

!¹¿!¶µ¥í©ó¶}}±ò©îÃó³~Ãä½tÃú□/£¼òÀÀ¥\`à¡C

Direct3D «ü©w`ã D3D µwÅé¥[³t`à□OªºÅã¥Ü¾¼¹□¶±¥dÅ³,Ó¥í¥H°ø|æ³»ÂIÃú□/£©îÃä½tÃú□/£¡C|³°Ç¹CÀ,µLªk¥¿½T|a~d,ß D3D µwÅé©Ã`à¡A`Ã»ÝnÃä½tÃú□/£□ä´©¡C¿¡³¼Ü!¹¿!¶µ±N¥í¥H½T«O±zªº NVIDIA ¹ĩš³B²z¾¼¹¥í¥H¥¿½T°ø|æ!¹Ãp¹CÀ,¡C

-Y'ÇÂÂª©¹CÀ,¥¼³A¥¡©ó,ûÂÂª©¥»ªº DirectX;A³º·Çª©¹CÀ,¥¡-àùLªkªt!Xªw!w,Êªº DirectX ª©¥» 6 ©¹7 ¢|b!AXªÊµ{|;ª±òÊªä´©¥
\ªªª±;ªªªU¥¿ª±²ò!æj;Cj;³¼Üj;¹!ªµ¥±j¹ÃXªÊµ{|;b DirectX 5 -Û®ª¼Òj;ªªUªð!æj;A¥H¹IÃªª©¹CÀ,¥¡¥H¥¿ª±²ò!æj;C

±j`îµwÂé!Û°Ê±N`ä Z ½w½Ä°j²`«x½Ö¾ã¬°À³Ÿîµ{!i©Ö»Ý^{ao2}`«x;C

³q±`jA±z·|±N_i¹¹¿îŸµ«O«ù±Ö°Ê^a¬°A;A°E«D±z^{ao}µ\$@½T¹ê»Ýn¬YÓ[−]S©w^{ao} Z ½w½Ä°j²`«x;C!p^aG±zÃð³¬µF_i¹¹¿îŸµjA«h¥ð!óµ\$@®É
Z ½w½Ä°j²`«x»P¥Ø«eµwÂé²Ö°Aµ\$½w½Ä°j²`«xµE¬Û²Â^{ao}À³Ÿîµ{!i\$;±NµL^ak°ð!æ;C

$\pm \ddot{O}^{\circ} \dot{E}^2 \cdot \ll x^{1/2} w^{1/2} \ddot{A}^3 B^2 Z^{a0} \cdot \ddot{a} \nexists L \S p^3 N_i C$

$^3 o \nexists i \nexists H \ddot{A} \gamma \mu w \ddot{A} \acute{e} \cdot \ddot{i} \nexists i \nexists t \alpha @ \acute{O}, \ddot{E}, m_i b \ 16 \ i \alpha, \ddot{A}^3 \nexists i \mu \{ i \ i \ \alpha \ \nexists i \ i \ \acute{a} e^2 \cdot \ll x^{1/2} w^{1/2} \ddot{A}^3 B^2 Z_i C \pm \ddot{O}^{\circ} \dot{E}_i^{113} \} \odot w \nexists i \nexists H^2 E \nexists i \S \acute{o}^{\circ a a \circ} \ 3 D \ \frac{1}{4} v^{13} \mu \ddot{U}_i \hat{a} \ll \sim \frac{1}{2} \dot{e}_i C$

±Ö°Ê Direct3D ¢¢ªº NVIDIA Å²¼Ð;C

!pªG±Ö°Ê!¹³]©w;A|b°õ|æ Direct3D Å³¥î{|i®É;A¿Ã¹õ¢U¢èªº"ª, "±N·|Åã¥Ü NVIDIA Å²¼Ð;C

±z^{ao} NVIDIA 1ŝŝ³B²z³/₄1¥i¥H!Ů°Ê³B²z MIP ¶K¹İ;A¥H´£^{°a}¶x~y±Æ^{ao}S÷½è¶K¹İ¶Ç°e@Ä²v;A``Ä´£``ÑSó^{°ao}Ä³¥İμ{;i@Ä⁻à;C

!ý~O;A;b±Ö°Ê!Ů°Ê²£¥í^{ao} MIP ¶K¹İ@Ê;A¤@``ÇÄ³¥İμ{;i¥i~àμL^ak¥ç½TÄã¥Ů;CnSó¥ç;11°ÝÄD;A½Đ´î¤Ö!Ů°Ê²£¥í MIP

¶K¹İμ¥~Ä^{ao1}/₄Æ¶q;A^{a1}/₂~i¼v¹³¥i¥H¥ç½TÄã¥Ů~°¤İ;C´î¤Ö MIP ¶K¹İμ¥~Ä^{ao1}/₄Æ¶q³q±`¥i¥H@Ø°£S÷½è¶K¹İ^{ao}¤£¹İ»ô©İiµe-

±¼¹μō;v°ÝÄD;]]!ý~O³o¼Ä«o·|°§C@Ä⁻à;^;C

®e³±zçî¼Üîî§î³B²z¾¹©Ò¥îªºîÛ°Ê³B²z MIP ¶K¹îªèîîîC

±z¥î¥Hçî¼ÜÂù½u©Ê©î 8 ¢ä½u«DSî½è MIP ¶K¹î³B²zªèîîîAîýÂù½u©Êªèîî³q±´´E´´Ñ§óªªªª®Ä¯àîAîÓ«DSî½èªèîî«h¥î¥H²E
¥î§óªªªª¼V¹³«~½èîC

®e³±z½Ö¾ã MIP ¶K¹ªº LODj]ºë²Ó«×¡^º¾@t¡C

,û§Cªº¾@t±N·|´£¨Ñ§ó!ªº½¼v¹³«~½è¡A!Ó,ûªªªº¾@t«h·|´£ªA³¶µ{¡ªº@Ä¯à¡C±z¥¡¥H!b¡u³!´!¼v¹³«~½è¡v»P¡u³!´!@Ä¯à¡vª§¶¡ªºªÓ!w³]
º¾@tÈªª¶¶¡¡æ¿!¾¼Ü¡C

±zpwÅx|s^{ao}!Ûq³]©wÈ;j|©îi u½Ö¾ãÈ;v_i^¤\$²M³æ;C¿i¾Ü_i¹²M³æ¤¤^{ao}¤@Ó¶µ¥Ø±N·|±Ö°È³]©wÈ;Cn®M¥î³]©w-
È;A½D¿i¾Üiu½T©w;v©îiu®M¥îv«ð¶|s;C

®e³±zz±N¥Ø«e³]©wÈij¥]-A;u`ã¥L Direct3D;v⁴;Üæ¶||ôððª³]©wÈ;^Àx;s-°|Ûq;u½Ö¼ãÈ;v;CªwÀx;sª³]©wÈ±N·|
·s¼W`î-Û¾Fª²M³æªW;C

|bšä`î`S©w Direct3D `CÀ,ª³;î`î³]©wÈª§«á;A½D±N³]©wÈÀx;s-°|Ûq;½Ö¾ãÈ;C³o¼È±z´N¥;¥H;b±Ò°Ê`CÀ,ª§«e`³³;²Ö°A
Direct3D;A;ÓµL»ÝªÀ§O³]©w`CÓ¿î¶µ;C

SR°£¥Ø««e|b²M³æ□□¿|©wª|Ùq³]©wÈ;C

±N©Ò{³³}©wÈÁÙìÛ"ä¹w³]È;C

Åã¥Ü¤@Ó©e³±z!Üq`ã¥L Direct3D ³©wÈª01î,Ü¤ë¶||ô;C

!1ç!¶µ¥¶HÅÜSó¶Kıİ13-ÀijS÷½è¶Kıİ¶, -Àı^aoµwÅéS÷½è¶Kıİ©wS}oè@×ıC

ÅÜSó³o`ÇÈ±N·|ÅÜSó©w,q¶Kıİ13-À·½ao¶i,mıCıw³]È»P Direct3D ³W@æo@PıCı³`Ç³nÅé¶ı-à·|n`D|bSO³B©w,q¶Kıİ13-À·½ıCıpªG-
«·s©w,q¶Kıİ13-À·½ıA«hı¹ÄpA³¶ıµ{ııaoı¼v¹³«~½è±N·|’£ªaıC±z¥ı¶H`İ¶ı·Æ`İ±±`ııb¶Kıİ13-À¥ªoW`o»Poo¥ıııı,moS¶ıı½Ö%ã¶Kıİ13-À·½ıC

°o¼È°µ¥¥HÁý¹íSî³B²z¾¹¥R¤À!a±N«û©w¥í©óS÷½è¶K¹îÄx!s°îˆt²î°O¾DÁéª¼Æ¶qij]Åã¥Ü¾¹¤¶±¥d¥»ˆ!w,ËªªO¾DÁé°£¥~¡^¡C

µù¡G ¥¡«O¯d¥í©óS÷½è¶K¹îÄx!s°îªªˆt²î°O¾DÁé³¡¤¡@e¶q¡A~O®Ú¾Ú±z¹q,£¤W!w,ËªªêÁé RAM ®e¶qˆÓpªª¡Cˆˆt²î RAM

