<L,ÉSÖ~A,μ[]ACMagaDbgfNf%ofX,lprint())f[]f“foŠÖ[]” ,đ^ê•”í[]œ,μ,½
@@@E,»,l’¼fofoO[]C[]³

Ver 1.30 98/02/05

@@@Ef[]fo,ì^óü,đftf|[]fg
@@@E•\Ž!f[]Ofthf“fg,l•i[]X,đftf|[]fg
@@@E[]ó<μ^Ê‘f[]fwf<fv,đ^ê•”,lf_fCfAf[]fo,Åftf|[]fg
@@@E[]s”Ô[]t•\Ž!
@@@EfXfNf[]f<fo[],đWindows95—→<V,É•i[]X
@@@EVer1.2x ,Å,ì[]”[]X,ì[]i•ñ[][],³,é,Ä,ç,È,ç,à,ì,àŠÜ,ß,½[]jfofoO,đftfBfbfNfX
@@@E[]iVer1.3x“Ä—L,lfofoO,ª[]ö,ñ,¾,© ,à[]@^ ^;[]j

Ver 1.24 97/10/31

@@@ECEÿ[]đf_fCfAf[]fo,ìŽg,ç•ù,đ•i[]X
@@@Ef[]fo,ª,PŽü,μ,½,Æ,«,ÉCE©,É,,©,Á,½,ì,ÅŽÿ,ì[]s,í[]Á<Ž,·,é,æ,α,É,μ,½
@@@EHOME,ÆENDfL[],ìŽg,ç•ù,đ,μ•i[]X(Windows—→<V,É[],α)
@@@ECMagaDbgFilefNf%ofX[]V[]Ý
@@@E,bCE¾CEê—pŠÖ[]” Dbg_dump ‘Ç%oÁ
@@@ECMagaDbgExfNf%ofX,í[]í[]œ,μ,½(dumpf[]f“foŠÖ[]” ,ÍŠî-{fNf%ofX,Ö)

Ver 1.23 97/10/22

@@@EfZfpfCE[]f^[]Y’è,đf}fjf...fAf<,Æ(C++)f[]fufWfFfNfg[]Á-Å“Æ—š,μ,Ä
@@@E[]Y’è,Å,«,é,æ,α,É,μ,½
@@@Ef_fCfAf[]fo,É,Å[]i,Ü,ñ,ì[],μ[]jft[]f[]UfCf“f^ftfF[]fXCEü[]ã
@@@E,bCE¾CEê—p,ÍŠÖ[]”,í,b[]_{[]{,©,ç,Å,àCEÁ,x,é,æ,α,É,μ,½
@@@E[]EŽè”®•¶Žš—ñ’}“ü,É,Ä[]F,â[]¶%oE,l’Ç%oÁ•¶Žš—ñ,đ[]Y’è,Å,«,é,æ,α,É,μ,½
@@@E[]@,Ü,½[]A,»,ê,ç,đ<L%o¯,Å,«,é,æ,α,É,μ,½

@@@EDBGASSERTf}fNf,ìo—ÍŽd—I,đŽáŠ±•İX
@@@Ef}fNf}fwfbf_[,É,P,Á'Ç%Á
@@@E,»,ì¼fofoOCC³

Ver 1.22 97/09/12
@@@E'ì,ì®“IŽæ“¾,ª,Á,«,é,æ,κ,É,È,Á,½B
@@@i,ç,í,ä,é scanf() ,ìã,í,èj
@@@Ef}fNf}fwfbf_[,đ'Ç%Á

Ver 1.21 97/05/23
@@@EÓ°ÄbÚ½Äb²±Û, p,ì^Ê'u,đ•Û'¶,Á,«,é,æ,κ,É,μ,½B
@@@i'Ofo[fWf}f“,Á,ìTf{fŠ,Á,·B^^;j
@@@E,æ,κ,â,ffofbfOfc[f<,ç,μ,f_f“fv•\Ž!,ìTf|f|fg
@@@E,»,ì¼A'Ofo[fWf}f“,ìfofOftfBfbfNfX

