

## Outfitting

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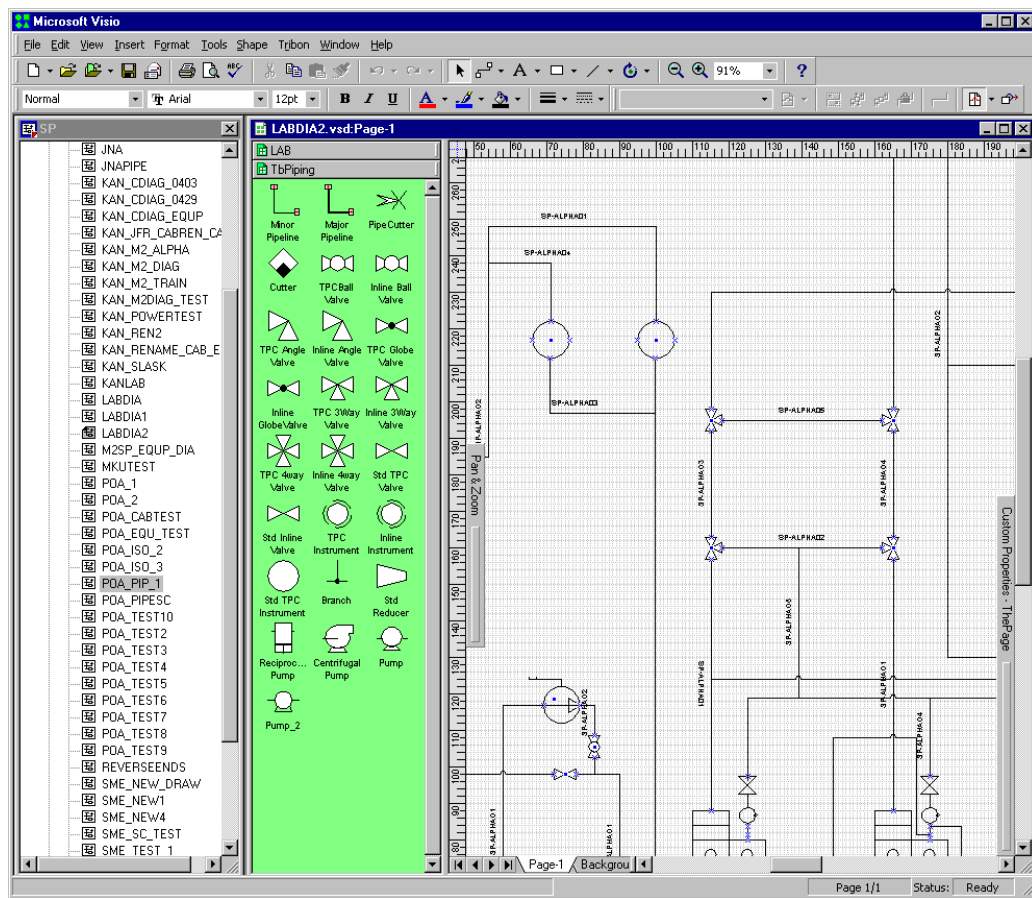
## Outfitting

## PIPE

## 1. New General Diagrams Application

## Description

A totally new Diagram program has been introduced in Tribon M2. It is built upon the standard software product Visio.



Tribon General Diagrams has been replaced with a Visio based solution in M2.

## Benefits

By utilizing Visio for Diagram creation the Tribon installation will be even more powerful than before. The combined strength of Visio's easy-to-use GUI and Tribon Product Model gives you all the tools you need for fast Diagram creation.

## Outfitting

### Highlights

- Create and import you own shapes with the **Import Shape** feature.
- Link your own shape with a specific component on the Component Databank. The shape will be automatically replaced whenever you set the component (Equipments and Pipeline parts).
- Use a **Drafting** picture as background with the **Import Background** feature.
- Attributes are easily accessed via **Custom Properties** of the shapes.
- Use VBA to automate your work.

### Compatibility Constraints

The new Visio based General Diagrams application requires Visio2000 Standard Edition.

It cannot access diagrams created in previous versions of General Diagrams.

### For Further Information

See the on-line documentation.

