What would drawing look like if it were invented today instead of long ago when models were mental and physical but not digital?

I've proposed TGN OPEN CODE as an upgrade to the expression of our focusnarrowing attention-sharpening engagement with models, our anima within models.

BLUEPRINT REDUX

ROB SNYDER - MAY 6



BLUEPRINT REDUX Technical drawing revived, rethought, brought back in models as TGN TGN gives users the power to clarify and share their own articulations of narrowed attentive focus within modeled worlds. TGN is a triple fusion: digital modeling, technical drawing (evolved in form!), and cinematic camera rigging techniques from a hundred years of the hist...

Read full story →

It seems to me that the upgrade to our form of engagement must include 8 primary features as the minimum set of actions packaged together that together coherently express this function while taking full advantage of what's there for the taking within digital modeled environments:

8 FEATURES

1. ADMINISTRATIVE JUNK

- where are the models stored?
- · do I need credentials to get to them? · what's the coordinate system of the model?
- · who created THIS TGN rig? Is this rig issued at some milestone or is it work in progress?
- · etc.

2. SCOPE BOX

- Some narrowing scope boundary/volume in the model
- WHERE am I narrowing my focus? A rectangular volume or some more complex boundary, as with aircraft cutaways and whatnot
- In other words, however the bounding scope is defined, a bounding scope where attention is focused is made clear.

3. A BUILT-IN CAMERA PATH:

- The camera path here takes some lessons from a hundred years of the history of film and makes it easy for the author of the TGN rig to provide an easily $% \left\{ 1,2,\ldots ,n\right\}$ controllable viewing experience. This is similar to conventional drawing where the viewing experience is COMPLETELY controlled (one fixed vantage point only)
- With TGN inside digital models, we mimic the mental activity we all experience when contemplating a drawing. We imagine a drawing in-situ within our mental model of the whole project, and we move ourselves around it back and forth, the way we move around a coffee cup, a chair, a person, a cat. Right? It's never a permanently fixed single orientation. We wobble back and forth at least partially
- So this wobbling is built-in to each TGN rig. And there is, (next, 4):

4. a UI SLIDER BAR:

- that moves the camera back and forth along the TGN rig viewing arc/curve/path
- As you move along the viewing path looking at the scope volume, that volume has a primary face (the section or plan cut plane for example). When the camera is brought to the normal direction looking straight at the primary face of the scope volume, there the camera transitions itself to parallel projection.
- The result of this is you are now looking at what unmistakably appears to be a conventional drawing. And, of course TGN can support linking graphics here (see 7, below) from external graphics apps, or, from external HAND DRAWINGS (photographed)

5. FILTERING

- are shown within the scope volume can be controlled by the usual model-filtering
- These just tell the software which stuff to show and which to hide. Different criteria can be used
- Interesting thing about the TGN concept is that the show/hide filter can be activated continuously along the entire rig viewing path, OR, the filtering can change at different points along the path. You can use multiple different named MODEL FILTERS at different points along the viewing path.

6. GRAPHICS STYLES:

- . You can do whatever you want with the style of model elements that you can see
- Use style strategically, to make things CLEAR, to show what you intend to show, to make yourself and others understand what's going on.
- · As with filters, these graphics styles can change at different points along the viewing path. The rig author controls this. Viewers of the rig experience this the way the author set it up, as with filtering.

- So, you can add whatever non-model graphics that help you make clear what's
- You can add lines, shapes, curves, notes, dimensions, whatever,
- · Also interesting that these graphics can be added anywhere along the TGN rig viewing path.
- TGN can support linking graphics from external graphics apps, or, from external HAND DRAWINGS (photographed).

- apps. So, you can create these rigs in one modeling software, and share them to people using other modeling software.
- . The receiver gets what you authored with graphical fidelity intact at least to the
- minimum standard defined by the OPEN TGN standard.

Some partial demo in a mockup here



