

Forum:[Hack Forums](#)

Thread: [3D Rotating Pyramid with Anti-Alias lines - Win 10 Only](#)

?CARUs L?VE?™ - July 29, 2024, 4:39 pm

Enjoy

pyramid.bat

Code @echo off & setlocal enableDelayedExpansion

```
set /a "wid=100,hei=70"
mode %wid%,%hei%
```

call :macros

```
set /a top.x=wid / 2, top.y=20, pyramid.hei=33, pyramid.wid=19
for /l %%i in (0,1,3) do set /a "angle=90 * %%i",^
    "cx[%%i]=pyramid.wid * !cos:x=angle!/10000 + top.x",^
    "cy[%%i]=(pyramid.wid / 2 - pyramid.wid / 4) * !sin:x=angle!/10000 + top.y +
pyramid.hei"
```

```
for /f "tokens=1-4 delims=:," %%a in ("!time: =0!") do set /a
"t1=(((10%%a-1000)*60+(10%%b-1000))*60+(10%%c-1000)*100)+(10%%d-1000)"
for /l %%# in (1,1,1000) do (
```

```
    for /f "tokens=1-4 delims=:," %%a in ("!time: =0!") do set /a
    "t2=(((1%%a*60)+1%%b)*60+1%%c)*100+1%%d-36610100, dt=t2-t1"
```

```
    title %%#
    if !dt! gtr 5 (
```

```
        set /a "t1=t2","frames+=6"
```

```
        for /l %%i in (0,1,3) do ( set /a "angle=(90 * %%i + frames)",^
            "cx[%%i]=pyramid.wid * !cos:x=angle!/10000 + top.x",^
            "cy[%%i]=(pyramid.wid / 2 - pyramid.wid / 4) * !sin:x=angle!/10000 + top.y
+ pyramid.hei",^
            "next=(%%i + 1) %% 4"
```

```
            %@aaline% !top.x! !top.y! !cx[%%i]! !cy[%%i]!
            set "scrn=!scrn!\e%[!cy[%%i]!;!cx[%%i]!H!$aaline!"
```

```
            for %%n in (!next!) do %@aaline% !cx[%%i]! !cy[%%i]! !cx[%%n]! !cy[%%n]!
            set "scrn=!scrn!\e%[!cy[%%i]!;!cx[%%i]!H!$aaline!"
```

```
)
```

```
echo=%\e%[2J%\e%[H!scrn!
set "scrn="
```

```

)
)
rem
-----
:macros
(set ln=^^
%= This creates an escaped Line Feed - DO NOT ALTER    \n =%
)
for /f %%a in ('echo prompt $E^| cmd') do set "\e=%%a"

set "sin=(a=((x*31416/180)%62832)+(((x*31416/180)%62832)>>31&62832),
b=(a-15708^a-47124)>>31,a=(-a&b)+(a&~b)+(31416&b)+(-62832&(47123-a>>31)),a-a*a/1875*a/32
0000+a*a/1875*a/15625*a/16000*a/2560000-a*a/1875*a/15360*a/15625*a/15625*a/16000*a/44800
000)"
set "cos=(a=((15708-x*31416/180)%62832)+(((15708-x*31416/180)%62832)>>31&62832),
b=(a-15708^a-47124)>>31,a=(-a&b)+(a&~b)+(31416&b)+(-62832&(47123-a>>31)),a-a*a/1875*a/32
0000+a*a/1875*a/15625*a/16000*a/2560000-a*a/1875*a/15360*a/15625*a/15625*a/16000*a/44800
000)"

rem %@AAline% x0 x1 y0 y1 <rtm> !$AAline!
set @AAline=for %%# in (1 2) do if %%#==2 ( for /f "tokens=1-4" %%1 in ("^!args^!") do (%\n%
set "$AAline="%\n%
set /a
"$dx=(((%%~3-%%~1)>>31|1)*(%%~3-%%~1))","$dy=(((%%~4-%%~2)>>31|1)*(%%~4-%%~2))",
"$x0=%%~1,$y0=%%~2,$x1=%%~3,$y1=%%~4", "$err=$dx-$dy", "dxdy=$dx+$dy","dist=$dx"%\n%
if ^!$dx^! lss ^!$dy^! ( set /a "dist=$dy" )%\n%
if %%~1 lss %%~3 ( set $sx=1 ) else ( set $sx=-1 )%\n%
if %%~2 lss %%~4 ( set $sy=1 ) else ( set $sy=-1 )%\n%
if ^!dxdy^! equ 0 ( set $ed=1 ) else ( set /a "$ed=dist" )%\n%
for /l %%i in (1,1,^!dist^!) do (%\n%
set /a "$shade=255 - (255 * ((($err-$dx+$dy)>>31|1)*($err-$dx+$dy)) / $ed)", "e2=$err,
x2=$x0", "$e2=2 * e2", "color=232 + (255 - 232) * $shade / 255"%\n%
set "$AAline=^!$AAline^!\e%[48;5;^!color^!m%\e%[^!$y0^!;^!$x0^!H "%\n%
if ^!$e2^! geq -^!$dx^! (%\n%
set /a "e2dy=e2 + $dy"%\n%
if ^!e2dy^! lss ^!$ed^! if ^!$x0^! neq ^!$x1^! (%\n%
set /a "$shade=255 - (255 * (((e2+$dy)>>31|1)*(e2+$dy)) / $ed)", "$y0sy=$y0 + $sy",
"color=232 + (255 - 232) * $shade / 255"%\n%
set "$AAline=^!$AAline^!\e%[48;5;^!color^!m%\e%[^!$y0sy^!;^!$x0^!H "%\n%
)%\n%
set /a "$err-=$dy, $x0+= $sx"%\n%
)%\n%
if ^!$e2^! leq ^!$dy^! if ^!$y0^! neq ^!$y1^! (%\n%
set /a "dx2=$dx - e2"%\n%
if ^!dx2^! lss ^!$ed^! (%\n%
set /a "$shade=255 - (255 * (((dx-e2)>>31|1)*(dx-e2)) / $ed)", "x2sx=x2 + $sx",
"color=232 + (255 - 232) * $shade / 255"%\n%
set "$AAline=^!$AAline^!\e%[48;5;^!color^!m%\e%[^!$y0^!;^!x2sx^!H "%\n%
)%\n%
set /a "$err+=$dx, $y0+= $sy"%\n%
)%\n%
)%\n%
set "$AAline=^!$AAline^!\e%[0m"%\n%

```

```
)) else set args=  
goto :eof
```

mikeyp - November 27, 2024, 3:28 am

Very interesting, thanks for the information.

Sajuuk - January 5, 2025, 9:13 pm

Magic code. Good to see Batch isn't dead! :)

Klonopin - January 6, 2025, 8:47 am

I have never seen this much math in a batch script before.

?CARUs L?VE?™ - January 7, 2025, 3:05 am

(Jan 5, 2025 10:13 PM)Sajuuk Wrote: [\[CITE\]](#) Magic code. Good to see Batch isn't dead! :)
Nice to see you're still around after all these years!

N604 - January 8, 2025, 8:48 am

wtf lol i never knew this is possible with batch scripting, nice!

?CARUs L?VE?™ - January 8, 2025, 7:32 pm

(Jan 8, 2025 09:48 AM)N604 Wrote: [\[CITE\]](#) wtf lol i never knew this is possible with batch scripting, nice!

Hell yea bro, Batch might have a weird reputation, but it is still turing complete. It is really fun reproducing other projects in this languages due to the extreme limitations.