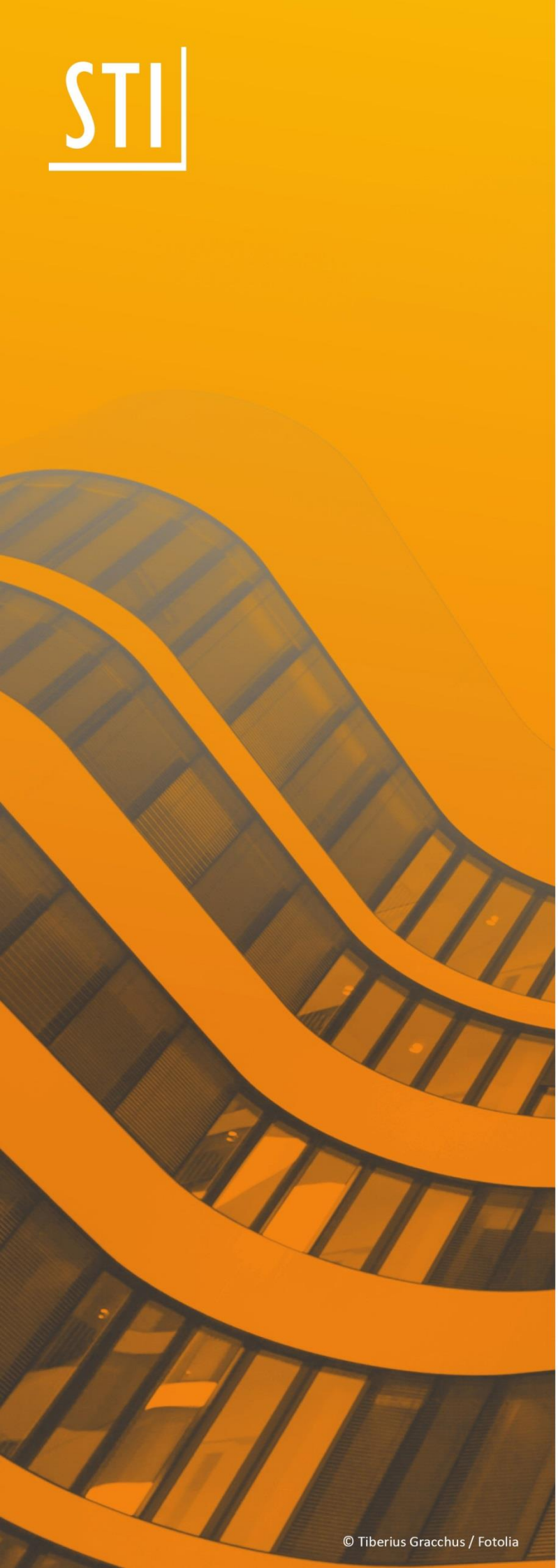

What‘s New?

STI SPIRIT | 2017

active BIM

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Table of Contents

Note

The following pages describe the new features of the current version. All new features apply exclusively to SPIRIT, provided the corresponding licensed program sections are available on the user's/customer's computer.

📖 For more information refer to the Online Help, the What's New features on the Welcome page that can be read in the context window.

Adaptations – New welcome dialog

Description

With the new SPIRIT version the welcome dialog was also revised. Functional has not changed much, but the start assistant now offers a preview and a 3D preview for each last opened drawing.

This 3D preview uses the new ST 3D viewer, which replaces the o2c player. This provides many useful functions for this drawing without having to open the drawing. For more information, see "Adaptations – New ST 3D-viewer replaces o2c".

Welcome dialog SPIRIT 2017

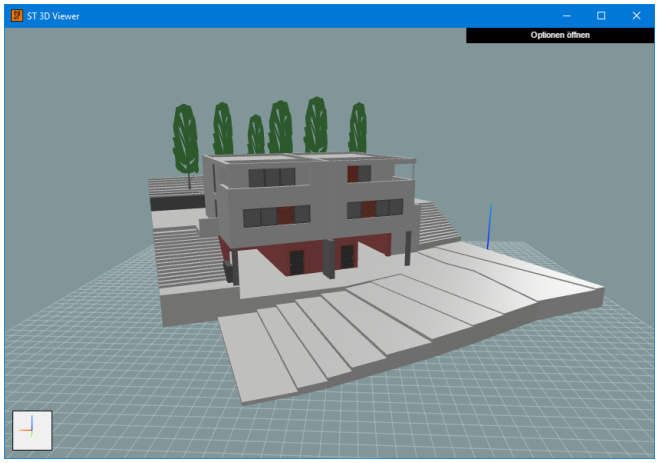
Value

- ✓ Recently used drawings are displayed with a preview.
- ✓ 3D preview without opening drawings.
- ✓ Only your drawings currently being edited are displayed.
- ✓ You can get the latest news directly at the start of the program.