¶V¤¡¡A±z¥¡¥H³¡©wªªÈˆN¶V¤¡¡C

!¹³¡©wÈ¶È®M¥í©ó PCI Åã¥Ü¾¹¤¶±¥d¡¡©!¡b PCI ~Ú®e¹¼Ò!¡¤U°ð!ªªª AGP Åã¥Ü¾¹¤¶±¥d¡^¡C

čĩ¼Ü!¹č!¶µ¥¥HÃö³~««ª½!P`B¡C

@e³¹q,E¥ßSY±N½¼v¹³´yÃ,|bčÃ¹δ▯W¡A!ÓµL»Ýµ¥«ÝÃã¥Ü¾¼¹ªº!P`B««ª½!^±½²°T,¹¡C³o·|`!i!®Ø³t²vªª©óÃã¥Ü¾¼¹ªº§ó·s²v¡A!ý~O¥ĩ¯à·|
²E¥!µøÃ±°Æ§@¥ĩ©M!j¹³¼¹µðªª¥ÃD¡A±q!Ó°§C¾¼v¹³«~½è¡C

l¹¿i¶µ®e³±z`M©w|b`S©wªº D3D Å³¶µ{¶iªª`i¶i¶·Æ³B²zªºµ{«×iC

¶·Æ³B²z-Oª@ºØ¶i©ó¶iªªªÆi³®É·|¶X²{¶b 3D º«¶óÃä½tªWªºi¶¶±èjv®ÃªGªSSP³NjC±z¶i¶H|bS¹¶pÃó³-¶·Æ³B²z»P¿i³¼Ü¶i¶i©ó`S©wÅ³¶µ{¶iªª³iªj¼/E¶qªS¶i¶i|æ¿i³¼ÜjC

·î¥î¹¿î¶µî¥H¹î°Ç²£ª½±µ²ä´©¥·Æ³B²ZªºÀ³¥îµ{î±î°õîæ¥·Æ³B²ZîC

½Dª·NîA¬Y´Ç¥¼©ú½T«ú¥X¥î²ä´©¥·Æ³B²ZªºÀ³¥îµ{î¥î¯àµLªk¥¿½TÅã¥Ü½¼V¹³îA©î¥î¯à´yÃ,²

£³W«hªº¼¼V¹³îAîî¹¹îA½Ð²²³î¥î¹¿î¶µîCî²G±Zîb·î¥î²²²ä´©¥·Æ³B²Zªº¹CÀ,©îÀ³¥îµ{î®É¹J´îÅã¥Ü°YÃDîA½ÐÃ²²¬¹¹¿î¶µîC

!¹¿í¶µ®e³±z`ĩ CPU !b¹ĩšĩ¹±ù¶¶©|³B²z±š«e¥i¥H·Ç³Æªº¹j®Ø¼⁄₄Æij!|b««ª½₂|P`BÃö³~®É;^iC

!b~Y`Ç±iªp±U;A®e³ªº¹w¥ýµÛ!â¹ĩ®Ø¼⁄₄Æ¶VªªiA;^À³·n±i;B¹CÀ,¥x©ÍÁä½₂Lµ¥,Ë,mªºiuzé±J©µ½₂w;v´N¶V±[iC

!pªG±z!bª±¹CÀ,®É;A³s±µ!Ü±zªº¹q,£±š¿é±J,Ë,m!³©úÃä!^À³©µ½₂wªº²{¶H;A½₂Đ´î±p!¹È;C

```
OpenGL © 2008-2010 Khronos Group Inc. GL_KTX_buffer_region;C
```

30¼Ē°μ¥i¥H'£¤Ēä'©!¹©μ!ù¥!-àªº 3D ¼Œ«¬¤ÆÀ³¥!μ{|;¤§À³¥!μ{|;®Ä-à;C

@e³\|b GL_KTX_buffer_region ©μ'ù¥À¯à±Ò°Ê®É·'¥|¥»¾⁄⁄¼v¹³°O¾⁄⁄⁄DÅé;C

|ý-O;A|pªG¥í¥îª°¥»¾⁄⁄⁄¼v¹³°O¾⁄⁄⁄DÅéªÖ©ó 8MB;A«hμLªk±Ò°ÊÂù¥±©μ'ù¥À¯àªä´©;C

|pªGÃö³-ªFªWz;u±Ò°Ê½w½²Ä°î©μ'ù¥À¯à;v¿'î|μ;A¹¹³]©w±NμLªk\$@¥î;C

@e³sÖ3t½u©Ê MIP ¶K1½u©Ê¹LÂo¥¹±ñN¥¶H'£°aÄ³¶µ¶¶¹a0ÖÄ`à¡A¡y-O«o-|°SCa@`Ç½v¹³«-½è¡C
 ¦b¶h¡h¼/£±¡pöU¡A¼v¹³«-½èa0°SC`Ä°£öúÄäA¡¶¶¹±z¥¹-a.Qn³z¹L±0°Ê¹¹¹-a`ÔÄ0°úSö°aaoÖÄ`à¡C

1211µ@e3\ OpenGL 111«DS1½è1LÂo¥H´E°a1/4v13«~½èiC

¿İ¼Ü¹¿İ¶µ¶İ¶HÃö³¬ÅX°Êµ{₁¹İ¬Y¬Ç CPU ¶İ¶¹ªº¼W±j«¬«ü¶Oªºµä´©₁C

¬Y¬Ç CPU µä´©ªp¶[ªº 3D «ü¶OjA³o¬Ç«ü¶O¶İ¶H»²§U NVIDIA ¹İ§İ³B²Z³¼¹¬Å´£ªª 3D ¹CA,©İÃ³¶İµ{₁¹ªº@Ã¬àjC₁¹¿İ¶µ@e³\ ±z!bÅX°Êµ{₁jµµÃö³¬¹j³o¬Çªp¶[ªº 3D «ü¶Oªºµä´©₁C³o!b¶İ!jæ@Ã¬àµĥ,û©İ¬G»Ü±Æ°£®Ê«Ü¹³¶İjC

3o`Ç¿i¶µ¶í©ó±±`ī OpenGL ÅX°Êµ¶í¶^{ao}¶p¿Ã¹δ¶·Æ³B²zᵢC¶·Æ³B²z-O±@°Ø¶í©ó`īµe±±^{aoa}«¥óÃä½t¶·ÆᵢA¶H´î±Ö´³®É·|
¥X²{^{ao}¿÷¾¶^{ia}¬ju¶¶±èjv®ÄªG±§§b³NᵢC1.5 x 1.5 ±èᵢj´£`Ñ³|´ī®Ä¯^{ao}¶·Æ³B²zᵢAᵢÓ 2 x 2 ±èᵢj´£`Ñ³|^{oaa01/4V¹³}«~½èjC

@e³\ÅX°Êμ{||çé¥X¥BÅé¹³-À@æ|ijCOpenGL Å³¥îμ{||²{||b¥i¥H"ï¥î¥BÅé"Ã±N·|±Ò°Ê¥BÅéSÖªzÃè;C

@e³\ÅX°Êμ{;i¿é¥X«Å|¹³-À@æ;iiCOpenGL Å³¥îμ{;i²{;b¥i¥H"Ï¥î«Å|iC

!~ç!¶|μ@e³\ OpenGL`"ŸŸ!«D§i½è¹LÂo¥H´E°a1/4v¹³«~½èiC½Ðª`·N¡A±Ö°Ê¡¹¥\¯à±N·||b´E°a1/4v¹³«~½èªº|P®É°§C®Ä¯à¡C

!b±Ò°Ê®É;AOpenGL ÅX°Êμ{!;±N·|¥H¬Û!P^{ao}Åã¥Ü,Ñ^aR«×¤À°t¤@Ól±½w½Ä°ĩ»P¤@Ó²`«×½w½Ä°ĩ;C

³o¥iÄý«Ø¥ß!hÓμμi^{ao}À³¥íμ{!;Só!³®Ä!a`ĩ¥î¼v¹³°O¾₄ÐÄé;C

!bÃö³¬®É;AOpenGL ÅX°Êμ{!;±N·|¬°À³¥íμ{!;«Ø¥ß^{ao`}CÓμμi¤À°t¤@Ól±½w½Ä°ĩ»P¤@Ó²`«×½w½Ä°ĩ;C

!¹¥¬`ã¥i¥H´£¤É`ĩ¥î!hÓμμi^{ao} OpenGL À³¥íμ{!;¤S®Ä¬`ä;C

¬°Źï©w^{ao} OpenGL Å³¥îµ{,i³]©w³î·î³]©wÈ;C

!¹¿ï¶µ¥i¥HSPÂ_¬OS_À³,Ó!b OpenGL À³¥!µ{!i¤¤iA«ö·Ó¹w³]È¬¥!¬S©w!â±m²`«×ªºS÷½è¶K¹!iC
¬¥!@à±!â±m²`«×±N©!²x¬¥! Windows @à±¥Ø«e¥¿!b°õ!æªº!â±m²`«×ªºS÷½è¶K¹!iC
©!²x¬¥! 16 bpp »P ©!²x¬¥! 32 bpp ¿!¶µ±N±j¬¥!¬S©w!â±m²`«×ªºS÷½è¶K¹!iA!Ó¤E!Ò¼/4!@à±³]©wÈiC

