



## Intelligent Tools

The Intelligent Rail Tools create a representation of the railway network where the lines and symbols are more than just dumb graphics.

Data associated with each drawing element is stored in an XML file and the graphical representation is stored in a MicroStation design file.

Fig 1 is the graphical representation of a Single Cantilever (STC). A label identifies the structure. The rails and a stagger arrow are also shown.

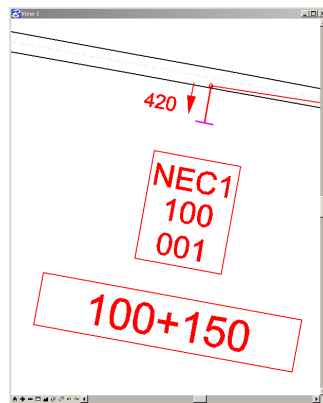


Fig 1: STC graphic and label

The XML fragment for this structure is shown in Fig 2. Some of the XML tags (e.g. RefA, RefB, RefC) contain the same data displayed in the graphical representation.

Other XML tags are used in a different way. For example the Status tag determines the colour of the graphics. In this case the value 'Proposed' means that the graphics are coloured red.

```
- <dhp11:Asset ID="1" method="CantileverSingle">
+ <dhp11:MastA ID="2"></dhp11:MastA>
+ <dhp11:Cantilever ID="3"></dhp11:Cantilever>
<dhp11:Status>Proposed</dhp11:Status>
<dhp11:Description>100+150</dhp11:Description>
<dhp11:RefA>NEC1</dhp11:RefA>
<dhp11:RefB>100</dhp11:RefB>
<dhp11:RefC>001</dhp11:RefC>
</dhp11:Asset>
```

Fig 2: XML for a Single Cantilever

Attributes like ID are used internally by the tools. To simplify this example the MastA and Cantilever tags have been collapsed to hide the details.

The same information is seen again in the Single Cantilever dialog (Fig 3). Changing values in the dialog updates both the graphics and the XML.

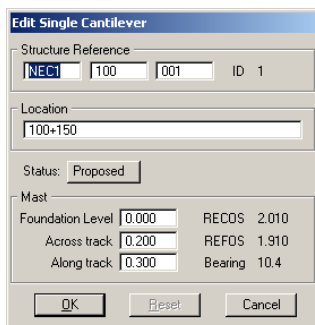


Fig 3: Single Cantilever Dialog

### ACCESSIBLE DATA

The data in an Intelligent Drawing can be accessed by many third party tools.