

# Hauptwerk CODM Schema

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## Introduction

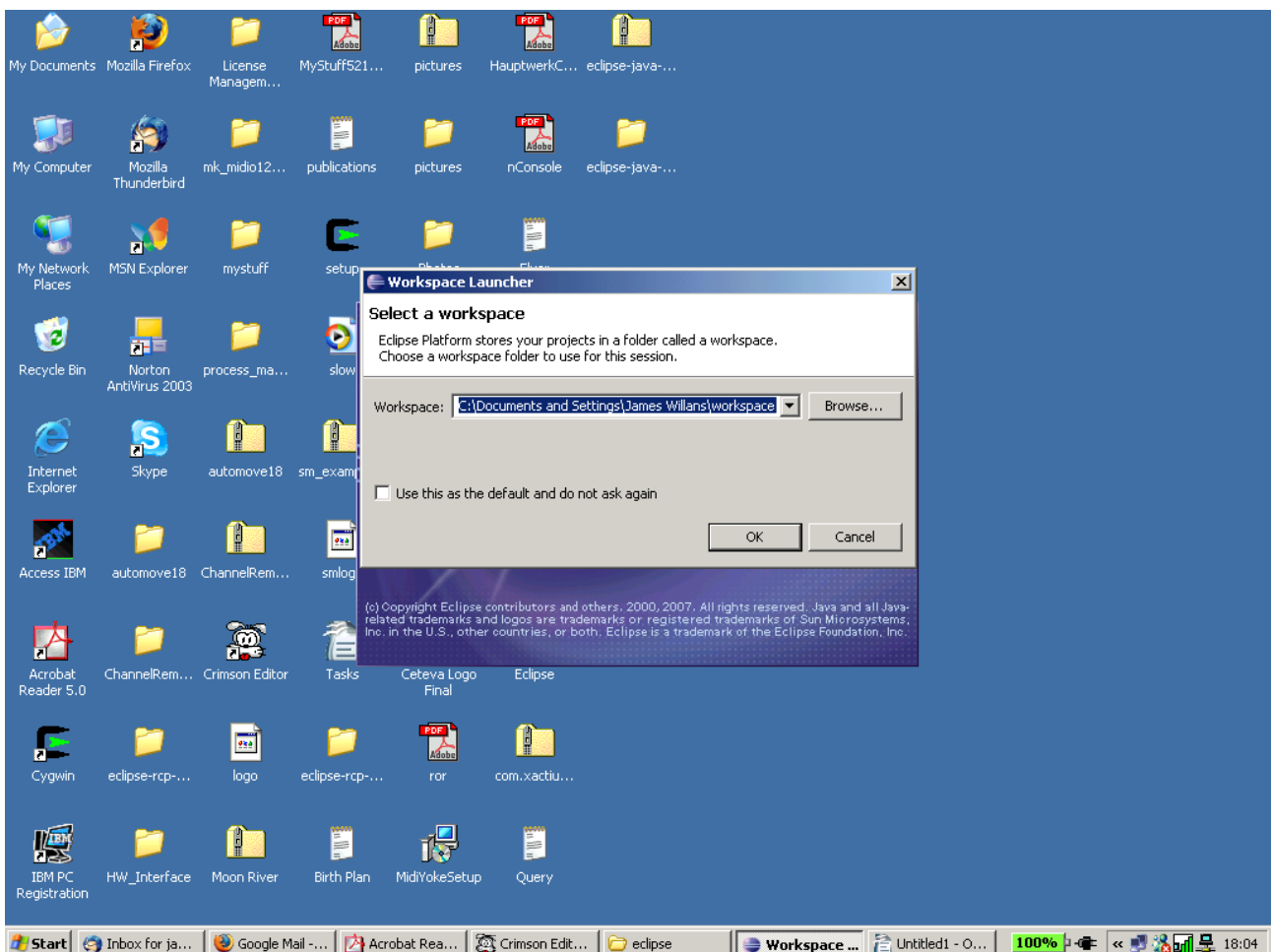
The CODM schema assists Hauptwerk users in defining XML files to be used by the Hauptwerk CODM. It does this by validating the files to make sure they are complete and ensuring that all values are within an allowable ranges. The schema can be used with any XML editor that supports schema validation.