!¹¿î¶µ¶iSPÂ_¥p¿Ã¹ð OpenGL À³¥îµ{;ªº½w½¿Ã°îÃ½¶½¼Ò;C

±z¥i¥H±q°î¶ø¶Ç°eªè;BÃ½¶ªè;©î!Û°Ê¿î¾Ûªª¿î¾ÛC!Û°Ê¿î¾Û@e³ÃX°Êµ{;@Û¾Û±zªºµwÃé²Õ°A°Ö¿î¾Û³î¶è;C

l¹¿i¶µ¶iÂý±z«ü©w|p|ó|b OpenGL ¢¢³B²Z««ª½|P''B¡C

©l²×Ãð³¬±N|b©Ö|³ OpenGL À³¥Îµ{¡¡¢¢©l²×Ãð³¬««ª½|P''B¡C

«ð·Ó·w³]ÈÃð³¬°£«DÀ³¥Îµ{¡¡©ú½Tn''D±Ö°Ê««ª½|P''B¡AS_«h¥|±N«O«ùÃð³¬ª¬°A¡C

«ð·Ó·w³]È¶]±Ö°£«DÀ³¥Îµ{¡¡©ú½Tn''DÃð³¬««ª½|P''B¡AS_«h¥|±N«O«ù±Ö°Êª¬°A¡C

@e³\±z±N¥Ø«e³]©wÈÀx|s-°!Ûqiu½Õ¾ãÈjv|CpwÀx|sª³]©wÈ±N·|·s¼W`î-Û¾Fª²M³æªW¡C

|b\$ä`ï`S©w OpenGL À³¥îµ{|ª³]`î³]©wÈª§«á¡A½Ð±N³]©wÈÀx|s-°!Ûq½Õ¾ãÈ¡C³o¼È±z´N¥i¥H|b±Ò°Êµ{|¡ª§«e`³³t²Õ°A
OpenGL¡A!ÓµL»ÝªÀ§O³]©w`CÓ¿i¶µ¡C

·Æ´l±±´Ŧ@e³l±z¬º¿Ŧ©wªºlâ±mÀW¹D¹½Ö¾ă«G«×iB¹Ŧªñ«××©Ŧl¹÷º¿È¿C

lâ±m,É¥¿±±´Ŧ¥Ŧ´ó§U±z|bĀă¥Ŧ,Ě,mªW¹½Ö,É´Ó·½¹¼v¹³»P´ă¿é¥Xª§Ŧlªº¥ú«××@Ŧ²§¿CŦ¹¥

Ŧ`à|b´Ŧ¥Ŧ¹¼v¹³³B²zĀ³¥ŦµŦlŦi@É«D±´Ŧ³¥ŦŦiA¥Ŧ¥Ŧ¥HŦl|b±zªºĀă¥ŦÜ¾¹ªWAă¥ŦÜ§óª½TŦlâ±mªº¹¼v¹³jŦ|p¬ŦÜªùŦ^ŦC

ŦŦŦBŦiA«ŦŦŦh´Ŧ¥ŦŦ 3D ¥ŦŦ³¥ŦŦ`àªº¹CĀ,µe±³£«Ŧ·tŦCŦb©ŦŦ³ĀW¹Dªªª¼W¥Ŧ[¬ŦŦPªº«G«××©MŦiŦŦŦŦl¹Ŧ¹÷º¿È±N¥ŦŦ¥H´ŦŦ³o´Ŧ¹CĀ,µe-
±§ó«Gª@´ŦŦŦA³o¼Ě±z´N¥ŦŦ¥H§ó²M·Ŧ¬ŦŦŦ£¹CĀ,µe±ŦC

®e³±zçî¼Ü¥Ñ·Æ´Í±±îº¡î±mÀW¹D¡C±z¥î¥H±ÀSO½Ö¼ã-õ¡â¡Bºñ¡â©ÍÂÄ¡âÀW¹D©Í¡P®É½Ö¼ã³o±TÓÀW¹D¡C

¼Æ!ì®¶°Ê¥iÂý±zSó!n!a±±¬¶!â±mªÀÂ÷»P±j«×;A±q!Ó¬¶©Ò!³À³¥!μ{!;ªªªº¼v¹³Só«GÄR²M´·;jC

±m|â|±½u^{aoi}îſîÂã×Ü;C!½|±½u±N·||b±z½Ö%ã½|▯ñ«×;B«G«×©î|÷°¿È®ÉSY®ÉÂÛšó;C

µùjG |p^aG±z^{ao}q,£|b^oô,ô^oW^oô|æjA«h^ˈt²î±N·||b±zµn^oJ Windows «á½Ö¾ã|â±m|C

±zɔwÅx|s^{ao|}Ûq|â±m^{3|}©wÈ±§²M³æ;Cç|³/₄Û|¹²M³æ±±a⁰±@Ó¶|μ¥Ø±N·|±Ø°Ê^{3|}©wÈ;C

Áý±zzN¥Ø«e^{ao}!â±m³]©wÈÀx|s¬°|Ûq³]©wÈ;CªwÀx|s^{ao3}]©wÈ±N·|·s¼Wî-Û¼F^{ao2}M³æªW;C

SR°£¥Ø««e|b²M³æ□□¿|©wª|Üq|â±m³]©wÈ¡C

±N©Ò!³!â±mÈÁÙ!ÛµwÁé^{ao}¼¼t³]©wÈ!C

®e³±zçî¼ÜÃ¥Ü¾¹ªp®É¼Ò!jG

!Û°Êº»´ú®e³\ Windows º½±µ±qÃ¥Ü¾¹¥»´´±µ!¬¥ç½Tªp®É,ê°T¡C!¹¬°¹w³]È¡C½Ðª·N¡A¬Y´´ÇÂÂ¡¡Ã¥Ü¾¹¥!¬àª£ªä´©!¹¥
¬`à¡C

ª@¬ëp®Éª½!¡©Î **GTF** ¬Oªj!h¼Æ,û·s¡¡µwÃé´´!¥!ªº¼Ð·Ç¡C

Â÷´²Ã¥Ü¾¹p®É©Î **DMT** ¬Oª@°Ø,ûÂÂªº¼Ð·Ç¡A¬Y´´ÇµwÃéª´µM´´!¥!¹¼Ð·Ç¡C!pªG±zªµwÃén´´D´´!¥!
DMT¡A½Ð±Ò°Ê¹ç!¶µ¡C

±N NVIDIA QuickTweak 1İŸÜ.s¼4WİÜ Windows ¢u\$@!CİC

İ11İŸÜ@e³±z³z¹L¤@Ó¤è«KªºSÖÅäİİİ³æİAİuSÖ³İaİv®MŸİ©Òİ³İÜq Direct3DİBOpenGL ©İİâ±m³İ©wÈİCİ¹İİ³æÁÜŸİStŸİ©óÁÜİ¹w³İ-
È»Pİsİ`úİuÅäŸÜ¼¹¤º@eİv¹İ,Ü¤èİİöªºİİµŸØİC

@e³±z!b Windows ¢u\$@!C¢W;A¿î¼Ü¥î¥H¥Nªí QuickTweak ¢½¥îµ{!iª01î¥Ü;C
±q²M³æ¤¤¿î¼Ü±znÅã¥Üª01î¥Ü;CµM«á¿î¼Ü;u½T©w;v©Î;u©M¥î;v¥H\$ó·s¢u\$@!C¤¤ª01î¥Ü;C

±Ò°Ê NVIDIA ®à±°P²zμ{ijC

NVIDIA ®à±°P²zμ{ij±N·||b`î¥î TwinView ¦hÅã¥Ü¾4¹²Ö°A®É±Ò°Ê¼¼W±j«¬¥¬ àjA`Ò;pμøμi°P²zSÖ³tÁäiB¹i,Üøè¶δ«·s,møøøîÁY©ñ¥
¬àjC®à±°P²zμ{ij¥ç·s¼¼WøF¹i¦h®à±°øä´©jA¥H`óSU±zSóñ;a²ÖÂ´À³¥îμ{ijøu\$@ªÅ¶ijC

ŕ}±Ò NVIDIA @à±°p²zμ{!;²Œ°A±ŕ,Üpèŕŕô;C

@à±°p²zμ{!;²Œ°A±ŕ,Üpèŕŕôŕi±±ŕŕ©Öŕ³a0@à±°p²zμ{!;ŕŕà»P³ŕ©wÈ;AŕÒ;p±ŕ,Üpèŕŕô«·s,mσσçŕŕμ;BŠŒ³tÁäçŕŕ¼ÜmŕŕÀ³ŕŕμ{!;°p²z³ŕ©wÈ;C

Äö³¬¹¹¹ÿ, Üðè¶ô·ÄÄx¡s©ÒS@ªºÄÜSó¡A¥H«K±z¡b¡u"ä¥Lªª@e¡v¹ÿ, Üðè¶¶ð¶ç¡¾4Ü¡u½T©w¡v©Î¡u©M¥Î¡v©É¡A"ï³o"Ç³¡©wÈ¥Í©Ä¡C