Adaptations – New ST 3D-Viewer replaces o2c

Description

The o2c player was replaced in SPIRIT 2017 by a new 3D-viewer. This is fast and offers more functions than the o2c viewer. The new 3D viewer is based on a web-based browser window. This core offers many new possibilities to view and create the 3D model in SPIRIT.



ST 3D-Viewer

All functions of the o2c

The new viewer is launched as the o2c player via the pull-down menu View ➪ ST 3D-Viewer. On the upper right-hand side of the screen is the Options menu of the Viewer. In this, various functions can be selected for the new ST 3D viewer.

Navigation in the ST 3D-Viewer

The navigation is very simple and intuitive. Use the mouse to change the view to the model. The mouse wheel is zoomed in and out in the viewer, optionally with the right mouse button pressed. Pressing the mouse wheel or the middle mouse button changes the camera position. Press the left mouse button to rotate the model. Depending on the location, the most varied views can be set on the model.

Options menu of the viewer

The options allow you to set useful viewer settings and functions. The options are divided into the categories Actions, Presentation, Views, Clipping and Walk through.

Actions

The following functions are available for actions in the Viewer:

- Import Model as ST 3D-Viewer File or STL-File
- Export Model as St 3D-Viewer File
- Save the current view as a picture
- Save the current view as a file preview

Presentation
The following functions are available for presentation in the Viewer:

- Turns the grid on and off
- Show or hide the origin point
- Toggle Parallel View and Perspective
- Set the background color

Unlike the o2c player, the textures of the 3D model from SPIRIT are displayed and displayed in the new viewer. The material assignment in color palette manager is taken into account.

Views
In the new viewer, the default views Front, Back, Left, Right, Top, Bottom and Reset are available.

Walk through
In order to move through the virtual building model, the new viewer can use the function of walking through. If the option is active, the reference point, which serves as the start point, is set in the model using the mouse. The movements are controlled by the mouse and the keys [W] for forward, [S] for reverse, [A] and [D] for lateral running. The [Q] and [E] buttons change the height of the eyes. This can be flown in the model in different floors.

Clipping
Clipping allows a vertical section through the 3D model. By activating the cutting plane, this can be rotated around the Z axis. The position information on the X or Y axis sets the position of the clip display.

Roof editor
In the SPIRIT roof editor, the o2c window was also replaced by the new ST 3D viewer. Thus in SPIRIT 2017 no more o2c player is included.

