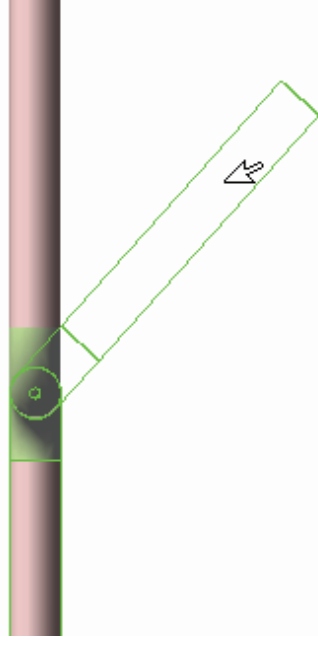
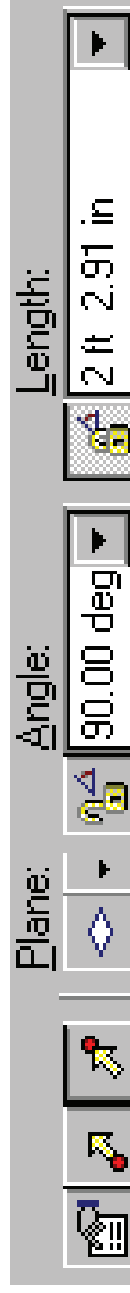


## Edit End Features

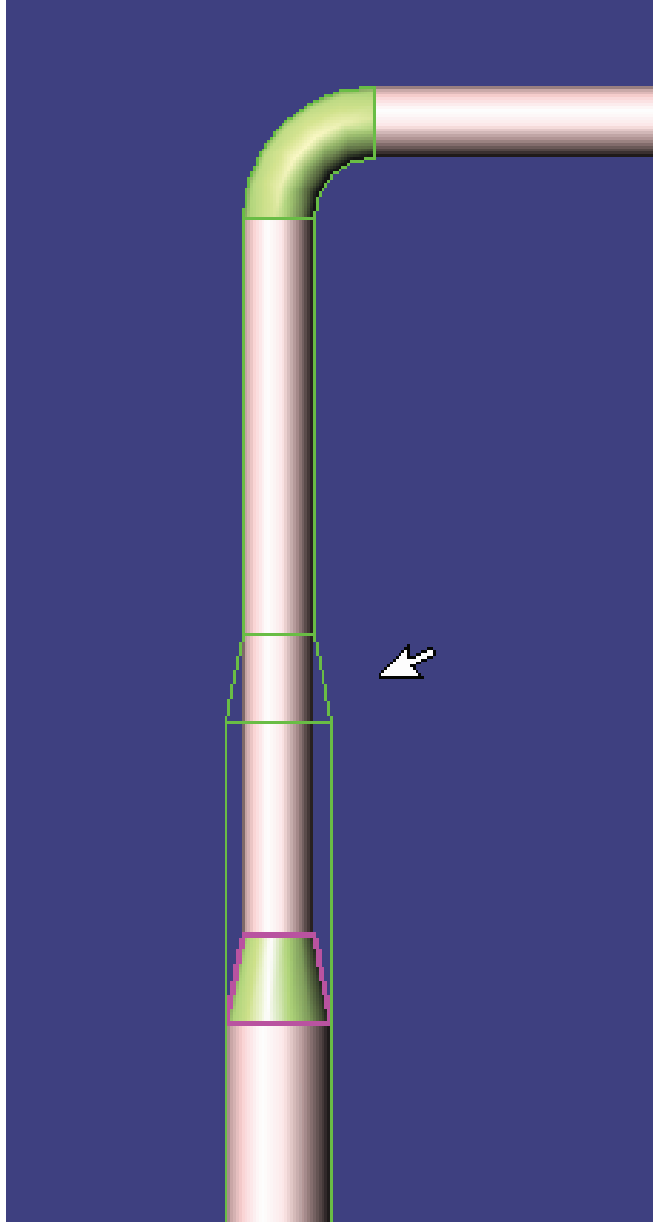
Moving the end feature by key in the length

- End feature location can be revised causing pipe to stretch/shorten or have direction changed



