REVIT PLANT FROM ACAD DWG'S

Original Version: June 14, 2007

Written for Revit 2008

Synopsis: More than a one sheet this is a documentation of the steps to produce a Revit Plant Family and replace the twigs with a series of ACAD Dwg files. While written for Release 2008, all the steps are the same in previous versions with the exception of the masking tools which were introduced in 2008.

Introduction

Revit plants by default have a very twiggy appearance. If you do not like this there are several ways that you can replace this bundle of kindling with other options. Off the top of my head, you can replace it with:

- Revit Model lines
- AutoCAD Drawings (top, front and side views)
- Mass objects
- Combination there of…

There is a separate item called an entourage family that relies of RPC images that is not discussed there, but can be modified in the same way illustrated in this paper.

Creating a New Plant Family

File > New Family
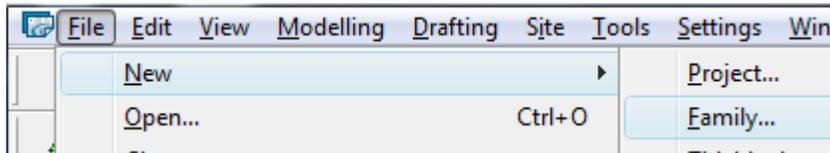
Select Planting.rft

Saveas ACADplant.rfa

File name: ACADPlant
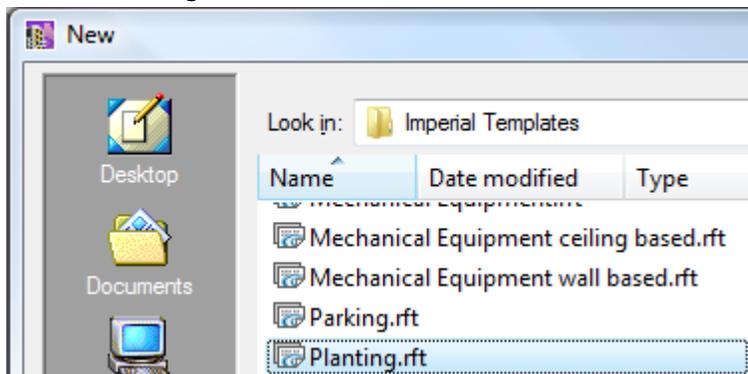
Save as type: Family Files (*.rfa)
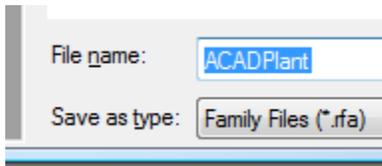
Set Current View>Floor Plans: Ref Level

Family1 - Project brow...[X]
□ ···⊙ Views (all)
  □ ···· Floor Plans
       ···· **Ref. Level**
  □ ···· Ceiling Plans
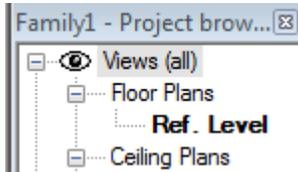
Click the menu sequence: File>Import/Link CAD Formats

Purge Unused...

Import/Link   ▶   CAD Formats

Export   ▶   Image...

Browse to your ACAD plant plan view

🔲 Import/Link

Look in: 📁 Shrub one   ▼

Desktop

Name	Date modif...	Type	Size
📄 CIS HYB.dwg			
📄 shrub.dwg			
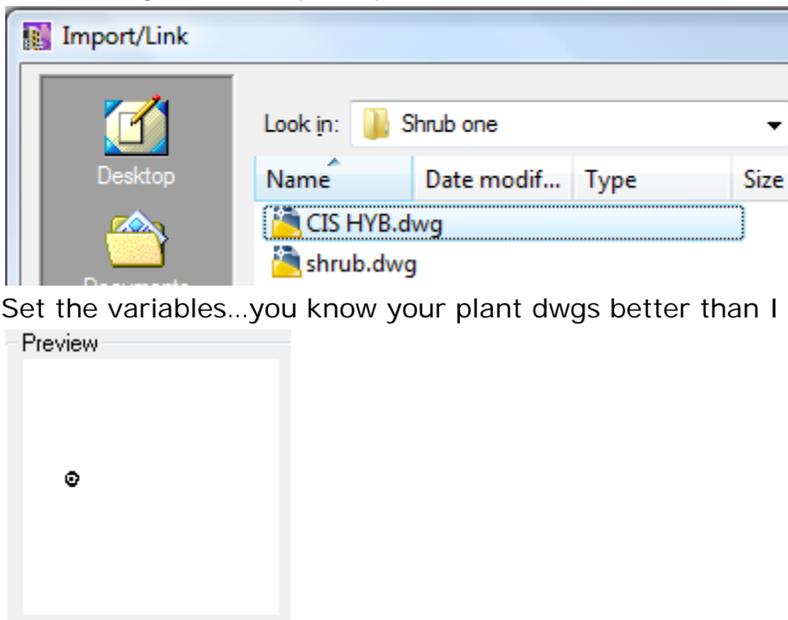
Set the variables...you know your plant dwgs better than I do, so I will just try some basic defaults.

Preview

⊕

I would say by the preview it would be better to clean up the dwg file first...but here goes...

