

,±,ìlfvfVf‡f“,íftfHfO fe□[fuf< fGf~f...fœ□[fVf‡f“,ðflf“/flft,É,·,é,½,ß,ÉŽg—p,³,ê,Ü,·□B

Direct3D ,Å,í□AD3D fn□[fhfEfFfA fAfNfZf%fœ□[fVf‡f“,ª%Â“\,ÈffBfXfvfœfC fAf\_fvf^,ª□Afo□[fefbfNfX  
ftfHfO,Ü,½,ífe□[fuf< ftfHfO,ì,¢,,ê,©,ðŽÀ□s,Å,«,é,±,Æ,ð□ðœ□,Æ,μ,Ä,¢,Ü,·□B`ê•“,ìfQ□[f€,í□AD3D fn□[fhfEfFfA,ì□«“\  
,ð□³Šm,ÉŠm"F,·,é,±,Æ,È,□Afe□[fuf< ftfHfO fTf|□[fg,ð—v□□,μ,Ü,·□B,±,ìlfvfVf‡f“,ð'l'ð,·,ê,î□A,±,ê,ç,ìfQ□[f€,à,²Žg—p,ì  
NVIDIA fOf%ftfBfbfNfX fvf□fZfbfT,Ā-â'è,È,ŽÀ□s,Å,«,Ü,·□B

,±,lflvfVf‡f“,É,æ,è□Afhf%ofo,ì□V,μ,¢ DirectX <@“\,ð-³Œø,É,μ,Û,·□B

ˆÈ‘O,ìfo□[fWf‡f“,ì DirectX ,ðŽg,α,æ,α,É□i,ç,ê,½fQ□[f€,l‘†,É,í□Afhf%ofo,Å—LŒø,É,È,Á,Ä,¢,éfCf“fXfg□[f<□İ,Ý,ì DirectX 6  
;“,æ,Ñ 7 ,Å,í□³□í,ÉŽÀ□s,Å,«,È,¢,â,ì,a ,è,Û,·□B,±,lflvfVf‡f“,ð‘l‘ð,·,é,Æ□Afhf%ofo,ð<□§“l,É DirectX 5

ŒÝŠ·f,□[fh,ÅŽÀ□s,μ□AŒĀ,¢fQ□[f€,ð□³□í,ÉŽÀ□s,³¹,é,±,Æ,a,Å,«,Û,·□B

<N“@,Å,«,È,¢□A, ,é,¢,í□³□í,ÉŽÀ□s,Å,«,È,¢,æ,α,ÈŒĀ,¢fQ□[f€,ðŽÀ□s,·,é□ê□‡,í□A,±,lflvfVf‡f“,ð‘l‘ð,μ,Å,,¾,³,¢□B

Z-fobftf@,l["x,ðfAfvfŠfP[fVf‡f",ª—v<□,·,é□["x,ÉŽ©"®"l,É'²□®,·,é,æ,ª,Éfn□[fhfEfFfA,ð□Ý'è,μ,Ü,·□B

"Á'è,l Z-fobftf@□["x,ð•K—v,Æ,·,é□ê□‡,ð□œ,¢,Ä□A'Ê□í,l,±,lfvfVf‡f",ð—LÆø,É,μ,Ä,"«,Ü,·□B,±,lfvfVf‡f",ð—

³Æø,É,·,é,Æ□AZ-fobftf@,l□kÆ□["x,ªÆ»□Ý,lfn□[fhfEfFfA□Ý'è,Æ^ê'v,μ,È,¢fAfvfŠfP[fVf‡f",l,·,x,Ä"®□l,μ,È,,È,è,Ü,·□B

•É,ì["wfobftf@•û-@,ð—LŒø,É,μ,Ü,·□B

16 frfbfg fAfvfŠfP□[fVf‡f",ìŽÀ□sŽž,É□A`Ù,È,éfn□[fhfEfFfA<@□\,Å["wfobftf@,ð□s,ρ,æ,ρ,É□Ý'è,μ,Ü,·□B,±,ì□Ý'è,ð—  
LŒø,É,·,é,Æ□A,æ,è□,,¢•iŽč,Å 3D fCf□□[fW,ìfŒf"f\_fŠ"fO,ð□s,ρ,±,Æ,<sup>a</sup>Å,«,Ü,·□B

Direct3D Žg—pŽž,É NVIDIA, Ĩf□fS,đ—LŒø,É,μ,Ü,·□B

,±, Ĩ□Ý'è,đ—LŒø,É,·,é,Æ□ADirect3D fAfvfŠfP□[fVf‡f“, ĨŽĀ□sŽž,É□A%œ—Ê%°↵,É NVIDIA, Ĩf□fS,ªŽ!³,ê,Ü,·□B

NVIDIA fOf%ftfBfbfNfX fvf□fZfbfT,í□AMip f}fbfv,đŽ©“@“l,É□¶□¬,·,é,±,Æ,ÅfofXŒo—R,ìfefNfXf`ff“)‘—Œø—  
!,đ□ã,°□AfAfvfŠfP□[fVf‡f“,ìpftfH□[f}f“fX,đŒù□ã,³,¹,é,±,Æ,ª,Å,«,Ü,·□B

,μ,©,μ^ê•“,ìfAfvfŠfP□[fVf‡f“,Å,í□AMip f}fbfv,ìŽ©“@□¶□¬,ª—LŒø,É,È,Ä,Ä,¢,é,ÆfCf□□[fW,ª□³□í,É•Ž!,³,ê,È,¢,±  
,Æ,ª, ,è,Ü,·□B,±,¤,μ,½–â'è,đ%đŒ^,·,é,É,í□AfCf□□[fW,ª□³□í,É•Ž!,³,ê,é,Ü,Å□AMip f}fbfv,ìŽ©“@□¶□¬fŒfxf<□“,đŒ,·,ç,μ,Ä,-  
,¾,³,¢□BMip f}fbfv fŒfxf<□“,đŒ,·,ç,·,±,Æ,Å□A'½,,ì□ê□‡□AfefNfXf`ff,ì,,ê,â□uŒp,¬—Ú□v,đ%đ□Ä,Ä,«,Ü,· (fpftfH□[f}  
f“fX,í'½□'á%°μ,Ü,·)□B

fOf%oftfBfbfNfXfvf□fZfbfT,ÅŽg—p,.,éŽ©"® Mip f}fbfsf"fO—@,đ'đ,Å,«,Ü,·□B

2 —{□ü—@,Ü,½,Í8 f^fbfv`Ü•û□«—@ MIP f}fbfsf"fO—@,đ'đ,Å,«,Ü,·□B2 —{□ü—@,Å,Íê"Ê"l,ÉfpftfH□{f}

f"fX,ªŒü□ã,μ□A`Ü•û□«—@,Å,ÍfCf□□[fW•iŽĸ,ªŒü□ã,μ,Ü,·□B

Mip  $f\}fbfv, \grave{\text{ı}}$  LOD (Level of Detail)  $f\text{ofCfAfX}, \partial^2 \square @, \text{Å}, \ll, \ddot{\text{U}}, \cdot \square \text{B}$

$f\text{ofCfAfX}, \partial^{\text{á}}, \square \acute{\text{Y}}^{\text{è}}, \cdot \acute{\text{é}}, \text{ÆfCf} \square \square [f\text{W} \bullet \text{ž} \grave{\text{c}}, \text{ª} \text{Œ} \ddot{\text{u}} \square \tilde{\text{ã}}, \mu \square \text{A} f\text{ofCfAfX}, \partial \square, \cdot \square \acute{\text{Y}}^{\text{è}}, \cdot \acute{\text{é}}, \text{ÆfAfvf} \check{\text{š}} \text{P} \square [f\text{Vf} \# f^{\text{a}}, \grave{\text{ı}} f\text{pftfH} \square [f\}$   
 $f^{\text{a}} f\text{X}, \text{ª} \text{Œ} \ddot{\text{u}} \square \tilde{\text{ã}}, \mu, \ddot{\text{U}}, \cdot \square \text{B} \square \text{u} \square \text{Å} \square, \cdot \grave{\text{ı}} \text{Cf} \square \square [f\text{W} \bullet \text{ž} \grave{\text{c}} \square \text{v}, \text{©}, \text{ç} \square \text{u} \square \text{Å} \square, \cdot \grave{\text{ı}} f\text{pftfH} \square [f\} f^{\text{a}} f\text{X} \square \text{v}, \ddot{\text{U}}, \text{Å} \square \text{A}, \text{ ,ç}, \text{©}, \text{¶}, \text{ß} \square \acute{\text{Y}}^{\text{è}}, \text{³}, \text{ê}, \tfrac{1}{2} 5$   
 $\cdot \text{Å}, \grave{\text{ı}} f\text{ofCfAfX}^{\text{l}}, \text{©}, \text{ç}^{\text{l}} \text{đ}, \text{Å}, \ll, \ddot{\text{U}}, \cdot \square \text{B}$



•Ū¶,μ,½fJfXf^f€□Ý'è (,Ü,½,Í□uTweak□v) ,lfŠfXfg□B,±,lfŠfXfg,©,ç□€–Ú,đ'đ,·,é,Æ□A□Ý'è,a,Z,³,ê,Ü,·□B□Ý'è,đ"K—  
p,³,¹,é,É,Í□A[OK] ,Ü,½,Í ["K—p] f{f^f",đ'đ,μ,Ü,·□B

Œ»□Ý,ì□Ý'è ([Direct3D ,ì□Ú□×□Ý'è] f\_fCfAf□fO,ì□Ý'è,âŠÜ,p)  
,ðfJfXf^f€□uTweak□v,Æ,μ,Ä•Ů'¶,μ,Ü,·□B•Ů'¶,μ,¼□Ý'è,í□ã«L,ìfJfXf^f€□Ý'èfŠfXfg,É'Ç%Á,³,ê,Ü,·□B  
“Á'è,ì Direct3D fQ□[f€,Å□Å"K,È□Ý'è,ªŒ©,Â,©,Á,½□ê□‡□A,»,ì□Ý'è,ðfJfXf^f€□Ý'è,ì□uTweak□v,Æ,μ,Ä•Ů'¶,μ,Ä,".,Æ□AfQ□[f€  
,ðŠJŽn,·,é'O,É,·,Î,â, Direct3D ,ª□Ý'è,Å,«,é,Î,Å□AŠeflfvfVf‡f“,ðŒÂ•Ê,É□Ý'è,·,éŽèŠÔ,ª□È,¯,Ü,·□B

fŠXfg,ÅŒ»□Ý'!ð,³,ê,Ä,¢,éJfXf^f€□Ý'è,δ□í□œ,μ,Ü,-□B

,·,x,Ä,İ□Ý'è,ð□%Šú□Ý'è!,É-ß,μ,Ü,·□B

Direct3D ,l'Ç%Á□Ý'è,ðfJfXf^f}fCfY,Å,«,éf\_fCfAf□fO,ð•Ž|,μ,Ü,.□B

,±,ḷlfvfVf‡f“,Å□AfefNfZf<(fefNfXf`ff fGfƎf□f“fg) —p,ḷfn□[fhfEfFfA fefNfXf`ff,ḷ”z’u□Ý’è,đ•ĩ□X,μ,Ü,·□B  
±,ê,ç,ḷl,đ•ĩ□X,·,é,±,Æ,Å□AƎ³,ḷfefNfZf<,ª`è<`³,ê,é□ê□Š,đ•ĩ□X,μ,Ü,·□B□%Šú□Ý’è,í□ADirect3D ,ḷŽd—I,É□J,Á,Ä,¢  
,Ü,·□Bf\ftfgfEfFfA,ḷl†,É,ḷ□AƎ³,ḷfefNfZf<,đ,¢,,ê,©,ḷ□ê□Š,É`è<`,·,é,±,Æ,đ—v□,·,é,à,ḷ,à ,è,Ü,·□B,±  
,ê,ç,ḷfAfvfŠfP□[fVf‡f“,Å,í□AƎ³,ḷfefNfZf<,đ□Ä`è<`,·,é,±  
,Æ,ÅfCf□□[fW•iŽč,ªƎü□ă,μ,Ü,·□B²□@,Â,Ü,Ý,đŽg,Á,Ä□AƎ³,ḷfefNfZf<,ḷ□ê□Š,đfefNfZf<,ḷ□¶□ă<÷,©,ç†□S,ḷŠŎ,Å²□@,μ,Ä,-  
,¾,³,¢□B

,±,ê,É,æ,è□A(ffBfXfvfƎfC fAf\_fvf^,É“<□Ú,³ê,½f□f,fŠ,É'Ç%Á,³,ê,½) fefNfXf`ff fXfgfƎ□[fW—p,ÉŽw'è,³,ê,½—e—  
Ê,Ü,ÄfVfXfef€ f□f,fŠ,ð—~—p,Ä,«,é,æ,ª,ÉfOf%oftBfbfNfX fvf□fZfbfT,ì□Ý'è,ð□s,ª,±,Æ,ª,Ä,«,Ü,·□B

f□f,: fefNfXf`ff fXfgfƎ□[fW—p,ÉŽg—p,Ä,«,éfvfXfef€ f□f,fŠ,ì□Å'å—e—Ê,Í□AfRf“fsf...□[f^,É“<□Ú,³,ê,½•”—□  
RAM ,ì—e—Ê,ÉŠî,Ä,¢,ÄŽ□o,³,ê,Ü,·□BfVfXfef€ RAM ,ì—e—Ê,ª□%Á,·,é,Æ□A□Ý'è,Ä,«,é'l,à'å,«,È,è,Ü,·□B