## Edit Run Change Features

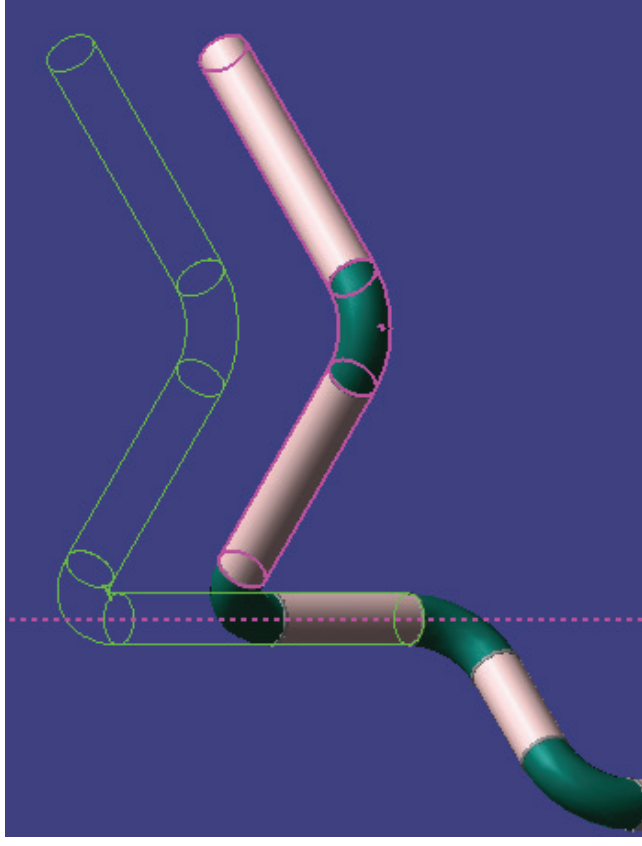
You can move the RCF along the associated straight feature. As you move the feature, the RCF appears in dynamic mode.



# Editing Features

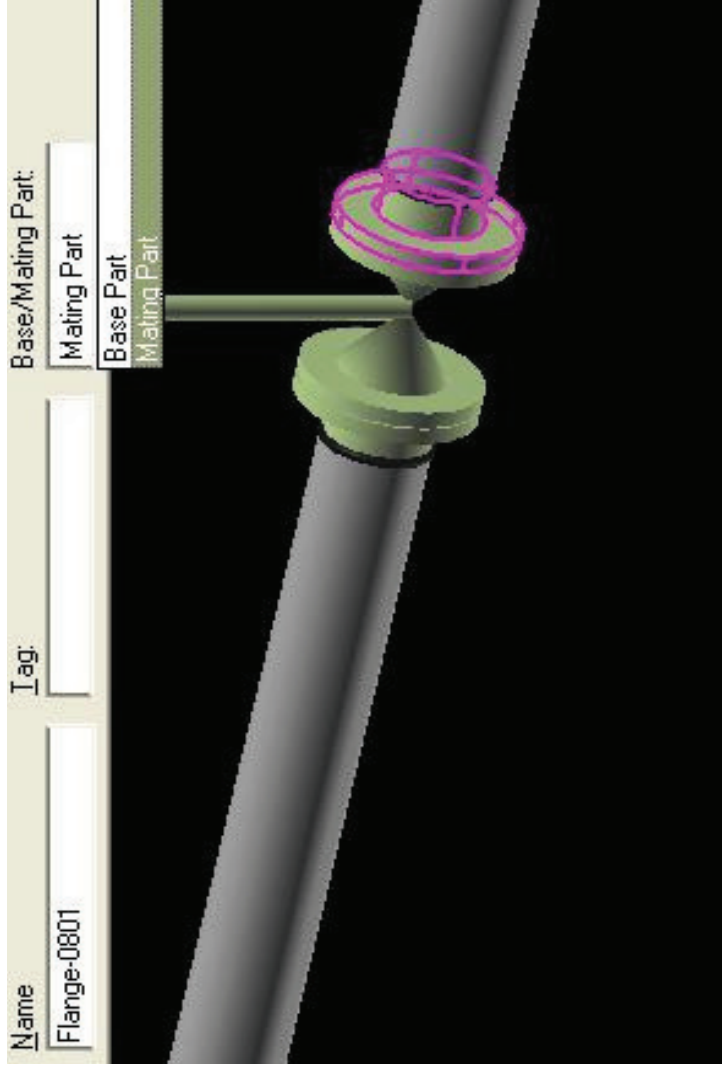
## Shift – Select Command

- To multi-select connected features, select first feature, then shift-select the feature at other end of group. All features in between will be selected for manipulation, e.g. move



## Modification

Mating parts can be changed to base parts using either the ribbon or the property page.