Ây±z\$PÂ_p@Ó·Æ¹«««ö¶s·||b³æ«öpu\$@!C¹¥Ü®ÉÅã¥Ü¿i³æ¡C

¶}±Ö©İÃö³¬½T»{°T@S;C

!pªG±zªE·Q!b±qªuS@!C¿ĩ³æ,üªJ 3D ²Ö°A@ÉÃã¥Ü½T»{°T@S;A½D@Ö¿ĩ¹¿ĩ¶µ;C

lp^G±zn^u\$@|Cçĩ³æÅã¥Ü 3D ®Ä^GjA¹½Dçĩ¼Ü!çĩ¶µjC

3o`Ç¿i¶µ®e³±z`M©w!b¥H\$C©6³!°aä´©,ÑªR«×ªº,ÑªR«×°δ!æ®É;A½/4v¹³©6¥ªOÃã¥Ü¾¼±WªºÃã¥Ü!¶,m;C

½Ð`İ¥İ½bÂY«ö¶s½Ö¾ãÅã¥Ü¾¹□W^{ao}@à±Åã¥Ü¶,mıC

@Ú¾Ú¥Ø«e^{ao},ÑªR«x»PŞó·s²vᵢA±N@a±«³j!Ü·ä¹w³j!i,mᵢC

3o"Ç¿i¶µ@e³±zz¿i¼Ü¿é¥XÅã¥Ü,Ë,mij]@ú¼ÚÁã¥Ü¾¹¤¶±¥d©Ò¤ă´©ªº,Ë,m_iA±z¥i¥H¿i¼ÚÁã¥Ü¾¹iB¾¼Æ;i¥ªOÅã¥Ü¾¹©Î¹qµø;^iC

ŕ}±ò¤@Ó¥i|b`ä¤¤-º²{¥i°Åã¥Ü,Ë,m!Ûq³]©wÈ°μøμjiC

Åä×Ü¶ï©ó¹qmø¿é×X^{ao}¥Ø«e®æ!i»P°ê§O³]©wÈ¡C

ŕ}±Ò¤@Ó¥|b`ä¤¤«ü©w¯S©w²qμø¿é¥X©æ!iªºμøμ;¡C

!12M³æ@e³±z@Ú¾Ú!Ûv©Ò©~!íª°ê@a"Ó¿í¾Ú¹qμø¿é¥X@æ!¡¡C

μù¡G !pªG±z©Ò!bª°ê@a"Si³¡C!b²M³æ¤¤¡A±zÀ³,Ó¿í¾ÛÂ÷!Ûv©Ò!b!ª°í³!ªªª°ê@a¡C

“İçİ©wª©æ¡¡İ”-°İ}}¼±¹w³]È¡C

İpªGİb±Ò°Ê±q,£®É¥uİ³¹qμø³s±μİÜÄã¥Ü¾¼¹«İ±¥dİAİ¹İİİμ¥İ½T«O±Ò°Ê¹Lμ{Äã¥Üª©Öİ³İÄ¹δ°T®SSİ¥H±z¹qμø©Ò«ä´©ªø¥
İ½T®æ¡İİİé¥XİC

¥iĀý±z«ü©w¶Ç°e!Û¹qμ∅ª¿é¥X°T,¹Āp«¬¡C

!pªG±z"ā!³¥¿½Tª³s±μ¾¹Æ!½u¡A«h S μ∅°T¿é¥X³q±`¥!∅ñ½Æ!Xμ∅°T¿é¥X

‘E"ÑŒóªªª¿é¥X«¬½è¡C!pªG±zμLªk½T©wĀ³,Ó«ü©wªªªT,¹Āp«¬¡A½D¿ĩ¾Ū!Ū°Ê¿ĩ¾Ū³¶©w¡C

½Ð`İ¥İ½bÄY«ö¶s½Ö¾ã¹qμø⁂W^{ao}@à±Åã¥Ü|ì,m;C

μù;G |pªG¹qμøμε±|]½Ö¾ã¹L«×!Ó¥X²{Ãã¥ÜÂø¶|Ã©İªÅ¥Ö^{ao}°ÝÃD;A±z¥u»Ýμ¥«Ý 10 ¬íÃÄ;Aμε±SY·|
|Ü°Êªð|'¨¨ä¹w³]|ì,m;CμM«á;A±z¥í¥H«·s¶|ì;æ½Ö¾ã;C·í¥¿½T©w|ì@à±⁂S«á;A±z¥²¶|·!b 10
¬íÃÄ⁂⁂«ð⁂U;u½T©w;v©Î;ju©M¥Î;v«ö¶s;A¥HÃx|s,Ó³]©wË;C

@Ú¾Ú¥Ø«e^{ao},ÑªR«×¡A±N@à±«³]!Ü`ä!b¹qμøW^{ao1}w³]!i,m¡C

½D`İ¥İ³o`Ç±±`İ½Ö¾ã¹qμø¼v¹³a0«G«x»P¹ı©M«xıC

½D'î¥î³o`Ç±±î½Ö%ã±qμø¼v¹³ªº«G«x»P¹ïðñ«x¡C

½D`î¥î¹±±î½Õ¾ãñ©M¥îî¹qμø°T,¹ao°{Ã{¹LÂoμ{«×îC

!b`î¥îμwÃé,Ñ½X¾¹´Ó½¼½©ñ DVD ¹q¹¼v®ÉîA«ØÃ³±zS¹¥pÃö³-°{Ã{¹LÂoîC

³]©w¿é¥X!Ü¹qμøª¿Ã¹ð,ÑªR«×»P!â±m²`«×¡C

½D`î¥î³o`Ç±±`î½Ö½ã±zÅã¥Ü¾¼¹a0¼¼v¹³©î DVD a0¼¼½©ñ«~½è¡C

±z¥i¥H▯À§O±±`î«G«×¡B¹i▯ñ«×¡B¡ã~Û▯î¹¡©M«×¡A¥H¡b±z¹q,£▯W¹¼¹½©ñ¹¼v¹³©î DVD ¹q¹¼v®ÉÀò`ú³î`î¹a0¼¼v¹³«~½è¡C

@e³±z½Ö¾ã NVIDIA ıŒİ³B²z¾¹aº¥Dn»P°O¾ĐĂé®ÉÄÄW²vıC

³j©w NVIDIA 1jſî³B²z¾¹aº¥Dn®ÉÄÄ³t«×¡C

¥H|Ê,U»®÷¬°³æ|ª¥Ü¥Dn®ÉÄ³t«x|C

³]©wÅã¥Ü¾¹¤¶±¥d¤Wªº°O¾DÄé¤¶±¤§®ÉÄÄ³t«×¡C

¥H|Ê,U»®¯÷¬°³æ|ª|¥Ü°O¾ÐÅéσ¶±ªº®ÉÄÄ³t«×|C

|b®M¥ŕ«e´ú,Œ·s®ÉÄÄÀW²v³]©wÈªºÃ©w©Ê¡C

µù¡G ±z¥²¶.¹¥ô¡ó»P»s³y¼tºÓ¹w³]Èª£¡Pªº.s³]©wÈ¶¶¡¡æ´ú,Œ¡AµM«áª~¥¡¥H±Nª\$¥Ãª[¡a®M¥ŕ¡¡C

¿ï¼Ü!¿ï¶±N½T«O!b Windows ``C!,±Ò°Ê®É¡A±z¹®ÉÄÄÄW²v©Ò§@ªº¥ö!óÄÜ§ó±N!Û°Ê³Q®M¥î¡C

µù¡G ±z¥î¥H!b Windows ±Ò°Ê®É«ö!í <Ctrl> Ää¡A¥H!b±Ò°Ê¹Lµ{ª
ª²ª¹L!Û°Ê®ÉÄÄÄ³]©w¡C!pªG±zªº¹q,£³s½u!Û°ö,ö¡A½D!bµnªJ Windows «ä¥ß§Y«ö!í <Ctrl> Ää¡C

«³]©Ò|³®ÉÄÄ½Ö¾ã¥¯à¡A¨Ã|b¥¡¥H«·s±ò°Ê±±·̄¤§«e±j·̄ı«·s°»´úıİİµwÅé¡C

«ØÄ³±z·C·f·̄ı¥İ¤w§ó·s^{ao} BIOS ¼4V¹³·Ó§Ö°{§ó·sÅã¥Ü¾4·¤¶±¥d^{ao} BIOS¡A´N°õ|æ¤@|,«³]¾p§@¡C

@e³±zçî¾Ü¥|°Ø TwinView ¼Ò!¡±§±@¡G

¼D•Ç -} çî¾Ü¼D•Ç¡B³æÅã¥Ü¼Ò!¡¡C¡pªG¶È!³±@ÓÅã¥Ü,Ë,m³s±μ!Ü±zªº NVIDIA ¡§¡±¶±¥d¡A½D`¶!¹¼Ò!¡¡C

½Æ»s -} !¹¼Ò!¡¡±N¥DÅã¥Ü¾¹©ÒÅã¥Üªº±º®e§¹¾ã°è½T!açé¥X!Ü!,,Ë,m¡C

ªô¥ÅX@¡ -} !¹¼Ò!¡¡@e³±z±N Windows @à±±ô¥ÅX@¡Ü"âÓÅã¥Ü,Ë,m±W¡C!b!¹¼Ò!¡¡±U¡A"â¥xÅã¥Ü¾¹±N²Ö!X!"±@-
ÓÅX@¡ªº±jÅã¥Ü±¡C