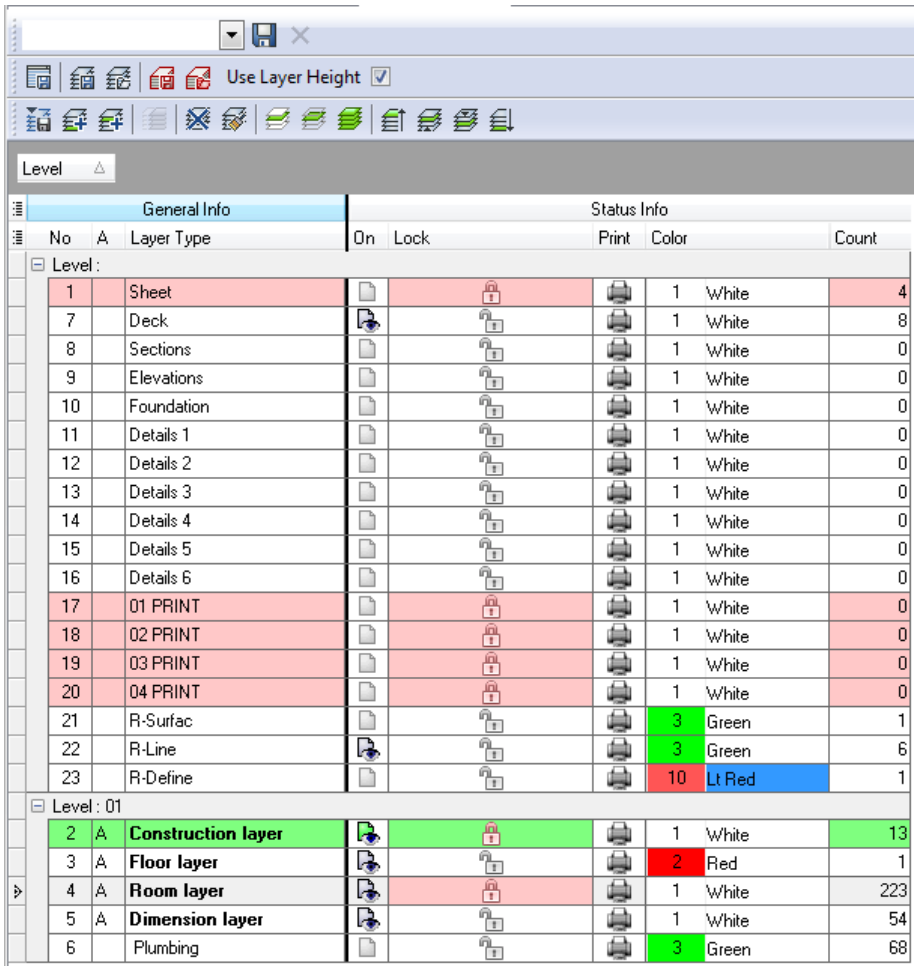
Value

- ✓ Improved visualization of 3D models.
- ✓ Livestyles for checking and checking the 3D models.
- ✓ New presentation possibilities through the migration of the 3D models.
- ✓ Saving model images for presentations.

Adaptations – Layer Manager – Display locked layer

Description

For a better overview in the Layer Manager, locked layers in SPIRIT are now highlighted in red. This will highlight the entire line in a discreet red. You can ´t delete or add elements to locked layers. The layer contents are blocked for processing.



Layer Manager with locked layers

In combination with the option **No selection with locked slides**, you can always control your drawing content and the best workflow for you.