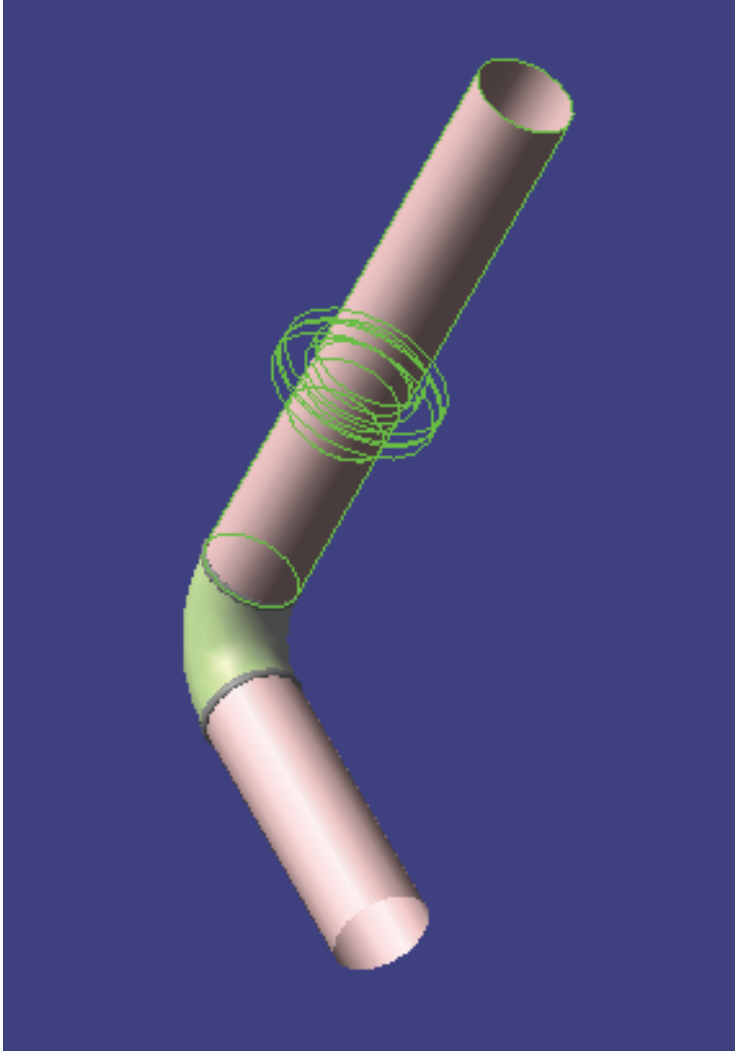
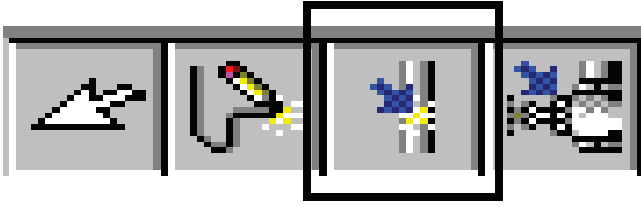


Mating Parts: Depend of a parent component for placement, i.e. if parent valve is deleted, mating flange is also removed.

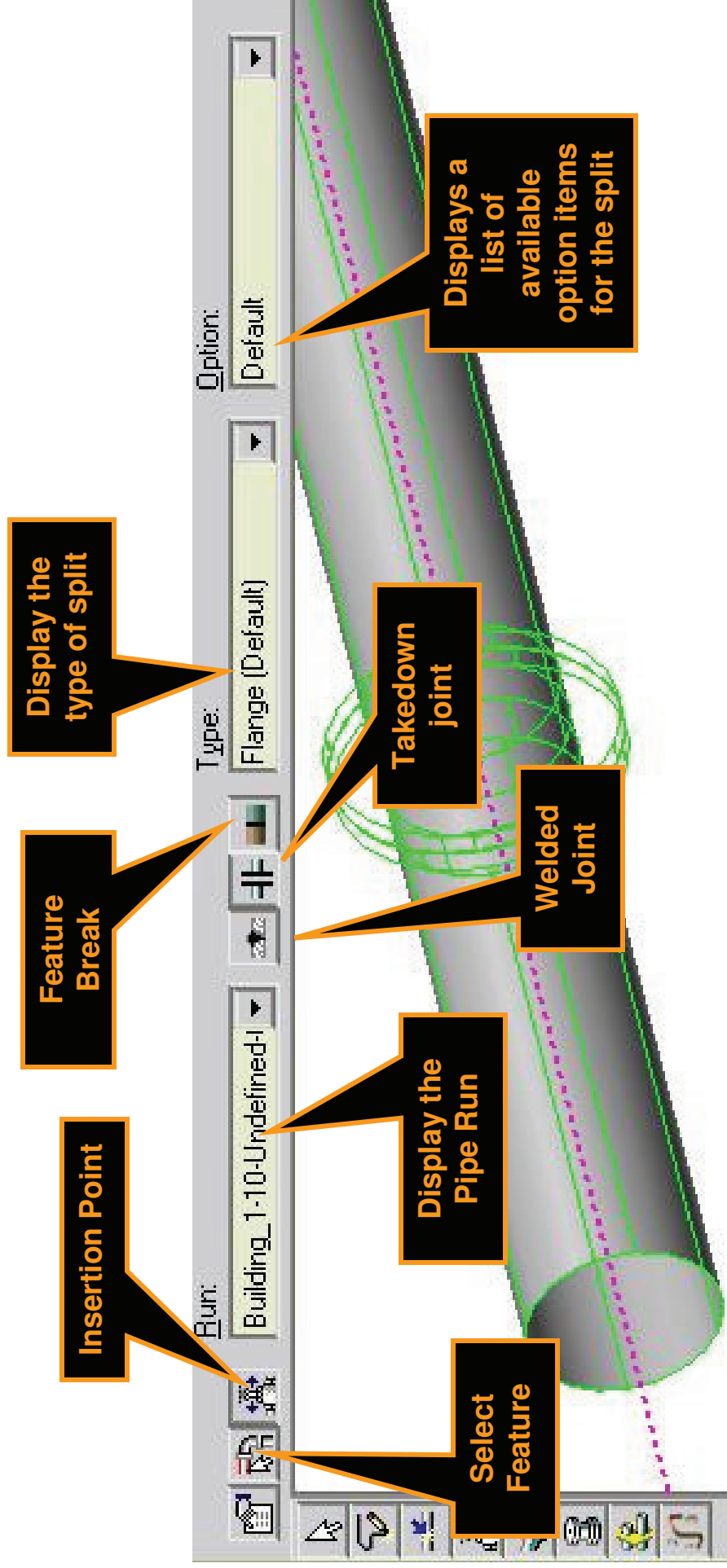
Base Parts: Independent from mating component, i.e. if connecting valve is deleted, flange remains.