,±,ì□Ý'è,í□APCI fffBfXfvfƎfC fAf\_fvf^ (Ü,½,Í PCI ƎÝŠ·f,□[fh,ÅŽg—p,μ,Ä,¢,é AGP fffBfXfvfƎfC fAf\_fvf^),É,ì,Ý“K—  
p,³,ê,Ü,·□B

,±,ḷf l f v f V f ‡ f",đ'đ,·,é,Æ□AVSYNC ,<sup>a-3</sup>Ǝø,É,È,è,Ü,·□B

f,f j f^,ḷ□,'¼f Š f g f Ǝ□[f X,ḷ]"Šú,đ'ò,½,,É□A f C f □□[f W,đ,·,ḷ,â,%æ-Ê,É f Ǝ f "f Š f "f O,Å,«,Ü,·□B,±  
,ḷf l f v f V f ‡ f",É,æ,è□A f t f Ǝ□[f € f Ǝ□[f g,đ%æ-Ê,ḷf Š f t f Ǝ f b f V f ...f Ǝ□[f g,æ,è'â,«,-  
□Ý'è,Å,«,Ü,·,<sup>a</sup>□A f C f □□[f W•iŽč,<sup>a-1</sup>È,ḷf,é,é,ḷ,Å□A•Ž!,É%e<č,<sup>a</sup>□o,½,è•Ž!,ḷ[<sup>a</sup>□Ø,ê,é,±,Æ,<sup>a</sup>,è,Ü,·□B



,±,lflfvfVf‡f",É,æ,è□A"Á'è,ì D3D fAfvfŠfP□[fVf‡f",ĀŽg—p,·,é fAf" f`fGfCfŠfAfX,ì—Ê,ðŒ`è,μ,Ü,·□B  
fAf" f`fGfCfŠfAfX,Æ,í□A3D flfufWfFfNfg,ì%□,ÉŽž□ÜŒ©,ç,ê,é□uŠK'i□ó□v,ìfGftfFfNfg,ð□Ā□—ŒÀ,É—}  
,,é<Z□p,Ā,·□BfAf" f`fGfCfŠfAfX,ì—Ê,í□AŠ®'S,Èflft,©,çfAfvfŠfP□[fVf‡f",ĀŽÀ□s,Ā,«□Ā'â—Ê,Ü,Ā'I'ð,Ā,«,Ü,·□B

,±,lflvfVf‡f“,Í□AfAf“f`fGfCfŠfAfX,ð'¼□ÚfTf|□[fg,μ,Ä,¢,È,¢fAfvfŠfP□[fVf‡f“,ÅfAf“f`fGfCfŠfAfX,ð<□S“l,ÉŽg—  
p,.,é,½,ß,l,â,l,Â,.□B

fAf“f`fGfCfŠfAfX,ð-¾Šm,ÉfTf|□[fg,μ,Ä,¢,È,¢^ê•“,l)fAfvfŠfP□[fVf‡f“,Å,Í□AfCf□□[fW,ª□³□i,É•\Ž!³,ê,È,¢□ê□‡,â•s<K'¥  
,ÈfCf□□[fW,ª•\Ž!³,ê,é□ê□‡,ª,.,è,Ü,.□B,±,lflvfVf‡f“,lŽg—p,É,Í□\ª'□^Ó,μ,Ä,,¾,³,¢□BfAf“f`fGfCfŠfAfX,ðfTf|□[fg,μ,Ä,¢  
,È,¢fQ□[f€,âfAfvfŠfP□[fVf‡f“,Å•\Ž!□ă,l]-â'è,ª"□¶,μ,½□ê□‡,Í□A,±,lflvfVf‡f“,ðfIf,t,É,μ,Ä,,¾,³,¢□B

,±,lflfvfVf‡f",É,æ,è□AfOf%ftfBfbfNfX f`fbfv,Â□^—□,³,ê,é'O,É CPU ,ª€"ð,·,éftfŒ□[f€,l□",ð□SŒÀ,μ,Ü,· (VSYNC ,ª-  
³Œø,É,È,Ä,Ä,¢,é□ê□‡)□B

,,ç,©,¶,ßfŒf"f\_Œf"ŒfO,³ê,éftfŒ□[f€,l□",ª½,-  
,È,é,Æ□AfWf‡fCfXfefBfbfN□AfQ□[f€fpfbfh□AfL□[f{□[fh,È,Ç,lfffofCfX,Ö,l"½%ž,É,"-,é□u"ü—Íf%fo□v,ª',È,é□ê□‡,ª,  
,è,Ü,·□B

fQ□[f€'†,É□AfRf"fŒf...□[f^,É□Ú'±,³,ê,Ä,¢,é"ü—ÍfffofCfX,©,ç,l"ü—Í,ÉŒ',·,é"½%ž,ª-¾,ç,©,É'x,¢□ê□‡,Í□A,±,l'l,ð□-,³,μ,Ä,-  
,¾,³,¢□B

f h f % f C f o , Å OpenGL Š g ' E < @ " \ , \ GL\_KTX\_buffer\_region , đ Ž g , ! , é , æ , ¢ , É , μ , Ü , · □ B

, ± , \ Š g ' E < @ " \ , đ f T f | □ [ f g , · , é 3 D f , f f f Š f " f O f A f v f Š f P □ [ f V f ‡ f " , \ f p f t f H □ [ f } f " f X , đ Ě ü □ ā , ³ , ! , é , ± , Æ , ¢ , Å , « , Ü , · □ B

GL\_KTX\_buffer\_region Šg'£<@"\,ª—LŒø,É,È,Á,Ä,¢,é,Æ,«„É□Af□□[fJf<,l)frfffl f□f,fŠ,lŽg—p,δ%Â"\,É,μ,Ü,·□B  
,½,¾,μ□A—~—p,Å,«„éf□□[fJf< frfffl f□f,fŠ,ª 8MB ^È%º,ì□ê□‡□Afƒf...fAf< fvƒŒ□[f"Šg'£<@"\fTf|□[fg,Í—  
LŒø,É,È,è,Ü,¹,ñ□B  
,±,ì□Ý'è,Í□A□ã<L,ì □ubuffer region Šg'£<@"\,ð—LŒø,É,·,é□vf|fvfVf‡f",ª—³Œø,É,È,Á,Ä,¢,é□ê□‡,ÍŒø%Ê,ª, ,è,Ü,¹,ñ□B

□, '¬fŠj fA-Mip f}fbfv-fŠj fA ft fB f< f^ fŠ f“ fO, δ—LŒø, É, ·, é, Æ□A fC f□□[fW•iŽč, δ<sup>3</sup>/<sub>2</sub>□-  
'á%°, 3, 1, Ä fA f v fŠ fP□[fV f‡ f“, ì f p f t f H□[f} f“ fX, δŒü□ā, 3, 1, é, ±, Æ, ª, Å, Ü, ·□B

'½,, ì□ê□‡□A fC f□□[fW•iŽč, ì'á%°, Í, »., è, Ù, ÇŒ°™, Å, Í, , è, Ù, 1, ñ, ì, Å□A, ±, ì<@“\, δ—LŒø, É, μ, Ä f p f t f H□[f} f“ fX, ìŒü□ā, δ□}, Á, Ä,, ¾, 3, ¢□B

,±,ḷf|fVfVf‡f“,É,æ,è□AfCf□□[fW•iŽŁ,đŒü□ă,³,¹,é,½,ß,îˆÛ•û□«ftfBf<f^fŠf“fO,đ OpenGL ,ÅŽg—p,Å,«,é,æ,ɸ,É,μ,Û,·□B

,±,ì|f|fvfVf‡f“,ð'i'ð,·,é,Æ□A“Á'è,ì CPU ,ÅŽg—p,³,ê,éŠg'E—½—ß,ìfhf%o fCfo fTf|□[fg,ª—³Œø,É,È,è,Û,·□B  
^ê•“,ì CPU ,Å,í□ANVIDIA fOf%oftfBfbfNfX fvf□fZfbfT,ð•â□•,µ,Ä 3D fQ□[f€,âfAfvfŠfP□[fVf‡f“,ìfpftfH□[f}  
f“fX,ðŒÛ□ã,³,¹,é'Ç%oÁ 3D —½—ß,ðfTf|□[fg,µ,Ä,¢,Û,·□B,±,ì|f|fvfVf‡f“,É,æ,è□Afhf%o fCfo,Å,ì,±,è,ç,ì'Ç%oÁ 3D —½—ß,ìfTf|  
□[fg,ª—³Œø,É,È,è,Û,·□BfpftfH□[f}f“fX,ð“äŠr,·,é□ê□‡,âfgf%ofuf<fVf...□[fefBf“fO,ð□s,ª□ê□‡,É•Ö—~,Èf|fvfVf‡f“,Å,·□B



,±,l̇fIfvVf‡f",É,æ,èAOpenGL  
fhf%oCfo,Éî%ž,μ,½ižžfAf"f`fGfCfŠfAfX,ðfRf"fgr[f<,μ,Ü,·BfAf"f`fGfCfŠfAfX,Æ,íAfIfufWfFfNfg,l%□,ÉŽŽ□  
ÜŒ©,ç,ê,é,¬,¬,μ,½uŠK'ió□v,l̇fGftfFfNfg,ð—},i,Ä—ÖŠs,ðŠŠ,ç,©,É,·,é<Z□p,Å,·□B1.5 x 1.5 –  
@,l̇fAf"f`fGfCfŠfAfX,Å,ípfH□{f}f"X,ð—D□æ,μ□A2 x 2 –@,Å,íCf□□[fW•ižç,ð—D□æ,μ,Ü,·□B

f h f % f C f o , Å f X f e f Æ f l f s f N f Z f < f t f H [ f } f b f g , l f G f N f X f | [ f g , a % Å " \ , É , Ê , è , Ü , · □ B O p e n G L  
f A f v f Š f P □ [ f V f ‡ f “ , Å □ A f X f e f Æ f l , ð Ž g — p , μ □ A f X f e f Æ f l f V f f b f ^ □ [ f K f % f X , ð — L Æ ø , É , · , é , ± , Æ , ª , Å , « , Ü , · □ B

fhf%oCfo,ÅfI□[fo□[fŒfC fsfNfZf< ftfH□[f}fbfg,ìfGfNfXf|□[fg,a%Â"É,È,è,Ü,·□BOpenGL  
fAfvfŠfP□[fVf‡f“,ÅfI□[fo□[fŒfC,đŽg—p,·,é,±,Æ,a%Â"É,È,è,Ü,·□B

,±,ì|f|fVfVf‡f“,É,æ,è□AfCf□□[fW•iŽč,ðŒü□ă,³,¹,é,½,ß,î~Û•û□«ftfBf<f^fŠf“fO,ð OpenGL ,ĂŽg—p,Ă,«,é,æ,ȣ,É,μ,Û,·□B,±,ì<@“\,ð  
—LŒø,É,·,é,Æ□AfCf□□[fW•iŽč,ÍŒü□ă,μ,Û,·,ª□ApftfH□[f}f“fX,Í'á%°,·,é,ì,Ă'□^Ó,μ,Ă,,¾,³,¢□B

,±,l<@“\,ð—LŒø,É,·,é,Æ□Afhf%oCfo,í 1 ,Â,lfobfN fofbftf@,Æ 1 ,Â,ì□[‘wfofbftf@,ð•Ž!,Æ““,¶%øð‘œ“x,ÂŠ,,,è“—,Ä,Ü,·□B  
'½□",ìfEfBf“fhfE,ª□ì□¬,³,ê,éfAfvfŠfP□[fVf‡f“,Â,í□A,±,¿,ç,ì•û,ªfrffl f□f,fŠ,ðŒø—!“,ÉŽg—p,Â,«,Ü,·□B  
,±,l<@“\,ð—³Œø,É,·,é,Æ□AOpenGL fhf%oCfo,ífAfvfŠfP□[fVf‡f“,Â□ì□¬,³,ê,é,·,x,Â,ìfEfBf“fhfE,ÉfobfN  
fobftf@,Æ□[‘wfofbftf@,ðŠ,,,è“—,Ä,Ü,·□B  
'½□",ìfEfBf“fhfE,ðŽg—p,·,é OpenGL fAfvfŠfP□[fVf‡f“,Â,í□A,±,l<@“\,ðŽg—p,·,é,ÆfpftfH□[f}f“fX,ªŒü□ã,μ,Ü,·□B