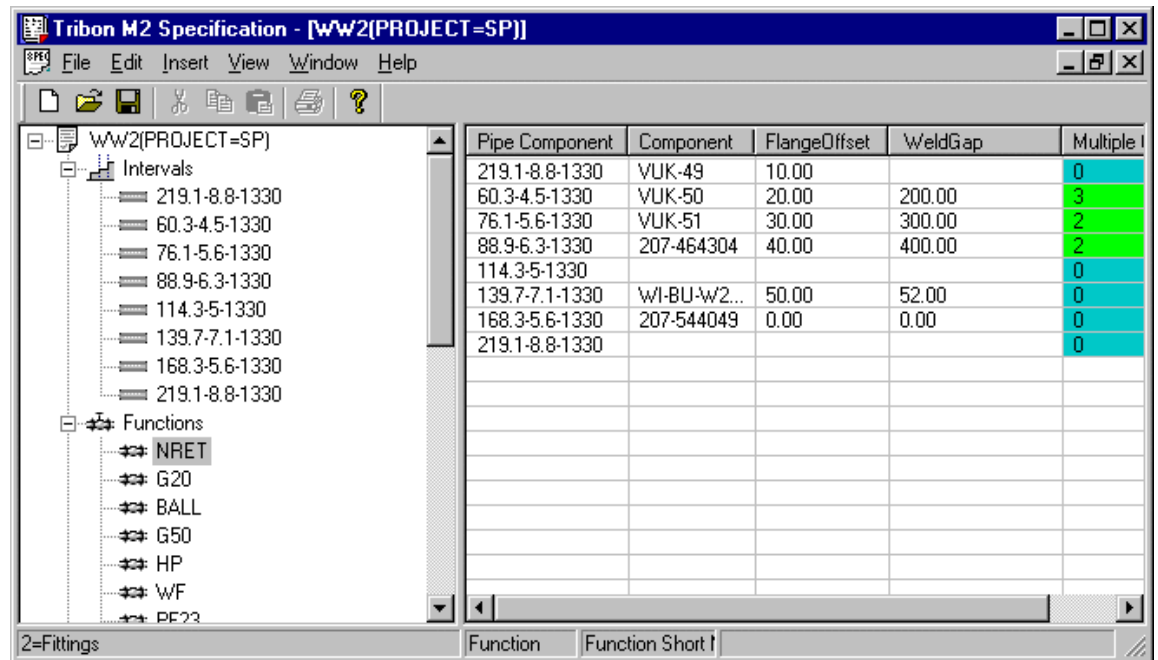
### Affected Program

Tribon M2 General Diagrams  
(General Diagrams are used for pipe diagrams as well as cable diagrams.)

## 2. Spec Driven Modelling in Tribon Pipe

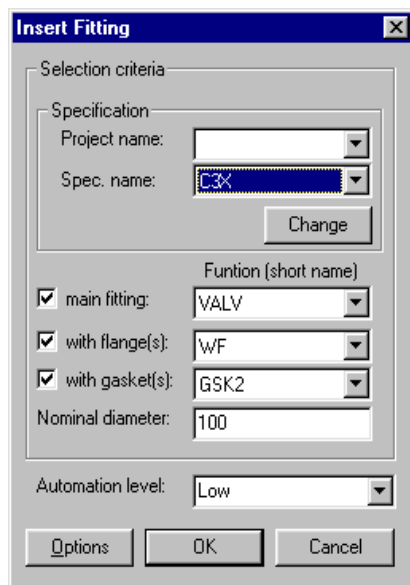
### Description

Spec driven modelling means that the selection of components is done via specifications. The old handling of specifications is replaced by this new function of spec driven modelling.



- Define a pipe in Diagrams and select components (spec driven)
- Create the pipe in Modelling (spec driven), then the component name inclusive the selection criteria, which were used in the diagram for the pipe are reused and saved in the pipe.
- Route the pipe.
- Dress the pipe (spec driven).
- Add and insert fittings (spec driven).
- Re-specify (give only new spec but keep size) or resize (keep spec but give new size) the whole pipe or parts of the pipe.

## Outfitting



Example of selection criteria for finding fitting component, including flanges and gaskets.

### Benefits

This is a fast and easy way to model, re-specify and resize pipes. Furthermore, it gives possibilities to restrict the use of components, which do not follow a certain quality standard.

### Compatibility Constraints

None.

### For Further Information

See the on-line documentation.

### Affected Programs

Tribon Specification  
Tribon Pipe Modeling  
Tribon General Diagrams  
Tribon Data Extraction

## 3. New functionality for aligning pipe surfaces

### Outfitting

#### Description

New functionality for pipe routing is now available. By pressing a new toolbar button shown when routing a pipe frame, it is possible to align the surface of the currently routed pipe with the surface of another pipe. An event point of a pipe part is indicated, a dialog is shown and user selects align direction and pipe diameter of routing pipe. User then gives the align distance by indicating in the drawing. The align directions are front, aft, portside, starboard, up and down. The pipe diameters of routing pipe and pipe to align to, may have any values. The alignment is automatically adjusted.

#### Benefits

Almost all types of pipe support require pipe surfaces to be aligned. The aligning of pipe surfaces is now easily done during modelling with support from built in functions.

#### Compatibility Constraints

None

#### For further information

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Interactive Pipe Modelling / Pipe Model Functions / Route

#### Affected Program

Pipe Modelling

## 4. New functionality for moving parts in pipes

#### Description

New functionality for moving parts in one or more pipes is now developed. By drawing a window or a polygon window around parts to be moved, selection is easy and versatile. User may then define the distance to move the parts in many various ways, making it possible to orient the parts according to other objects in drawing. The movement is done in the direction of the parts connected to selected parts.

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Connected parts must be parallel, straight and will change length according to move distance.

#### **Benefits**

Easier to change pipe objects

#### **Compatibility constraints**

None

#### **For further information**

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Interactive Pipe Modelling / Pipe Functions / Move Parts

#### **Affected Program**

Pipe Modelling

## **5. Centreline representation for pipes of smaller dimensions**

#### **Description**

By setting the model draw code the user can define a pipe diameter below which the pipe will be drawn as a centre line in stead of as material. In the default file SBD\_DEF the keyword PIPE\_TUBE\_CODE\_DRAW should be set to 7, centre line or material, to activate this feature, and the keyword PIPE\_TUBE\_DRAW\_DIA should be set to the minimum diameter for which material representation is requested.

#### **Benefits**

Easier overview of large drawings

#### **Compatibility constraints**

None

#### **For further information**



### Outfitting

See the on-line documentation, Tribon M2 Drafting / Drafting / User's Guide / Appendices / Drawing / Default File / Drawing Codes

#### **Affected Program**

All interactive programs

## **6. New way of choosing components using specification**

#### **Description**

When a component is to be added or inserted a new selection box will appear. By this components will be chosen via specifications. New keywords ALWAYS\_WITH\_FLANGE and ALWAYS\_WITH\_GASKET will tick the boxes indicating that these components must be chosen together with the main fitting selected. The new keywords DEFAULT\_FLANGE\_NAME and DEFAULT\_GASKET\_NAME will give the start value for these functions, after that one choice is made the latest settings will always appear as default. The new keyword COMP\_SELECT\_AUTLEVEL will set the automation level for choosing the different components, where

0 – low level

1 - medium level

2 - high level

This could also be changed from the selection box. Pressing the option button will give access to the standard menu for choosing components without using specifications. This should also be used for picking joints and boss connections. If no modelling without specification is allowed pressing the options button will only give access to their joint and boss functions.

