

μ¥»÷¡°°ŸÖúÖ÷lâ¡±¼´¿É³ôŸÖ°ŸÖúÖ÷lâÁÐ±í¡£

**DirectX** Öïŋĭ¹²³⁄₄ß

Microsoft(R) DirectX(R) Öïŋĭ¹²³⁄₄ßÎÄµµ°üÀ¨ÒÔİÄÖ÷lâ£°

- ¹ØÓÚ DirectX Öïŋĭ¹²³⁄₄ß
- ×¢ÔâÊÂĭ
- ²âÊÔ DirectX ×é¹⁄₄p
- Ēĭ´úA-ĒİÐĐİª
- »¹ÔÇýŋ ºİÐò
- ±£´æÐĂİ¢
- ±¨ æİÊİâ

# 100% DirectX 11.3

[illegible]

¿ÉÒÔÊ¹ÓÃ'Ê¹¤¾ßÊÕ¹⁄⁻ÐÃ¡£¬ÒÔ±ãÔÚ¹²òÖ§³Öµç»°Ê±lá¹©,øìà¹Ø¹⁄⁴⁄ÊðÈËÔ±£¬»¹¿ÉÒÔ±£

$$\sqrt[3]{\frac{ae}{\pi}} \approx 0.76 \left( \frac{\mu_0}{\mu} \right)^{1/2} \left( \frac{d}{l} \right)^{1/2} \left( \frac{V}{I} \right)^{1/2}$$

ÐÄİ¢.Ö¶àò³İÔÊ¾¼ıŁÊ¹ÓÃÒÔİÄÄ³ÖÖ.½.¨¿ÉÒÔ.Ò³£º

- $\mu\text{¥}\gg^2\gg\text{Í-}\mu\text{ÄŊi}\text{ŋ}\text{Ç}^{\cdot}\text{;jE}$
- $\mu\text{¥}\gg^{\cdot}\text{;j}\text{Í}\text{ÄÖ}\gg\text{Ö}^3\text{;}\text{±}^{\cdot}\text{Ä¥jE}$
- $\mu\text{±EäEë}\text{½}\text{;}\mu\text{ä}\text{¼}\text{ÖÖÜÄ}^3\text{,öŊi}\text{ŋ}\text{Ç}^{\cdot}\text{EÍÊ}\text{±E-}^{\cdot}\text{Íö}\times\text{ó}\text{¼}\text{ýÍ}\text{.}\text{¼ü}\gg\text{ò}\text{ÍÖÖ}\text{¼}\text{ýÍ}\text{.}\text{¼üjE}$

xçÔâ

- ÌÔçˆÄÚæ´óĐıÖ®ÀàµÄĐÂıçŁÉÄÜÊÇ½üËÆÖµı£

ÈĆıûÔÊÐÐ DirectX Ó¡ÔÃşıĐðÊ±şöıÔİÊİâ£-DirectX Ôİ¶İıı³¼ßĲÊÔÔ°İÖüÄüÔÖ³ð²üÉüİÊİâµüÔ  
ı;ÊİÄÄæÊĆÖ»Đ©ĐèÖª×¢ÔâµÄİÊİâ£°

- [illegible]

