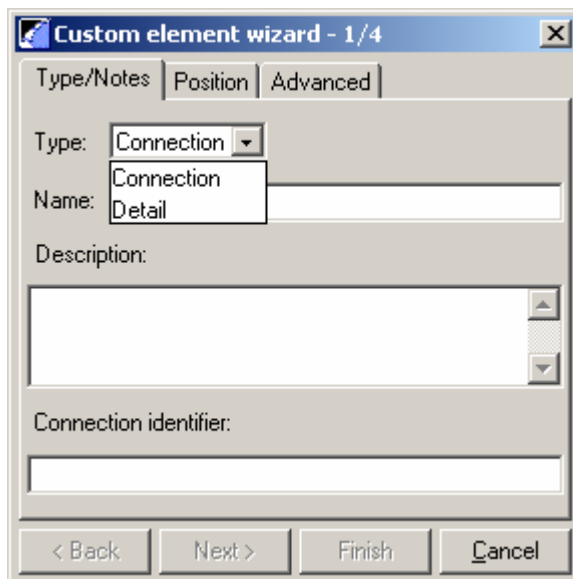


Custom Elements

Custom Elements replace “User connections” & “User details” in older versions.

A “User Connection” is now a “Custom Element Connection”, a “User Detail” is now a “Custom Element Detail”.

They are modeled exactly as in previous versions; the user builds the connection/detail in the model only now they use the “Custom Element Editor” to define the connection/detail.



Instead of the old “define user connection/detail” commands.

These can be used in exactly the same way as the old “user connections/details”.

BUT now these “User Defined Custom Elements” can be made intelligent without the need of programming knowledge using the NEW “Custom Element Editor”

(See release notes/online help for more information)

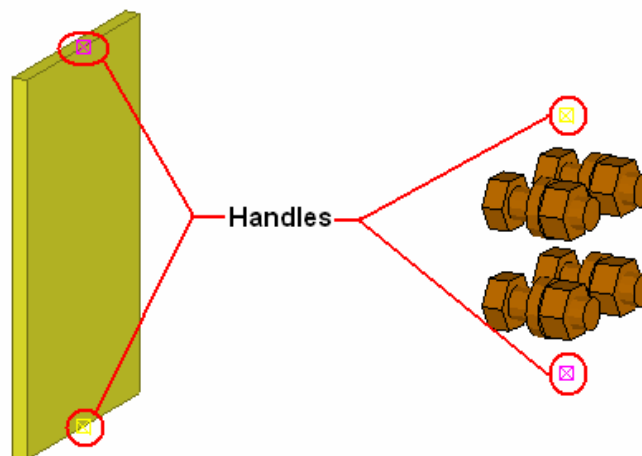
Custom Element Editor Terminology

1. Binding

Binding is used to attach items together; you can bind 4 types of items:

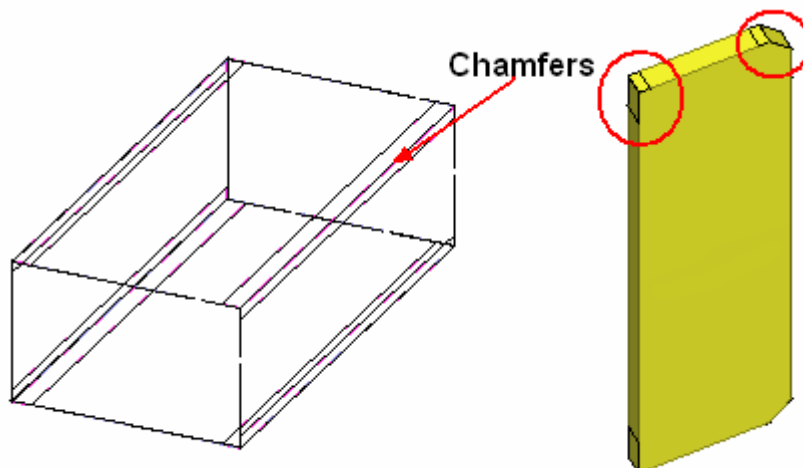
1. Handles

Handles are the start (yellow) and end (magenta) points on pieces such as bolt groups, plates, part cuts etc



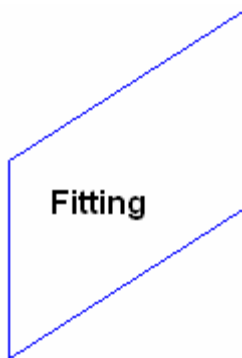
2. Chamfers

Chamfers are the corners of contour plates, polygon parts or polygon cuts



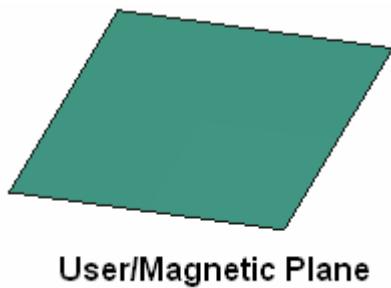
3. Fittings/Cut

A fitting/cut is an item used to cut a part represented by a blue rectangle in the model.



