Subject: UppCad (or UltimateCad) is borning -- Updated January 2013 -- see last post
Posted by mdelfede on Mon, 05 Sep 2011 12:18:19 GMT
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Well, after working many years with AutoCad, and after trying some vertical CADs for timber drawing/CAM, I've seen that in this area there are just junk apps sold for high prices.
Besides AutoCad which is, like my coworker say, just a pen which help to draw lines but has no concept of post processing / CNC (at least, in my field), all other apps I've tested are really poorly coded and/or just slowing my job.

So... I decided to start a CAD application aimed at Timber construction, based on OpenCascade framework and U++.
It'll be not open source, but I'll open as usual some parts of code which can be useful for the community.

Here the first screenshot, just some 3-4 days of work on it, already contains command handling, partial objects selection, partial point input with dragging and is, of course, multi document / multi view enabled.

Ciao

Max

File Attachments
1) uppcad.png, downloaded 2295 times

Subject: Re: UppCad (or UltimateCad) is borning
Posted by nlneilson on Fri, 14 Oct 2011 00:47:20 GMT
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Interesting project.

Have yow tried MasterCam for post processing / CNC ?

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Thu, 20 Oct 2011 12:33:39 GMT
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Hi,

no, still not... and my cad is aimed at building, not mechanical

in particular... in detail, at timber construction.
Anyways, when ready I could add some mechanical cnc output, but IMHO there are already too many mec cads and too few ones for civil construction.... and almost just crap for timber, so my choice

Max

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Tue, 06 Dec 2011 20:55:56 GMT
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Some progress, XMLMenu embedded and some commands (very few) enabled :

Here is shown a view with some construction lines drawn, the menus and the working command line.

Ciao

Max

File Attachments
1) uppcad.png, downloaded 1963 times

Subject: Re: UppCad (or UltimateCad) is borning
Posted by koldo on Tue, 06 Dec 2011 21:21:15 GMT
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Nice

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Fri, 16 Dec 2011 10:58:31 GMT
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Hi Koldo,

if you want to give it a try (still VERY preliminary, but some commands working....) you can grab it from here :

www.timberstruct.it/UppCad

Compiled for Linux 64 bit only.

I'd like to have some feedback

Commands working are line-xline for costruction, move-copy-mirror-erase for editing and the view and shading commands for display. To rotate the view, keep pressed ctrl+shift and middle-drag with mouse over window.
To start, just create a new empty drawing with top-left toolbar item.
If you want to see a 3d object, there's a command (manual by command line) "bottle" which construct a fancy 3d bottle, which you can then move/copy everywhere.
Selection can be done for single objects clicking on them, or by window/crossing clicking on an empty point and dragging a selection rectangle (left for crossing and right for window).

It still have some delays on repainting (if objects don't get immediately repainted, just move mouse or pan the window, by now).
I have to stabilize the framework, then I'll add all needed features.

Save and load work, and also undo-redo commands (those by now just on command line, no menu).

Ciao

Max

EDIT : fixed repaint glitches and other small stuffs

Subject: Re: UppCad (or UltimateCad) is borning
Posted by koldo on Fri, 16 Dec 2011 20:49:42 GMT
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Good : But I do not have 64 bits

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Sat, 17 Dec 2011 13:06:28 GMT
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Sigh... and I've no time to setup 32 bit compilation

Max

Subject: Re: UppCad (or UltimateCad) is borning
Posted by Didier on Sat, 17 Dec 2011 15:30:15 GMT
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32 bit compilation can be reached with a simple compiler option:

just add option:
 -m32 for 32 bits
 -m64 for 64 bits

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Sat, 17 Dec 2011 23:45:56 GMT

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Didier wrote on Sat, 17 December 2011 16:3032 bit compilation can be reached with a simple compiler option:

just add option:
 -m32 for 32 bits
 -m64 for 64 bits

Nope, at least not on my ubuntu.... they keep changing folders, and my ide produces tons of errors; on previous ubuntu version it worked.
If somebody wish to write a detailed howto for 32 bit building on ubuntu64, it's wellcome....

Max

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Wed, 12 Dec 2012 13:25:25 GMT

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Some news... now most solids primitives are working, as most boolean operations on them; here a nice screenshot of some textured objects :

Ciao

Max

```
File Attachments
1) uppcad.png, downloaded 1622 times
```

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Fri, 14 Dec 2012 09:46:41 GMT
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Updated :

- Completed sphere, box and cone primitives
- Completed boolean operations (union, subtract, intersect and interfere
- Completed solid slicing by plane
- Completed layers, materials and textures management
- Added mouse cursors
- Added drafting settings dialogs (in progress)
- Completed object snap settings sialog
- Added autosnap to polar directions
- Added toolbar commands for undo/redo and step import

If you want to test it, as usual

http://www.timberstruct.it/UppCad.exe   for windows
http://www.timberstruct.it/UppCad   for ubuntu linux 64 bit

Demo files are in:

http://www.timberstruct.it/Ferro.ucd   small steel part sample
http://www.timberstruct.it/Balls.ucd   a couple of textured cut spheres
http://www.timberstruct.it/Frige.ucd   a complex drawing imported from autocad

Feedbacks are wellcome

Ciao

Max

Subject: Re: UppCad (or UltimateCad) is borning
Posted by unodgs on Fri, 14 Dec 2012 11:08:02 GMT
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If I load any model and choose copy and then click on any model's line to select first midpoint after
next click uppcad is getting unresponsive to the point I have to terminate it.