#### **Benefits**

Improvement of use of specifications and component selection

#### **Compatibility constraints**

To be used with Tribon M2 Pipe Specifications.

#### **For further information**

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Interactive Pipe Modelling / Pipe Model Functions / Part Add and Part Insert.

#### **Affected Program**

### Outfitting

Pipe Modelling

## 7. Improved gasket handling

### Description

New keywords ALWAYS\_WITH\_FLANGE and ALWAYS\_WITH\_GASKET will tick the boxes indicating that these components must be chosen together with the main fitting selected. See also documentation for the new way of choosing components using specifications. A new keyword READY\_GASKET\_CHECK is implemented. When turned on it will make the ready function check for missing gaskets within the pipe. The function, which gives automatic position names to spools will give all gaskets the name SB\_GASKET.

### Benefits

Gasket handling is made easier

### Compatibility constraints

None.

### For further information

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Interactive Pipe Modelling / Pipe Model Functions / Part Add and Part Insert.

### Affected Program

Pipe Modelling

## 8. Visualization of flange rotation in pipe modelling

### Description

A new model draw code for flanges is available. This code represents the flange with an orientation line, making the rotation of the flange visible in the drawing

### Outfitting

#### **Benefits**

Visible flange rotation

#### **Compatibility Constraints**

none

#### **For further information**

See the on-line documentation, Tribon M2 Drafting / Drafting / User's Guide / Appendices / Drawing / Default File / Drawing Codes

#### **Affected Program**

All interactive

## **9. Pipe default values**

#### **Description**

The handling of pipe modelling's default file SBP\_MODEL\_DEF is changed to have the same functionality as TRIBON Drafting. That is, it is possible to view and change the default values during the pipe modelling session.

#### **Benefits**

Easier default handling

#### **Compatibility Constraints**

none

#### **For further information**

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Appendix / Default File

#### **Affected Program**

### Outfitting

Pipe Modelling

## 10. Mirror check optional

### Description

After the mirror function the system performs a check of the pipe. Parts that give problems in this check are replaced by frames. It is now possible to switch off this check by using the keyword MIRROR\_CHECK in the default file SBP\_MODEL\_DEF

### Benefits

Mirror check optional

### Compatibility Constraints

none

### For further information

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Appendix / Default File

### Affected Program

Pipe Modelling

## 11. Metric bending radius

### Description

Metric bending radius is now complementing the existing factor bending radius. The choice of which format to use is handled by the keyword BENDING\_RADIUS in SBP\_MODEL\_DEF for pipe modelling and bending machine object setup program, and in SBP\_SPLIT\_DEF for pipe splitting program.

### Benefits

### Outfitting

Choice of presentation format for radius

#### Compatibility Constraints

none

#### For further information

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Appendix / Default File and Tribon M2 Outfitting / Pipe / Background jobs / Splitting of Pipes / Input / The Def File

#### Affected Programs

Pipe Modelling  
Pipe Splitting  
tbmachineobjset

## 12. Improved presentation of bending angles on pipe

#### Description

The BEND\_ANGLE keyword in the default file SBP\_SPLIT\_DEF now has the values OFF, BEND and PROJECTION. When the key word BEND\_ANGLE is set to BEND the real pipe bending angle is shown in the Pipe Sketch. When BEND\_ANGLE is set to PROJECTION the angle in the projection plane is shown in the Pipe Sketch.

#### Benefits

Choice of angle presentation

#### Compatibility Constraints

None

#### For further information

See the on-line documentation, Tribon M2 Outfitting / Pipe / Background jobs / Splitting of Pipes / Input / The DEF File

### Outfitting

#### **Affected Program**

Pipe Splitting

## **13. New functionality for deleting parts in a pipe**

#### **Description**

New functionality for deleting parts in a pipe is now developed. Previously only one part at a time could be indicated and deleted. Now several parts can be selected and deleted in one operation. Selection is done by either indicating as before, or by drawing a window or a polygon window around parts to delete. Delete is done by removing the parts totally, removing the parts material or by substituting the parts material with straight components.

#### **Benefits**

Deleting parts in a pipe is easier and less laborious.

#### **Compatibility Constraints**

None

#### **For further information**

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Interactive Pipe Modelling / Pipe Model Functions / Part Delete

#### **Affected Program**

Pipe Modelling

## **14. New functionality for re-size, re-place and re-specifying**

#### **Description**

By re-sizing a pipe, its components are replaced to match a specific diameter, flow, velocity or pressure class. New components are selected according to a specification created in the new specification program. By re-specifying a pipe, its

### Outfitting

components are replaced to match a new specification. The result of the operation is always displayed and may always be cancelled, making it possible to reject situations where new components did not match the environment. Everything from an entire pipe down to a single part is available for re-sizing/re-specification.

#### Benefits

The size of a pipe may be changed to match new demands.