'I'ð,μ,½ OpenGL fAfvfŠfP[fVf‡f",ÉÅ"K,ÈÝ"è,ðs,¢,Ü,·B

,±,lfvfVf‡f“,É,æ,èA□%Šú□Ý’è,Å OpenGL fAfvfŠfP□[fVf‡f“,a“Á’è,lfJf%□[□[“x,lfefNfXf`ff,ðŽg—p,.,é,©,Ç,□  
,©,ðƐ~è,μ,Ü,·□B

□uffXfNfgfbfv,lfJf%□[□[“x,ðŽg—p□v ,Å,Í□AWindows fffXfNfgfbfv,aƐ»□ÝŽg—p,μ,Ä,¢  
,éfJf%□[□[“x,lfefNfXf`ff,ð□í,ÉŽg—p,μ,Ü,·□B

□u□í,É 16 bpp,ðŽg—p□v,“,æ,Ñ□u□í,É 32 bpp,ðŽg—p□v  
fIfvfVf‡f“,Å,Í□AffXfNfgfbfv,Ì□Ý’è,ÉŠÖ,í,ç,,□AŽwè,³ê,½fJf%□[□[“x,lfefNfXf`ff,ð<□S“l,ÉŽg—p,μ,Ü,·□B

,±,ìfIvfVf‡f“,É,æ,èAftf<fXfNfŠ[f“ OpenGL fAfvfŠfP[fVf‡f“—p,ìfofbftf@ ftfŠfbfv f,[fh,ðƐ^è,μ,Û,·B  
ufufbfN”]’——@ƐA¢fy[fW ftfŠfbfv–  
@ƐA¢Ž©“@’l’ðv,©,ç’l’ð,Ā,«,Û,·B uŽ©“@’l’ðv,Ā,íAfn[fhfEfFA,ì\¬,©,çfhf%oCfo,ªĀ“K,ĚŽè–@,ðƐ^è,μ,Û,·B



,±,ìfIffvfVff‡f“,Ä,í□AOpenGL,Ä,ì□,¼“~Šú,ì□^—□•û—@,ǎžw’è,μ,Û,·□B

□u□í,ÉfIft□v,Ä,í□A,·,x,Ä,ì OpenGL fAfvfŠfP□[fVff‡f“,Ä□,¼“~Šú,a□í,É—³Œø,É,È,è,Û,·□B

□u□%Šú□Y’è,Ä,ífIft□v,Ä,í□A—LŒø,É,·,é,æ,ǫfAfvfŠfP□[fVff‡f“,©,ç—¾Šm,É—v<□,³,ê,Ä,¢,é,Æ,«^ÈŠO,í□A□,¼“~Šú,ǎ—³Œø,É,μ,Ä,“,«,Û,·□B

□u□%Šú□Y’è,Ä,ífIft“□v,Ä,í□A—³Œø,É,·,é,æ,ǫfAfvfŠfP□[fVff‡f“,©,ç—¾Šm,É—v<□,³,ê,Ä,¢,é,Æ,«^ÈŠO,í□A□,¼“~Šú,ǎ—LŒø,É,μ,Ä,“,«,Û,·□B

Œ»□Ý,ì□Ý'è,ðfJfXf^f€□Ý'è,ì□uTweak□v,Æ,μ,Ä•Ů\*¶,μ,Ü,·□B•Ů\*¶,μ,½□Ý'è,Í□ã<L,ìfJfXf^f€□Ý'èfŠfXfg,É'Ç%Á,³,ê,Ü,·□B  
,,é OpenGL fAfvfŠfP□[fVf‡f",Å□Å"K,È□Ý'è,ªŒ©,Â,©,Á,½□ê□‡□A,»,ì□Ý'è,ðfJfXf^f€□Ý'è,ì□uTweak□v,Æ,μ,Ä•Ů\*¶,μ,Ä,",-  
,Æ□Afvf□fOf%œ,ðŠJŽn,·,é'O,É,·,Î,â, OpenGL ,ª□Ý'è,Å,«,é,Ì,Å□AŠeflfvfVf‡f",ðŒÂ•Ê,É□Ý'è,·,éŽèŠÔ,ª□È,▯,Ü,·□B

'²□@,Â,Ü,Ý,ðŽg,Á,Ä□A'!ð,μ,½fJf%□[ f`fff“flf<,ì-¾,é,³□AfRf“fgf%□Xfg□AfKf“f}’l,ð'²□@,Â,«,,Ü,·□B

fJf%□[•â□³²□@,ðŽg—p,μ,Ä□Af\□[fX fCf□□[fW,Æ•Ž!fffofCfX,ì□o—Í,Æ,ìŠÔ,Â□¶,¶,é<P“x,ì,î,ç,Â,«,,ð•â□³,·,é,±  
,Æ,a,Â,«,,Ü,·□BfCf□□[fW□^—□fAfvfŠfP□[fVf‡f“,ðŽg—p,μ,Ä,¢,é□ê□‡□A,±,ì<@“\,É,æ,Á,ÄfCf□□[fW (ŽÊ□^,È,Ç)  
,ðf, f) f^,É•Ž!,,é,Æ,«,,ìfJf%□[,ð,³,ç,É□³Šm,É□ÄƐ»,·,é,±,Æ,a,Â,«,,Ü,·□B

,Ü,½□A•½,,ì 3D fAfNfZf%fƐ□[fefbfh fQ□[f€,Â□A•Ž! ,^Â,·,¬,ÄfvfƐfC,Â,«,,È,¢,±,Æ,a, ,è,Ü,·□B,·,×,Ä,ìf`fff“flf<,Â<ï™,É–  
¾,é,³,âfKf“f}’l,ð□ã,°,ê,î□A•Ž! ,^¾,é,,È,èfvfƐfC,μ,â,·,,È,è,Ü,·□B

,Â,Ü,Ý,ðŽg—p,μ,Ä□A'²□@,·,éJf%□[ f`fff“f|f<,ð'l'ð,μ,Ü,·□B□Ô□A—î□A□Â,ìf`fff“f|f<,ðŒÂ•Ê,É'²□@,μ,½,è□A3  
□F,ð“Žž,É'²□@,Â,«,«,Ü,·□B

ffWf^f< fo fCfuf%of“fX,í AfJf%□[,l•a□□đ,ÆfJf%□[“Z“x,}fRf“fgf□□[f<,đ<%□□»,μ□A, ,ç,ä,éfAfvfŠfP□[fVf‡f“,Å–%4,é,‘N–  
%4,ÈfCf□□[fW,đ•\Œ»,μ,Ü,· □B

fJf%[<Èü,ðfOf%ftfBfbfN•Ž!,μ,½,à,)\BfRf“fgf%fXfgA–%,é,<sup>3</sup>AfKf“f},ð<sup>12</sup>@,.,é,ÆA,±,)<Èü,<sup>a</sup>fŠfAf<f^fCf€  
,Â•l%»»,μ,Ü,.B

,±,ìlfvfVf‡f“,ð'ì'ð,·,é,Æ□AWindows ,ª□Ä<N“®µ,½,Æ,«É,±,±,Â□Ý`è,µ,½fJf%□[²□®,ªŽ©“®“ì,É•œŒ³,³ê,Ü,·□B

f□f,: fRf“fsf...□[f^,ªflfbfgf□□[fN,Â“®□ì,µ,Ä,¢,é□ê□‡□AfJf%□[ª²□®,³ê,é,ì,í Windows ,Éf□fOfIf“,µ,½Œã,Â,·□B

•Ů'¶,μ,½fJf%□[ fJfXf^f€□Ý'èfŠfXfg□B,±,}fŠfXfg,©,ç□€–Ú,ð'l'ð:,é,Æ□A□Ý'è,ª•\Ž!,3,ê,Ü,.□B



Œ»□Ý,lfJf%□[□Ýè,ðfJfXf^f€□Ýè,Æ,μ,Ä•Ô•¶,μ,Ü,·□B•Ô•¶,μ,½□Ýè,[□ã«L,lfJfXf^f€□ÝèŠfXfg,É'Ç%Á,<sup>3</sup>ê,Ü,·□B

fŠfXfg,ÅŒ»□Ý'!ð,³,ê,Ä,¢,éJf%□[ fJfXf^f€□Ý'è,ð□í□œ,μ,Ü,·□B

,·,x,Ä,lfJf%□[!l,ðfn□[fhfEfFA□o%×Žž,ì□Ý'è,É-ß,μ,Ü,·□B

*f,fjff^f^fCf~f“fO f,□[fh,ð'f'ð,μ,Ü,·□B*

*Ž@“@ŒŸ□o,Å,Í□AWindows ,<sup>a</sup>f,fjff^,©,ç“K□□Ø,Èf^fCf~f“fO□î•ñ,ð'¼□ÚŽó□M,μ,Ü,·□B,±,ê,<sup>a</sup>□%Šú□Ý'è,Æ,È,Á,Ä,¢  
,Ü,·□BŒÄ,¢Œ^,lf,fjff^,Å,Í□A,±,}◁@“\,<sup>a</sup>fTf|□[fg,<sup>3</sup>ê,Ä,¢,È,¢,±,Æ,<sup>a</sup>, ,è,Ü,·,},Ä,<sup>2</sup>“□Ó,,¾,<sup>3</sup>,¢□B*

*ˆè"Êf^fCf~f“fO•ûŽ@,Ü,½,Í GTF ,Í□A□V,μ,¢fn□[fhfEfFfA,ì'â•“<sup>a</sup>,ÄŽg—p,<sup>3</sup>ê,Ä,¢,é◁KŠi,Ä,·□B*

*“Æ—Œf,fjff^f^fCf~f“fO,Ü,½,Í DMT ,Í□Aˆê•",lf n□[fhfEfFfA,ÄŽg—p,<sup>3</sup>ê,Ä,¢,éŒÄ,¢◁KŠi,Ä,·□B,<sup>2</sup>Žg—p,lf n□[fhfEfFfA,Å  
DMT ,<sup>a</sup>Žw'è,<sup>3</sup>ê,Ä,¢,é□ê□‡,Í□A,±,lf lfVfVf‡f“,ð—LŒØ,É,μ,Ä,,¾,<sup>3</sup>,¢□B*

Windows ,l f^fXfNfo [É NVIDIA QuickTweak fAfCfRf“,ð'Ç%Á,μ,Ü,·B

,±,lfAfCfRf“,ðŽg—p,·,é,ÆAfJfXf^f€Y'è,3,ê,½ Direct3D AOpenGL AfJf% [Y'è,ð•Ö—,Èf|fbfvfAfbfv f fjjf...  
 [©,ç'l'ð,μ,Ä,·,Î,â,"K—p,3,1,é,±,Æ,a,Ä,«,·B,Ü,½,±,lf fjjf... [É,ÍA%ŠúY'è,É-ß,·,½,ß,ì€-Ú,â [%æ-Ê,l fvf p p f e f B]  
 f\_CfAf fO,ÉfAfNfZfX,·,é,½,ß,ì€-Ú,àŠÜ,Ü,ê,Ä,ç,Ü,·B

Windows *f^XfNfo* Å QuickTweak *f†* *[fefBfŠfefB,Æ,μ,Ä•Ž!*,*éAfCfRf“*,*đ'!đ,Å,«*,*Ü*,*•* B

•Ž!*3,1,½,¢fAfCfRf“*,*đfŠfXfg,©*,*ç'!đ,μ,Ä,,¾4,¾,¢* B[OK] ,*Ü*,*½*,*Í* ["K—p] ,*đ'!đ,μ* *Af^XfNfo* *[,lAfCfRf“*,*đ* X V,*μ,Ü*,*•* B

NVIDIA Desktop Manager ,ª—LŒø,É,È,è,Ü,·□B

NVIDIA Desktop Manager ,đŽg—p,·,é,Æ□ATwinView f}f<f` f.fjff^□Ý`è,iŽg—pŽž,É□AfEfBf“fhfEŠÇ—  
□fzfbfgfL□[âf\_fCfAf□fO,lfŠfZf“f^fŠf“fO□AfY□[f€È,Ç,ÌŠg'£<@“\,đŽg—p,Å,«,Ü,·□B,Ü,½□ADesktop Manager ,đŽg—  
p,·,é,Æ□A•i□“,lfXfNfgfbfv,ªfTf|□[fg,³è,é,½,ß□AfAvfŠfP□[fVf‡f“ f□□[fNfXfy□[fX,ì□@—□,É—đ—š,¿,Ü,·□B

[NVIDIA Desktop Manager □Ý'è) f\_fCfAf□fO,aŠJ,«,Ü,·□B

[Desktop Manager □Ý'è] f fCfAf□fO.Å.Í□Af fCfAf□fO.ìfŠfZf“f^fŠf“fO

f|fVfVf‡f“,âfzfbfqfL□[,l'î'đ□AfAfvfŠfP□[fVf‡f“ŠÇ—□□Ý'è,È,Ç□A,.,x,Ä,Ì Desktop Manager,ì<@”\

ÆÝ'è.ď§Œä.Å.«.Ü.·B



[□Ú□×fvf□fpfefB] f\_CfAf□fO,Å [í,ϕ] ,Ü,½,í [“K—p] ,đ'í'đ,μ,Ä•ĩ□X,đ“K—p,·,é,½,ß,É□A,±  
,ĩf\_CfAf□fO,đ•Â,¶,Ä•ĩ□X,đ•Ů'¶,μ,Ü,·□B