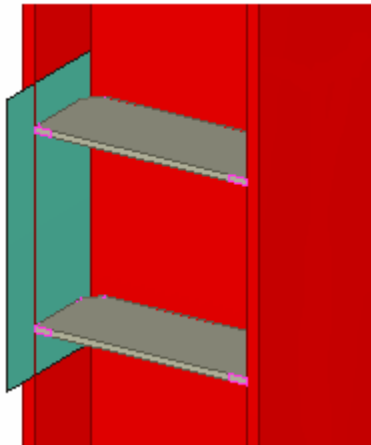
4. A User/Magnetic plane

A user plane can be created in the editor either as a reference to bind to or be made magnetic to move or control multiple items, represented by a cyan rectangle



User/Magnetic Planes

Magnetic planes can be used to bind multiple items with one binding.

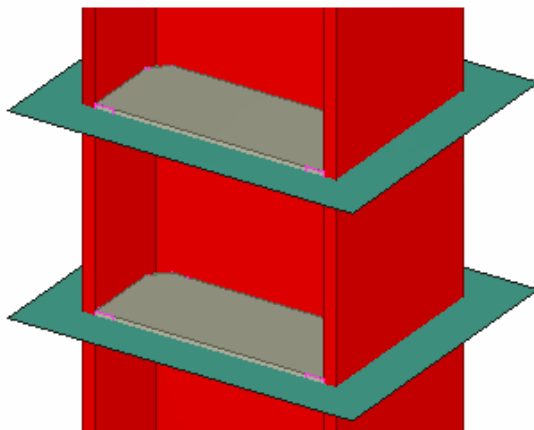


In this example a magnetic plane is used to attach the chamfers on 4 Stiffeners (2 on each side of the web) to the inside face of a column.

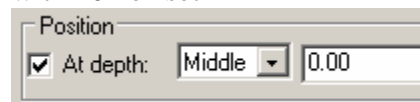
There are 8 chamfers in total bound with 1 plane, making the connection faster and neater.

These stiffeners could be controlled with 4 magnetic planes one in each direction, if the chamfers were bound directly there would be 32 different bindings.

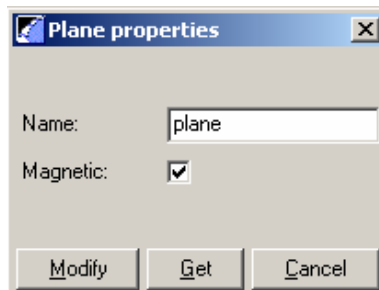
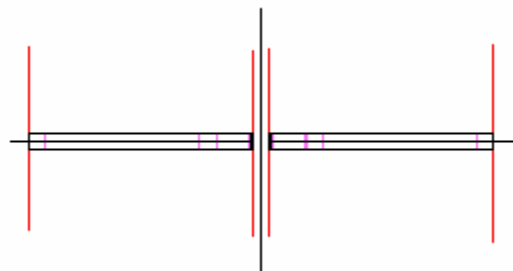
Magnetic planes **MUST** be used to control the position of contour plates.



The Plate must be created on the “Middle” with “0” offset



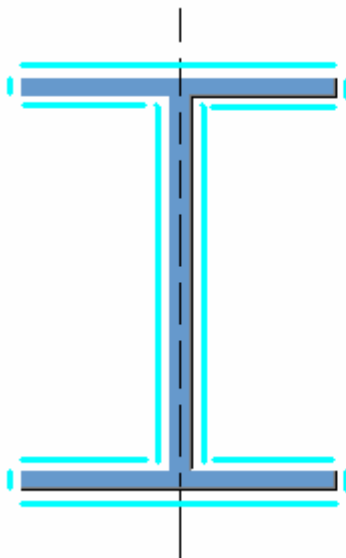
The plane must be on the middle of the plate



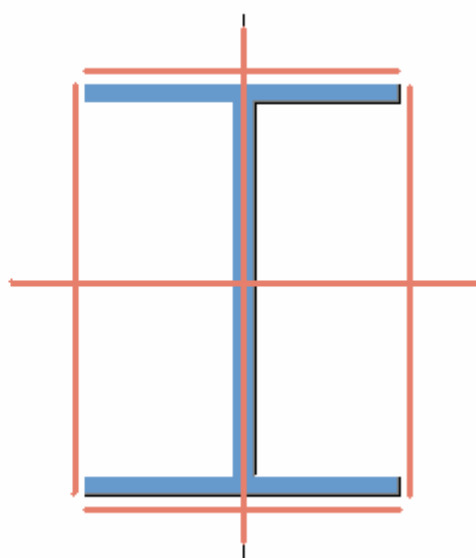
User plane are made magnetic by double clicking them, adding a “tick” to the magnetic box and pressing the “Modify” button.

Planes

Outline Planes



Boundary Planes



Bolts

Bolt size & bolt standard **MUST** have the same name.

The names are automatically given when changing the “Value Type” so the bolt standard variable name will have to be changed to suit the bolt size variable name

Variable name	Formula	Variable value	Variable type	Value type	Variable visi...	Variable label in dialog
P4_diameter	16.00	16.00	Parameter	bolt size	True	Bolt Size
P4_screwdin	7990	7990	Parameter	bolt standard	True	Bolt Grade