#### Compatibility Constraints

None

#### For further information

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Interactive Pipe Modelling / Pipe Model Functions / Resize/Respec

#### Affected Program

Pipe Modelling

## 15. Tagged Pipe Components

### Description

A tagged pipe component is an inline pipe component that has some additional features compared to normal pipe parts:

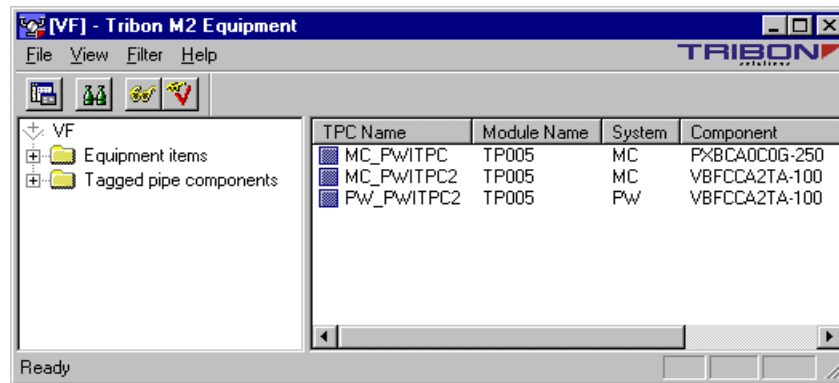
- Can be defined at an early stage as a separate object in the database with free naming.
- A number of additional attributes can be defined
  - All attributes existing for Equipment objects
  - TDM attributes
  - User defined attributes
- Parts lists can be created early in the design process for material estimations

In other aspects they are treated as normal pipe parts

A new branch of Tagged pipe components (TPC) is added to the equipment maintenance program. Here it is possible to create, edit and delete Tagged Pipe Components and their data.

## Outfitting

The Tagged Pipe Components defined here can then be used in Tribon Diagram and Tribon Pipe Modelling. It is also possible to create Tagged Pipe Components directly in Diagram and Pipe Modelling.



### Benefits

Possible to get early estimates of and add more data to complex pipe components.

### Compatibility Constraints

None.

### For Further Information

See the on-line documentation.

### Affected Program

Tribon Equipment  
Tribon General Diagrams  
Tribon Pipe Modeling

## 16. Reference Co-ordinates in Pipe Sketches

### Description

The X, Y and Z co-ordinates presented in pipe sketches do now support reference co-ordinates (frame numbers, longitudinal positions etc)



### Outfitting

#### **Benefits**

Easier to use pipe sketches for mounting of pipe spools in the vessel.

#### **Compatibility Constraints**

None.

#### **For Further Information**

See the on-line documentation of reference co-ordinates.

#### **Affected Program**

Tribon Pipe Splitting

## **17. New Pipe Data Extraction Keywords**

#### **Description**

New keywords for data extraction are available to extract information stored by Tribon Diagrams. This information is stored in pipeline objects on the Pipe Structure Data Bank.

Keywords for excess information from Pipe Model Object are also added.

#### **Benefits**

Easy access to data defined in Tribon Diagrams.

#### **Compatibility Constraints**

Only for data stored by Tribon M2 Diagrams

#### **For Further Information**

See the on-line documentation Tribon M2 Developer's Toolkit > Data Extraction > Pipe Keywords

#### **Affected Program**

### Outfitting

Data Extraction.

## 18. New application to define machine objects

### Description

A new application is developed to define machine objects for bending machine, flange welding machine, boss extrusion machine and boss distance.

### Benefits

Easier definition of machine objects

### Compatibility Constraints

None.

### For Further Information

See the on-line documentation Tribon M2 Outfitting / Pipe / Initiate Outfitting / Define Pipe Shop Machine Characteristics

### Affected Program

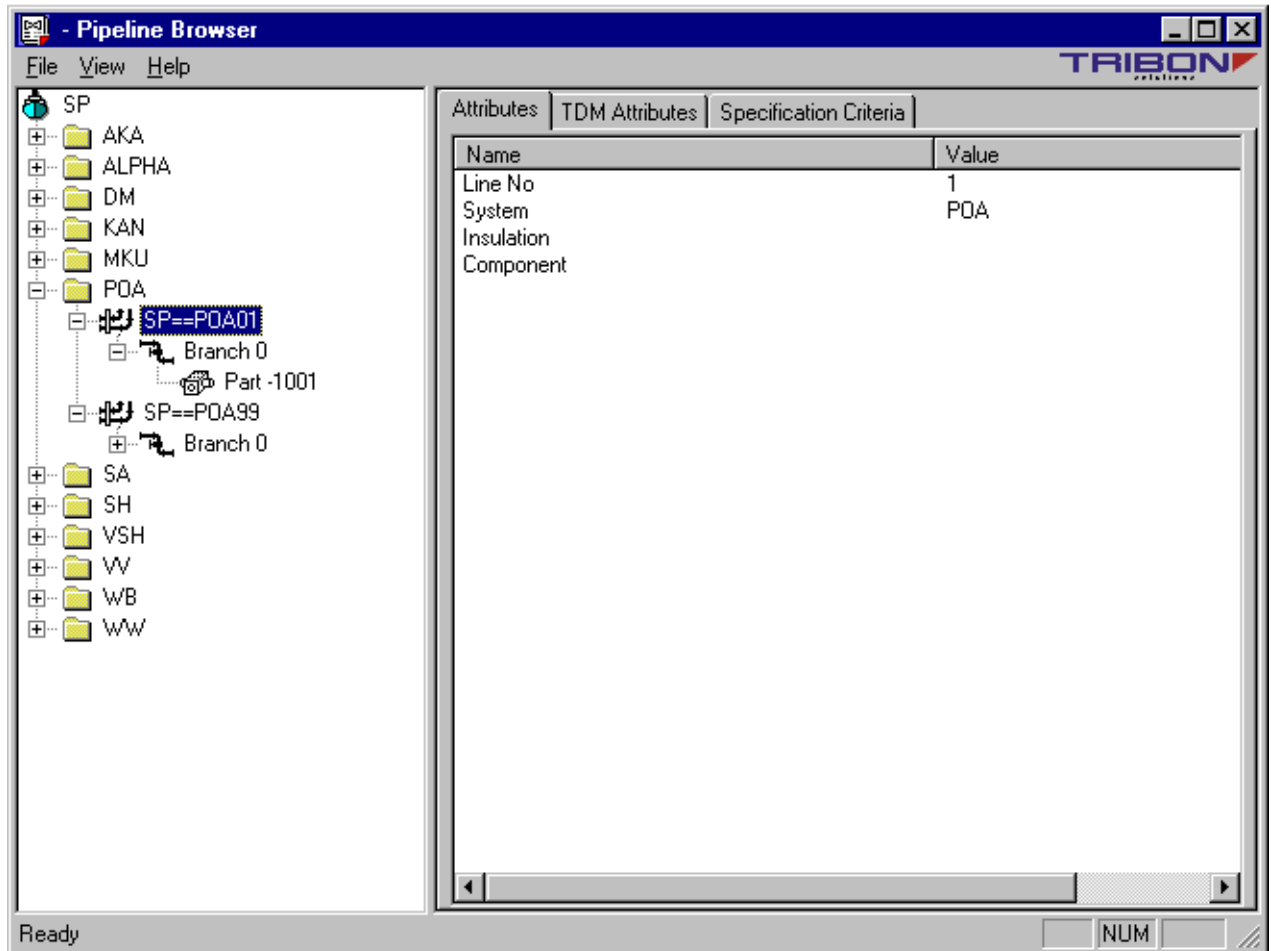
Machine Objects Setup.