PS: Toolbar's move indicator looks a little bit old-fashioned

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Fri, 14 Dec 2012 12:10:29 GMT

unodgs wrote on Fri, 14 December 2012 12:08If I load any model and choose copy and then click on any model's line to select first midpoint after next click uppcad is getting unresponsive to the point I have to terminate it.

Arrghh, right... problem only in windows.
I'll look and fix it, and post here when done.

Quote:
PS: Toolbar's move indicator looks a little bit old-fashioned

sigh... do you have any suggestion for a more modern look ? But please, *not* the new windows style menus, I find them completely useless.

Max

Subject: Re: UppCad (or UltimateCad) is borning
Posted by unodgs on Fri, 14 Dec 2012 12:27:46 GMT

mdelfede wrote on Fri, 14 December 2012 07:10
sigh... do you have any suggestion for a more modern look ? But please, *not* the new windows style menus, I find them completely useless.

I think small dots (even two rows) look better. Something like this:
http://www.google.pl/imgres?imgurl=http://blogs.msdn.com/cfs
-file.ashx/__key/CommunityServer-Blogs-Components-WeblogFile
s/00-00-00-82-17-metablogapi/3580.image_5F00_thumb_5F00_4.pn
g&imgrefurl=http://ppe.blogs.msdn.com/b/zainnab/archive/
2010/07/25/rearrange-your-toolbars-vstipenv0027.aspx&h=2
15&w=302&sz=66&tbnid=uSqcA1HMBRRw8M:&tbnh=85
&tbnw=120&zoom=1&usg=__eOfOedFuhN0oH1kMDVQmIQOWq
UU=&docid=BmqIHGjj2cw-WM&sa=X&ei=2xrLUN2lEKr44QT
43ICACw&ved=0CFwQ9QEwBQ&dur=92

Subject: Re: UppCad (or UltimateCad) is borning
Posted by mdelfede on Fri, 14 Dec 2012 14:40:10 GMT

Hi, fixed... it was due to windows that does (as usual) all sort of unwanted stuffs, like firing any sort of events just when testing for pending ones.

Could you test it again ?

Thank you

Max

Subject: Updates on January 2013
Posted by mdelfede on Sat, 05 Jan 2013 20:09:31 GMT
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Hi,

some progress here :

- Added polylines, which can contain almost any sort of curves
- Added ellipses and elliptic arcs
- Added offset command, by now only for simple types (still not for polylines... quite complex)
- Added rotate and extrude commands
- Added solids sectioning by planes
- Made boolean operations on solids much more robust and clean; now most solids cut in parts
and re-joined are identical to original
- some other improvements I forgot

NOTE : Embedded materials are from now NOT embedded automatically in new drawing,
as the file size can grow with the images.
If you want to use them, just issue the commandline command DEFAULTMATERIALS
and all material set will be loaded in current drawing and ready to use.

The application can be downloaded as usual here :

http://www.timberstruct.it/UppCad.exe for windows
http://www.timberstruct.it/UppCad for ubuntu linux 64 bit

Here a sample image of an extruded polyline composed of an elliptic and a circular arc, with an
hole made from an offset ellipse.

Ciao

Max

File Attachments
1) EllipticalSolid.png, downloaded 1500 times

Subject: Re: Updates on January 2013
Posted by mdelfede on Thu, 17 Jan 2013 22:05:57 GMT
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New update :

Added Id and Dist commands to get point coordinates and distances
Completed Offset command for polylines

The application can be downloaded as usual here :

http://www.timberstruct.it/UppCad.exe for windows
http://www.timberstruct.it/UppCad for ubuntu linux 64 bit

Here a sample image of polyline offset working :

Ciao

Max

File Attachments
1) piedone.png, downloaded 1677 times

Subject: Re: Updates on January 2013
Posted by mdelfede on Mon, 10 Mar 2014 21:55:23 GMT
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A picture of UppCad loaded with a real-life file.... a wooden bridge that will be put on site on this month, originally drawin with AutoCad and imported in UppCad :

The file is quite large, and became even larger from double conversion needed to import in UppCad. Loading time is (debug mode, quite slow) about 2 minutes with rendering time (about double than native autocad) but handling (zooming/panning/rotating) is 3-4 time faster.
Notice that ALL constuction details are there, comprising holes in beams, still parts, etc.

I'll put a demo version on next days here, for people interested in testing.

I'm also thinking of some sort of partnership to follow development and market it.... involved work is becoming important.

Ciao

Max

File Attachments

1) DemoCostruzioni.png, downloaded 1166 times

Subject: Re: Updates on January 2013
Posted by koldo on Tue, 11 Mar 2014 14:57:30 GMT
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Wow