$f^XfNfo\lceil fAfCfRf^{\text{“}},\partial fNf\check{S}fbfN,\mu,\frac{1}{2},\text{Æ},\ll,\acute{E}\square A,\text{Ç},\text{¿},\text{ç},\text{ł}\rfloor\}fEfX\ f\{f^{\text{“}},\hat{A}f\square f\}f\dots\square\lceil\delta^{\text{“}}\text{Ž},^3,^1,\acute{e},\text{©},\text{!}^{\text{“}}\delta,\hat{A},\ll,\ddot{U},\cdot\square B$

Šm" Ff□fbfZ□[fW,đ•Ž!/"ñ•Ž!,đ'!đ,μ,Ü,·□B

f^fXfNfo□[ f□fj f...□[.©,ç 3D □Ý'è,đf□□[fh,μ,½,Æ,«,ÉŠm" Ff□fbfZ□[fW,đ•Ž!,³,¹,È,¢,æ,²,É,-,é,É,Í□A,±  
,ìf!fvfVf‡f",đf`fFfbfN,μ,Ä,,¾,³,¢□B

$f^XfNfo[f\ fjf\ldots[\delta\ 3D\bullet\check{Z}_i^{3,1,\frac{1}{2}},\clubsuit\hat{e}\ddagger,\acute{\imath}A,\pm,\grave{\imath}f\vee f\vee f\ddagger f^{\text{“}},\grave{o}'\grave{o},\mu,\ddot{U},\cdot B$

fTf|[fg,<sup>3</sup>,ê,Ä,¢,é□Å'å%ð'œ"x,æ,è,à'á,¢%ð'œ"x,ÅŽÀ□s,μ,Ä,¢,é□ê□‡□Aftf%fbfg fplf<  
ffBfXfvfœfC□ã,ÉfCf□□[fW,ð•Ž!,<sup>3</sup>,<sup>1</sup>,é`Ê'u,ðœ`è,μ,Ü,·□B

-ĩó{f^f“,đŽg,Á,Ä□Af,fj f^□ã,ìffXfNfgfbfv,ìÊ'u,đ²□@,μ,Ü,·□B

Œ»Ÿ,ł%đœ"x,ÆfŠftfŒfbfVf...fŒ[fg,É,,é%ŠúŸè,)Êu,ÉffXfNfgfbfv,ð-ß,μ,Ü,.B

,±,ê,ç,ì|f|vfVf‡f",©,ç□o—Í•Ž|ffofCfX (f,fj|f^□AftfWf^f<ftf%fbfg f|pf|f<□Afe|fEf|f,È,Ç□AftfBfXf|vfEfC  
fA|\_f|vf^,ªfTf|□[fg,μ,Ä,¢,éffofCfX,É,æ,è`Ù,È,è,Ü,·) ,đ'đ,Å,«,Ü,·□B



fAfNfefBfu,È•Ž!fffofCfX,ì□Ýè,ðfJfXf^f}fCfY,Ā,«,éEfBf“fhfE,ð•Ž!,μ,Ü,.□B

TV □o—f,ÀŒ»□ÝŽg—p,³ê,Ä,¢,éŒ`Ž@,Æ'n^æ,l□Ý'è,ðŽ!,μ,Ü,·□B

“Á`è,ì TV □o—íĈ Ž®,đŽwè,·,éƒEƒBƒ“ƒhƒE,đ•Ž!,μ,Ü,·□B

,±,ìƒŠƒXƒg,©,ç,“□Z,Ü,ϕ,ì□‘-¼,ð‘¹ð,μ,Ä TV □o—ÍŒ`Ž®,ðŒ^è,μ,Ü,·□B

ƒ□ƒ,∴ ,“□Z,Ü,ϕ,ì□‘-¼,ªƒŠƒXƒg,É•Ž,³,ê,Ä,ϕ,È,ϕ□é□‡,Í□A,“□Z,Ü,ϕ,ìñ^æ,É□Å,à<ß,ϕ□‘-¼,ð‘¹ð,μ,Ä,,¾,³,ϕ□B

'l'đ,μ,½€`Ž®,đ"d€1"S"üŽž,l□%Šú□Ý'è,É□Ý'è,μ,Ü,·□B

fef€fr,đffBfXfvf€fC fAf\_fvf^,É□Ú'±,μ,ÄfRf"fsf...□[f^,đ<N"@,μ,½□ê□‡□A,±,}lflfvfVf‡f",đ'l'đ,·,é,±  
,Æ,Å□A<N"@Žè□‡,Å•Ž!,³,ê,é,·,x,Ä,l%œ-Êf□fbfZ□[fW,<sup>a</sup>zŽg—p,lfef€fr,ÅfTf|□[fg,<sup>3</sup>ê,é□³,μ,¢€`Ž®,ÅŠmŽÀ,É□o—í,<sup>3</sup>ê,Ü,·□B

TV,É‘—□M,·,é□o—Í□M□†,ìf^fCfv,ðŽw'è,Å,«,Ü,·,□B

“K□Ø,ÈfRfIfNf^ fP□[fuf<,ðŽg—p,μ,½□ê□‡□A^ê"Ê"l,É S-frfffl□o—Í,ì•û,"fRf"f|fWfbfg frfffl□o—Í,æ,è,à□,,¢%œŽ¿,Å□o—  
Í,·,é,±,Æ,<sup>a</sup>Å,«,Ü,·,□B,Ç,ìf^fCfv,ð'I'ð,·,ê,î,¢,©,<sup>a</sup>©,ç,È,¢□ê□‡,Í□A□uŽ©“@‘I'ð□v□Ý'è,ð'I'ð,μ,Ä,,¾,<sup>3</sup>,¢□B

–îó{f^f“,đŽg,Á,Ä□ATV □ã,łffXfNfgfbfv,îÊ‘u,đ’²□@,μ,Ä,,¾,¾,¢□B

f□f,: ’²□@,đŒë,Á,Ä TV %æ’œ,’ª—□,ê,½,è%½,â•łŽ!,¾,ê,Ê,,Ê,Á,½□ê□‡,Í□A,»,ì,Û,Û 10 •bŠŒ,“Œ,ç,-  
,¾,¾,¢□B%æ’œ,’ªŽ©“@“l,É□%Šú□Ý’è,îÊ‘u,É–ß,è,Û,·□B,»,lŒã,à,ª^ê“x’²□@,μ,Ä,-  
,¾,¾,¢□BffXfNfgfbfv,îÊ‘u,’ªŒ^,Û,Á,½,ç□A10 •bŒo%ß,’,é‘O,É [OK] ,Û,½,Í [“K—p] f{f^f“,đ%Ÿ,μ,Ä□Ý’è,đ•Û“¶,μ,Ä,-  
,¾,¾,¢□B

Œ»Ÿ,ł%đ"œ"x,É,,é%ŠúŸè,ìÊ'u,ÉffXfNfgfbfv,ð-ß,μ,Ü,·B



,±,ê,ç,ìfRf"fgf□□[f<,ðŽg—p,μ,Ä□ATV %œ'œ,ì-¾,é,<sup>3</sup>/E□Ê"x,δ'<sup>2</sup>□@,μ,Ü,·□B

,±,ê,ç,l)fRf"fgf□□[f<,đŽg—p,μ,Ä□ATV %œ'œ,l—¾,é,¾,ÆfRf"fgf% fXfg,đ²□@,μ,Ü,.□B

,±,łfRf"fgf□□[f<,đŽg—p,μ,Ä□ATV □M□†,É"K—p,.,éftfŠfbfJ ftfBf<f^,ł—Ê,đ'²□®,μ,Ü,·□B

DVD %of%œ,đfn□[fhfEfFfA ftfR□[f\_„Å□Ä□¶,·,é,Æ,«,í□AftfŠfbfJ ftfBf<f^,đŠ®'S,É□Ø,é,±,Æ,đ,"Š©,Œ,μ,Ü,·□B

TV ,É□o—í,.,é□û,ì%æ—Ê,ì%ð'œ"x,ÆfJf%□[□["x,δ□Ý'è,μ,Û,.□B

,±,ê,ç,ìfRf"fgf□□[f<,ðŽg—p,μ,Ä□Af,fj)f^,É•Ž!,³,ê,êfrffl,â DVD %œ'œ,ì•Žç,ð²□®,μ,Ü,·□B

fRf"fsf...□[f^,Åfrffl,â DVD %f%œ,ð□Ä□¶,·,é,Æ,«,É□A—

¾,é,³□AfRf"fgf%oXfg□A□F'Š□A□Ê"x,ð•Ê□X,É'²□®,μ□A□Å"K,ÈfCf□□[fW•iŽç,Å•Ž!,³,¹,é,±,Æ,<sup>a</sup>Å,«,Ü,·□B

NVIDIA fOf%ftfBfbfNfX fv f fZfbfT, ìfRfA, ",æ, Ñf f, fŠ, ìfNf fbfNŽü" g f", δ² f @, ., é, ±, Æ, º, Å, «, Ü, . f B

NVIDIA fOf%ftfBfbfNfX fv fZfbfT,lfRfA fNf fbfN'-'x,δY'è,μ,Ü,·B

fRfA fNf□fbfN'~"x,ðf□fKfwf<fc,Â•Ž!,μ,Ü,·□B



*f*f*BfXfvf*⊆*fC fAf\_vf^*;*l**f*□*f,fŠ fCf“f^ftfF*□[*fX,l**fNf*□*fbfN*’-“*x,δ*□*Ýè,μ,Ü,·*□*B*

$f \square f, f \check{S} \ f C f^{\text{a}} f^{\wedge} f t f F \square [f X, l] f N f \square f b f N^{\text{'}} \neg^{\text{'}} x, \delta f \square f K f w f \text{<} f c, \text{\AA} \text{!} \check{Z}, \mu, \ddot{U}, \cdot \square B$

□V,μ,¢fNf□fbfNŽü"ɡ□",ì□Ý'è,ð"K—p,.,é'O,É^À'è□«,ðfefXfg,μ,Ü,·□B

f□f,: f□□[fJ□[,ì□%Šú□Ý'è,Æ^Ù,È,é□V,μ,¢□Ý'è,í□AŠ@'S,É"K—p,.,é'O,ÉfefXfg,ð□s,•K—v,<sup>a</sup>,,è,Ü,·□B

,±,ḷfVfVf‡f",đ'l'đ,·,é,Æ□AWindows ,đ<N"®,·,é,½,Ń,ÉfNf□fbfNžü"ɡ□",ḷ•i□X,až©"®"l,É"K—p,³,ê,é,æ,ª,É,È,è,Ü,·□B

f□f,: Ž©"®fNf□fbfN□Y'è,đ□È—ª,·,é,É,Í□AWindows <N"®'†,É <Ctrl> fL□[,đ%Ÿ,μ,½,Ü,Ü,É,μ,Ä,,"«,Ü,·□BfRf"fSf ...

□[f^,ªfVfVfVf□□[fN,É□Ú'±,³,ê,Ä,¢,é□ê□‡,Í□AWindows ,Éf□fOfIf",μ,½,ç,·,® <Ctrl> fL□[,đ%Ÿ,μ,½,Ü,Ü,É,μ,Ä,,¾,³,¢□B

fRf“fgf□□[f<δ□Ä,Ñ—LÆø,É,·é‘O,É□A,·,x,Ä,ìfNf□bfN’²□@<@“\,ðfŠfZfbfg,μ□A<□\$“l,ÉfOf%ftfBfbfNfX  
fn□[fhfEfFfA,ì□ÄÆŸ□o,ðŽÀ□s,μ,Ü,·□B

ffBfXfvfÆfC fAf\_fvf^,ì BIOS ,ðfAfbfvvf□[fg"Å BIOS fCf□□[fW,É□Ø,è‘Ö,ì,é,½,Ñ,É□AfŠfZfbfg,ðŽÀ□s,·,é,±  
,Æ,ð,“Š©,ß,μ,Ü,·□B

ˆÈ%°,l 4 ,Â,l TwinView f,□[fh,©,ç'l'ð,Â,«,Ü,·□B

•W□€→} •W□€"l,È'PˆêffBfXfvfƎfC f,□[fh,ð'l'ð,μ,Ü,·□BNVIDIA fOf%oftfBfbfNfX□@fAf\_fvf^,É□Ú'±,μ,Ä,¢  
,é•Ž!fffofCfX,a 1 'ä,l,Y,ì□ê□±,É,Í□A,±,lf,□[fh,ðŽg—p,μ,Ä,,¾,¾,¢□B

fNf□□[f“→} ,±,lf,□[fh,Â,Í□A'æ 1 •Ž!fffofCfX,ì□³Šm,ÈfRfs□[,ð'æ 2 fffofCfX,É□o—Í,μ,Ü,·□B

□...•½fXfpf“→} ,±,lf,□[fh,Â,Í□AWindows fffXfNfgfbfv,ð□...•½•ûŒü,ÉŠg'â,μ□A2 ,Â,ì•Ž!fffofCfX,Â•Ž!,μ,Ü,·□B2  
,Â,ìffBfXfvfƎfC,ð'g,Y□±,í,¾,é,±,Æ,Â□A'â,«,È 1 ,Â,ìffBfXfvfƎfC%æ—Ê,ð□ì,è,Ü,·□B