## 19. Pipeline Browser Application

### Description

A new application program, a Pipeline Browser, visually depicts the database representation of the Pipeline objects in a project.

## Outfitting

**Benefits**

The visual interface makes browsing and finding interrelations easy.

**Compatibility Constraints**

None.

**For Further Information**

See the on-line documentation.

**Affected Program**

### Outfitting

Pipeline Browser (this program only).

### Outfitting

## VENTILATION

### 20. New ventilation component types

#### Description

2 new ventilation component types are implemented; 3-way component and 4-way component. For both it is required to have all connections points in the same plane and referring to the same node point.

#### Benefits

New component types available.

#### Compatibility Constraints

None.

#### For Further Information

See the on-line documentation, Tribon M2 Outfitting / Components / Component type codes / Ventilation Components

#### Affected Program

Components  
Pipe Modelling

### 21. Connect on Surface of Ventilation Duct

#### Description

The connect function is now extended to handle connections on the surface of a ventilation duct. Functionality to route from the surface of a circular ventilation duct is also added.

### Outfitting

#### **Benefits**

Improved handling of branches from surface of ventilation duct

#### **Compatibility Constraints**

None.

#### **For Further Information**

See the on-line documentation, Tribon M2 Outfitting / Pipe / Pipe Modelling / Interactive Pipe Modelling / Pipe Model Functions / Route

#### **Affected Program**

Pipe Modelling.

## Outfitting

# STRUCTURE

## 22. Bent Plates, new part type for Structure Modelling

### Description

When designing foundations and miscellaneous steel, many parts are made up of bent plates. Up until now, it has not been possible to design these parts with the Structure Modelling application. This functionality has now been added and thus it is now possible to design parts with e.g. rounded corners, corrugations and swedging. <Insert Pict1 here> The bent plates are split into plate parts in the same way as other plates in the Structure Modelling application. The result is a plate with bending information. It is also possible to split the bent plates into separate parts.

### Benefits

It is now possible to create bent plates in Structure Modelling and thus make it easier to design many miscellaneous steel parts.

### Compatibility Constraints

None

### For further information

See online documentation

### Affected Program

Tribon M2 Structure Modelling

## 23. General Bar Section

### Description

A new type of bar is introduced in the Structure system. It has a general bar section defined by an arbitrary closed contour. The contour may not intersect itself but can apart from that have any shape. The bar is modelled as other bar types. A general

## Outfitting

bar cannot have specifically defined endcuts or holes, neither can it be curved. As other bars is presented in the picture and is included in any type of report. A special function is used to create the general bar section. The contour created is stored as a volume object with a user defined name. This volume is then referred from the Components program when defining a new structure bar component. From geometry in any drawing a closed contour is defined by picking contour elements. The pick points should be inside the contour-to-be. The individual geometry elements must be picked in order, clockwise or anticlockwise. The local origin of the contour is highlighted before confirming the contour. When modelling, the description line will attach to the local origin of the contour. When defining a general bar component, the volume type should then be set to 2 and the usage code to 90. It is also possible to override the center of gravity implied by the closed contour. This is done via the Extensions tab and is given as a 2D point (U,V) in the local coordinate system of the contour. The profile parameters a to u can still be set, but are regarded as added information and has no influence on the cross-section contour.

### **Benefits**

Bars with general user-defined section can be defined and modelled as well as included in pictures and reports.

### **Compatibility Constraints**

None.

### **For further information**

See on line documentation Outfitting\ Structure

### **Affected Program**

Structure

## **24. Mirror Transform and Duplicate**

### **Description**

The multiple parts functions are extended with mirror transform and duplicate functions using a 2D line for reference.

### **Benefits**



### Outfitting

This is very useful to transform and copy based on center line or in symmetrical arrangement.

#### **Compatibility Constraints**

None.

#### **Affected Program**

Tribon Structure Modeling

## **25. Bent Profile**

#### **Description**

Bent profile functionality is now available. Bent profiles can be created from a 2D contour or as a “fillet profile” created from 2 existing, straight profiles.

#### **Benefits**

Bent profiles can be created in the model.

#### **Compatibility Constraints**

None.