««ª½ÅX@¡ -} !¹¼Ò!¡¡@e³±z±N Windows @à±««ª½ÅX@¡Ü"âÓÅã¥Ü,Ë,m±W¡C!b!¹¼Ò!¡¡±U¡A"â¥xÅã¥Ü¾¹±N²Ö!X!"±@-
ÓÅX@¡ªº±jÅã¥Ü±¡C

TwinView ¼D·Ç - ħĩ¼¼¼D·Ç;B³æÃã¥Ü¼¼Ö!;iC!pªG¶Ē³@ÓÃã¥Ü,Ē,m³s±μ;Ü±zªº NVIDIA ĩšſ¶¶ĩ±d;A½Đ·Ÿ!¼¼Ö!;iC

TwinView ¼Æ»s - !¼Ò|·|±N¥DÅã¥Ü¾¹©ÒÅã¥Üªºª@e\$¼ãº½T!a¿é¥X|Ü!,,Ë,m¡C

TwinView ¢ô¥ÂX@i - ¢¹¼Ö!i@e³±z±N Windows @à±¤ô¥ÂX@i!Ü"âÓÃã¥Ü,Ê,m¤W!C!b!¹¼Ö!i¤U!A"ã¥xÃã¥Ü¾¹±N²Ö!X!"¤@-
ÓÂX@i!ª¤jÃã¥Ü±!A³o¹!i!bÃÊµø¼e««x¤j©ó³æ¤@Ãã¥Ü¾¹ª¤jµ¥Ø®É«Ü!³¥!iC

TwinView ««²½ÂX®i - ¡¹¼Ò¡¡®e³±z±N Windows ®à±««²½ÂX®¡Û`âÓÂã¥Ü,Ë,m²W¡C¡b¡¹¼Ò¡¡²U¡A`â¥xÂã¥Ü¾¹±N²Õ¡X¡"²@-
ÓÂX®¡²º¡jÂã¥Ü±¡A³º¹¡¡bÀËµø¹⁄⁄e«×¡j©ó³æ²@Âã¥Ü¾¹¹µ¥Ø®É«Ü¡³¥¡¡C

TwinView Åã¥Ü²Ö°Aª¹İŞİÅã¥Ü;C

³æ«öÅã¥Ü¾¹İŞİ®e³±z±N²Ş¿İ¾Ü¬°¥Ø«eªÅã¥Ü¾¹;C|b¥H·Æ¹«¥kÁã³æ«öÅã¥Ü¾¹İŞİ®É;A¿Ã¹õ²W±N·|¥X²{|hÓ¶|µ¥Ø;A®e³\±z½Ö¾ã¬ÜÃõªÅã¥Ü,Ě,m;C

!b½/Æ»s¼Ö!;□U°õ!æ®É;A!¹¿!¶µ®e³±z!b¥DÃã¥Ü¾¼¹□□°õ!æª®®à-
±,ÑªR«×ª©ó!,,Ë,m!C!pªG!,,Ë,mªª¹êÃé,ÑªR«×SC©ó¥D,Ë,m!A«h!,,Ë,m□Wªª®®à±±N!b·Æ¹«Ã²·!¿Ã¹õªªÃã¬É®É!Ü°Ê°õ!æ¥p´ª±½
´y!C

!pªG¿ĩ¼ÜªF¡u®e³½/£»S,Ě,mªWªºµêÄÄ@à±¡v¿ĩ¶µ¡A«h½ĐÃð³¬¡,,Ě,mªº!Ů°Ě¥p´º±½´y¥\¬à¡C³o¥iÃý±z!³@Ä!a±NµêÄÄ@à±¡u-
áµ²¡v!b¬YÓ!¡,m¡C!¥\¬à¹¡©óÄ²³ø¥Hª!³!²{Ä³¥!µ!¡ªªªºë²Ó³¡¥¬«Ü!³¥!¡C

±Ö°Ê!¹\¯â±N·|Âê©w¥Ø«e¿ï©wÃã¥Ü¾⁄⁴¹□W^{ao}¥Ø«e¥p´°±½´y!i,m¡C³o¥iÂý±z!³@Ã!a±NµêÂÂ@à±iuáµ²iv!b¬YÓ!i,m¡C!¹¥
\\â¹i©óÂ²³ø¥H□î²[Ã³¥îµ{!□□^{ao}ë²Ó³!¥÷«Ü!³¥î¡C

±Ò°Ê TwinView ÂX®i¼Ô¡¡ºµêÂÂ@à±¥¯à¡C

±Ò°Ê¡¥¯à®e³±z³]©w□ñ²Ö¡XÂã¥Û¾¹¤§¹êÃé¤Ø¤©Ö¯à®e³º®à±\$ó¤¡¡C

¡b±z¹Á,Ö±N·Æ¹«²¾¥X¥¡ÄËµø°í®É¡A²Ö¡Xµø¹í±N·¡¡b\$ó¤¡º®à±°í¤¤W°ð¡æ¥þ´º±½´y¡C

TwinView !,,Ë,m²Ö°A^{ao1}İŞİÂã¥Ü

³æ«ö!¹¹İŞİ¥İ@e³±z!b½⁄E»s¼Ö!ııU°ö!æ@É²Ö°A³s±μ!Ü¹İŞİ¥d;]ˆˆă!³ TwinView ¥\ˆà!ªŞ!ı,çé¥X^{ao}çé¥X,Ë,mıC

±Ö°ÊÁY©ñ±±"ĩ¥í@e³\±±z©ñ±j¼v¹³¿é¥X¿Ã¹ðª⁠S©w°ĩ°ĩjC

|b|¹³B_iA±z¥i¥Hçĩ³/₄ÜnÁY©ñ^{ao}₄v¹³çÃ¹⁵°ĩ°iCçĩ©wð\$«á_iA±z¥i¥H³z¹L²³/₄°Ê¥HðU^{ao}.Æ'ĩ±±"ĩ'ÓÁY©ñ¹³_i¥÷çÃ¹⁵ð_iC

Åý±z©ñaj©ÎÁYap¿ï©w^{a01/4}v^{131/4}1/2©ñ¿Ã¹ð°İ°İjC

¿i¾Ü¥H¥p¿Ã¹ð¾Ö!i¾½©ñ¾v¹³ªºÃã¥Ü,Ë,m¡C

Åý±zŁĩ¾Ü¥p¿Ã¹ð¹/₪½©ñªºªø¹/₪eªñĩ]ªô¥ªjªp»P««ª¹/₂ªjªpĩ^ĩC

±Ö°Ê_l¹¿ï¶±N®e³¼¼v¹³ÅX°Êμ{_lSPÂ_¥p¿Ã¹ð¼¼v¹³¼¼½½©ñª03j·î,ŒªR«×_lC

±Ò°Ê¡¸¸¸µ±N³sµ²«Â|±±¸¸¸WªÁY©ñ±±¸¸¸iA¥H¡P®É±±¸¸¸p¸¸¸Ã±¸¸,Ë,mªWªÁY©ñ¸¸¸t¼Æ¡C

³æ«ö!¹«ö¶s@e³±z!s´ú TwinView ½Æ»s¼Ö!¡´E`Ñª¶¶¶¶¼v¹³¶\`à¡C½Dª`·N¡A¶²¶·±Ö°Ê½Æ»s¼Ö!¡¶~`à!s´úºo`Ç¶\`à¡C

±Ö°Ê¹¿ï¶±N±¿ï«Å³nÅé"ï¶ï×¬y±Æ¥D±±¿C«ØÄ³±zª£n®Ö¿¹¿ï¶µ¿A°£«D±z¹J"ï³Äö¼v¹³¹/₄¹/₂©ñªºÝÄD¿A"Ö¿p¼v¹³.¿.
´©İ§¹¥pµL¼v¹³¿C

Ãã¥Ü»P¿ï©w^{ao}¼v¹³¤¶±¥d°t¡X·ï¥ï^{ao}Ãã¥Ü¾¼¹Ãp«¬¡C

3æ«ö¥HÁã¥Ü¡¹Áã¥Ü%¹ªº,Ë,m»PÂX°Êµ{¡¡º°@e¡C

!C¥X¡¹Äã¥Ü¾¹¥¡¥¹aoSó·s²v¡C,û°aaö¿Ã¹õSó·sÀW²v¥¡¹¡Ö¿Ã¹õ°{Ã{¡C

«Ü©w¿Ã¹õ\$ó·sÀW²vαUªºM³æ¬OS_¥]-AÃã¥Ü¾¹α£α´©ª¹¼Ò¡¡¡C¿î¾Üα£¼A¥¡©ó±zªºÃã¥Ü¾¹ª¹¼Ò¡¡¥¡à·|¾ÉPÄY-
«ªºÃã¥ÜºÝÃD¡A¨Ã·|·´µwÃé¡C