## Insert Split Command

The Insert Split command cuts a straight pipe and connects the parts by a weld joint or a takedown joint like flanges or unions.



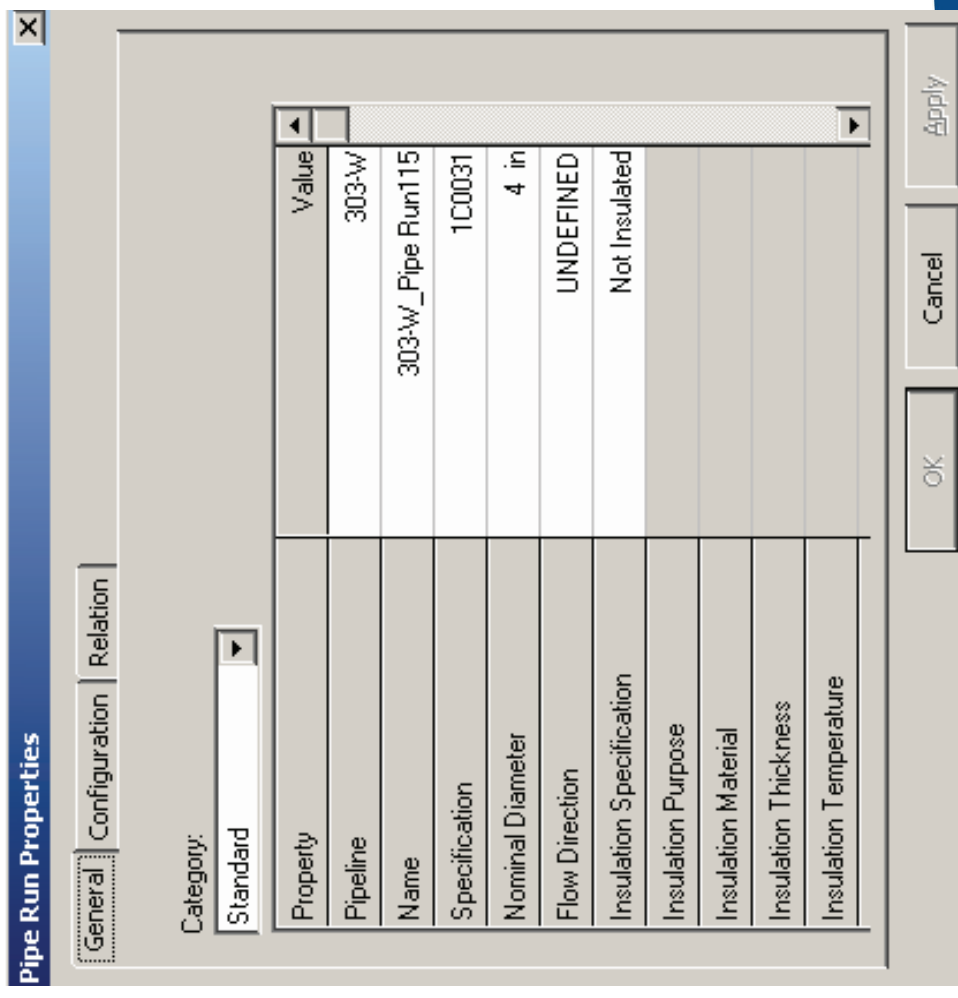
# Insert Split Ribbon Bar



# Edit Properties Command

## Edit Pipe Run properties.

- Features inherit the common properties of the run by default.



The dialog box titled "Pipe Run Properties" has three tabs: "General", "Configuration", and "Relation". The "General" tab is active. It features a "Category:" dropdown menu set to "Standard". Below this is a table with two columns: "Property" and "Value".