#### **Affected Program**

Tribon Structure Modeling

## **26. Endcut enhancement**

#### **Description**

The endcut functions have been improved with possibilities to create “snips” in profiles and to automatically create a mitre connection between prpfiles. The snip is available on L, T and F bars and mitre connection is available in L, T and I-bars.

#### **Benefits**

## Outfitting

Easy to “connect” profiles and to create typically used endcuts

### Compatibility Constraints

None.

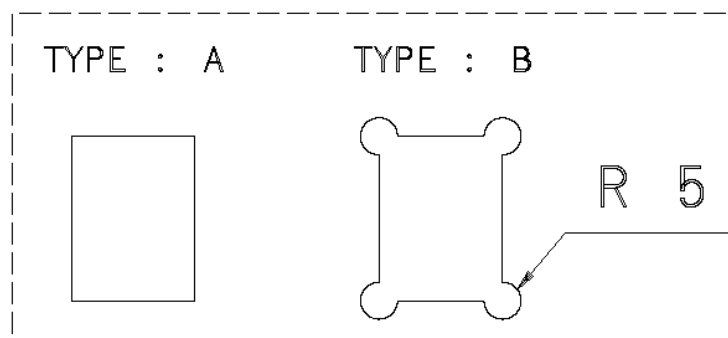
### Affected Program

Tribon Structure Modeling

## 27. Improved hole functions for profiles.

### Description

The hole function is improved to support automatically generated holes for profiles passing through other profiles. There are two types of hole as shown below and in case of B type the user is required to give radius. In both cases a user defined gap can be applied between the profile and the hole.



Standard and general holes can be created in all profiles but this automatic function is only valid on L, T, F, I –bar.

### Benefits

The system automatically creates holes with complicated geometry when profiles are passing through other profiles.

### Compatibility Constraints

### Outfitting

None.

#### **Affected Program**

Tribon Structure Modeling

## **28. Data Extraction Extended**

#### **Description**

The data extraction is extended with keywords to extract information from a general hole in a profile.

#### **Benefits**

User can extract hole data for parts lists and manufacturing instructions.

#### **Compatibility Constraints**

None.

#### **Affected Program**

Tribon Structure Modeling

### Outfitting

## CABLE

### 29. Improved cableway frame modelling functions

#### Description

The cableway frame modelling functions are complemented with new functions as Route X, Route Y, Route Z, Route XYZ, Route YXZ. These functions make it easier to model the most usual constructions. Existing branches are automatically continued if the start or end point of the new parts is the same as a start or end point of an existing branch. A delete part function removes a cableway part. It is not necessary that the part is the first or last in a branch. The insert part function moves parts logically to the current cableway from another cableway.

#### Benefits

Easier to model cableways

#### Compatibility constrains

None

#### Affected Program

Cable Modelling

### 30. Automatic split of cableway branches

#### Description

The function splits all cableways, selected in a group, in the way that the cableways not will consist of more than one branch. The new cableways are named by automatic rules. The cableway name will be set to be the same as the name of a penetration, if one is found on the cableway. If not applicable, default values are used to create the cableway name.

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#### **Benefits**

Cableways can be split to simplify the route description of cables.

#### **Compatibility constrains**

None

#### **Affected Program**

Cable Modelling

## **31. New component types for cableway material**

#### **Description**

A new type of components, used to dress cableways, is introduced. This types of components has a reference to a standard structure. A structure is created automatically when dressing the cableway frame with this type of components. The structure and cableway part will have a reference to each other. This reference makes it possible to handle the structure as a cableway part in cableway fuctions as rotate part, delete part, undress part, move cableway, delete cableway etc. The structure can also be modified by the structure modelling functions as stretch part etc. A new type of bent component with an arbitrary angle is also introduced. Valid for both standard and structure components.

#### **Benefits**

A lot of new types of components can be used by the functions handling cableway material

#### **Compatibility constrains**

None

#### **Affected Program**

Cable Modelling

### Outfitting

## 32. Automatic definitions of cableway imaginary penetrations

### Description

A new group function makes it possible to automatically define an imaginary penetration at the start and end point of a cableway branch. The name is built up by a prefix, fetched from cable default handling, followed by a sequential number of 3 digits. The purpose of placing imaginary penetrations is to define the route of a cable and to describe the resulting cable route.

### Benefits

Easier to define imaginary penetrations.

### Compatibility constrains

None

### Affected Program

Cable Modelling

## 33. Restrictions of cableway name

### Description

Vitesse triggers are implemented in the cable system to make it possible for the user to check that the cableway names are valid when keying them in. Vitesse triggers can also be used to verify that the keyed in components are valid. An example can be found where the triggers are documented

### Benefits

The user can customise a verification of which cableway names and components that shall be used.

### Compatibility constrains

None

### Outfitting

#### **Affected Program**

Cable Modelling

### **34. Improved cable selection tools for background job**

#### **Description**

The cable selection form, for background jobs, is extended with buttons that includes predefined system in the list of cables. The names of the predefined systems are set up by default parameters

#### **Benefitis:**

The selection of cables for background jobs can be simplified.

#### **Compatibility constrains**

None

#### **Program name**

Cable Modelling

### **35. Routing automatically by predefined nodes**

#### **Description**

The user may define which nodes (penetrations) the cable is supposed to pass when routed on cableways. This definition can be done interactively or as a background job. The definitions of the nodes themselves can be made interactively or as a background job.

#### **Benefits**

The user may more precise define which way the cable shall be routed when it is run as a background job.

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#### Compatibility constraints

None

#### Program name

Cable Modelling  
Cable Batch Routing

## 36. Improved length calculations for cables

#### Description

The user may define one extra excess length for each cable end. These extra excess lengths are included in the total length and can be used inside the equipment for connecting. The extra excess length may be updated interactively or as a background job. An excess length may also be added to every cableway branch. This excess length is added to the cable length if the cables passes the branch.