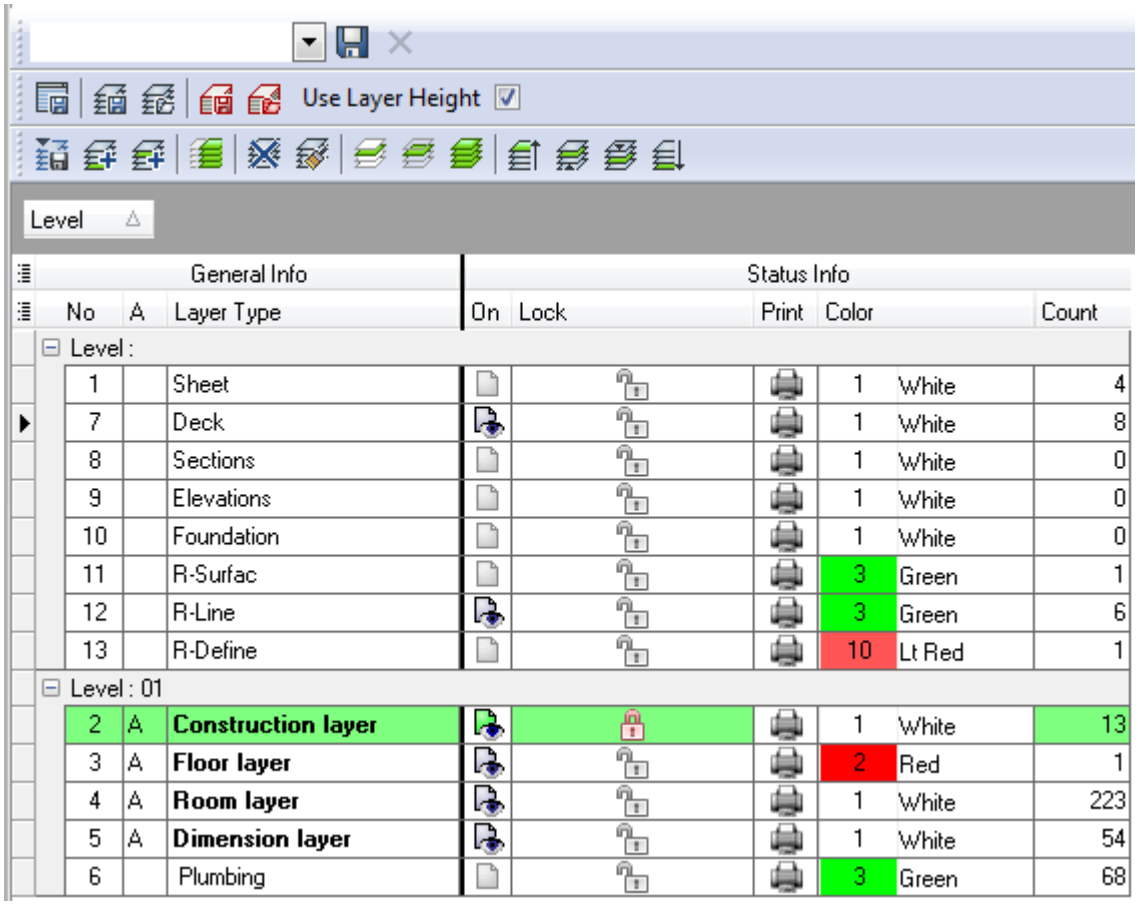
Value

- ✓ Locked layers are immediately visible to the user.
- ✓ The importance of locked layer is displayed.
- ✓ Active locked layer, which can´t be drawn, are directly visible for each colleague.

Adaptations – Layer Manager – Layer of the architectural system

Description

Architecture system layers are bold for better visibility and control in the Layer Manager.



Layer Manager with architectural layer and standard layer

The bold type layers are components of the architecture system.

Depending on the working method, standard layers are mixed with architectural layers. The distinction is intended to focus on the associated functions in SPIRIT.

Value

- ✓ Architectural layers fall directly into the eye.
- ✓ Components and architectural elements after the IFC import are directly visible.

Adaptations – Layer Manager – duplicated layers

Description

There are many useful features in the Layer Manager to manage and organize drawings using the layers. The duplicate layer function now creates an exact copy immediately below the original layer. The created layer named Copy is automatically dimmed.

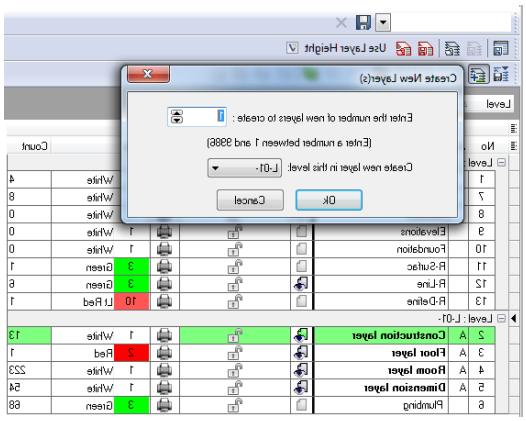
Value

- ✓ Copied layers no longer end up at the end of the slide list.
- ✓ Elements are superimposed, but are hidden in the copy and are therefore not relevant to the current work.

Adaptations – Layer Manager – Create new layer directly in one section

Description

In order to allow layer structures to be created more quickly and more easily during operation, SPIRIT now offers the right level when creating new layers.



Layer Manager Dialog Create New Layer(s)

SPIRIT recognizes which level is currently active and allows you to create new layer directly in this level. In addition, existing level can also be selected on which new layer are to be applied. The new layers get directly the right base and height of the level.

If you do not have a level in the drawing, or if layers are not to be assigned to a level, this is still possible with the **Create New Layer(s)** dialog.