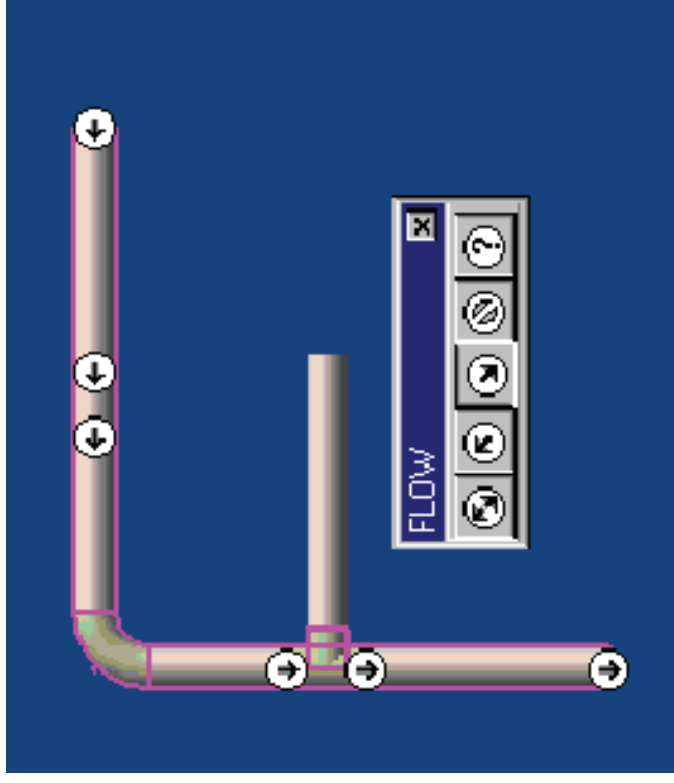
Property	Value
Pipeline	303-W
Name	303-W_Pipe Run115
Specification	1C0031
Nominal Diameter	4 in
Flow Direction	UNDEFINED
Insulation Specification	Not Insulated
Insulation Purpose	
Insulation Material	
Insulation Thickness	
Insulation Temperature	

At the bottom right of the dialog are buttons for "OK", "Cancel", and "Apply".

# Edit Properties Command

## Flow Direction

- Downstream is the direction from the start to the end of the run (port1-port2)



**Bi-directional, Upstream, Downstream, No flow, Undefined**

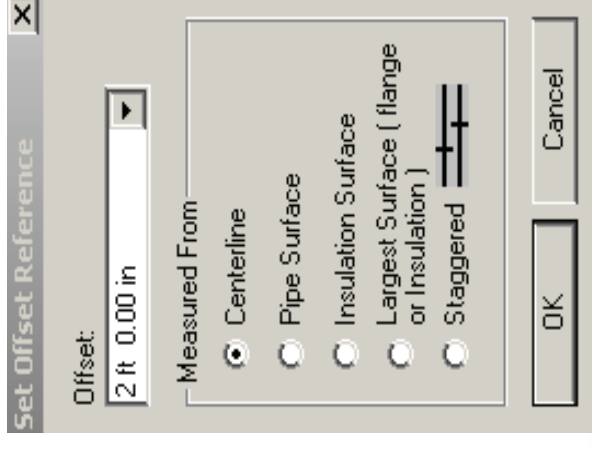
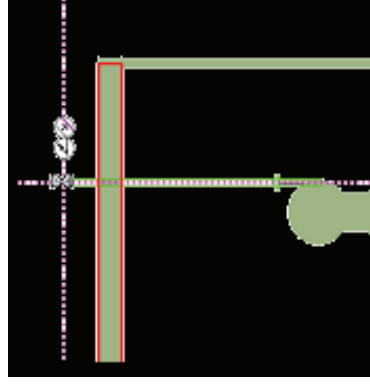
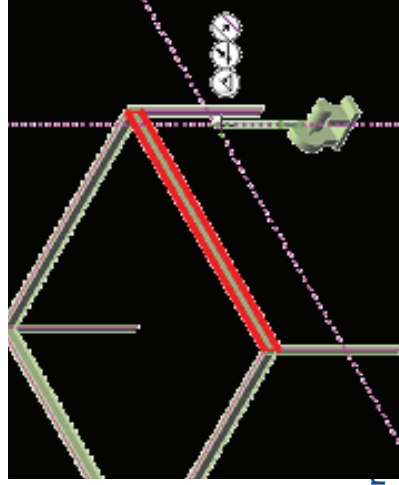