□,'¼fXfpf“→} ,±,lf,□[fh,Â,Í□AWindows fffXfNfgfbfv,ð□,'¼•ûŒü,ÉŠg'â,μ□A2 ,Â,ì•Ž!fffofCfX,Â•Ž!,Â,«,Ü,·□B2  
,Â,ìffBfXfvfƎfC,ð'g,Y□±,í,¾,é,±,Æ,Â□A'â,«,È 1 ,Â,ìffBfXfvfƎfC%æ—Ê,ð□ì,è,Ü,·□B

[TwinView Standard] - •W□€“l,È'P^êffBfXfvfƎfC f,□[fh,ð'!ð,μ,Ü,·□BNVIDIA fOf%ftfBfbfNfX fAf\_vvf^,É□Ú'±,μ,Ä,¢  
,é^Ž!fffofCfX,<sup>a</sup> 1 'ä,l,Y,l□ê□‡,É,í□A,±,lf,□[fh,ðŽg—p,μ,Ü,·□B

[TwinView Clone] - ,±,łf,□[fh,Â,í□A'æ 2 fffofCfX,É'æ 1 •Ž!ffofCfX,ł%æ–ÊfRfs□[,ª□o—í,³ê,Ü,·□B



[TwinView Horizontal Span] - ,±,lf,□[fh,Å,í□AWindows ,\ffXfNfgfbfv,ð 2 'ä,ì\Ž;ffofCfX,Å%oj'.É•Ž!,Å,<,Ü,·□B,±  
,lf,□[fh,Å,í□A2 'ä,\ffofCfX,Å'å,<,ËŠg'E•Ž!,%æ–Ê,ðŒ`□–,·,é,±,/E,É,È,è□A'P^êffBfXfvfŒfC,Å,í\Ž!,μ,<,ê,€□€–  
Ú,ð•Ž!,·,é□ê□‡,É•Ö—~,Å,·□B

[TwinView Vertical Span] - ,±,lf,□[fh,Â,í□AWindows ,lffXfNfgfbfv,ð 2 'ä,)!Ž!ffofCfX,Â□c'.É•Ž!,.é,±,Æ,ª,Â,«,.,□B,±  
,lf,□[fh,Â,í□A2 'ä,lffofCfX,Â'â,«,ÈŠg'£•Ž!%%æ-Ê,ðŒ`□¬,.é,±,Æ,É,È,è□A'P^êffBfXfvfŒfC,Â,í•Ž!,μ,«,è,È,Œ□€-  
Ú,ð•Ž!,.é□ê□‡,É•Ö—,Â,.,□B

TwinView •Ž!□Ý'è,<sup>a</sup>fOf%ftfBfJf<•Ž!,<sup>3</sup>ê,Ü,·□B

f,fjf^,ìfOf%ftfBfbfN,ðfNfŠfbfN,·,é,Æ□ACE»□Ý,ì•Ž!,Æ,μ,Ä'I'ð,Å,«,·□Bf,fjf^,ìfOf%ftfBfbfN,ð%EfNfŠfbfN,·,é,Æ□A□Ú  
'±,μ,Ä,¢,é•Ž!fffofCfX,ð'<sup>2</sup>□@,·,é,½,ß,ì,<sup>3</sup>Ü,´,Ü,È□€–Ú,•Ž!,<sup>3</sup>ê,Ü,·□B

fNf□□[f“ f,□[fh,đŽg—p,·,é,Æ□A'æ 1 fffofCfX,Å,í'æ 2 ·\Ž|fffofCfX,æ,è□,,¢ffXfNfgfbfv%đ'œ“x,đŽg—p,Å,«„Ü,·□B'æ 2  
fffofCfX,ì” —□%đ'œ“x,a'æ 1 fffofCfX,æ,è,à'á,¢□ê□‡□A'æ 2 fffofCfX,ìffXfNfgfbfv%æ—Ê,ì«ŠE,Éf}  
fEfX,đ"@,©,·,Æ□AffXfNfgfbfv,aŽ©"@“l,Épf“,μ,Ü,·□B

[fNf□□[f“ fffofCfX,Å%¼'zffXfNfgfbfv,ð—LÆø,É,·,é] flfvfVf‡f“,ð'ð,μ,Ä,¢,é□ê□‡,Í□A'æ 2 fffofCfX,ìŽ©“@fpf“<@“\  
,ðflft,É,μ,Ä,,¾,³,¢□B,±,□,·,·,é,±,Æ,Å□A%¼'zffXfNfgfbfv,ð“CˆÓ,ìÊ'u,É□³Šm,É□uÆÅ'è□v,Å,«,Ü,·□B,±,ì<@“\  
,Í□AfvfÆf[f“fe□[fVf‡f“,ð□s,□□ê□‡,âfAfvfŠfP□[fVf‡f“,Å□x,©,¢□i<Æ,ð□s,□□ê□‡,É•Ö—,Å,·□B

,±,ì<@“\,ð—LŒø,É,.,é,Æ□AŒ»□Ý‘!‘ð,³,ê,Ä,¢,éffBfXfvfŒfC□ã,ÅŒ»□Ý,ìfpf“~Ê‘u,ªf□fbfN,³,ê,Ü,.,□B,±,¤,.,é,±  
,Æ,Å□A%¼‘zffXfNfgfbfv,ð“CˆÓ,ìÊ‘u,É□³Šm,É□uŒÄ`è□v,Å,«,Ü,.,□B,±,ì<@“\  
,í□AfvfŒf[f“fe□[fVf‡f“,ð□s,¤□ê□‡,âfAfvfŠfP□[fVf‡f“,Å□x,©,¢□ì<Æ,ð□s,¤□ê□‡,É•Ö—~ ,Å,.,□B

TwinView fXfpf“ f,□[fh,ì%¼'zffXfNfgfbfv<@“\,ª—LŒø,É,È,è,Ü,·.□B  
,±,ì<@“\,ð—LŒø,É,·,é,Æ□A2 'ä,ìffBfXfvfŒfC,ð□‡,í,¹,½•—□“l,È•Ž!—ìæ□i—@,æ,e,à'ä,«,ÈffXfNfgfbfv,ð□Ý'è,Ä,«,Ü,·.□B  
•Ž!%ˆ“^æ,ìŠO,Éf}fEfX,ð“®),©,·,Æ□ACE<□‡,³,ê,½•Ž!%æ—Ê,ª'ä,«,ÈffXfNfgfbfv—ìæ,ì□ã,É•Ž!,³,ê,Ü,·.□B

TwinView 'æ 2 fffofCfX□Ý'è,lfOf%oftfBfbfN•Ž!

fNf□□[f“ f,□[fh,đŽg—p,μ,Ä,¢,é,Æ,«,ÉfOf%oftfBfbfN,đfNfŠfbfN,·,é,Æ□ATwinView 'í%žOf%oftfBfbfNfX f{□[fh,ì'æ 2 □o  
—í,É□Ú'±,³,è,Ä,¢,é□o—íffofCfX,đ□Ý'è,Ä,«,«,·□B



fY□[f€ fRf“fgf□□[f<—LŒø,É,.é,Æ□Afrffl□o—Í%æ–Ê,l“Á'è,ì—îæ,đŠg'â,Å.«,Ü,·□B

frfffl%æ-Ê□ã,ÅŠg'å,.·é—î~æ,ð,±,±,Å'ì'ð,μ,Ü,·□B—î~æ,ð'ì'ð,μ,½,ç□A%°,ì²□©,Â,Ü,Ý,ð“©,©,μ,Ä□A'ì'ð,μ,½%æ-Ê—  
î~æ,ðŠg'å,μ,Ü,·□B

‘I’δ,μ,½frrffl□Ä□¶%æ–Ê,îê•“ª,ðŠg‘â,Û,½,Í□k□¬,Â,«,Û,·□B

f r f f l, ð f t f < f X f N f Š [ f “ f , [ f h, Å Å ¶ , . é \ Z ; f f o f C f X, ð ' l ð, µ, Ü, · B

ftf<fXfNfŠ□[f“□Å□¶ŽŽ,ì□c%ï"ä (□...•½fTfCfYî□,¼fTfCfY) ,đ'!đ,Ä,«,Ü,·□B

,±,ìf\vfVf‡f",ð—LŒø,É,.é,Æ□Aftf<fXfNfŠ□[f“,Å,ìfrrffl□Ä□¶,É□Å“K,È%ð‘œ“x,ðfrrffl fhf%oCfo,aŽ©“@“l,É‘l’ð,μ,Ü,.□B

,±,}fIfvVf‡f",ð—LÆø,É,·,é,Æ□A[fI□[fo□[fÆfC fRf“fgf□□[f<} fy□[fW,}fY□[f€  
fRf“fgf□□[f<ÉfŠf“fN,·,é,}Å□Aftf<fXfNfŠ□[f“ ffofCfX,}fY□[f€“ä,à“Žž,ÉfRf“fgf□□[f<Å,«,Ü,·□B

,±,}f{f^",ðfNfŠfbfN,·,é,Æ□ATwinView ,}fNf□□[f“ f,□[fh,Â'!ð,Â,«,é□,“x,Èfrfffl<@“\,ÉfAfNfZfX,Â,«,Ü,·□B,±,ê,ç,} <@“\  
,ÉfAfNfZfX,·,é,É,í□A,»,}Žž“\_ÂfNf□□[f“ f,□[fh,<sup>a</sup>—LŒø,É,È,Á,Ä,¢,é•K—v,<sup>a</sup>,è,Ü,·□B



,±,ìfìfvfVf‡f",ð—LÆø,É,·,é,Æ□Afl□[fo□[fÆfC f\ftfgfEfFfA,Å<□S"l,ÉfofXf}fXf^fŠf"fO,<sup>a</sup>Žg—p,<sup>3</sup>,ê,Ü,·□B,±  
,ìfìfvfVf‡f",í□Afrfffl fCf□□[fW,<sup>a</sup>—□,ê,é□A, ,é,¢,í,Ü,Á,½,•Ž!,<sup>3</sup>,ê,È,¢,Æ,¢,Á,½frffl□Ä□¶,ì-â'è,"□¶,μ,È,¢ÆÀ,è□AŽg—p,μ,È,¢  
,æ,ø,É,μ,Ä,,¾,<sup>3</sup>,¢□B

'l'đ,3,ê,½frrffl fAf\_vf^,Ăžg—p,μ,Ă,¢,é f,fj f^,ìĖ`Ž®,đ•Ž!,μ,Ü,·□B

fNfŠfbfN,·,é,Æ□A,±,lf,fj^,lffofCfX,“,æ,Ñfhf%fofvf□fpfefB,ª•Ž!,³,ê,Ü,·□B

,±)f,fjf^,ÅŽg—p,Å,«éřŠftfĚfbfVf... fĚ□[fg,đ`ê—•Ž!,μ,Ü,□BfřftfĚfbfVf...ŽüŠú,đ`Z,,é,Æ%æ—  
Ê,)ftfřfbfJ,ª`áĚ,,³,ê,Ü,□B

,Žg—p,lf,jf^,Âî%ž,μ,Ä,¢,È,¢f,□[fh,ð[fŠftfƎfbfVf...ŽüŠú],lfŠfXfg,ÉŠÜ,ß,é,©,Ç,ƨ,©,ðŽw'è,μ,Ü,·□Bî%ž,μ,Ä,¢  
,È,¢f,□[fh,ð'l'ð,·,é,Æ□A•Ž!,É□d'â,È–â'è,a"□¶,μ,½,è□Afn□[fhfEfFA,a¹□□,·,é□ê□‡,ª,,è,Ü,·□B

,±,ìlfvfVf‡f“,ð'!ð,·,é,Æ□AfAvfŠfP□[fVf‡f“,Å'!ð,³,ê,Ä,¢,éfsfNfZf<,É,©,©,í,ç,,□AOpenGL fhf%ofCfo,Å,í<□S“l,É 16  
frfbfg□[wfobftf@,ªŽg—p,³,ê,Ü,·□B  
±,ê,É,æ,è□A□[wfobftf@,ì□,“x,í½□—Ž,¿,Ü,·,ª□A□[wfobftf@ fNfŠfA,Æ“®□ì,ìpfth□[f}f“fX,íŒú□ã,μ,Ü,·□B

,±,İ<@",ð—LÆø,É,-,é,Æ□AOpenGL ,Å Windows 2000 ,İ [Advanced Multi Monitor] <@",ªŽg—p,³,ê,Ü,-□B

,±,lfvfVf‡f“,δŽg,Á,Ä□AfffXfNfgfbfv,ì□¶□ã<-,δ•Ž!,-,éffBfXfvfƎfC,đ'!đ,μ,Ü,·□B,±,lfvfVf‡f“,í□Af.fjf^  
fCf□□[fW,îÊ'u,đ"ü,ê"Ö,,é□Ů,ÉƎø‰Ê,đ"Šö,μ,Ü,·□B