μL½xÄ³¶íμííçí¾Üíó°Ø¹³⁻Ä®æííiAí¹çí¶μSí±j⁻í OpenGL ÅX°Êμíí⁻í¶í 16 íí²,²⁻«xªº½W½Ä°ííC
³o¶í´£ªÉ²⁻«x½W½Ä°í²M°£»PS@.⁻ªª®Ä⁻àíAíý.í°SC²⁻«x½W½Ä°íªºë½T«xíC

|b±Ö°É®É;AOpenGL ±N"ŶŶ Windows2000 ºŶŶŶŶhÅãŶÜ¾ŶŶà;C

·iYl1çïµHçî¼ÜpÓÃãÛ¼¹¥Jst@a±ao¥ªW·¤¡C!¹çïµ³!³¥l¤§³B!b©ó¥!¥i¥H¥æ´«ÃãÛ¼¹¹/v¹³a0!i,m¡C

Åã¥Ü©Ò!³¥Ø«e^{ao} TwinView Åã¥Ü¼¹¡C|pªG±z³s±µªF|hÓ,Ě,m¡A¥BªwªÁ´«!Ü«D¹⁄₄Đ·Ç¹⁄₄Ò!¡¡A±zÀ³¿î¼ÜpÓÅã¥Ü¼¹¬°
¥Ø«e^{ao}Åã¥Ü¼¹¡C

±z¥Ç¥î¥H^{a¹⁄₂}±µ³æ«öªWz±±"ĩªªªÅã¥Ü¼¹¹ĩ§î¥H¿î¼Ü¥!´Ó\$@¬°¥Ø«e^{ao}Åã¥Ü¼¹¡C

³æ«ö'¹«ö¶s¥H³]©w©İÄÜşó»P¥Ø«eÅã¥Ü¾¹©Ò`İ¥İº¿é¥X,Ë,m-ŮÃö¤\$³]©wÈ;C

¥p´º±½´y±±´î@e³±z³]©w»P¹ê»Ú@à±°î°¬ÔÃóªºÃ¹ó¥iÀËμø°î°±§±j±p;C!¹¥¬à©ÒÀã¥Üªº@à±¥i±j©ó!bÀã¥Ü¼¹iB¥-
ªOÀã¥Ü¼¹©î¹qμø±W¥¿±`Àã¥Üªº@à±;C

³æ«ö¥H°»´ú©Ò|³³s±μ|Ü|¹¹/4v¹³□¶±¥dªºÃã¥Ü¾/4¹|C|pªG±Z|b¶|±Ò±±·î¥x□§«á³s±μ□F¥ô|óÃã¥Ü¾/4¹|A½Ð·î¥|¹¥¯à;C

|pªG±z±NÃã¥Ü¾¹³s±µ|Ü!,Ãã¥Ü³s±µ¾¹¥B¥¾¹³Qº»´ú`î;A½D®Ö¿î¹¤è¶δ;C³o¶©óÃÃ;Ãã¥Ü¾¹©î`î¶ BNC
³s±µ¾¹¶î;æ³s±µªºÃã¥Ü¾¹«Ü¹³¥î;C

3æ«ö¥H|s´ú»P±z^{ao} NVIDIA 4İ§İ^â¶¶±¥d-ŮĂö^{ao},ê°TıC

³æ«ö¥H|s´ú±zªº NVIDIA ¹j§l□¶±¥d□§ªp¥[¥l̄àjC

3æ«öH|s'ú NVIDIA ¯,¥xıA¥HÀò±o±zao NVIDIA 1{š[□¶±¥d□§3}.s,é°T»PAX°Êμ{||iC

!¹,ê°T,Ô²Ó»¡©ÚªF¥Ø«e¿¡©wªº¡¡§¡ª¶±¥dª§µwÅé⁻S©Ê¡C

!¹,ê°T,Ô²Ó»¡©Ú▯F`r²¡▯▯¥¡Γà·|¼vÂTÁ`Âé¹¡§¡©Ä`àªº¿¡©w³¡¥±¡C

|1a|C¥X□F±z^{ao} NVIDIA 1|š|□||±¥d¥Ø«e·|¥|^{ao}ÀÉ@x»P-ÔÃö^{aoa}©¥»,ê°TjC

À³¶íµ{í,°p²z³]©wÈ¶@e³\±z³vÓ°p²zÀ³¶íµ{í,íb|h¶xÀã¶Ü¾¹»P@à±ªWª°À³¶íµ{í,µøµíª§í,míC

l¹¬°@à±°p²zμ{ḷi¥Ø«e°p²zª°À³¥ḷiμ{ḷi¤S²M³æjC±q²M³æ¤¤çî¼Ü¤@ÓÀ³¥ḷiμ{ḷi¥H²Õ°A¨àÀ³¥ḷiμ{ḷi°p²z³]©w-
ÈjC¨î¥ḷi¥K°¼ª°jü·s¼Wjv»Pjü²¾°£jv«ðḷs¨Ó½sçè²M³æjC

«ö▯U_l¹«ö¶s¥H±N·sªòÀ³¥{µ{¶i·s¼4W_lÜ@à±°P²zµ{¶i°P²zªòÀ³¥{µ{¶i²M³æ;C

«ö□U|¹«ö¶s¥H±q@â±°P²Zμ{||°P²Zª°À³¥|μ{||;²M³æ□□²³¼°£¥Ø«e¿ï©Wª°À³¥|μ{||;C

«ö□U!¹«ö¶S¥H²M°£À³¥{µ{!;²M³æ□□ªº©Ò!³¶µ¥Ø;C

Äµ\$;G³o±N·|«³]±z¹;Ä³¥{µ{!;©Ö\$@ªº©Ò!³!Ûq;C

čĩ¼Ü'¹čĩ¶µ±N±jĩÀ¾µ{µµµi©l²x!b±z«ü©wªÅã¶Ü¾±W±Ò°Ê¡C

lp^aGζĩ¾Ü⦿Fju©l²×!b¥H⦿U½s, ^{1a0}¿Ã±õ⦿W±ò°Ê!À³¥lμ{!iiv¿ĩlμjA!¹Äæ!i«h«ü©w¥Ø«e¿ĩ©w^{a0}À³¥lμ{!i©l²×!b, ÓÅã¥Ü¾¼±⦿W±ò°Ê;C

!p°G±zçĩ¾Ü▯F!¹¿ĩ¶µ¡A@à±°P²zµ{!i±N°O▯UÀ³¶µ{!iµøµ¡ªº¶p»P!ĩ,m¡C!b±z▯U▯@!i,±Ò°ÊÀ³¶µ{!i®É¡A@à±°P²zµ{!i·|
±NÀ³¶µ{!iµøµ¡ÁÜ!i!Ü"ä¶ý«eÀx!sªº¶p»P!ĩ,m¡C

!¹¿i¶µ@e³±z«ü©w¶È±N³cj²ÆEÀ³¶µ{¶µøµi¶¶ñ°i!Ü"ä¥Ø«e©Ò!bª¿Ã¹ðjA!Ó«D¾ãÓ¶ĩàÂX@¶!Ü!h¥xÃã¥Ü¾¹ªº@à±jC

¿İ¼Ü!¿İ¶μ×H!bÓSO©R!W^{ao}Ã³¶μ{!i®à±¤W±Ò°Ê!Ã³¶μ{!i;C

“Ò!p!A°£¤F!w³”^{ao} Windows ®à±¤S¥~;A±zÁÙ¥i¥H¬° Web ÂsÃý¾!;B¹q¤!¶¶¥ó¾!Ã^aμ{!i«Ø¥ßÓSO^ap¥[^{ao}®à±;C

|b|¹³Bζé⊞JÓ§OÀ³¥îμ{î@à±^{ao}îW°Û;C±z¥ç¥î'î¥î⊞U©Ôîî«öîîSîb¥ôîó±z⊞w¬^o··ä¥LÀ³¥îμ{îî«Ø¥ß^{ao}@à±⊞⊞îîæçî¼Û;C

î¹ÄæîîîÈîb±z®ÖçîuîbÓ§O^{ao}@à±⊞W±Ö°Êî¹À³¥îμ{îîivçîîμ®É⊞~¥î¥îîC

§Ö³tÁä¶@e³±z!Ûqiu§Ö³tÁä;v²Ö!X;A¥H`ì¥î´Ó°P²zÀ³¥µ{;µøµ;|b@à±eWª°;m;C

!¹«öÄâ²Œ|X#i±N#Ø«e²{#iªºij]¶°ªªºi^μøμi²³/4!Ü#tª@#xÅã#Ü³/4ªWªº-ÛÀ³|i,m;C

!¹«öÁä²Õ!X#i±N#Ø«e²{#iªcÀ³#iµ{!i©Ò!bªcÁä#Ü³/4¹ªW©Ò!³ªcµøµi²³/4!Ü#tª@#xÁä#Ü³/4¹!C

l¹«öÁâ²Œ|X¶i±N©Ò|³ªºÀ³¶|μ{||μøμi²³¼|Ü·Æ¹««ü¼d©Ò|bªºĀã¶Ü¾¼pWjC

!b±z`ä!³!hÓ²{¶!ªcÀ³¶!μ!;!@à±®É;A!¹«ôÁä²Ö!X¶!Âý±z±qº@Ó®à±ªÁ´«!Ü¶tª@Ó®à±;C«½Æ`!¶!¹²Ö!X±N`^ÀôÂã¥Ü²{¶!Â³¶!μ!;!@à±
ª§²M³æ;C