This document describe how to use the schema with the open source Eclipse development environment (<http://www.eclipse.org>) which, among a host of other development tools, consists of a first class XML editor. To support Hauptwerk sample providers and users, we have provided a cut down version of the Eclipse environment containing just the XML editor.

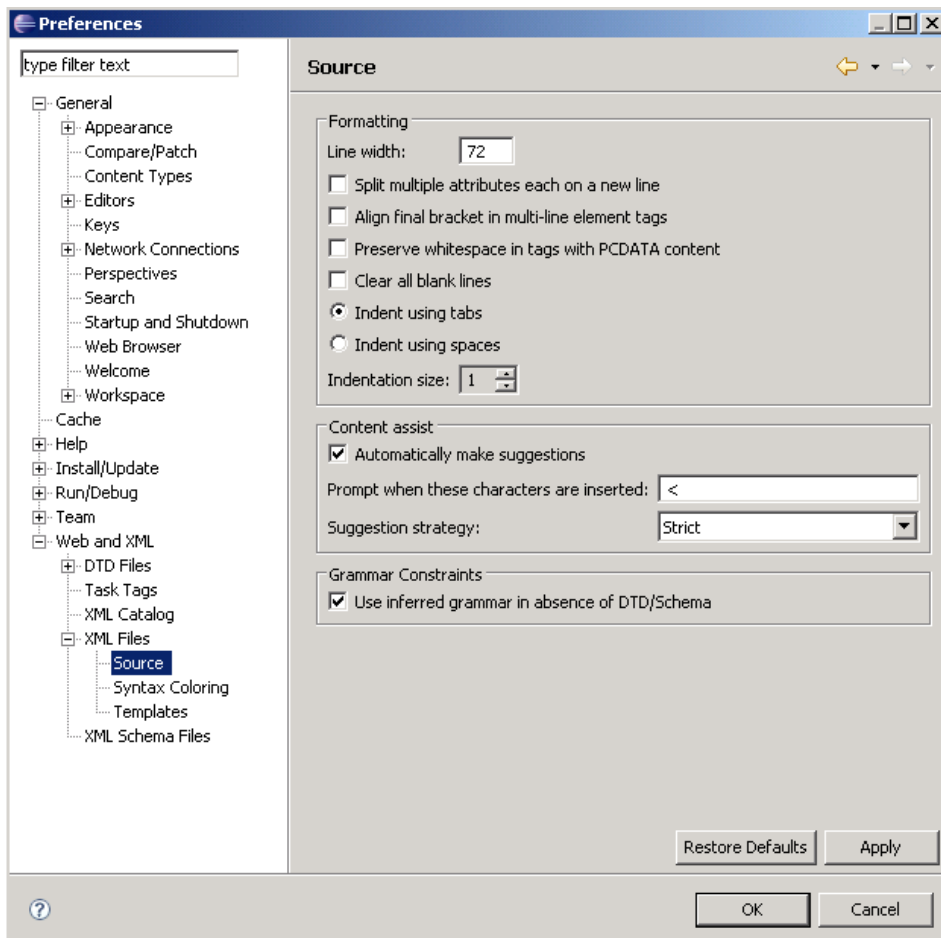
## Getting going

### Eclipse requires Java 1.4 JRE although Java5 JRE is recommended

Unzip the **Eclipse XML.zip** file to a convenient place on your hard disk, open the **eclipse** folder and double click on the file **eclipse.exe** to start Eclipse. You will be prompted to specify a workspace location which is where any eclipse data files are stored.



Once Eclipse has started you need to set a preference value (note this only needs to be done the first time Eclipse is run). Select from the menu **Window --> Preferences** and in the dialog tree drill down to **Web and XML --> XML Files --> Source** and in the **Formatting** box set the value of **Line width** to 400 (**finish**).