Œ»□Ý,Ì TwinView fffBfXfvfŒfC,ª,.,x,Ä•Ž!ª,ê,Ü,·□B2 ,Â^È□ã,ìfffofCfX,ª□Ú'±ª,ê,Ä,¨,è□A[•W□€] ^ÈŠO,ìf,□[fh,ðŽg—p,µ,Ä,¢  
,é□ê□‡,É□A,±,ê,ç,ìffBfXfvfŒfC,©,çŒ»□ÝŽg—p,.,éffBfXfvfŒfC,ð'l'ð,µ,Ü,·□B

,Ü,½□A,.,©□ã,ìfRf“fgf□□[f<,É•Ž!ª,ê,Ä,¢,éf,fj^  
fOf%ftfBfbfN,ðfNfŠfbfN,.,é,Æ□AŒ»□Ý,ìffBfXfvfŒfC,Æ,µ,Ä'l'ð,Ä,«,«,Ü,·□B

,±,łf{f^",đfNfŠfbfN,·é,Æ□AÆ»□Ý,łffBfXfvfƎfC,Æ,μ,ÄŽg—p,μ,Ä,¢,é□o—  
ÍffofCfX,đfZfbfgfAfbfv,μ,½,è□A,»,łffofCfX,ÉŠÖ~A,μ,½□Ý'è,đ•İ□X,μ,½,è,·,é,±,Æ,ª,Â,«,Ü,·□B

fpf“ fRf“fgf□□[f<É,æ,è□AŽÀ□Ů,)lffXfNfgfbfv—l̂æ,Éŷ,.,é•Ž!%œ—Ê—l̂æ,l'â,«,³,ðfZfbfgfAfbfv,Â,«,Ü,·□B,±  
,ê,É,æ,è□A,²Žg—p,)f,fjf^□Aftf%œfbfg fpflf<□AfefŒfr,ÂÊ□í•Ž!,Â,«,éffXfNfgfbfv,æ,è,à'â,«,ÊffXfNfgfbfv,ðŽg—  
p,Â,«,Ü,·□B

fNfŠfbfN,,:é,Æ□A,±,lfrffl fAf\_fvf^,É□Ú'±,³,ê,Ä,¢,é,.,x,Ä,lffBfXfvfƎfC,ªƎŸ□o,³,ê,Ü,·□B[fRf"fgf□□[f< fpflf<],ðŠJ,¢  
,½Ǝä,ÉffBfXfvfƎfC,ð□Ú'±,µ,½□ê□‡,Í□A,±,l<@"\,ðŽg—p,µ,Ä,,¾,³,¢□B

ŒŸ□o,³ê,Œæ 2 ffBfXfvfŒfC fRfIfNf^,Éf,fjff^,ð□Ú'±,μ,Ä,Œ,é□ê□‡,Í□A,±,}f{fbfNfX,ðf`fFfbfN,μ,Ü,·□BBNC  
fRfIfNf^,É□Ú'±,μ,Ä,Œ,é<ŒŒ^,lf,fjff^,ðŽg—p,μ,Ä,Œ,é□ê□‡,É•Ö—~,Ä,·□B

fNfŠfbfN,,:é,Æ□ANVIDIA fx□[fX,lfOf%ftfBfbfNfX fAf\_fvf^,ÉŠÖ~A,μ,½□î•ñ,<sup>a</sup>•\Ž!,<sup>3</sup>ê,Ü,·□B

fNfŠfbfN,,:é,Æ□ANVIDIA fx□[fX,l̃fOf%oftfBfbfNfX fAf\_fvf^,l̃,»̃,l̃¼,l̃<@™\ÉfAfNfZfX,Å,«,Ü,·□B

fNfŠfbfN,.,é,ÆANVIDIA Web fTfCf g,ÅÅV,ìîñ,â NVIDIA fx[fX,ìfOf%ftfBfbfNfX  
fAf\_fvf^,ìfhf%fCfo,ÉfAfNfZfX,Â,«,Û,.B



,±,±,É,Í□ACE»□Ý'!δ,³,ê,Ä,¢,é/Of%ftfBfbfNfX fAf\_fvf^,)fn□[fhfEfFfA,ÉŠÖ,·,é□Ý'u,)□Ú□×,ªŽ!,³ê,Ü,·□B

fOf%ftfBfbfNfX,ì'S'ì"l,ÈfpftfH□[f}f"fX,É%œ<¿,·,éfVfXfef€,ì□Ý'è,ð'l'ð,·,é,Æ□A,»,ê,ÉŠÖ,·,é□Ú□x,ª,Ÿ!³,ê,Ü,·□B

,±,|•,|□ANVIDIA f x□[fX,]fOf%f tfBfbfNfX fAf\_fvf^,ÂĒ»□ÝŽg—p,³ê,Ä,¢,éftf@fCf<,̀ê——  
,Æî%ž,·éfo□[fWf‡f",ðŽ!,μ,Ü,·□B

[fAfvfŠfP□[fVf‡f“ŠÇ—□]  
□Ý'èfy□[fW,Å,í□AfAfvfŠfP□[fVf‡f“²,Æ,É□A•i□",ìffBfXfvfƆfC,âffXfNfgfbfvŠÔ,Å,ìfAfvfŠfP□[fVf‡f“  
fEfBf“fhfE,ì•ŽìÊ'u,ðŠÇ—□,Å,«,Ü,·□B

,±,ê,Í Desktop Manager ,ÅŒ»□ÝŠÇ—□,³,ê,Ä,¢  
,éfAfvfŠfP□[fVf‡f“,\fŠfXfg,Å,·□BfŠfXfg,©,çfAfvfŠfP□[fVf‡f“,ð'I'ð,μ□AfAfvfŠfP□[fVf‡f“ŠÇ—  
□□Ý'è,ð□Ý'è,μ,Ü,·□BfŠfXfg,l•Ò□W,í□A‰E'α,É, ,é [‘Ç‰Á] f{f^f“,Æ [□í□œ] f{f^f“,ðŽg,Á,Ä□s,¢,Ü,·□B

,±,̀f{f^",ðfNfŠfbfN,.,é,Æ□ADesktop Manager ,ÂŠÇ—□,³,é,fAfvfŠfP□[fVf‡f“,̀fŠfXfg,É□V,μ,¢fAfvfŠfP□[fVf‡f“  
fvf□fOf%œf€,ªÇ%œÁ,³,ê,Û,.□B

,±,łf{f^f",ðfNfŠfbfN,.,é,ÆADesktop Manager ,ÂŠÇ—□,³,ê,éfAfvfŠfP□[fVf‡f“,łfŠfXfg,©,çACE»□Ý'!ð,³,ê,Ä,¢  
,éfAfvfŠfP□[fVf‡f“,ªíœ,³,ê,Ü,·B

,±,ł{f^",ð%Ÿ,μ,Ä□AfAvfŠfP□[fVf‡f" fŠfXfg,ł,.,x,Ä,łfGf"fgfŠ,ðfNfŠfA,μ,Ü,·□B

Æx□□: fGf"fgfŠ,ð,.,x,ÄfNfŠfA,.,é,Æ□AfAvfŠfP□[fVf‡f",É'Î,.,éfJfXf^f})fCfY"à—e,Í,.,x,ÄfŠfZfbfg,³,ê,Ü,·□B



,±,łfłfvfVf‡f“,đ'đ,·é,Æ□AfAvfŠfP□[fVf‡f“ fEfBf“fhfE,ª□í,ÉŽw'è,μ,½ffBfXfvfƆfC,Å«N“®,·,é,æ,ª,É,È,Ü,·□B

[,±,]fAfvfŠfP□[fVf‡f“,δ□í,ÉŽŸ,ì%œ–Ê“Ô□†,ì%œ–Ê,Â<N“®,.·,é] flfvfVf‡f“,ªI'ð,³ê,Ä,¢,é□ê□‡□ACE»□ÝI'ð,³ê,Ä,¢  
,éfAfvfŠfP□[fVf‡f“,ª□í,É<N“®,.·,éftfBfXfvfƐfC (f,fj f^),δ,±,]ftfB□[f<fh,ĂŽw'è,μ,Ü,.·□B

,±,lflvfVf‡f",đ'!đ,·,é,Æ□ADesktop Manager ,É,æ,Á,ÄfAfvfŠfP□[fVf‡f"  
fEfBf"fhfE,lfTfCfY,Æ`Ê'u,ªL%¯,³,ê,Ü,·□BŽŸ,ÉfAfvfŠfP□[fVf‡f",đ<N"®,·,é,Æ□ADesktop Manager ,É,æ,è<L%¯,³,ê,Ä,¢  
,½fTfCfY,Æ`Ê'u,ÄfAfvfŠfP□[fVf‡f" fEfBf"fhfE,ªŽ!,³,ê,Ü,·□B

,±,lflvfVf‡f“,đŽg—p,·,é,Æ□AfAvfŠfP□[fVf‡f“  
fEfBf“fhfE,đ□Å‘â%»,.·,é□Û,É□A•i□“,lffBfXfvfƐfC,É,Û,½,<sup>a</sup>,éffXfNfgfbfv‘Sì,Å□Å‘â%»,.·,é,l,Å,í,È,-  
□A,»,lEfBf“fhfE,<sup>a</sup>Ɛ»□Ý•\Ž!,<sup>3</sup>,ê,Ä,ƒ,é%»æ—Ê,ì,Ý,Å□Å‘â%»»,Å,«,Ü,·□B

,±,łfłfvfVf‡f“,đ'ł'đ,·é,Æ□A,±,łfAfvfŠfP□[fVf‡f“,đ•Ê,ł–¼'O,łfAfvfŠfP□[fVf‡f“ fffXfNfgfbfv,Â<N“®,Â,«,Ü,·□B  
—á,ł,ł□A□%Šú□Ý'è,ł Windows fffXfNfgfbfv,ł¼,É□AWeb fuf%fEfU—p,â“dŽqf□□[f<—  
p,ł•Ê,łffXfNfgfbfv,đ□ł□¬,Â,«,Ü,·□B

,±,±,É•Ê,\\fAfvfŠfP□[fVf‡f“ fffXfNfgfbfv,\\-¼'O,ð“ü—Í,μ,Ü,·□B,Ü,½□Afhf□fbfvf\_fEf“  
f{f^f“,δŽg,Á,Ä□A•Ê,\\fAfvfŠfP□[fVf‡f“—p,ÉŠù,É□ì□¬,μ,Ä, ,éffXfNfgfbfv,©,ç'I'ð,·,é,±,Æ,à,Å,«„Ü,·□B  
,±,\\ftfB□[f<fh,Í□A[,±,\\fAfvfŠfP□[fVf‡f“,ð•Ê,\\ffXfNfgfbfv,Å<N“@,·,é] flfvfVf‡f“,ð'I'ð,μ,Ä,¢,é□ê□‡,\\,ÝŽg—p,Å,«„Ü,·□B

[fzfzbfzbfL[] fy[] [fW,Å,í[] AfzfXfNfgfbfv,Ö,ìfAfvfŠfP[] [fVf#f" fEfBf"fhfE,ì"z'u,ðŠÇ—  
[],,é,½,ß,ì[] ufzbfzbfL[] [v,ì'g,Ý[] ‡,í,¹,ðfJfXf^f}fCfY,Å,«,Ü,·[] B

,±,lfL□[,l'g,Ý□‡,í,¹,δ%Ÿ,.,Æ□ACE»□ÝfAfNfefBfu,È (fJ□[f\fc,l, ,é) fEfBf“fhfE,δ•Ê,l,f,fjff^,l“¬,¶Ê`u,É`Ú“®,Å,«,Ü,·□B



,±,łfL□[,ł'g,Ý□±,í,í,δ%Ÿ,.,Æ□ACE»□ÝfAfNfefBfu,ÈfAfvfŠfP□[fVf‡f“,ª\Ž!,³,ê,Ä,¢  
,éffBfXfvfƎfC,ł,.,×,Ä,łEfBf“fhfE,ð□A•Ê,łffBfXfvfƎfC,É`Ú“®,Ä,«,Ü,·□B

,±)fL□[.̀g,Ý□‡,í,¹,ð%Ÿ,.,Æ□A,.,x,Ä,lfAfvfŠfP□[fVf‡f“ fEfBf“fhfE,ðf}fEfX f|fCf“f^,ª, ,éffBfXfvfEfC,Ö`Ú“®,Å,«,Ü,·□B

•i□",l̂fAfvfŠfP□[fVf†f" fffXfNfgfbfv,đfAfNfefBfu,É,μ,Ä,¢,é□ê□†,í□A,±  
l̂fL□[,l̂g,Ÿ□†,í,†,đ%Ÿ,μ,Ä□A"C^Ó,l̂ffXfNfgfbfv,©,ç•Ê,l̂ffXfNfgfbfv,Ö□Ø,è'Ö,l̂é,±,Æ,<sup>a</sup>Â,«,Ü,·□B,±,l̂fL□[,đ±  
,¯,Ä%Ÿ,·,Æ□AfAfNfefBfu,ÊfAfvfŠfP□[fVf†f" fffXfNfgfbfv,l̂fŠfXfg,đ□zŠÂ,μ,Ü,·□B