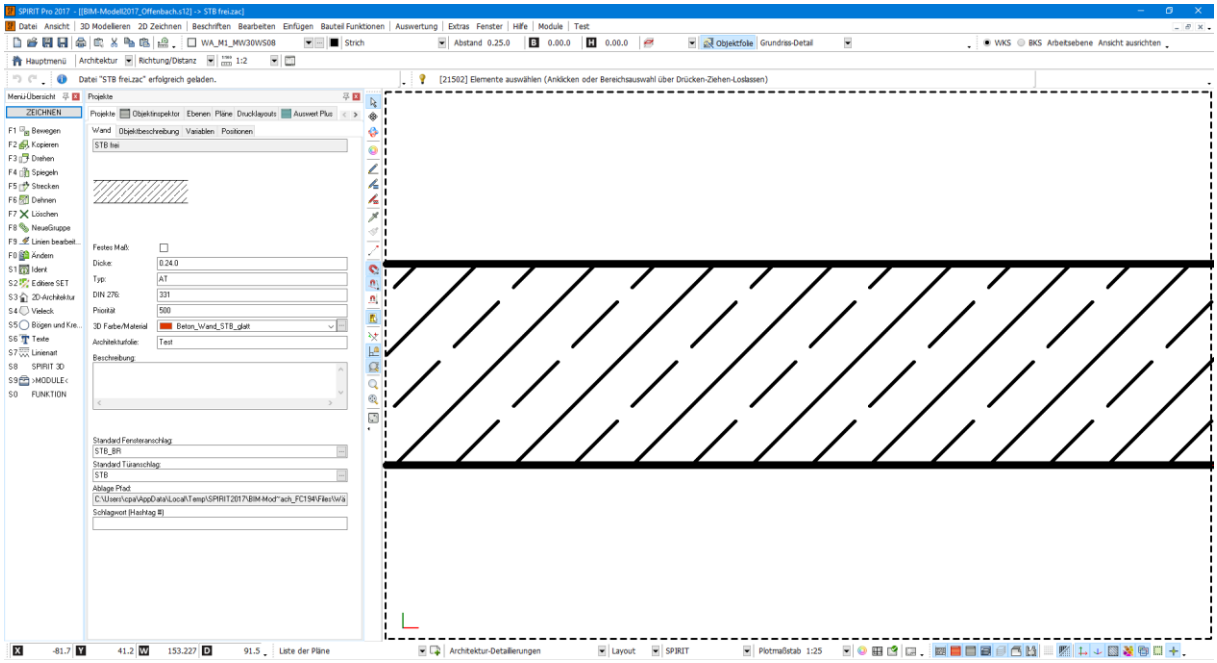
Value

- ✓ Fast and comfortable creating new layers with level reference.
- ✓ The base and the height of the assigned level are accepted directly.

Adaptations – A frame for internal components, symbols, styles and references

Description

For better distinction and unambiguous understanding, internal files are opened and edited in a character space provided with a dashed frame.



Opened internal wall component

This allows you to recognize directly whether the open symbol, style or reference file is an internal or external drawing element. The object inspector displays as a further property of a reference for checking whether it is embedded or not.

Value

- ✓ Internal drawing elements are better marked.
- ✓ More comprehensible behavior when editing internal drawing elements.

Adaptations – Create a copy with date key

Description

In order to create fast and traceable backups of the currently open drawing, the **Create Copy** function is available in the pull-down menu **File**. The stored copy of the original file is directly provided with a unique date key. This allows you to create backup copies directly with one click.

The date key is composed of file names, date and number.

Example:

Test.s12 = Create Copy = Test (2017-02-08-1130) .S12, Test (2017-02-08-1140) .S12, Test (2017-03-08-1021) .S12.

Value

- ✓ Creating an S12 copy goes faster than **Save As**.
- ✓ Unique date key for best traceability.

Adaptations – Room and room contour

Description

When the room contours (**Room Contour** and **Net Room Area**) are turned off, they are still present as dotted lines with large factor. As a result, the corner points of the two contour lines are still displayed for checking purposes.

These corner points are now ignored for editing. Magnetic cursors and interception by means of the middle mouse button no longer react to the corner points of the contour lines, thus avoiding unexpected or erroneous snap points.

The visibility of the contours of the room contour now refers to all levels and is no longer level dependent. The visibility of the contours of the contours can now be switched to a central location within the model.

New features in the context menu
The room context menu has been supplemented by the functions Customize, Room Contour on / off, Net Room Contour on / off already contained in the menu overview.

Change the stamp
Space stamps can now also be exchanged via the context menu of the space stamp.