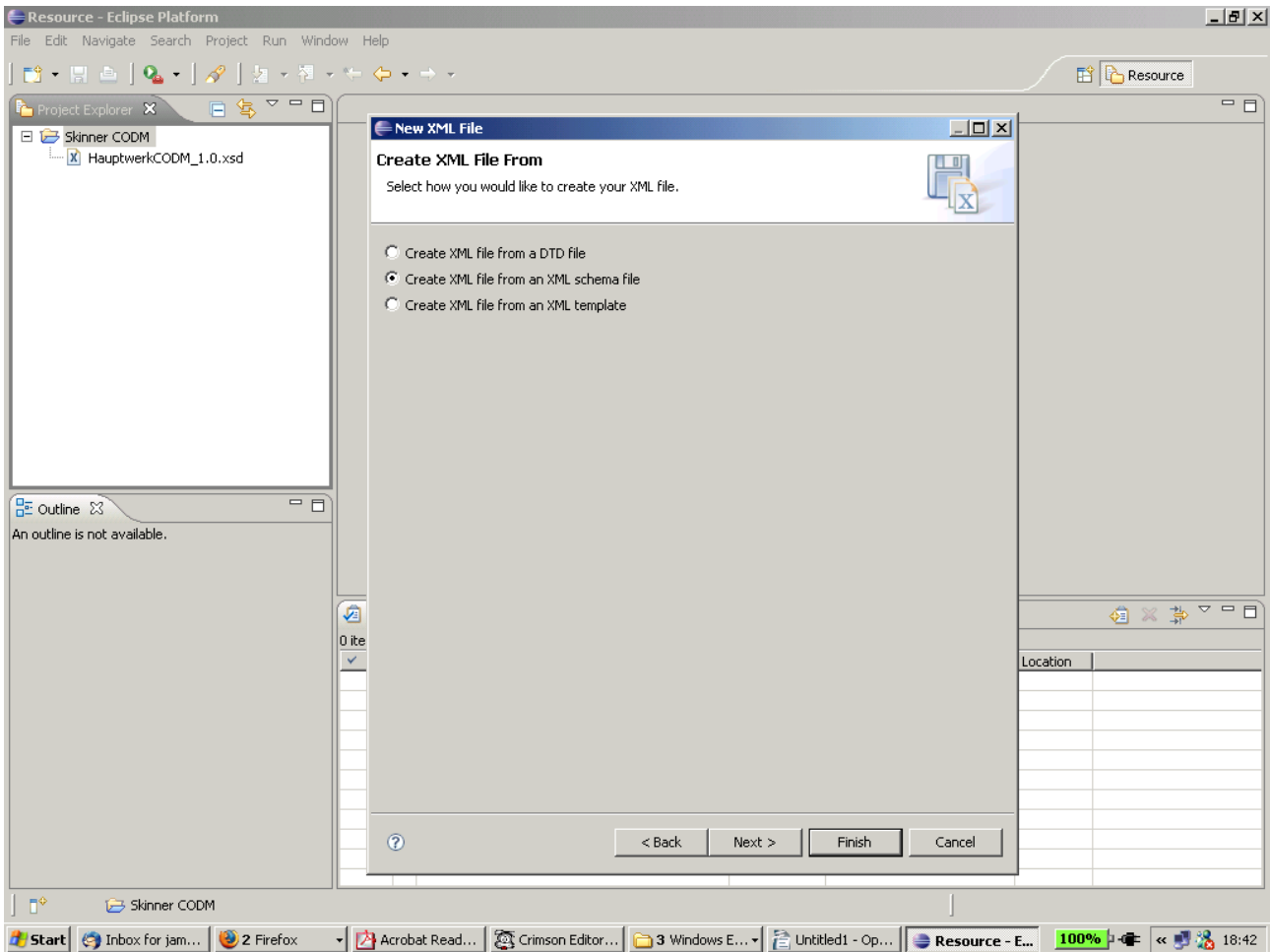


Create an **eclipse project** by selecting **File -> New -> Project**. In the wizard select in the tree **General -> Project (Next)**, give the project a name (**Finish**).