[fOf□□[fof<□Ý`è] fy□[fW,É,í□ADesktop Manager ,Æ□ADesktop Manager ,É,æ,é,·,x,Ä,lfAvfŠfP□[fVf#f“,lŠÇ—  
□,ÉfOf□□[fof<É"K—p,³,ê,élfVfVf#f“,ª\Ž,³,ê,Ü,·□B

fAfvfŠfP□[fVf‡f“,δ□ufffXfNfgfbfv’Sì□v,Å□Å’â%»,-,é,Æ□AfffXfNfgfbfv,a•i□“,lf,fjff^,É,Ü,½,a,Á,Ä,¢  
,é□ê□‡,â□A,»,lffXfNfgfbfv’Sì,É□L,°,Ä□Å’â%»,,³,ê,Ü,-□B

fAfvfŠfP□[fVf‡f“,δ□uÆ»□Ý,l%æ-Ê□v,Å□Å’â%»,-,é,Æ□A□%Šú□Ý’è,Å,[□AfAfvfŠfP□[fVf‡f“,aÆ»□Ý•Ž!,³,ê,Ä,¢,é%æ-  
Ê,ì,Ý,Å□Å’â%»,,³,ê,Ü,-□B

,±,ì<@“\,ð—LÆø,É,.,é,Æ□A,.,x,Ä,ìfAfvfŠfP□[fVf±f“,ìfgfbfvfÆfxf< fEfBf“fhfE,ÅfAfNfZfX,Å,«éVfXfef€ f□fjf...□[.É  
[NVIDIA Desktop Manager] fTfu f□fjf...□[“ü,³ê,Ü,·□B,±,ìfTfu f□fjf...□[.ðŽg—p,.,ê,î□ADesktop Manager ,ì [fRf“fgf□□[f<  
fpf|f<],ðŠJ,.,±,Æ,È,□A[fAfvfŠfP□[fVf±f“ŠÇ—□] <@“\,É“□,ŠÈ‘P,ÉfAfNfZfX,Å,«Ü,·□B  
fAfvfŠfP□[fVf±f“ fEfBf“fhfE,ìfVfXfef€ f□fjf...□[.Í□AfEfBf“fhfE—¼ (f^fCf gf< fo□)  
□ă,Å%EfNfŠfbfN,.,é,©□AfEfBf“fhfE—¼,ì□¶[.É, ,é□¬,³ÈfAfvfŠfP□[fVf±f“ fAfCfRf“,ðfNfŠfbfN,.,é,Æ•Ž!,³ê,Ü,·□B

,±,l|f|fVfVf‡f“,đ'đ,·é,Æ□ADesktop Manager ,Â□A1 ,Â,l%œ–Ê,ÊŽÛ,Ü,é,æ,ρ,Éf|f|b|f|v|f|A|f|b|f|v  
fEfBf“fhfE,îÊ“u,đ’²□@,μ,Ä□Afgf|b|f|v fEf×f<,l|f|f|b|f|v|f|A|f|b|f|v fEfBf“fhfE,aŠg’â•Ž!,³,ê,½,ê□A2 ‘ä (,Ü,½,l,»,ê“È□ä)  
,l|f,|f|j|f^,É,Ü,½,a,Á,Ä•Ž!,³,ê,é,l,đ–h,@,±,Æ,a,Â,«,Ü,·□B

,±,l|f|fvfVf‡f",ð'ð,·é,Æ□AfVfXfef€,\,·,×,Ä,l|f|fbfvfAfbfv fEfBf"fhfE,ª□A□í,ÉŽw'è,μ,½‰œ–Ê,l'†‰>,É•Ž',³,ê,Ü,·□B



f|fbfvfAfbfv fEfBf“fhfE,ð'†%»‚É•Ž|‚‚éƒ‚fj^‚ð'ð‚μ‚Ü‚‚□B‚±‚)ftfB□[f<fh‚í□A[fVfXfef€“à‚‚‚‚x‚Ä‚)f|fbfvfAfbfv  
fEfBf“fhfE‚ðŽŸ‚l%»æ–Ê“Ô□†‚l%»æ–Ê‚l'†%»‚É•Ž|‚‚é] f{f^f“‚ð'ð‚μ‚Ä‚¢‚éê□‡‚‚‚ŸŽg—p‚Ä‚«‚Ü‚‚□B

,±,l|f|fVfVf‡f",ð'ð,·é,Æ□A•i□",)f,fj|f^É,Ü,½,a,Á,Ä•Ž!,³,ê,é□AfVfXfef€,,·,x,Ä,l|f|fbfVfAfbfv fEfBf"fhfE,δ□Af}fEfX  
fJ□[f\|f<,l, ,éffBfXfVfƎfC (f†□[fU,aƎ©,Ä,¢,é%oÂ"□«,a□,,¢) ,l'†%o>,É•Ž!,μ,Ü,·□B

,±,łfłfvfVf‡f“,đ'!ď,·,é,Æ□AfAvfŠfP□[fVf‡f“ fłfbfvfAfbfv  
fEfBf“fhfE,đ□A,»,łfAvfŠfP□[fVf‡f“,łEfBf“fhfE,Æ““„ŀ%œ–Ê,É•Ž,μ,Ü,·□BfłfbfvfAfbfv fEfBf“fhfE,ª,à,ª 1  
'à,łf,fj f^□ā,É□u,·,Ó,ê,Ä□v•Ž!,ª,ê,é,Æ□ADesktop Manager ,É,æ,Á,ÄfAvfŠfP□[fVf‡f“ fEfBf“fhfE,ł%œ–Ê,ÉŽù,Ü,é,æ,ª,Éfł  
fbfvfAfbfv fEfBf“fhfE,ª“Ú“@,ª,ê,Ü,·□B

,±,ł{f^f",đ%Ÿ,.,Æ□ADesktop Manager ,łfftHf<fg,łfOf□□[fof<Ÿ'è,ÆfzfbfgfL□[.ª•œƐ³,³,ê,Ü,·□B  
f□f,: ,±,ł'€□i,í□A[fAfvfŠfP□[fVf‡f"ŠÇ—□] fy□[fW,Å□Ÿ'è,μ,½fAfvfŠfP□[fVf‡f",²,Æ,łfJfXf^f)fCfY"à—  
e,É,Í%œ<ç,μ,Ü,¹,ñ□B

Desktop Manager ,É'î,μ,Ä□s,Á,½•İ□X,ðŽó,¬“ü,ê,Ä"K—p,μ,Ä,©,ç□A[fRf“fgf□□[f< fpflf<} fEfBf“fhfE,ð•Â,¶,é,É,í□A[OK]  
f{f^f“,ð‰Ÿ,μ,Ü,·□B

□s,Á,½•İ□X,ð•Û'¶,Ü,½,Í"K—p,<sup>1</sup>,,É Desktop Manager ,ì [fRf"fgf□□[f< fpflf<] fEfBf"fhfE,ð•Â,¶,é,É,Í□A[fLff"fZf<]  
f{f^f",ð%Ÿ,µ,Ü,·□B

⊕Ex□□: □Ý'è,ÉÍ',,é•İ□X"à—e,Í,·,x,Ä-<sup>3</sup>⊕ø,Æ,È,è,Ü,·□B

□Ý'è•ī□X,ð,;,x,Ä"K—p,μ,Ä•Ů"¶,μ□ADesktop Manager ,ì [fRf"f g f□□[f< f p f l f<] f E f B f"f h f E,ðŠJ,¢,½,Ü,Ü,É,;,é,É,í□A["K—p]  
f{f^f",ð%Ÿ,μ,Ü,·□B

,±,ìf\_CfAf□fO,Å□ADesktop Manager ,ÅŞÇ—□,·,·,é□V,µ,¢fAfvfŞfP□[fVf‡f“,đ'ìđ,Å,«,Ü,·□B



,±,ê,íffXfNfgfbfv,ÂĖ»□ÝŽÀ□s,³,ê,Ä,¢,éAfvfŠfP□[fVf‡f“ fvf□fOf%of€,ìfŠfXfg,Å,·□B,±  
,ìfŠfXfg,©,çfAfvfŠfP□[fVf‡f“,ð'ì'ð,·,é,©□A[ŽQ□Æ] f{f^f“,ð‰Ÿ,μ,ÂĖ»□ÝŽÀ□s,³,ê,Ä,¢  
,È,¢•È,ìfAfvfŠfP□[fVf‡f“,ðŽw'è,μ,Ü,·□B

,±,ìf{f^f",ðfNfŠfbfN,μ,Äftf@fCf< f\_fCfAf□fO,ðŠJ,,Æ Desktop Manager ,ÅŠÇ—□,·,é"C^Ó,ìWindows  
fAfvfŠfP□[fVf‡f",ð'ìð,Å,«,Ü,·□B

'I'δ,μ,½fvf□fOf%of€ ftf@fCf<,δ□ADesktop Manager ,É,æ,Á,ÄŠÇ—  
□,³,ê,é□V,μ,¢fAvfŠfP□[fVf‡f",Æ,μ,Ä□³"F,·,é□ê□‡,Í□A,±,ìf{f^f",ðfNfŠfbfN,μ,Ü,·□B

,±,±,ÅfAfvfŠfP□[fVf‡f“ fvf□fOf%of€,δ'!δ,μ,È,¢□ê□‡,Í□A,±,ìf{f^f“,δ%Ÿ,μ,Ü,·□B[□V,μ,¢fAfvfŠfP□[fVf‡f“]  
f\_fCfAf□fO,Í□A□Ÿ'è,ð•ï□X,<sup>1</sup>,,É•Â,¶,Ü,·□B

,±,ìf\_fCfAf□fO,Å,í□A□V,μ,¢fAfvfŠfP□[fVf‡f“ fffXfNfgfbfv,ì-¼‘O,đ“ü—í,Å,«,Ü,·□B

□V,μ,¢fAfvfŠfP□[fVf‡f“ fffXfNfgfbfv,ì–¼'O,ð"ü—Í,μ,Ä,,¾,¾,¢□B•Ê,ìfAfvfŠfP□[fVf‡f“—p,ÉŽw'è,μ,½ffXfNfgfbfv–  
¼,©,ç'l'ð,·,é,±,Æ,à,Ä,«,Ü,·□B

,½,Æ,,î□AWeb fuf%oEfU—p,É,Í□uWeb□v□AE f□□[f< fvf□fOf%of€—p,É,Í □uMail□v,È,Ç,ì–  
¼'O,ðffXfNfgfbfv,ÉŽw'è,μ,Ü,·□BDesktop Manager ,ì□ufzfbfgfL□[□v<@“,ðŽg—p,μ,Ä□A,±,ê,ç,ì,¾,´,Ü,Ü,ÊfAfvfŠfP□[fVf‡f“  
ffXfNfgfbfv,ðfXf€□[fY,É□Ø,è'Ö,!,é,±,Æ,ª,Ä,«,Ü,·□B

[OK]  $f\{f^{\wedge}f^{\circ},\delta\%{\ddot{Y}}_{\mu},\ddot{A}\Box AfffXfNfgfbfv,\grave{\imath}\Box V,\mu,\pounds-\frac{1}{4}'O,\delta\acute{S}m'\grave{e},\mu,\ddot{U},\cdot\Box B-L\pounds\emptyset,\grave{E}-\frac{1}{4}'O,\delta^{\circ}\grave{u}-\acute{I},\mu,\grave{E},\pounds,\pounds$  [OK]  $f\{f^{\wedge}f^{\circ},\acute{I}\%{\ddot{Y}},\cdot,\pm$   
, $\pounds$ , $\acute{a}$ , $\ddot{A}$ , $\ll$ , $\ddot{U}$ , $\acute{1}$ , $\grave{n}\Box B$

,±,±,ÅffXfNfgfbfv-¼,δ"ü—Í,μ,È,¢□ê□‡,Í□A[fLff" fZf◁] f{f^f",δ%Ÿ,μ,Ü,·□B



,±,}fL□[,`g,Ý□‡,í,¹,δ%Ÿ,.,Æ□Af})fEfX fJ□[f\ƴ,}Ê`u,É'.•ûƐ`,ªfAfj)f□□[fVf‡f"Ɛ`Ž®,ÂŽû'©,μ,Ä,¢,,ì,Â□AfJ□[f\ƴ,ªƐ©,Â,¯,â,,-  
,È,è,Ü,·□B

,±,ìf|fvfVf‡f",ð—LÆø,É,.é,Æ□AfEfBf"fhfE,ðf}fEfX,Åfhf%bfO,μ,Ä~Ú"®,.,é,Æ,«,É□AfEfBf"fhfE,ð"C^Ó,ì%æ—  
Ê,â•Ê,ì%æ—Ê,ì[,ÉŠ@'S,É□‡,í,¹,ç,ê,Ü,.□B

,±,ê,ç,lfvfVf‡f",íA^fXfNfo[âf^fXfNØ,èÖ,;fEfBf“fhfE,ì“®i,È,ÇAWindows fNf%fcfAf“fg  
fZfbfVf‡f“,lf†[fU[ fCf“f^ftfF[fX—vf,ð•iX,.,é,à,ì,Â,·B