³q¥í³]©wÈ¶¥]St³q¥í©ó@â±°P²zμ{í;âí~ä¹©Òí³A³¥íμ{í;ªº³B²zªS¿í¶íμ;C

Țĩ¼Ü±NÀ³Ÿİµ{ĩĩ³}ojmÆİÜiu³ãÓ®à±iv¬O«ü±N`ä³}ojmÆŸHİİİİ°ĩ¼ãÓ®à±iASŸ`İ®à±ÂX®İİ!İhŸxÂãŸÜ¼ĩC
 Țĩ¼Ü±NÀ³Ÿİµ{ĩĩ³}ojmÆİÜiu`äŸØ«eȚÃ¹õiv¬O«ü«ö.Ó¹w³]È±NÀ³Ÿİµ{ĩĩ³}ojmÆİA`İ`äİİÈİİİ°İŸİİ`Ó©ÒİbªºȚÃ¹õİC

±Ò°Ê!¥¯à·|±N!uNVIDIA @à±°P²zμ{!jiv!ç!³æ´j!J!Ü©Ò!³³!W¼hªºÀ³¥!μ{!iμøμj!S`!²!ç!³æ!qC!¹!q!ç!³æ!@e³\

±zSÖ³tÂ²©ö!a!s`ú©Ò!³À³¥!μ{!i!°P²z¥¯à!A!ÓμL»Ý¶!}±Ò®à±°P²zμ{!i!±±`!¥x!C

³z¹L¥H·Æ¹«¥kÁä³æ«öμøμj¼DǺDj!¼DǺD!C!^!A©!³æ«öμøμj¼DǺD¥ªº¼ªºÀ³¥!μ{!i!°P¹!¥Ü!A«K¥!s`úÀ³¥!μ{!i!μøμj!ªº`!²!ç!³æ!C

çï¼Ü!çï¶µ@e³®à±ºP²zµ{ï±N\$ÖÄã!µøµ¡«·sÄã¶Ü!b¤@-
ÓçÄ¹ð¤W¡A¶H¨¼¤î³¤¤W¼h\$ÖÄã!µøµ¡ÂX®!Ü¨ã¶x¡j©!h¶x¡^Äã¶Ü%¹©!b¶!¤\$¶!¤À¹Äã¶Ü¡C

čĩ%4Ü!¹čŦµ×H©l²×!b±z©Òčĩ%4ÜªčÄ¹ð□W,m□□ˆt²³q×ſSÖÄā!µøµ¡C

čĩ¼Ü±zn±NsÖÄä!iμøμi,mσσ^{ao}Ää×Ü¾/4¹C!¹Äæ!i¶È!b±z®Öč!i!u,mσσ×HσU¾/2s,^{1ao}čÄ¹ðσW^{ao}·t2!³q×!SÖÄä!ičĩ³æ!v«ð¶!s®Éσ~×!·!¶!iC

l¹z!¶|μ±N, m□□St·Æ¹«´â¼¼Ð□SÂã¥Ü¾¹ªºˆt²l³q¥f(SÖÂã; μøμijj)ÂX®i!Ü!h¥xÂã¥Ü¾¹ªW¡^¡A³o~Oj]~°, ÓÂã¥Ü¾¹«Ü¥i¯à~O±z¥
¿!b°Ê¬ÝªªÂã¥Ü¾¹jC

!z'qμ"iÀ¶μ{;iSÖÄã;imøμ;»P²E¶(¶;)ªºÀ¶μ{;imøμ;|©ó-Û!Pªº¿Ã¹δªW;C|pªG-Y-
ÓSÓÄã;imøμ;|u¿ù»~|aÄã¶Û;v|b¶tª@¥xÄã¶Û¾¹ªW;A@à±ªP²zμ{;|±N`ä²¾;ÛÀ¶μ{;imøμ;ªºÄã¶Û¾¹ªW;C

«ö□U|¹«ö¶s¥HÁÙì¹w³]ªº@à±ºP²zμ{;³q¥î³]©wÈ»PSÖ³tAä;C

μù;G³o¤£·|¾vÅT±z|bÀ³¥îμ{;ºP²z¶¤W¹Γ'COÀ³¥îμ{;©Ò§@ªº;Ûq;C

«ö♠U;u½T©w;v«ö¶s¥H±μ¨ü¨Ã©M¥ſ±z¹i®à±ºP²zμ{;³]©wÊ©Ö§@ªº¥ó¡óÅÜ\$ó;AμM«áÃö³¬±±¨ſ¥xμøμ;C

«öU;u"ú@ø;v«ö¶s¥HÄö³¬@â±°P²zμ{;±±"î¥xμøμ;A!Ó¤EÄx;s©Í@M¥î¥ô;óÄÜ\$ó;C
Äμ\$;G±z¹³]©wÊ©Ö\$@ª¥ô;óÄÜ\$ó±N·|μL@Ä;C

«ö♠U;u®M¥îv«ö¶s¥H®M¥î`ÃÄx;sz©Ò\$@ª©Ö;³³¶]©wÈÅÜ\$ó;A`Ã`î@à±ªP²zμ{;±±`î¥xμøμ;³B©ó¶]±Òª¬ªA;C

|¹¹ÿ,Üðè¶ô@@e³±zçï¾Ü¶Ñ©â±°p²zµ{ï°p²z^{ao}.sÂ³¶µ{ïïC

3o~O¥Ø«e|b±zªº@a±¤W°ð!æªÀ³¥îµ{||;¤§²M³æ|C±Z¥i¥H|b!¹²M³æ¤¤¿i¾¼Ü¤@-
ÓÀ³¥îµ{||;A©î³z¹L«ö¤U¡uÂsÄý¡v«ö¶s“Ó«ü©w“ä¥LÀ³¥îµ{||;||p¥Ø«e¥¼⁄⁴°ð!æªÀ³¥îµ{||;^¡C

«ö♠U!¹«ö¶S¥H¶})±ÒÀÉ®×¹ÿ,Ü♠è¶¶ô;A;|b!¹¹ÿ,Ü♠è¶¶ô♠±z¥i¥H¿i%¼Ü¥ô;ó±zn®à±ºp²zµ{;iºp²zªº Windows À³¥îµ{;i;C

«ö♠U!¹«ö¶S¥H±μ"ü±z©Ö¿ĩ¾Üªºμ{¡;ÂÉ¡AS¥±N"äS@¬°¥Ñ®à±ºP²zμ{¡:ºP²zªº.sÀ³¥Îμ{¡;¡C

!pªG±z!¹@É²É·Q¿ĩ¾ÜÄ³¥İµ{!;A½D«ö²U!¹«ö¶s;C·sªºÄ³¥İµ{!;¹i,Ü²è¶ö±NÃö³¬;A!Ó²É·|ÅÜ\$ó¥ô!ó¶]©wÈ;C

|¹¹ÿ,Üðè¶ô@@e³±zçé¤J·sªÀ³¥¶{¶|·@à±¤§¶WªÙ¶C

$^{13}\text{B} \rightarrow \text{J} \cdot \text{s} \cdot \text{Å}^3 \mu \{ | \text{R} \hat{a} \pm \text{S} | \text{W}^0 \hat{\text{U}} | \text{C} \pm \text{z} \text{Y} \text{ç} \text{Y} | \text{b} \neg \text{O} \text{ä} \text{Y} \text{L} \hat{\text{A}}^3 \text{Y} \mu \{ | \text{«} \ddot{\text{u}} \text{C} \text{w}^{\text{ao}} \text{R} \hat{a} \pm | \text{W}^0 \hat{\text{U}} \text{m} \text{q} | \text{i} \text{æ} \text{ç} \text{i}^3 \text{4} \hat{\text{U}} | \text{C}$

0ip1A±z¥ñân±N0Ü~uWeb;v^{ao}@±â¥í@ó±z^{ao} Web ÂSÄ3¥/41A¥H±N0Ü~u¶¶0v^{ao}@±â¥í@ó±z^{ao1}q¶¶¶0µ¶iC@â~±0z2µ¶i^{ao}uSÖ3tÄâjv¥ñâ~e±3zib3~C0£jP^{ao}Ä3¥iµ¶i@±±±S¶¶¶S¶¶SQ¶¶iæ±Á«iC

«öU;u½T©w;v«öſs¥H±μ¨ü·s^{ao}@à±!W°Û;CſË;b±zçéσJ!³®Ä^{ao}@à±!W°ÛσS«áσ~¥i«öU;¹«öſs;C

|pªG±z!¹@É²£·Q¿é±J@à±|WºÛ¡A½Ð«ö²U¡u"ú@ø¡v«ö¶|s¡C

«ö□U!¹«öÁä²Ö|X±NÄ²µo□@`t|Cª°Êµe!;□°|X⁻xſî;A¥H`ó\$U±z´M\$ä·Æ¹«´ä¼D;C

±Ò°Ê₁¹¿ï¶µ¶i|b±z³z¹L¹·Æ¹«©i₁²µøµi®É±NµøµiS¹³¼ã!aSÖ³tÅã¶Üi|b-YÓ¿Ã¹ð©Î¹ã¶L¿Ã¹ðµWjC

3o`Ç¿i¶µ±N½4vÅT Windows ¥îðá°Ý\$@·~¶¥~qª°i¥îªið¶±±, ¯ÄjA¨Ò!pou\$@!C»Pou\$@ðÁ´«¾4µøµiª0ª~°A¡C