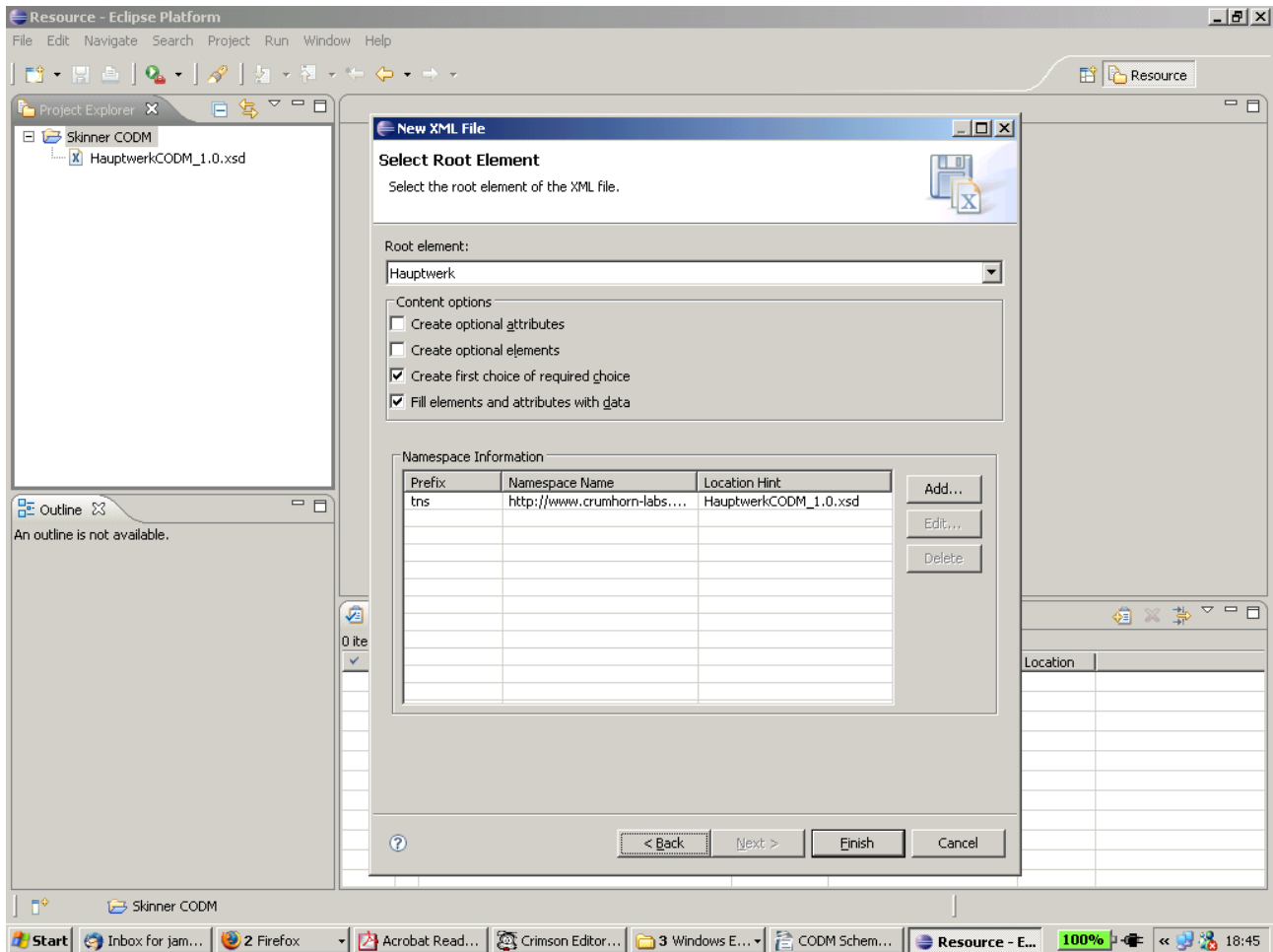


## Creating the CODM XML file from the Schema

Right click on the new project and from the menu select **New --> Other**. In the wizard select in the tree **XML --> XML (Next)**. Give the file a name (**Next**) select **Create XML file from an XML schema file (Next)** and choose the schema **HauptwerkCODM1.0.xsd (Next)**.



Leave the default values as shown (**Finish**).