# Route Pipe Run Using the Offset Value

## Offset Control Tool

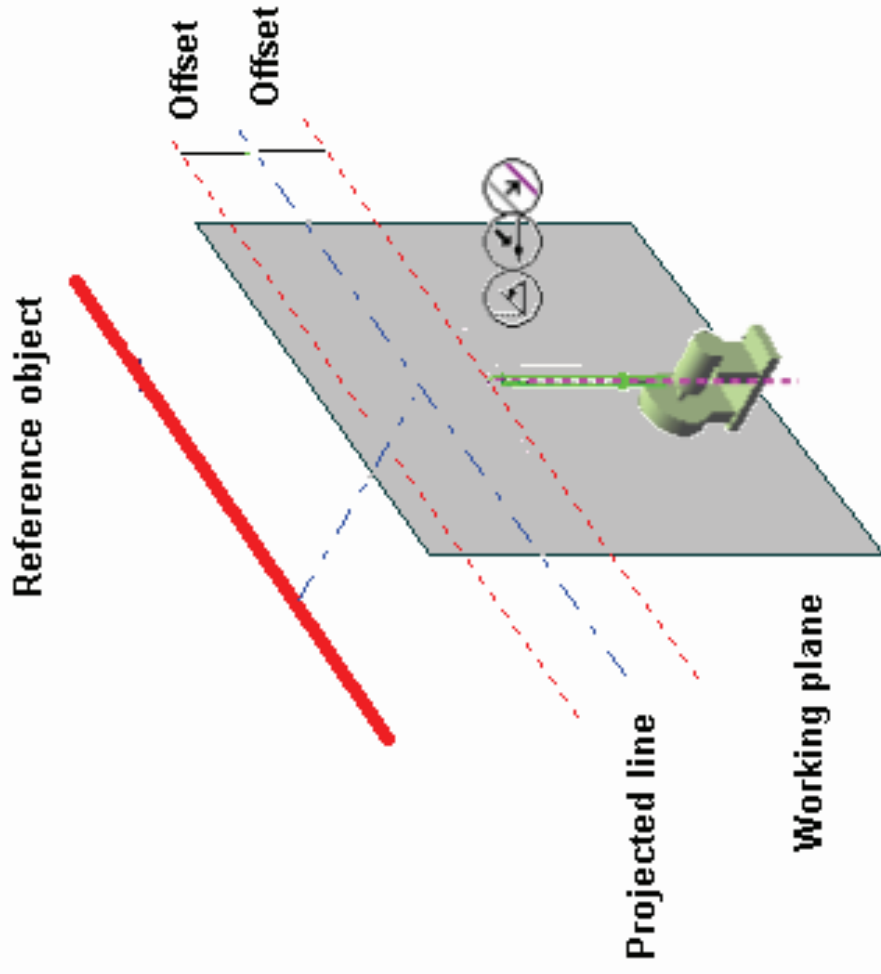
If the reference object is a planar surface or linear element, the offset distance is measured from the surface or line to the indicated reference plane on the pipe being routed. Five offset reference are available.

An offset SmartSketch point is found on either side of the referenced plane or linear element.



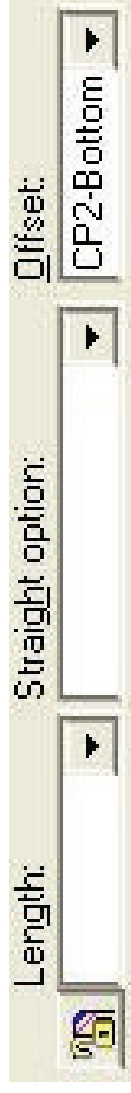
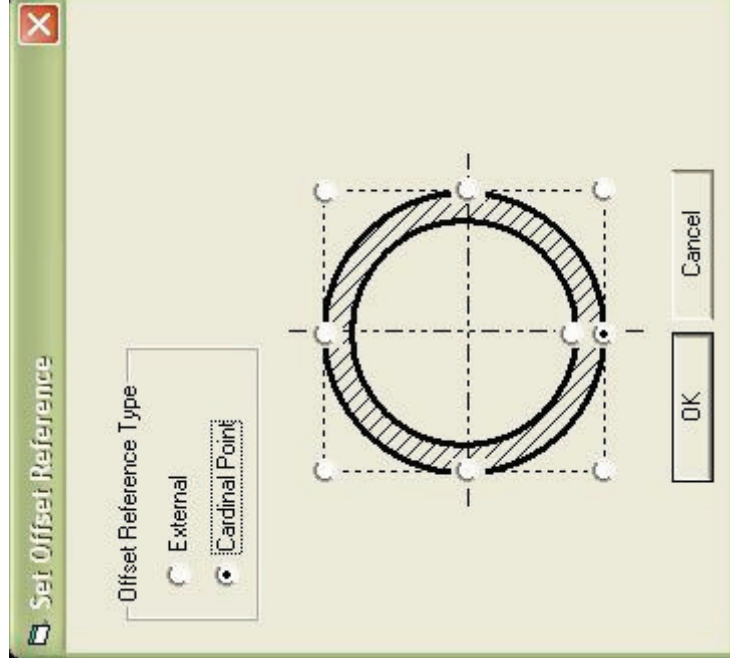
# Route Pipe Run using the offset value

How the Solver finds the offset:



## Route Pipe by Cardinal Points

Route a pipe by the top, sides, bottom, or invert elevation of the pipe instead of the pipe centerline.