çï¾Üï¹çï¶µ±N±Ò°Ê`ä¥Lðu\$@±Á´«¾¹µøµijAï¹µøµipw`l·Ó¥Ø«eªº TwinView ²Ö°A¥ç¹²T,mªªijA¥B®e³\|bª£|P®à±
ªWªºÁ³¥ïµ{ïïªS¶ïïi;æªÁ´«ijC

³z¹L«öªU Alt+Tab ¥i±Ò°Ê±u\$@±Á´«¾¹µøµijC

©Öçİİ¹çİİµ±N±jİµu\$@µÁ´«¾¹µøµİ©F²×Åã¥Ü'b«ü©wªºÅã¥Ü¾¹µµİC

¿i%Ü±znÃ¥Ü±u\$@±Á'«¾¹μøμ;ªºÃ¥Ü¾¹;C¶È¥¿¿i%Ü²{¶ªºÃ¥Ü¾¹;C

¿i%Ü!¿i¶µ±N±j`i±uS@!CÅã¥Ü!b³æ¤@Åã¥Ü¼¹¤W¡C´«`¥¤§¡AS¥´´¾¤í±uS@!C!b!h¥xÅã¥Ü¾¹¤S¶¡¡¤À¡jÅã¥Ü¡C

3o`Ç¿i¶µ`M©w@à±ºP²zµ{¡¡p!óºP²zSÖÅã¡¡µøµ¡¡j¥]-A°T®S±¶,Üðè¶ð»PÀ³¶¶µ{¡¡¶¶,Üðè¶ð¡^ao¶¡,m¡C

çî¾Ü!¹ç!¶µ±N±Ò°ÊÁY©ñ¥¬à¡CÁY©ñ¥
 \¬à¥¡©ñ¡jÁã¥ÜÁã¥Ü¾¹±W·Æ¹«´å¼D©Ò«ÜºçÃ¹ð°¡¡¡C©ñ¡jºµø¹±NÁã¥Ü!b`S!³.Æ¹«´å¼DºÁã¥Ü¾¹±W¡F!bÁã¥Ü¾¹±S¶¡²¾°Ê.Æ
 ¹«´å¼D±N`¡©ñ¡jºµø¹¡!Ü°Ê±Á´«!Ü`ä¥LÁã¥Ü¾¹±W¡C
 ¶Ê!b±z±w²s±µ!h¥xÁã¥Ü¾¹`Áçî¾Ü±ðô¥©Î««¹½AX®i¾Ö¡¡@É¡AÁY©ñ¥¬à±~·!°_S@¥!¡C

±Ò°Ê!¿i¶µH"ÏŸ!LÂo]p°_ii^ÁY©ñ¶i!æ©ñsjjC

¥H▯U\$Ö³tÁä¥î´Ó±±´TÁY©ñ¥¯ä¡C»P|b¡u\$Ö³tÁä¡v¼ĐĀÒ▯
▯ªº\$Ö³tÁä▯@¼ĒĒA±z¥¡³z¹L³æ«öÄæ!¡¡AμM«á«ö▯U©Ö¿ªº«öÁä²Ö|X´Ó³¡©w\$Ö³tÁä¡C
μù¡G|b¡uÁY©ñ¡v©Ĵ¡u\$Ö³tÁä¡vĴĴ))±Ò®É¡A\$Ö³tÁä±N°±¥Ĵ¡A¥HSK|b©w,q·sªº\$Ö³tÁä®É´ù²{¹ªº\$Ö³tÁä▯zĀZ¡C

lSÖ3tÄä¥l'Ó□Á'«ÁY©ñ¥l'ä°¶l}±Ö»PÃö³¬iC

!sÖ³tÁä¥î´Ó¼W¥[ÁY©ñμø¹ªº©ñªjÅä¥Üμ¥⁻Å¡C

15SÖ3tÄä¥fÓ´îpÁY©ñμø4iªº©ñojÄä¥Üμ¥ΓÄiC

l¹¹°Ñ¼Æ«ü©w|b·Æ¹«`S_i^{323¼°Ê®ÉÁY©ĥμø¹ĩ}·C~í^{ao}Şó·s_i^¼Æ_i]ÁY©ĥμø¹ĩ·||b·Æ¹«^{23¼°Ê®É}!Ŭ°ÊŞó·s_i[^]¡C½Đ^{a`}·N_iA¼W¥[^{11¼Æ}!r¥ĩ⁻à·|
ÄY«¼vÅT`r²ĩ©İÄ³¥İμ{_i^{ao}®Ä⁻â_iC

l^{1°}Ñ¼Æ-O±NÁY©ñμø¹¡±q-Y¥xÅã¥Ü¾¼±¤Á´«!Ü`ã¥LÅã¥Ü¾¼±¤S«e^{ao}©μ¿δ®É¶¼ÆÈj]²@¬í^¡C³]-
p!¹©μ¿δ!®|b`¾¤¶!pªG·Æ¹«´ã¼D¿ù»~!aμu¼ÈÅã¥Ü¼bÁY©ñμø¹¡ªºÅã¥Ü¾¼±¤W®É¡AÁY©ñμø¹!bÅã¥Ü¾¼±¤S¶¼¡u°
{²[¡v¡C±N!^{1°}Ñ¼Æ³]-°¹sª¡¥Ü`S!³©μ¿δ¡C

¿i%4Ü!¹¿i¶µ¥iÂý±z³z¹L«ö□U Ctrl/Alt/Shift º~Y Ç²Ö|X»P·ï¥f·Æ¹«ºu½ü ÓšÖ³tÂÜšóÁY©ñµø¹jª©ñµjÂã¥Üµ¥ Å¡C

¿i%4ÜÀ³«öU^{ao} Ctrl|BAlt ðí Shift ²Ö|X#H"i¥í·Æ¹«ºu½ü"ÓÄÜsóÁY©ñμø¹í^{ao}©ñσjÅã#Üμ¥~Å¡C

§Ö³tÁä¶@e³±z!Ûq;u§Ö³tÁä;v²Ö!X;A¥H`ì¥î`Ó°b²zÀ³¥îμ{;iμøμ;|b@à±±W³°;i,m;C

μù;G;b;uÁY©ñ;v©î;u§Ö³tÁä;v¶¶))±Ò®É;A§Ö³tÁä±N°±¥î;A¥HSK|b©w,q·s³°§Ö³tÁä®É`ü²{¹³³°§Ö³tÁä±zÂZ;C

!¹¿Ÿ||µ±N·|Ãô³¬ 3D À³Ÿ|µ{|¡¡ððªºŸ·Æ³B²z¡C

|pªG±z»ÝnÀð±oÀ³Ÿ|µ{|¡ªº³|ªa@Ä¯à¡A½Ð¿Ÿ¼Ü!¹¿Ÿ||µ¡C

!¹¿î¶±N·|±Ö°Ê"ï¥Î 2x ¼Ö¡¶¶¶æ¥·Æ³B²Z¡C

¥!¥¡¥H´£¤É¼v¹³«~½è"Ã´£"Ñª@Ä¯àªº 3D Ä³¥Îμ{¡¡¡C

!^Z^I|μ±N·|±Ö°Ê GeForce3 GPU "t|Cαα'£"Ñ^ao¥·Æ³B²z±M\$Q\$B³N|C

Quincunx Antialiasing ¥Í'EÑ,ú°Cªº 4x AA ¼Ò|¡¤§«~½è¡A!Ó"ä®Ä-à»P,û\$Öªº 2x AA ¼Ò|~Û®¼L'X¡C

!¹¿î¶|µ±N·|±ò°Ê`î¥î 4x ¼ò|î|æ¥·Æ³B²ZîC

¥|´E´Ñ°F³î`îª0¼V¹³«~½èîA|ý·|°SC 3D À³¥îµ|îª0®Ä¯àîC

!¹¸i¶µ±N¡Û°Ê¬°ðă´©¥.Æ³B²zªº 3D À³¥¶µ{¡±Ò°Ê³¡¬ªº¥.Æ³B²z³]©wÊ¡C

l¹Çi¶µ±N@e³±z|b°ð|æ 3D Å³¶µ{¶i@É□â°ÊÇi³¼Ü·¶i³º¶·Æ³B²Z¼Ö{¶C

|¹³Ãô±z¹q,£¤¤¥Ø«e^{ºº} AGP ³]©wÈ¤§,ê°T¡C

!1ç!µ±N@e³±zªâ°Êç!¾Ü!î§!ð!`t²!`!¥!ª° AGP ³t²v;C!pªG±zµLªk½T©wn`!¥!ª° AGP ³t²v;A½Dª£n®Ö`ú!¹®Öç!ªè!¶ð;C`!t²!±N·|
!Ü°Ê`M©w³!`!ª° AGP ³t²v;C

23/4°Ê·Æí±±î¥Hðâ°Ê¿î¾Üî§îðî"tîîî¥îao AGP 3t2vîC