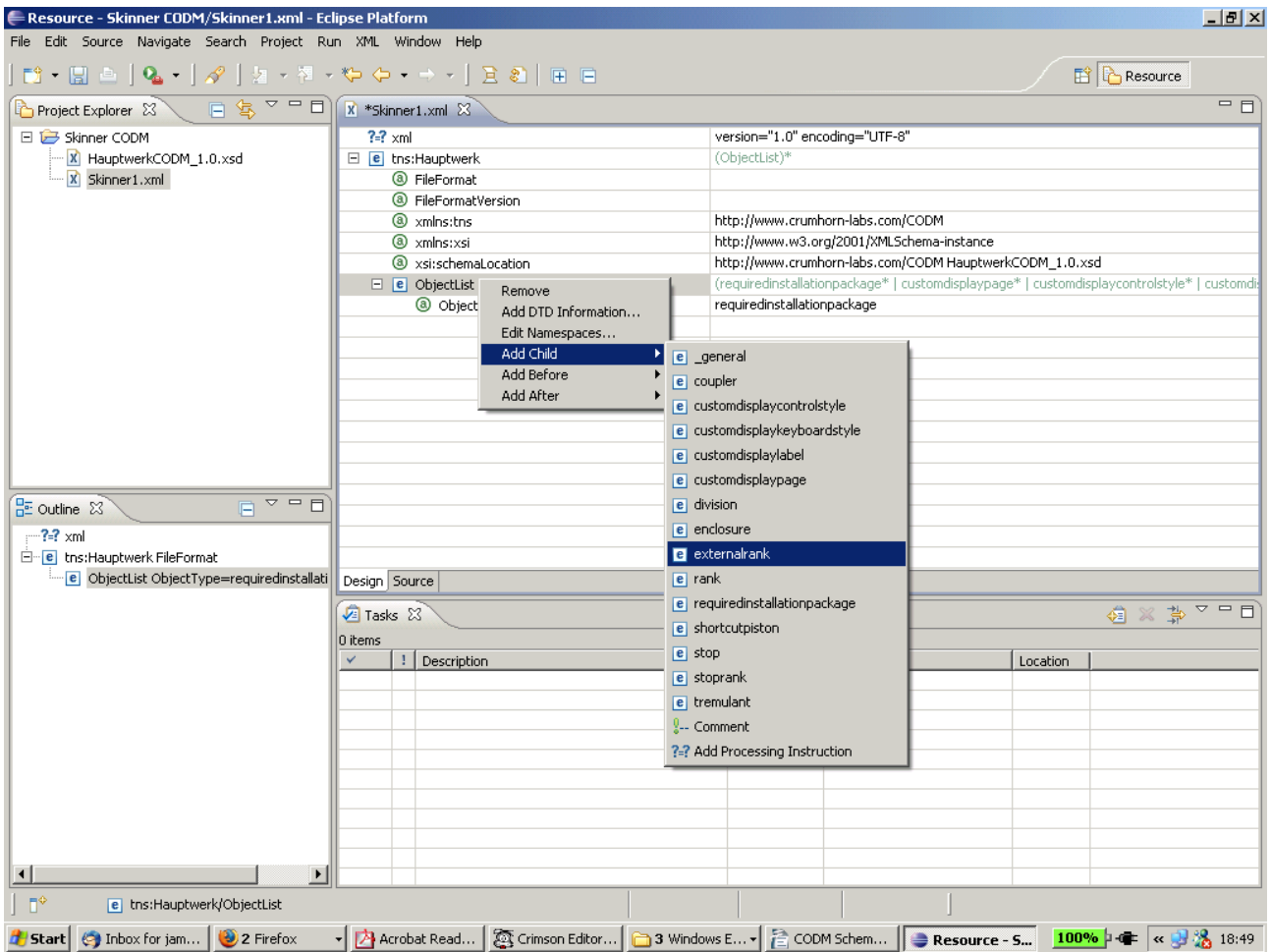


## Editing the CODM XML file

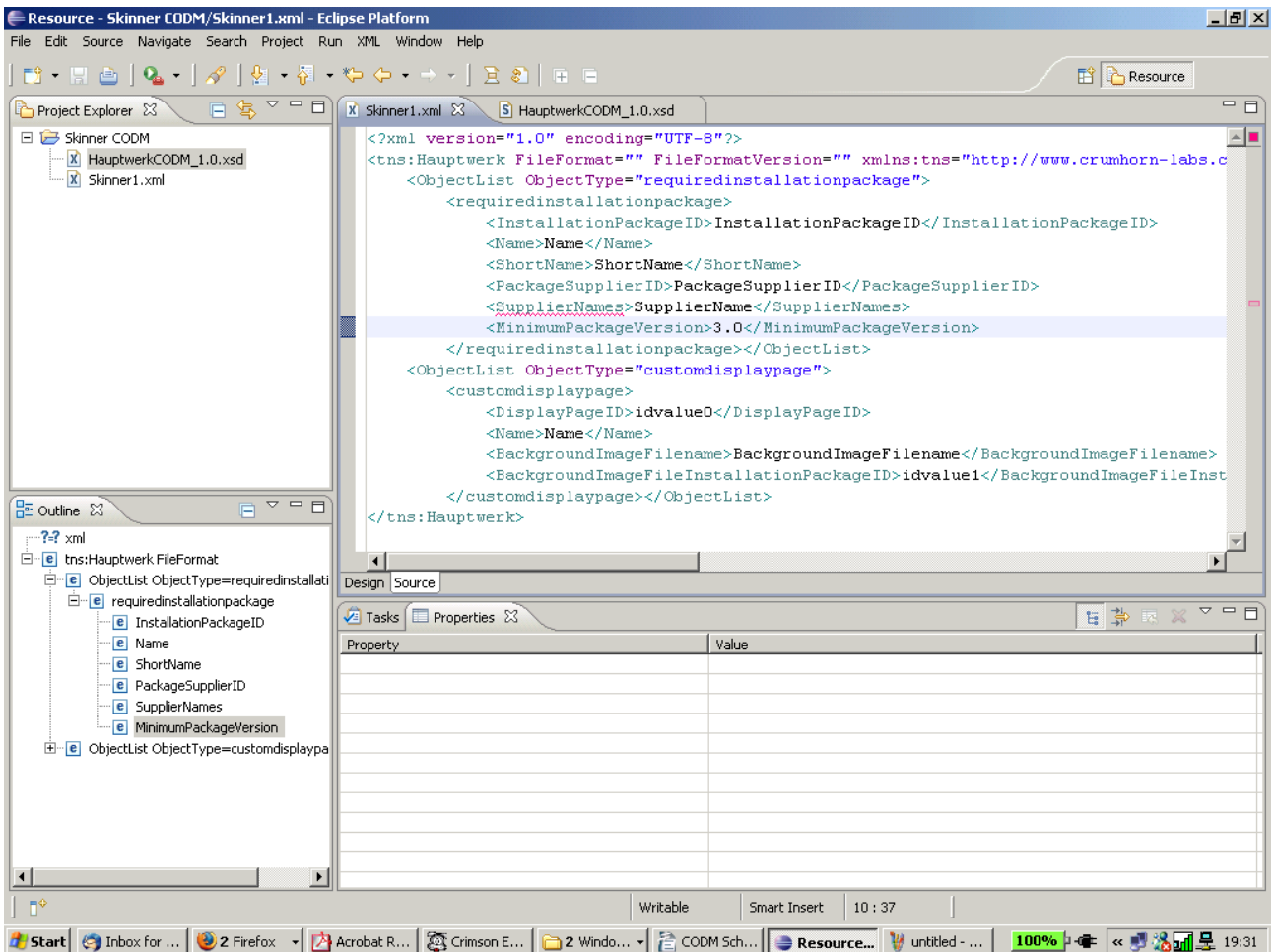
The XML editor has a tree (design) mode and source mode. The mode is toggled by clicking the **Design** and **Source** tabs located at the bottom of the editor.

The design mode displays the XML file in tree form, the left column shows the existing XML tags already created, and the right column shows the values for the tags. Values can be changed by clicking into the value cell, only valid values will be permitted. Right clicking on an existing tag will offer the tags that can be created from that point and selecting one will create the selection with the appropriate tags. The tags offer depend on the selection and whether the **Add Child**, **Add Before**, **Add After** menu is chosen.