ζÉÔÔÔÚÊΓ°íôêíμú³íäÄ¬μÄ¼äÊÔÆ÷Éí²âÊÔ DirectDraw °í Direct3DÆ¬ÔÔÚÊΓ°í²¬ĐÎÊä³òÈè±,Éí²âÊÔ DirectSound(R)  
 Ε¬ÔÔÚÊΓ°íòðÆμ¶ÍÊζÚÉí²âÊÔ DirectMusic(TM)j£  
 μ¥»÷ì²âÊÔj±´°Ä¥£¬ÔÄ¶ÎÄÏÊ³¼μÄÊΓ°íðÄÎ¢£¬¼âÊÔ»ð¼àì²âÊÔ¹ý³ìj£²¢ÊÄ²âÊÔ¹ý³ìÔ»Ô±ÑÓðøÎÄÊ¥  
 £¬Ô±μ½²òíÔÎäÊ³¼ðÄÎ¢£¬Ñ¬ÎÊ²âÊÔÊÇ·ñ³Ê¹ìj£ÊÇ¹û»ø´ðì²»»j±£¬½²»»ÔÔ½²ððð²âÊÔj£  
 ¶ÔÔÔ  
 DirectMusic£¬Ô»ðè½²ðððÔ»´Î¼òμ¥μÄ²âÊÔj£ÊÇ¹ûÄú¶ÎÔÔâ¶ÎÔòðÄÔμÄÖýÊ·²¥·Ä,ðμ½Äúòâ£¬»ðÔßÊäÊ»Ä»ÓðÖý  
 Ê·²¥·Äμ«ÄúÔ²¾ðμÄζÉÔÔ£¬Ô»ðèμ¥»÷ì²°Ê·¶ìj±£  
 ±£´æðÄÎ¢Ê±²¢²»°üò²âÊÔ½á¹ûj£

## È¿úÄ-ÈÏÐÐÎª

ÔÚÎµÎ³ÉÎ²×°µÄÄ¿,ðÏÔÊ¾Éè±,µÄ¿°ÏÔÊ¾¿±Ô³ÖÐ£-µ¥»÷¿½ÔÖÄ¿±°Ä¥£¬½ÔÖÄ DirectDraw »ð Direct3D  
Ô²¼þ¼ÔËÙ£"ÈÇ¹ûÔÐ¾ÔËÙ¿ÄÜµÄ»°£©¿½ÔÖÄ¾ÔËÙÖ®°ó£¬¼ÔËÙ¿ÄÜÔÚ¹Ø±Ö DirectX ÖÏÎÏ¹¼ß°óÒÀË»±  
£³Ô½ÔÖÄ£¬ÇÔÏÔËÎ°Ï¿ÖÄ³ÐðÎ¼ÎÞÐ\$¿£Ô³ÖÐÄÆðÖÄÔ²¼þ¼ÔËÙ£¬Çèµ¥»÷¿ÆðÖÄ¿±°Ä¥¿£

## ×ΦÔâ

- ½ÔÖÄ DirectDraw ¼ÔËÙ½«Î-Ê±½ÔÖÄ Direct3D ¼ÔËÙ¿£

Ô²¿£ÔÔË¿¿úÔÉ DirectDraw

È«ÆÄÓ¿ÖÄ³ÐðÉèÖÄµÄ¾àÉÓÆ÷ÈΦÐÄÆµÄÊ¿£Ö»ÔÐÔÚÄ³Ð©Ó¿ÖÄ³Ðð³ðÏÔÔÊ¾¼ÎËâ£¬²ΦÄÜ·ÈÏ,ÄÓ¿ÖÄ³Ðð  
ÉèÖÄÄËÎÞÐ\$µÄÈΦÐÄÆµÄÊÊ±£¬²Ä¿£ÔÔ²ÉÖÄ´ËÏ´èÊ©¿£

## ► ÉèÖÄÈ¿úÈΦÐÄÆµÄÊ£°

1. ÔÚ¿°Still Stuck?¿±Ô³ÉÏ£¬µ¥»÷¿°Override¿±°Ä¥¿£
2. ÔÚ¿°Override DirectDraw Refresh Behavior¿±¶Ô»°¿ò£¬Î¿Öñ±à¼¿ò²ΦÎ¼¿àÉÓÆ÷¼üÈèÔÐÐ\$µÄÈΦÐÄÆµÄÊ¿£  
´ÈÊ±£¬¿°Override Value¿±Î¿Ï°Ä¥½«±»×Ô¶Î¿ÖÐ¿£
3. µ¥»÷¿°È·¶¿¿±¿£