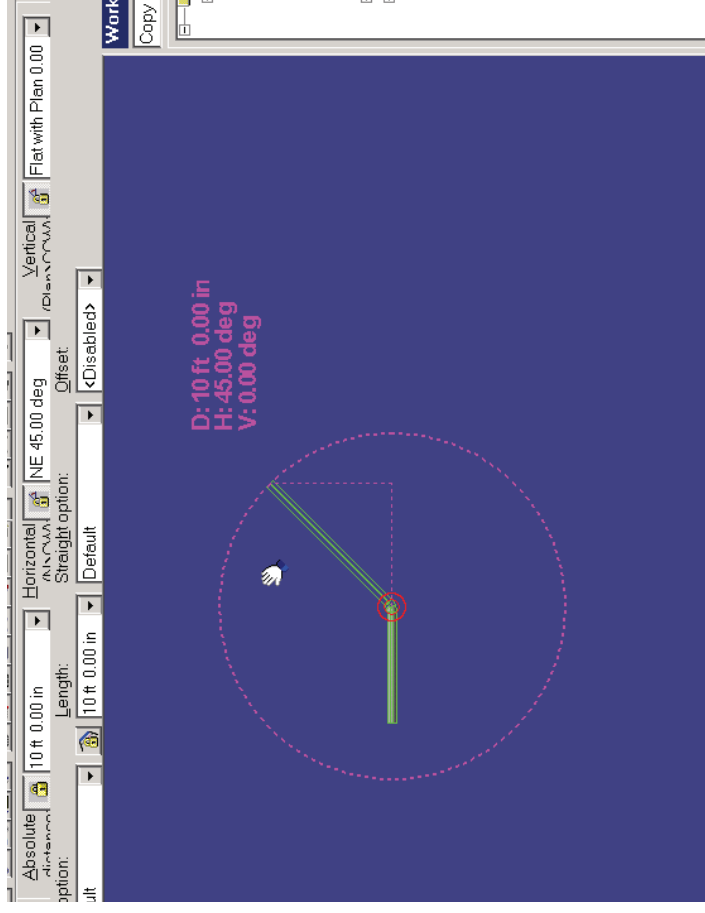


Routing by invert elevation is supported for use in modeling underground piping.

# Route Using Spherical Coordinates

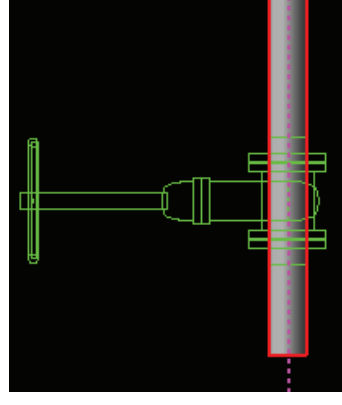
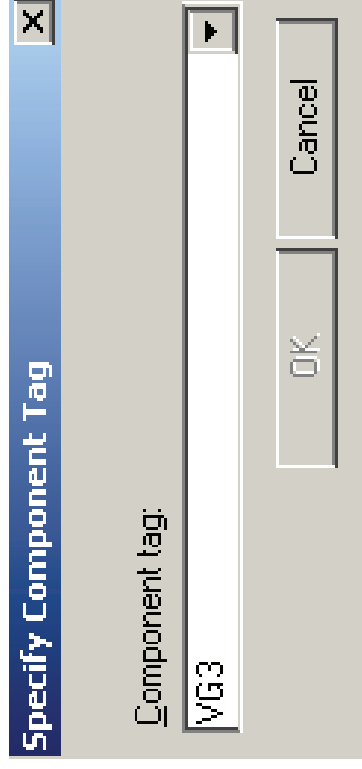
## Relative Tracking Mode


- Allows user to route pipe by defining distance and direction parameters rather than coordinates



# INTERGRAPH Insert Component by its Engineering Tag

The engineering tag will be available on the P&ID, and may be used to select a piping commodity from the Piping Specification.





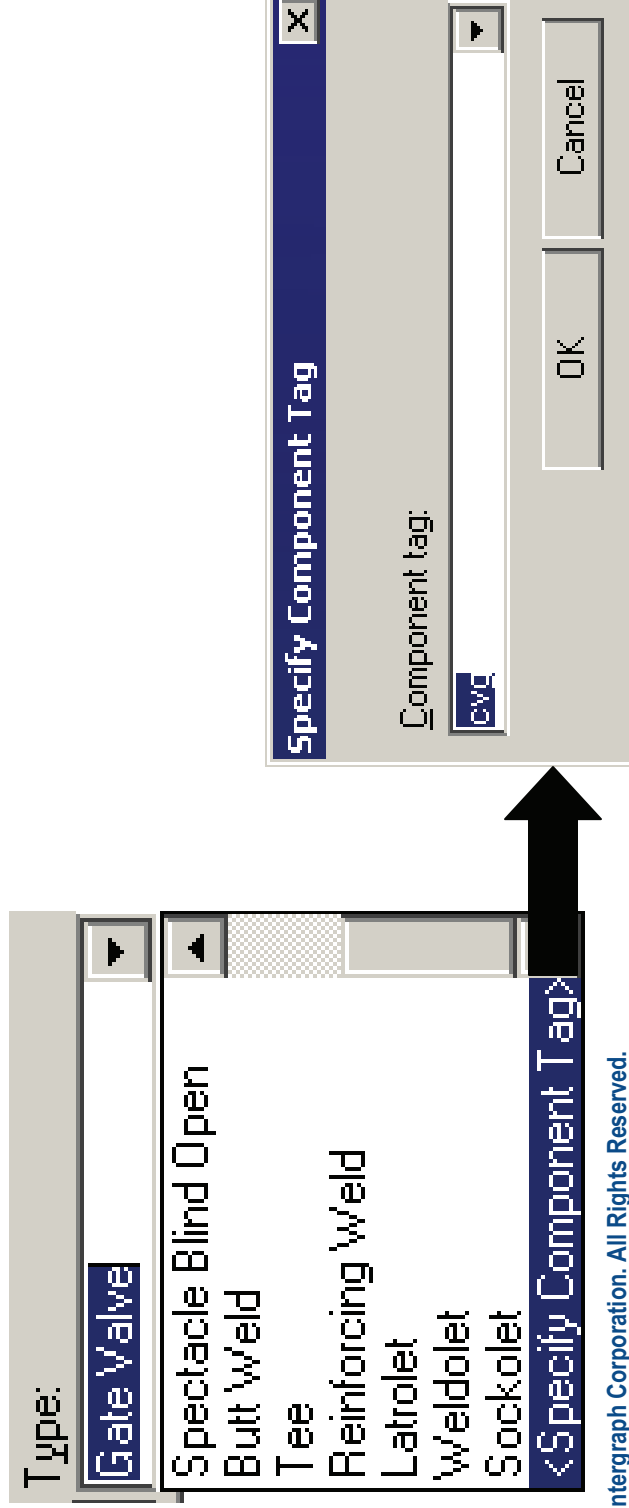
## **Instrument & Piping Specialty Placement**