,±,lflvfVf‡f",đ'đ,·,é,Æ□A'ă'Ö,lf^XfN□Ø,è'Ö,lfEfBf"fhfE,ª—LÆø,É,È,è,Ü,·□B,±,lfEfBf"fhfE,Í TwinView  
,ìÆ»□Ý,ì□Ý'è,É□,Á,Ä%æ—Ê,ì'†%»,É•Ž!,³,ê□A`Ü,È,éffXfNfgfbfv□ă,lfAfvfŠfP□[fVf‡f",ì□Ø,è'Ö,!,ð%Â"\,É,μ,Ü,·□B  
f^XfN□Ø,è'Ö,lfEfBf"fhfE,Í Alt+Tab fL□[,ð%Ÿ,·,Æ—LÆø,É,È,è,Ü,·□B

,±,łfłfvfVf‡f“,đ'đ,·é,Æ□Af^fXfN□Ø,è'Ö,„fEfBf“fhfE,í□í,ÉŽwè,³ê,½f,fjff^□ã,É•Ž!,³ê,Ü,·□B

f^XfN∅,è'Ö,|fEfBf“fhfE,đ•Ž!,·éf,fjff^,đ'đ,μ,Ü,·□B'I'đ,Â,«éf,fjff^,[Ě»□ÝfAfNfefBfu,Èf,fjff^,],Ý,Â,·□B

,±,̀f|fVfVf‡f",ð'ð,·é,Æ□Af^fXfNfo□[,ð 1 ,Â,̀f,fj f^,ÉŒÂ`è,Â,«,Ü,·□B,Â,Ü,è□Af^fXfNfo□[·a·i□",̀f,fj f^,É,Ü,½,a,Á,Ä·Ź|,³,è,È,¢  
,æ,σ,É,μ,·□B

,±,ê,ç,ìf|fvfVf‡f“,É,æ,è□ADesktop Manager ,ªf□fbfZ□[fW f{fbfNfX f\_CfAf□fO,âfAfvfŠfP□[fVf‡f“  
f\_CfAf□fO,ðŠÜ,Ɔf|fbfvfAfbfv fEfBf“fhfE,ìÊ`u,â"z'u,ðŠÇ—□,·,é•û-@,ªŒ`,Ü,è,Ü,·□B



,±,l̂f|fvfVf‡f",đ'đ,·,é,Æ□AfY□[f€<@",<sup>a</sup>—LŒø,É,È,è,Ü,·□BfY□[f€<@",í□Af})fEfX fJ□[f\fc<<sup>a</sup>u,©,ê,½%œ—Ê—  
îæ,îŠg'â•Ž!,đ^ê•û,lf, fjf^,É•Ž!,μ,Ü,·□BŠg'â•Ž!,í□Af})fEfX fJ□[f\fc<<sup>a</sup>u,©,ê,Ä,¢,é f, fjf^,Æ,í•Ê,lf, fjf^,É•Ž!,<sup>3</sup>ê,Ü,·□Bf})fEfX  
fJ□[f\fc<,đ•Ê,lf, fjf^,É"®,©,·,Æ□AfY□[f€•Ž!,àŽ©"®"l,É<sup>¼</sup>4,lf, fjf^,É□Ø,èÖ,í,è,Ü,·□B  
fY□[f€<@",í□A•i□",lf, fjf^,<sup>a</sup>□Ú<sup>±</sup>,<sup>3</sup>ê□A□...•½,Ü,½,Í□,'¼fXfpf“ f,□[fh,<sup>a</sup>l'đ,<sup>3</sup>ê,Ä,¢,é,Æ,«,ì,Ý<@",μ,Ü,·□B

,±,̣f|fvfVf‡f",δ—LÆø,É,.,é,Æ□AftfBf<f^,É,©,¯,ç,ê,½ ("†ŠÔ'l,δ")“ü,μ,½) "{—|,ÂŠg'â,³,ê,Ü,·□B

ˆÈ%°,lfzfbfgfL□,í□AfY□[f€<@“,l□SƎä,ÉŽg—p,μ,Ü,·□B [fzfbfgfL□□ f^fu,lfzfbfgfL□[Æ“—  
l,É□AftfB□[f<fh,ðfNfŠfbfN,μ,Ä,©,çŠó–],·,éfL□[,l'g,Ý□‡,í,¹,ð%Ÿ,μ,ÄfzfbfgfL□[,ð□Ý'è,μ,Ü,·□B  
'□: [fY□[f€] ,Ü,½,Í [fzfbfgfL□□ fy□[fW,ªŠJ,¢,Ä,¢,éŠÔ,í□AfzfbfgfL□[,Í–³Ǝø,É,È,è,Ü,·□B,±  
,ê,ÍŠù'¶,lfzfbfgfL□[ª□V,μ,¢fzfbfgfL□[,l'è<`,ð–W,°,È,¢,æ,ª,É,.,é,½,ß,Å,·□B

,±\fzfbfgfL□[,í□AfY□[f€<@™\)flf",Æflft,δ□Ø,è'Ö,,Ü,-□B

,±,łfzfbfgfL□[,í□AfY□[f€•łŽ!,ł"(-!,ðå,«,„,μ,Ü,·□B

,±,łfzfbfgfL□[,í□AfY□[f€•łŽ!,ł"(-!,đ□¬,³,,μ,Ü,·□B

,±,łpf%ff□□[f^,í□Af}fEfX,a"®,¢,Ä,¢,È,¢,Æ,«,ÉfY□[f€•Ž!,đ 1 •bŠÔ,É%½%ñ□X□V,·,é,©,ďŽw'è,μ,Ü,·□B(f)fEfX,a"®,¢,Ä,¢  
,é,Æ,«,ífY□[f€•Ž!,íŽ©"®"i,É□X□V,³,ê,Ü,·□B) ,±,ì□"Žš,đ'ă,«,,,·,é,Æ□AfVfXfef€,âfAfvfŠfP□[fVf‡f",ì□«",É%e<¿,đ—  
^!,é□ê□‡,ª, ,è,Ü,·,ì,Â'□^Ó,μ,Ä,,¾,³,¢□B

,±,lfpf%ff[[f^,íAfy[[f€•Ž!,đ 1 ,Â,lf,fjff^,©,ç•Ê,lf,fjff^,É□Ø,è'Ö,!,é□Ů,!'x%„ŽžŠÔ,đf~fŠ•b'P^Ê,Âžw'è,·,é,à,!,Â,·□B,±,!'x%„ŽžŠÔ,íAfy[[f€•Ž!,<sup>a</sup>, ,éf,fjff^□ă,Éf}fEfX,<sup>a</sup>ŽžŠÔ'u,©,ê,½□ê□‡,É□Afy[[f€•Ž!,<sup>a</sup>f,fjff^ŠÔ,đ□u"ò,Ń%ň,é□v,!,đ–h,®,½,ß,!,à,!,Â,·□B,±,lfpf%ff[[f^,đf[f□,É□Ý'è,μ,Ä□A'x%„ŽžŠÔ,đ,È,,·,±,Æ,ă,Â,«„Ü,·□B



,±,l)fVfVf‡f",đ'đ,·,é,Æ□ACtrl□AAIt□AShift ,l,¢,,ê,©,l)fL□[,l'g,Ý□‡,í,<sup>1</sup>,đ%Ÿ,μ,È,<sup>a</sup>,çf})fEfX fzfC□[f<,đ%ñ,·,±  
,Æ,Ä□AfY□[f€•Ž!,l}"{—l,đ'<sup>1</sup>/<sub>4</sub>□Ú•ï□X,Ä,«,Ü,·□B

f}fEfX fz fC[f<,đŽg,Á,½fY[f€•Ž!,l}"{—!•iX,đ—LŒø,É,·,é CtrlAAAltAShift ,l fL[,l'g,Ý±,í,¹,đ'¹đ,μ,Ü,·B

[fzfzbfzgfL[] fy[] [fW,Å,Í[] AfxfXfNfgfbfv,Ö,ÌfAfvfŠfP[] [fVf‡f" fEfBf"fhfE,Ì"z'u,ðŠÇ—  
[] ,·,é,½,ß,Ì[] ufzfbzgfzgfL[] [v,Ì'g,Ý[] ‡,í,¹,ðfJfXf^f})fCfY,Å,«,Ü,·[] B

'[]: [fY[] [f€] ,Ü,½,Í [fzfzbfzgfL[]] fy[] [fW,ªŠJ,¢,Ä,¢,éŠÔ,Í[] AfzfzbfzgfL[] [,Í–³Œø,É,È,è,Ü,·[] B,±  
,ê,ÍŠù'¶,ÌfzfzbfzgfL[] [,ª[] V,µ,¢fzfzbfzgfL[] [,Ì'è<` ,ð–W,°,È,¢,æ,ª,É,·,é,½,ß,Å,·[] B

,±,łfłfvfVf‡f",đ'l'ď,·é,Æ□A3D fAfvfŠfP□[fVf‡f",łfAf"f`fGfCfŠfAfX,a-³Œø,É,È,è,Ü,·□B  
fAfvfŠfP□[fVf‡f",É□Å'âŒÀ,łpf tfH□[f}f"fX,đ•K—v,Æ,·,é□ê□‡,í□A,±,łfłfvfVf‡f",đ'l'ď,μ,Ä,,¾,¾,¢□B

,±,l̇fIfvfvf‡f",ð'l'ð,·,é,Æ□A2x f,□[fh,ðŽg—p,·,éfAf"f`fGfCfŠfAfX,<sup>a</sup>—LŒø,É,È,è,Ü,·□B  
,±,ê,É,æ,è□A3D fAfvfŠfP□[fVf‡f",l̇fCf□□[fW•iŽç,ÆfpftfH□[f}f"fX,<sup>a</sup>Œü□ã,μ,Ü,·□B

,±,ìlfVfVf‡f“,ð‘!ð,·,é,Æ□AGeForce3 GPU ftf@f~fŠ□[,ĂŽg—p%oÂ“\,È“Á←Žæ“%4□İ,YfAf“f`fGfCfŠfAfX<Z□p,ª—  
LŒø,É,È,è,Ü,·□B

Quincunx fAf“f`fGfCfŠfAfX,ðŽg—p,·,é,Æ□A□^—□,ª¬,¢ 2x AA f,□[fh,É•C“G,·,éfpftfH□[f}f“fX,Ă□A□^—□,ì'x,¢ 4x AA  
f,□[fh,ì•iŽ¿,ðŽACE»,Ă,«,Ü,·□B

,±,łfłfvfVf‡f“,đ'đ,·é,Æ□A4x f,□[fh,đŽg—p,μ,½fAf“f`fGfCfŠfAfX,ª%Â“,É,È,è,Ü,·□B

3D fAfvfŠfP□[fVf‡f“,łfpftfH□[f}f“fX,Í¼□'á%º,μ,Ü,·,ª□A□Å□,,łfCf□□[fW•iŽč,đŽÀÆ»,Å,«,Ü,·□B

,±,ìfI fvfVf‡f",ð'I'ð,·,é,Æ□AfAf"f`fGfCfŠfAfX,ðfTf|□[fg,·,é 3D  
fAfvfŠfP□[fVf‡f",ÅŽ©"®"I,É□Å"K,ÈfAf"f`fGfCfŠfAfX□Ý'è,<sup>a</sup>—LÆø,É,È,è,Ü,·□B



,±,ìf!fvfVf‡f",É,æ,è□A3D fAfvfŠfP□[fVf‡f",ìŽÀ□sŽž,ÉŽg—p,·,éfAf"f`fGfCfŠfAfX f,□[fh,ðŽè"©,Å'!δ,Å,«,Ü,·□B

$fRf^{\omega}f sf \dots [f^{\wedge},) (E \gg \square \acute{Y},.) AGP \square \acute{Y}^{\circ} \grave{e}, \acute{E} \check{S} \ddot{O}, \cdot, \acute{e} \square \hat{\imath} \bullet \tilde{n}, \hat{A}, \cdot \square B$

,±,l)fIvfVf‡f",Ā□AfOf%ftfBfbfNfX fTfuVfXfef€,ĀŽg—p,·,é AGP fŒ□[fg,đŽè"®,Ā'!đ,Ā,«,Ü,·□B,Ç,) AGP fŒ□[fg,đŽg—  
p,·,é,x,«,©•ª,©,ç,È,¢□ê□‡,í□A,±,l)f`fFfbfNf{fbfNfX,íf`fFfbfN,μ,È,¢,Ā,,¾,¾,¢□BfVfXfef€,É,æ,è□A□Ā"K,È AGP  
fŒ□[fg,ªŽ©"®"l,ÉŒ^è,¾,ê,Ü,·□B

,±,ìfXf%o fCf\_ fRf“fgf□□[f<“@,©,μ,Ä□AfOf%oftfBfbfNfX fVfXfef€,Ăžg—p,·.é AGP fŒ□[fg,ďžè“@,Ă'!‘ď,μ,Ä,,¾,³,¢□B