## ► È¿üÈ¿úÈΦÐÄÆµÄÊ£¬²ΦÔÊÐ¿ DirectDraw

### Ó¿ÖÄ³Ðð×ÔÐÐÉèèÖÄÈΦÐÄÆµÄÊ£°

1. ÔÚ¿°Still Stuck?¿±Ô³ÉÏ£¬µ¥»÷¿°Override¿±°Ä¥¿£
2. ÔÚ¿°Override DirectDraw Refresh Behavior¿±¶Ô»°¿ò£¬Î¿Öñ¿Ä-ÈÏÖµ¿±Î¿Ï°Ä¥¿£
3. µ¥»÷¿°È·¶¿¿±¿£

»¹ÔÇÝŦ³İĐð

ÔÚÓĐĐ©ĀăŌĀİĀĒ¬DirectX(R) ŌİŦİ¹¼ßÔÊĐÍÓĀ»§»¹Ô-  
½İŌÇµĀŌðĀµ°İÊÓĀµÇÝŦ³İĐð;ĒŌăŌ²ĐİÊÇ½ă¾ðÇÝŦ³İĐð²»¼æÈÝÎĒâ×İ°ĀµĀ°İ·İ;Ē  
ÊÇ¹Ūİ°Still Stuck?İ±ÊðĐŌŌ³Êİ³ðİŌİ°Restoreİ±°Ā¥Ē¬ŌðĴÊŌŌµ¥»÷´Ē°Ā¥ŌÊĐĐ DirectX °²×°³İĐð;Ē  
DirectX °²×°³İĐðŌĐĀ½½,ö°Ā¥Ē¬¼¼İ°Restore Audio Driversİ±°İ°Restore Display Driversİ±İµ¥»÷ĀăŌĐÊÎŌ»°  
´Ā¥Ŧ¼¼½«»¹ŌŌŪİµİ³ŌĐ°²×° DirectX Ê±±»İæ»»µĀÇÝŦ³İĐð;ĒÊÇ¹ŪĀ³,ö°Ā¥±»½ŪŌĀĒ¬Ōð±Ā÷Ā»ŌĐĴÊŌŌ»¹Ō-  
µĀÇÝŦ³İĐð;ĒŌðµ½ŌăŌŌÇÉĴðÊ±Ē¬ŌİŌĚŌ²¼p³§ÊİĀªİµĒ¬ŌŌ»ĥÊİ×İĐĀµĀÇÝŦ³İĐð;Ē  
DirectX °²×°³İĐð»¹Ā¹©Ō»,ðŌĀŌŪ½ŪŌĀ D3D Ō²¼p¼ŌÊŪµĀ,´ŦİĴðĒ¬Ō²ĐİĀŪİ´¹ýŌİŦİ¹¼ßŦŌ»°ĴðŌŦİĚ³Ê  
´Êİ½ŪŌŌĀ;ĒĒ´Ŧ¼Ū Ēİ´ŪĀ¬ÊİĐĐİª;ĒĒ©

