

CONSUMING an EMF MODEL in UR ECLIPSE UI

PART 5 – Enabling Context Menu based New Child Descriptors

In Part 2, we learnt about using the Basic Command Stack and Edit Domain for enabling Editing on your EMF Model.

The Item Providers are also responsible for providing newChildDescriptors. The newChildDescriptor means new Child that can be created as a child of the selected node. This is again a feature left to be self-understood not discussed too often in the EMF Articles.

In this article, I document the simple steps how to create a Context Menu and display New Child and New Sibling Actions for the selected object in your tree view for your EMF Model.

Enabling the Context Menu is similar to how it is generally done in PDE

1. You need to create a Context Menu for your TreeViewer

```
private void hookContextMenu() {  
    MenuManager mgr = new MenuManager();  
    mgr.setRemoveAllWhenShown(true);  
    mgr.addMenuListener(new IMenuListener() {  
  
        @Override  
        public void menuAboutToShow(IMenuManager manager) {  
  
        }  
    });  
  
    Menu menu = mgr.createContextMenu(tViewer.getTree());  
    tViewer.getTree().setMenu(menu);  
  
}
```

Fig 1.Snippet of Contributing a ContextMenu for your Viewer

2. Having contributed a context menu for your viewer, we now need to fill the context menu with the relevant actions to create Siblings and Children for the selected model object.

```
@Override
public void menuAboutToShow(IMenuManager manager) {
    IStructuredSelection selection = (IStructuredSelection)tvViewer.getSelection();
    Object firstElement = selection.getFirstElement();
    MenuManager childMenu = new MenuManager("New Child");
    manager.add(childMenu);
    Collection<?> newChildDescriptors = editingDomain.getNewChildDescriptors(firstElement, null);
    for (Object descriptor : newChildDescriptors) {
        childMenu.add(new CreateChildAction(editingDomain, selection, descriptor));
    }

    MenuManager siblingMenu = new MenuManager("New Siblings");
    manager.add(siblingMenu);
    Collection<?> newSiblingDescriptors = editingDomain.getNewChildDescriptors(null, firstElement);
    for (Object descriptor : newSiblingDescriptors) {
        siblingMenu.add(new CreateSiblingAction(editingDomain, selection, descriptor));
    }
}
```

Fig 2. Snippet for Filling the ContextMenu with Sibling and ChildActions

On running your code, when you perform a Right Click on your View, you will see 2 new sub menus, New Child and New Siblings with relevant Actions available under each of them.

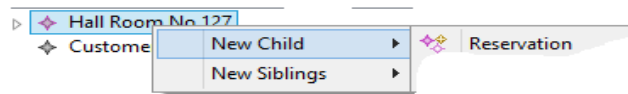


Fig 3. Output showing EMF Consumer View with Property View

Please download the example code snippet from our website www.ancitconsulting.com

REFERENCES:

<http://www.eclipse.org/gef/documentation.php>

<http://www.vainolo.com/tutorials/gef-tutorials/>

ABOUT ANCIT:

ANCIT Consulting is an Eclipse Consulting Firm located in the "Silicon Valley of Outsourcing", Bangalore. Offers professional Eclipse Support and Training for various Eclipse based Frameworks including RCP, EMF, GEF, GMF. Contact us on annamalai@ancitconsulting.com to learn more about our services.