Import or Link
☐ Link (instead of import)
☑ Current view only
Layers: All ▼

Scaling
Import units: Auto-Detect ▼   Scale factor: 1.000000

Layer/Level Colors
○ Black and white
● Preserve colors
○ Invert colors

Positioning
● Automatically place   ○ Manually place
  ● Center-to-center   ● Cursor at origin
  ○ Origin-to-origin   ○ Cursor at base point
  ○ By shared coordinates   ○ Cursor at center
                                  Place at level:
☑ Orient to View   Ref. Level ▼

Right click and zoom to fit or keyboard ZF shortcut

Cancel
Select Previous
Find Referring Views
Zoom In Region
Zoom Out (2x)
Zoom To Fit
Previous Scroll/Zoom
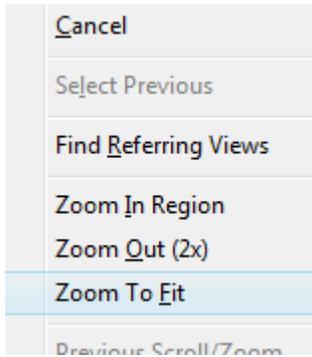
OK, so this drawing needs to be cleaned up… inserting it shows junk all over the place and the plan view is just a spec…

Opening up the file in ACAD shows:

with a distance across of slightly under 3" and all this junk

I exploded the single block that is the plant, scaled it to be 3' wide QUA to QUA and did a write block to create a clean file. The elevation was almost fine as is, I did open it up, change the units to inches and then rescale it to be 36" across and wblock just to eliminate any garbage that was not visible.

OK, Ahem… to continue, I had done an "undo" to get rid of the bad dwg, and now have reimported the clean plan view
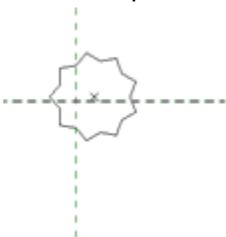
And now I get something of a reasonable scale… Move into place at the center of the two reference planes (the insertion point of the family)

Repeat for the elevations…
Set Current the View>Elevations>Front
Import link the elevation ACAD block
Uncheck Current view only because you want to see this in 3D (we will turn it off in plan view…)

and a quick check to the 3D View shows:

So Far So good… switch to the plan view (ref level)
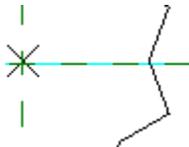
you can see the elevation block in the plan view…we do not want that soo… in any

view, (you will have to TAB to pick it in plan view) select the elevation block.
On the Options bar, Click Visibility

Uncheck Display in…Plan/RCP
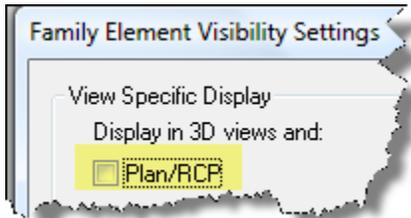
Add the other elevation in the left or right view and as above prohibit its display in plan view.

I cannot currently find a way to paste to current view, so I just import link it into the left elevation
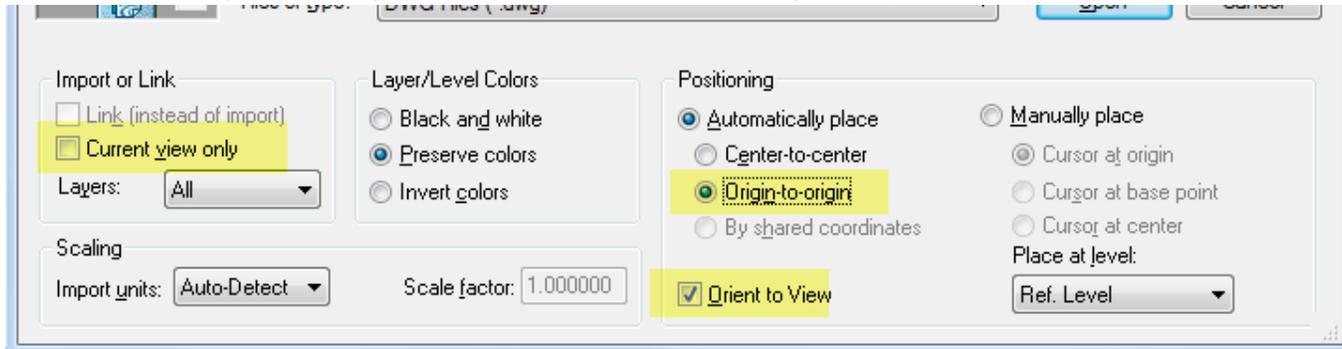
NOT Current view, Origin to Origin because I know I made this dwg and the plant grows from 0,0,0
(note the dwg is flat to the world UCS in ACAD, not at some odd plane in the Z axis…
and …

voila...
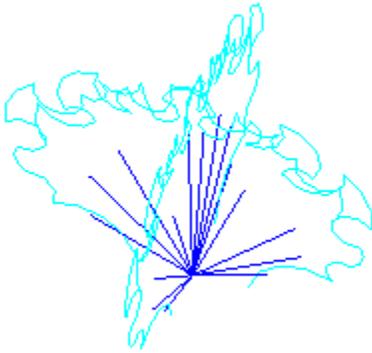
Non Twiggy 3D plant...

OK that is enough for now, 5 pages is good for a "one sheet"... new doc to show how to apply scaling...