±£´æÐĀĬ¢

ÓÐĀ½ÖÖ·½·¨¸ÉÔÔ±£´æ DirectX ŌŷŷĬ¹¼³¼ßÊÖ¼¯μĀÐĀĬ¢£º

- μ¥»÷ĵº±£´æËÜŌÐĀĬ¢ĵ±º´Ā¥ĵ£ËÜŌÐŌ³μĀÐĀĬ¢ŷ¼½«±£´æμ½ÓĀ»ŖËÛŊĵĬ»ÖĀºĬĀû³ÆμĀĬĀ¼¼þĀĭĵ£

ŷŌŌÚÊ¹ŌĀ´Ê¹¼³¼ßμĀĸª·¢ĒĬºæ±³¼μĀËĬ¼¼þĸª·¢Ōß£-Ōð¸ÉÔÔ£º

- ÔÚĵºStill Stuck?ĵ±Ō³ÊĬ£-μ¥»÷ĵº±´,æĵ±£-½«³ðĬŌĵº´ĬŌ±´,æÐĀĬ¢ĵ±ŷŌ»º  
¸ðĵ£ÊăÊëËÜŌÐ±ŌŌªÊý¼Ý£-μ¥»÷ĵº·¢ĒĬĵĵ£½«ÔÚĀÛÊ±Ā¸Ā¼£¨ÀýÊç£-C:\Windows\Temp£©ŌÐ´´½¨Ö»,ðĀûĬª  
Dxinfo.txt μĀĬĀ±¼ĬĀ¼¼þ£-Ĭ-Ê±ĬŌÊ¼ŌŌ¼¼ÇÊĀ±¼´º¸ŪŌÐĵ£´ÊĬĀ¼¼þ²»½ðºüº-²ÉŌĀÊĬö·½·¨ÊÖ¼¯μĀÐĀĬ¢  
£-»¹ºüº-ËÜÊăÊëμĀ,ðÊÊÐĀĬ¢ŲÆăËÛÐĀĬ¢ĵ£



ÈÇ¹ûÈ-Èì³òìÖµÄÎÊîÁÓê DirectX ×é¼þ»ðÇÿ¶³ìÐðÓÐ¹ØE¬ÇÊÓê Microsoft ¼¼¼ÊöÔS³ÖÄªµ£²ì¼û Microsoft(R)  
Windows(R) °ìÖúµÄÒÊÃÑ½â²δ£©;£¶ÖÖÚÊ¹ÖÄ\_ÃÖï¶¶¹±¾µÄ¿·.£Ê°æ±¾½ØÐÊÈ¼¼þ¿·.£µÄÊÊÖ±  
£¬¿ÉÒÔÊ¹ýµç×ÓÓÊ¼þ±´æìÊîâ£

$$\sqrt[3]{E\ddot{E}\mu\ddot{\alpha}^{\frac{1}{2}}\ddot{0}\ddot{E}\ddot{E}\ddot{O}\ddot{A}\ddot{O}\ddot{U}}\sqrt[3]{E^{1\frac{3}{4}}\beta\mu\ddot{\zeta}}^a\cdot\phi\dot{E}^{\circ}\ddot{\alpha}\pm\frac{3}{4}\dot{E}^2\phi^2\rangle\ddot{E}\ddot{E}\ddot{O}\ddot{A}\ddot{O}\ddot{U}\ddot{E}\ddot{u}\ddot{O}\ddot{D}\ddot{O}\ddot{A}\rangle\ddot{s}\dot{E}$$

1. ÔÚ¡°Still Stuck?¡±Ô³ÖÐµ¥»÷¡°±”„æ¡±¡£
2. ÌĤ´¡°ÍÍó±”„æÐÃİç±ŋŎ»°¿òµÄËùÓÐÌà¹Ø²¿·Ô£¬È»°óµ¥»÷¡°·¤Ėİ¡±¡£
3. ½«³õİÖ»ðİũİ££¬ø³öËù  
“½”µÃİÄ±¼İÄ¼µµÄİÖÎÂ·¼ŋŎİÖ¼°µç×ÓÓÊ¼µµØ·££Çë¼ÇİÂµç×ÓÓÊ¼µµØ·£µ¥»÷¡°Ê·ŋ”¡±  
¡£Ææ³£¬Dxinfo.txt İÄ¼µ½«±”°¼ÇÊÂ±¼¡±ò¿¡£
4. ´Ó¼°ÇÊÂ±¼¡±µÄ¡°ìà¼±²Ëµ¥£¬Ŋİŏŋı̂°Ê«Ŋİ¡¡£¬È»°óŊİŐŋı̂°,´ÖÆ¡±£¬½«Ê«²¿ÄÜÊÝ,´ÖÆµ½¼òİù`ãÖÐ¡£
5. ŐÜÓÊ¼µ³İÐðÃİ´½”ÐÃÓÊ¼µ£¬²¤½«¼°òİù`âµÄÄÜÊÝÖ³İùµ½ÓÊ¼µ³İÐð£°µÜ 3  
²½ÖÐ¼ÇİÂµØ··¤İÓÊ¼µ¡£

