**Revit API Intro Questions and Answers**

**Thursday, May 20, 2010**

Question: Can an external application create a new ribbon TAB instead of a ribbon PANEL on the Add-Ins tab?

Answer: No, sorry, not officially through the Revit API.

Question: so I guess there's a way to 'unofficially' create a new ribbon tab...

Answer: Yes, one suggestion was discussed on The Building Coder blog.

Question: How important is the order of the filters? For instance, is it better to use OfClass before OfCategory?

Answer: Very good question. It is very important for performance. There are quick and slow filters, which are tied to the internal database structure. The Developer Guide lists the slow and quick filters. Basically, you should use quick filters first and narrow down the list as much as possible, then use slow filters or iterate manually through the filtered list.

Question: Can we build our own WPF elements and host them in the Ribbon panels?

Answer: No, although you could use WPF in your own dialogues.

Question: When we add external applications thru the Revit.ini, is the format the same as in Revit 2010?

Answer: Yes. No change in 2011, but support for this will be dropped in a future release.

Question: Is it possible to have the user draw a boundary (similar to when the user creates a floor)?

Answer: Do you mean to pick points on the work plane? Yes. You could then draw model lines between the lines, for instance.

Question: I don't think I was clear. I want to invoke the 'boundary' command. When the user is finished creating / editing the boundary, they press the green checkmark (just like when creating a floor). I want this same functionality so I can consume the boundary (which can include openings/holes in the boundary).

Answer: I do not believe that is currently possible. We would have to investigate.

Question: I get a transaction error when I try to load the Ribbon DLL from the Revit 2011 SDK, any ideas on why?

Answer: Are you running the ribbon sample in the SDK and getting an error? Then, the code should be okay. You may want to double check the add-in manifest if it is referring to the right information, for example.

Question: Is it possible to add custom data to each face in the model? If so which APIs should I investigate?

Answer: No, you could add custom data to each building element, but not to individual faces. Remember that faces and other geometry data is transient, in-memory only.

Question: Is it possible to add custom data to each material?

Answer: Hmmm ... if it is an element and if it has a category, then yes ... I rather doubt that the category is there, though, for materials...

Question: What about using shared parameters for adding custom data to materials?

Answer: Yes, sure, no problem. You just need to decide what element to attach them to. You could make them global, add a dictionary for all materials to the project info objects, e.g.