#### Benefits

The cable length calculations are improved

#### Compatibility constraints

None

#### Affected Programs

Cable Modelling, Cable Batch Routing

## 37. Cable note

#### Description



### Outfitting

The information displayed about cables passing a cableway or penetration by the cable check function can be placed as a drawing note,

#### **Benefits**

It is easier to place information about passing cables on a drawing.

#### **Compatibility constrains**

None

#### **Affected Programs**

Cable Modelling

## **38. New cable draw codes**

#### **Description**

New draw codes are implemented: The drawing of cableway frame can be omitted or specified to be a specific line type. The drawing of cableway parts, that is dressed with a component with standard structure reference, can be omitted or specified to be a specific line type.

#### **Benefits**

Collisions between cableway frame and other model objects can be avoided. Easier to indicate structure parts used as cableway material.

#### **Compatibility constrains**

None

#### **Affected Program**

Cable Modelling

### Outfitting

## 39. Improved cable GUI

### Description

The cable change data form has been complemented with fields for the new attributes. It is also possible to create new cables in the new change data dialogue if no cable is current.

### Benefits

Easier to update and create cables.

### Compatibility constrains

None

### Affected Programs

Cable Modelling

## 40. New General Diagrams Application

### Description

A totally new Diagram program has been introduced in Tribon M2. It is built upon the standard software product Visio. The diagram program is used for cable diagrams as well as pipe diagrams. See Release note number 1 above.

## 41. Zone lengths for cables

### Description

A feature to add a named length for a cable is implemented in M2. The length can be used as a preliminary estimation or as estimated length of a part of the cable

### Outfitting

that the user not wants to route. The zone length can be set both interactively and by using the background job feature. The length is added to the total length.

#### **Benefits**

The user has a tool to manipulate the cable length estimations.

#### **Compatibility Constraints**

None.

#### **For Further Information**

See the on-line documentation.

#### **Affected Program**

Cable Modelling  
Cable background Job Routing

## **42. Intermediate material function for cableway**

#### **Description**

The user is able to define the cableway material for a branch by the following steps. Indicate the start and end part. Key in material and intermediate distances in a form. The new component types with structure references can also be used.

#### **Benefits**

Previously the user had to manually put corners before dressing to get the same result.

#### **Compatibility Constraints**

None.

#### **For Further Information**

### Outfitting

See the on-line documentation.

#### **Affected Program**

Cable modeling.

### **43. Connect cableway and structure**

#### **Description**

The user is able to connect cableways and structures by interactive functions found in the structure pull down menu and by using structure vitesse. The connection is supposed to be used for cableway hangers and affects functions as move cableway e.t.c. The connections can be visualized by the Display connection function in the structure and cableway pull down menu.

Please note that connections between cableways and structures are automatically generated when the user dress a cableway frame with material that has a standard structure reference.

#### **Benefits**

The cableway hangers will be moved along with the cableway if it is moved. The topological reference can be used directly by user from data extraction.

#### **Compatibility Constraints**

None. Please note that the references will be destroyed if the model is accessed by a M1 or TB5 application.

#### **For Further Information**

See the on-line documentation.

#### **Affected Program**

Cable Modelling  
Structure Modelling

### Outfitting

Structure Vitesse

### Outfitting

## EQUIPMENT

### 44. Extended Import Format for Equipments

#### Description

The text import in the Tribon Equipment program is improved to now also support X, Y and Z co-ordinates.

#### Benefits

Many equipments can be easily and quickly created and placed in the model using an ordinary comma separated text file.

#### Compatibility Constraints

None.

#### For Further Information

See the on-line documentation.

#### Affected Program

Tribon Equipment Program

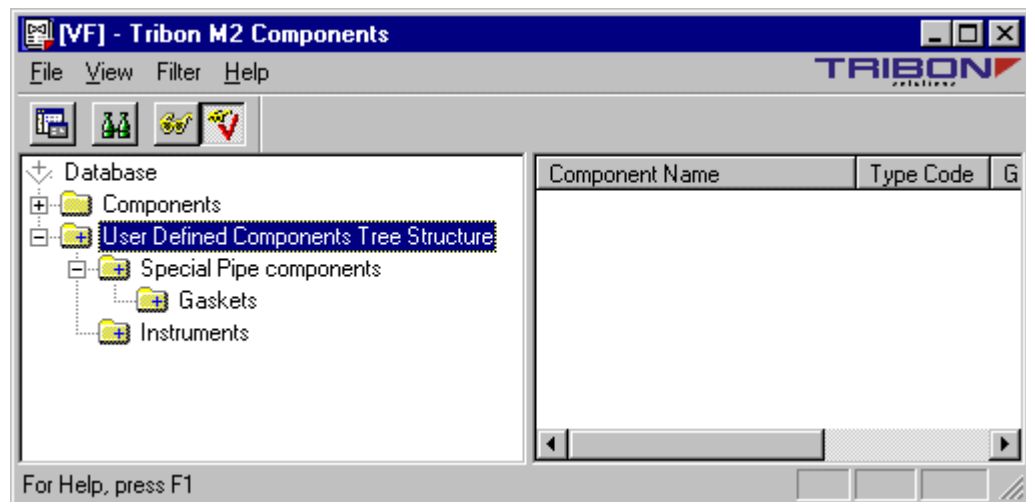
## Outfitting

# COMPONENTS

## 45. The User Defined Tree Structure Tool

### Description

This new tool in Tribon Components is used to create a user-defined tree, which differs from the fixed component type tree.



### Benefits

The purpose is to find components easier.

### Compatibility Constraints

None.