- We have two types of piping specialty/instrument Parts:
  - 1. Stock item: Stock items represent those piping items that are purchased from a manufacturer's catalog, where no real engineering is required other than selecting the correct size, material, etc.
  - 2. Custom-engineered item: custom engineered items are built items according to the process.

# Instrument & Piping Specialty Placement

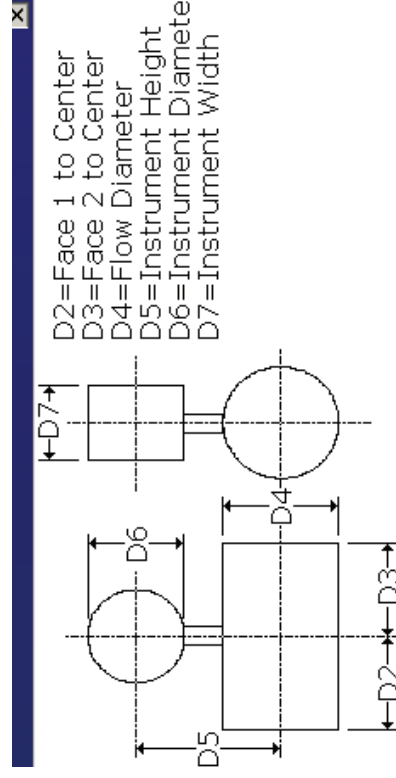
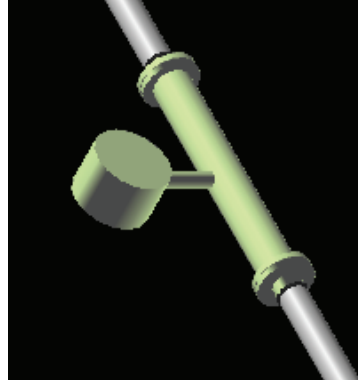
## Placing piping Specialty/Instruments

- User inputs item tag
- Using tag value, item is found in catalog and placed using catalog's part dimensions



# **Instruments** Placement of Instrument Items On the Fly

- User is able to enter item dims



Pipe Instrument Properties

Definition Occurrence Material Control Data Connections Relationship Notes

Category: Standard

Property	Value
Run Name	Unit 11001.P_Pipe Run-1-11
Type	Part Selected Manually
Option	Part Selected Manually
Name	301.P_Pipe Run-1-11_Component-1-24
Reporting Requirements	
Reporting Type	
Face to Center	
Face1 to Center	
Face2 to Center	1 ft 0.00 in
Instrument Diameter	

OK Cancel Apply

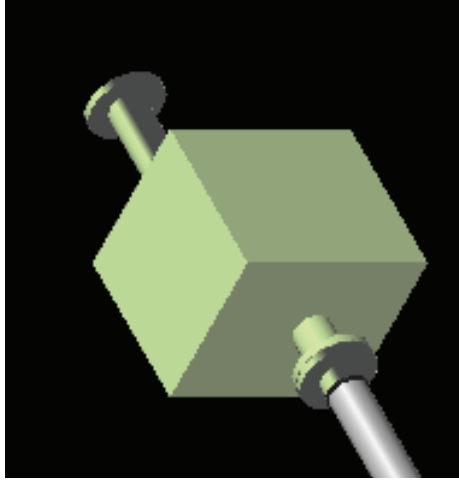


# Specialty Items



## Placement of Specialty Items On the Fly

- User is able to enter item dimensions



Pipe Specialty Item Properties

Definition Occurrence Material Control Data Connections Relationship Notes

Category: Standard

Property	Value
Run Name	Unit 11001-P_Pipe Run-1-11
Type	Part Selected Manually
Option	Part Selected Manually
Name	301-P_Pipe Run-1-11_Component-1-32
Reporting Requirements	
Reporting Type	
Face to Center	
Face1 to Center	
Face2 to Center	
Flame Arrestor Body Height 1	

OK Cancel Apply