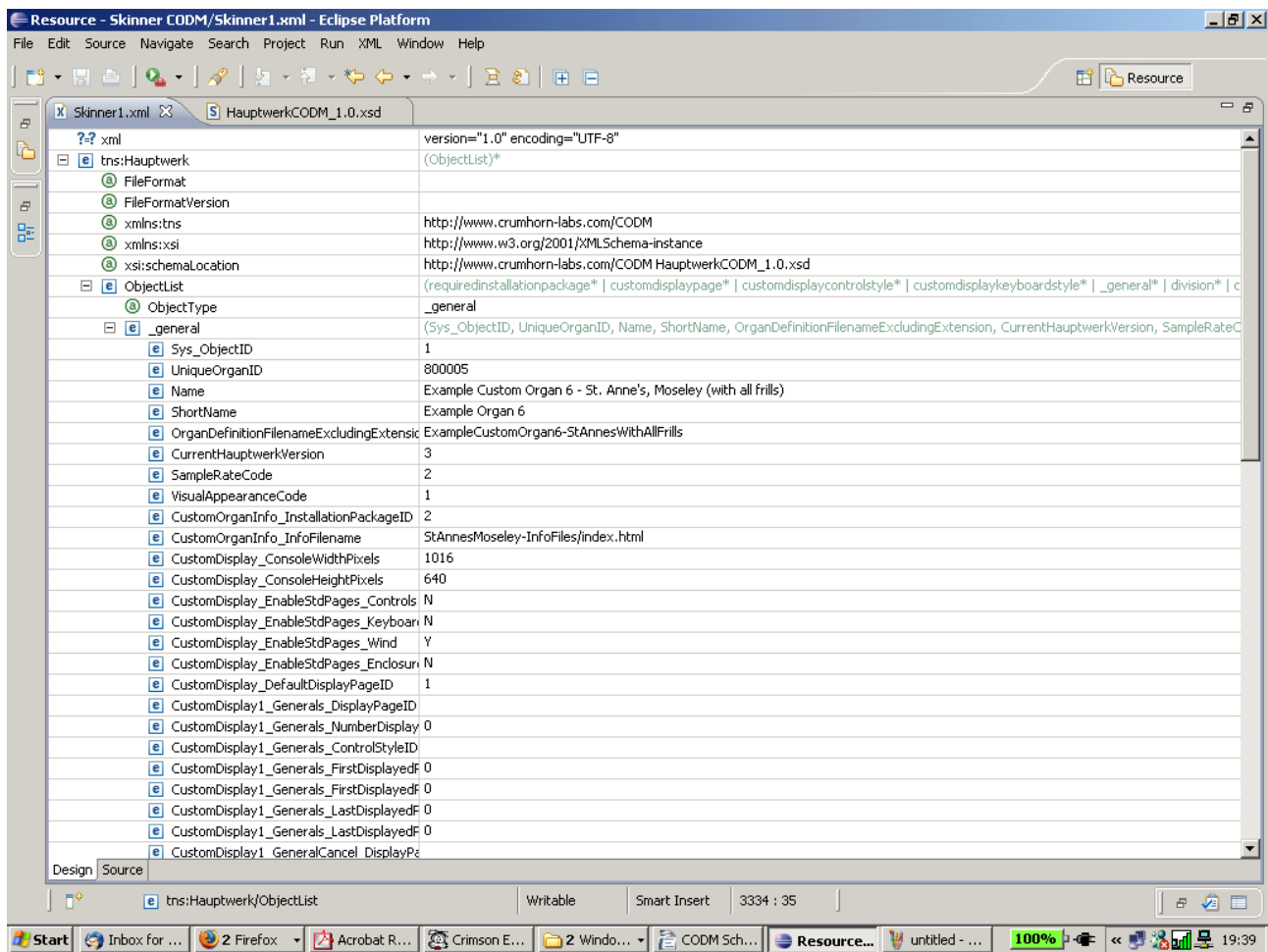
**TIP:** Double click on the editors tab to maximize it to the Eclipse window, double click again to restore it to its previous state.



In source mode XML is created as it would be done in a conventional text editor. When the XML is considered invalid then errors are denotated in the editor.



Source mode is also convenient for pasting XML from existing definitions into your new CODM definition which can then be edited in either mode.



## Using the CODM XML file with Hauptwerk

To load an XML file into Hauptwerk it is necessary to amend the schema header from:

```
<?xml version="1.0" encoding="UTF-8"?>
<tns:Hauptwerk FileFormat="" FileFormatVersion=""
xmlns:tns="http://www.crumhorn-labs.com/CODM"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.crumhorn-labs.com/CODM HauptwerkCODM_1.0.xsd ">
```

to:

```
<?xml version="1.0" encoding="UTF-8"?>
<Hauptwerk FileFormat="CustomOrgan" FileFormatVersion="3.00">
```

And to amend the XML footer from:

```
</tns:Hauptwerk>
```

to:

```
</Hauptwerk>
```

When cutting and pasting complete XML documents into Eclipse, the inverse translation must take place (otherwise the validation will not work).