### For Further Information

See the on-line documentation.

### Affected Program

Tribon Components

### Outfitting

## 46. Tribon Component Program Accessible in Applications

### Description

The Tribon Component program is now used when searching for components in interactive applications.

### Benefits

All features in the Tribon Component program can be used when selecting what component to use in the model. Features like the tree view, the search functions, the property pages and the user-defined component tree build a powerful search engine to more easily find and use components when modeling.

### Compatibility Constraints

None.

### For Further Information

See the on-line documentation.

### Affected Program

All programs where components are searched for and selected.

## 47. Link to tribon.com for Downloaded Components

### Description

The Tribon Component program has a link to the tribon.com site that will give immediate access (login required) to the relevant web pages for a downloaded component.

### Benefits

Easy access to additional information for a component.

### Compatibility Constraints

None.



### Outfitting

#### **For Further Information**

See the on-line documentation.

#### **Affected Program**

Tribon Component Program

## Outfitting

**PIPE SUPPORT****48. Pipe Support New Menu****Description**

A new menu system is implemented in the Pipe Support package as below.

The screenshot shows the 'Pipe Support Main Menu' dialog box. It has a title bar with standard window controls. The main area is divided into several sections: 'MODULE' (TEST), 'USERNAME' (UNI), 'SERIAL' (1186), 'Table option' (Clamp, Upper Nut, Slid pad, Hole, Zig-zag, Type X, Snip, Indicate End, Ones only), 'Leg option' (Pad, Center on Tee, Slanted leg, 500), and 'Misc. option' (Part, TypeLocation, Owner, Relate move, Parallel attach). On the right, there are tabs for 'New', 'Edit', 'Manipulate', 'Snip', 'Parameter', 'Default', and 'SPad'. The 'New' tab is active, showing 'TYPE' (TYPE E), 'COMPONENT' (L#130\*130\*13), and 'PIPE CLAMP' (U100.dat). Below these are 'TABLE PLAN ORIENTATION' (WEB), 'STIFFENER ATTACHMENT' (1002), and 'SUPPORT CREATION LAYER' (1002). There are also checkboxes for 'ADD (Attach to existing support)' and 'PROFILE (No related pipe)', and buttons for 'CREATE' and 'RESET'. At the bottom, there is a row of buttons: RELATE, UnRELATE, CONNECT, DisCONNECT, DELETE, MOVE, SKETCH, INFO, FITLEG, ReGENERATE, REVIEW, COPY, and EXIT. A footer note states: 'To Create the new Pipe Support click "CREATE" button. "RESET" button will reset the entire menu system including all tabs'.

**Benefits**

Better interface with many new features.

**Compatibility Constraints**

None.

### Outfitting

#### **Affected Program**

Pipe support package

## **49. Pipe Support Edit function**

#### **Description**

An edit function is introduced with three main categories:  
Unit edit, Member edit and Pipe edit.

Rename and flip-U are main functions in Unit edit and Rename, Flip-U and Flip-V are available in member edit for profiles that are not related a pipe. In pipe edit user can change the clamp and sliding pad

#### **Benefits**

Easier modification of pipe support. Users do not need to delete and recreate.

#### **Compatibility Constraints**

None

#### **Affected Program**

Pipe support package

## **50. Pipe Support New Clamp definition**

#### **Description**

A new clamp control is introduced in M2. The main purpose is to give a possibility to control clamp based on pipe system.

First the user can optionally create a clamp control file holding information about clamp creation per pipe system and default clamp type based on the diameter of the pipe.

### Outfitting

Next user need to set up clamp definition file which contain real data of clamp such as clamp and nut component and some geometrical data based on the pipe diameter.

Further, the B-offset and E-offset is defined in this file and is used as width margin to decide the edge point of the table member. B-offset is supposed to be used for the bent part and E-offset is applied to a free end

The clamp control file can be omitted and then there is no control against pipe system.

#### **Benefits**

A powerful and flexible way to created clamp arrangements with powerful control mechanism

#### **Compatibility Constraints**

None.

#### **Affected Program**

Pipe support package

## **51. Pipe Support New Sliding pad definition**

#### **Description**

The new sliding pad control give a possibility to switch on and off according to the pipe system. Hole creation is also controlled by this new mechanism.

The initial value can be defined in the sliding pad control file and the user can later modify this during modeling.

#### **Benefits**

Detailed control of sliding pads is implemented.

#### **Compatibility Constraints**

None.

### Outfitting

#### **Affected Program**

Pipe support package

## **52. Pipe Support Snip definition**

#### **Description**

The shape of snip has been improved to meet yard practice. Three snip types are available, type-A, B and C.

Type-A and B has fixed value and the parameter can be defined by the user in snip definition file.

Type -C is a user defined type. The user can define each parameter when adding the snip.

#### **Benefits**

Better snip function.

#### **Compatibility Constraints**

None.

#### **Affected Program**

Pipe support package

## **53. Pipe Support Hole creation**

#### **Description**

Holes are automatically created when user set the holes creation option. The holes are created with relation to clamp and sliding pad. Further there is a ZIGZAG option, if this is activated the holes are created in via a zigzag "pattern" on the table member in order to avoid overlapping of clamp components.

This information is not yet displayed in the sketch.

### Outfitting

#### **Benefits**

Powerful hole creation with less rework is possible.

#### **Compatibility Constraints**

None.

#### **Affected Program**

Pipe support package

## **54. Pipe Support manipulate**

#### **Description**

Parts that are not related to the pipe can be modified with functions like transform, trim, mirror, rotate etc.

#### **Benefits**

These functions give user a possibility to change the arrangement of the pipe support.

#### **Compatibility Constraints**

None.

#### **Affected Program**

Pipe support package