Ver 1.20 97/05/07
@@@E,æ,κ,â, LIBC.LIB/LIBCMT.LIB/MSVCRT.LIB ,đ-³Ž<,·,éCEx,đ%ñ”đ
@@@Eä<L,É”º,çAfr[fh¶¶→,ÉffofbfOf,[fh,ì,ç,ê,©,đ<S
@@@i_DEBUG ftf%ofO,ªè<³,ê,Á,ç,é,±,Æ,ªđCEj
@@@EŽè”®fj,¶i•¶Žš—ñj}“ü<@\
@@@EfjOo—í,Á,·,Á,Éftf@fCf<,ª¶Y,·,é,Æ,«Aä'/'Ç%Á,ª'l'đ,Á,«,é,æ,κ,
É,È,Á,½
@@@E,»,ì¼A'Ofo[fWf}f“,ìfofOftfBfbfNfX

Ver 1.11 97/04/09
@@@E<æ∅,èj}[fj,đ•\Ž!,Á,«,é<@\,đ'Ç%Á
@@@i@1)MagaDbg32,ìfEfBf“fhfEã,ÁŽè”®'}“ü
@@@i@2)flfufWfFfNfgA-ÁŽž,ÉŽ©”®'}“ü
@@@EfjO,ìF,điflfufWfFfNfg'P^Ê,ÉjŽw'è,Á,«,é<@\,đ'Ç%Á
@@@E,b^,b{[—p,Éª,·,Á,ç,½fwfbf_[ftf@fCf<,đ“¶
@@@i'Ofo[fWf}f“,Á,ì`f}f{,Á,·B^^;j
@@@E,æ,κ,â,,g,k,oftf@fCf<ìi→

Ver 1.10 97/03/13
@@@Efcl'fo[Ç%Á
@@@E%o;fXfNf[f'fo[Ç%Á
@@@EÝ'è_fCfAfjO,ìf%oFwflf{f^f“A
@@@i@Žg,ç•ùª,·,©,μ,©,Á,½,ì,Á,μ•İX
@@@ECEYđf}fwfbfN,đ•İX
@@@E,b¾CEè—p,ìfCf“f^ftfF[fX]i→
@@@Ef}f`fXfEfbfh—pf%oFcfuf%oFŠ”pŽ~i,P,Á,ìf%oFcfuf%oFŠ,É“¶j

Ver 1.02 97/02/24

@@@E<N“®E—I—¹E•\Ž!,ÉŠÖ,·,éY’èf_fCfAf_fO,đ’Ç%oÁ
@@@EfNf%oXf%oCfuf%ofŠ,ìžáŠ±,ìC³

Ver 1.01 97/01/22

@@@Ef_fO,ìEÿö<@“\’Ç%oÁ
@@@EfNf%oXf%oCfuf%ofŠ,ìf_f“foŠÖ”,É printf() ,đ’Ç%oÁ
@@@Ef_fO,đ’l’đ,μA’l’đ—îæ,ì,YfZ[fuEfRfs[,^ao—^,é,æ,α,É,È,Á,½B

Ver 1.00 97/01/13

@@@Ef_fO,ìtf@fCf<o—í<@“\’Ç%oÁ
@@@EfOftfBfbfNfX

Ver 1.00fÀ,P 97/01/08i”ñEöŠj

@@@EfNfŠfbvf{[fh,Ö,ì”]’—<@“\’Ç%oÁ
@@@EŠÈ—^a”Å,`o,hfhfLf...f_f“fg,đ’Ç%oÁ
@@@EfAfCfRf“,đ•ìX@^^;

@@@EfOftfBfbfNfX

Ver 1.00f¿ 97/01/06i”ñEöŠj

@@@E%ŠúfŠfŠ[fXf¿”Å

, 'm, ç, 1

EMagaDebug32fNf%ofXf%ofCfuf%ofŠ,lf\[]fXŒöŠJ,É,Â,ç,Ä
@[]iŒ»[]Ý VisualC++ ,Æ BorlandC++(Ver1.35 ^È[]~) ,ÅŽg—p,Å,«,éfNf%ofXf
%ofCfuf%ofŠ,ð[]i[]¬,μ[]C,»,ì,Q,Â,ì“[][]‡ŠJ”ŠÂ«—
p,lfffofbfOfc[]f<,Æ,μ,ÄŒöŠJ,μ,Â,ç,Û,·,ª[]CDelphi[]EVB[]C,»,ì'¼,ì“[][]‡ŠJ”-
ŠÂ««,É,“,ç,Ä,à^ê'è,lf<[]f<,É[]],ì,Î MagaDebug32 ,lfEfBf“fhfE,Éf[]fbfZ[]fW,ð'—
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