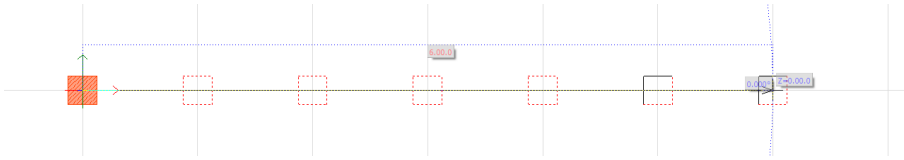
Value

- ✓ Faulty snap points, for example when dimensioning rooms, are excluded.
- ✓ Improved handling when using the rooms.

Adaptations – Dynamic copying

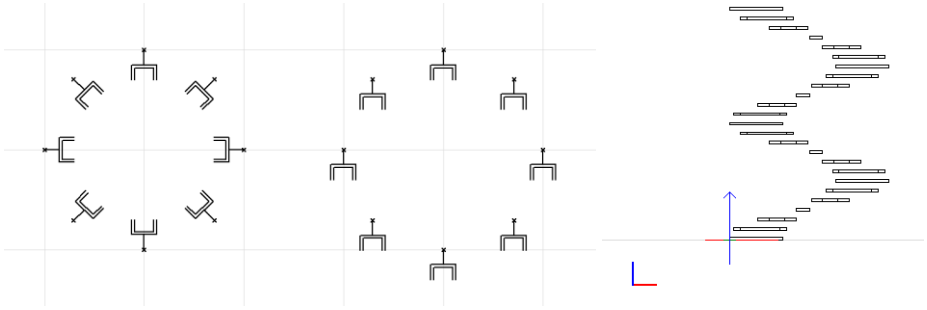
Description

The dynamic copy shows the number of copies made directly via the cursor position. The definition of the copy distance can be seen in 2D as well as 3D before the settling, as the copying result would look. This means that no copy number has to be defined in advance, which is done directly on the cursor. Dynamic Copy is seamlessly integrated into the Copy menu. After selecting the element, you can optionally select whether **Single**, **Linear**, **Rectangle** or **Circular** is to be copied.



Columns linear copy

With the **spread out** function, it is also possible to adjust the number of copies on the cursor to the defined total length. The previously selected copy distance is defined new and directly at the cursor. With **Circular** can be rotated around a center in the simplest way. You can set whether the copied elements rotate around the center or not.



Copies symbols around center with rotation, without rotation and in Z-Axis.

With the addition of a Z-height, the new elements are rotated around the center and copied in the Z-alignment.

Value

- ✓ Copy multiple is displayed directly on the cursor.
- ✓ Fitting elements over a distance is possible directly at the cursor.
- ✓ The distance between the elements or the number of elements to be copied can be changed at any time.

Adaptations – Section and view

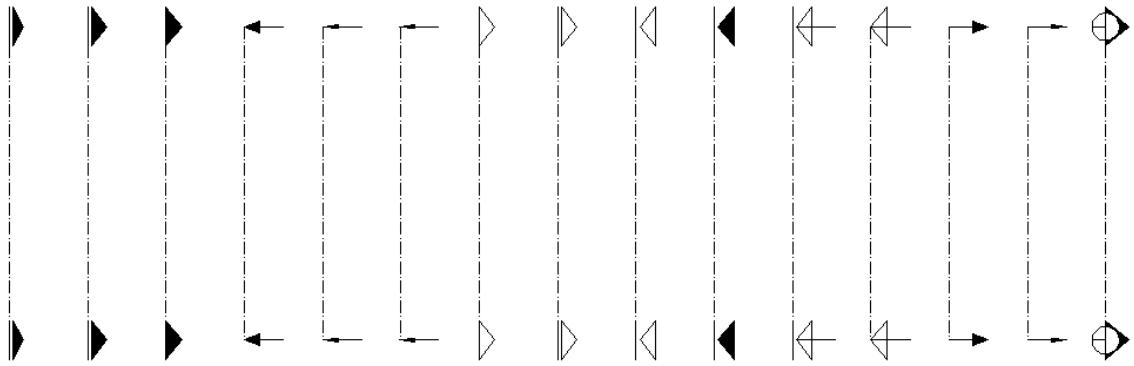
Description

Several minor adjustments were made to the current version in the section and elevation generation.

Cutting line and cutting result
The elements of the cut line are now grouped and only one cut result can be stored for each cut line. It is no longer possible to lay several cutting results per cutting line.

Identify section
Identifying with the Identify section function has been improved. Regardless of whether the cutting line or the cutting result is selected, the two parts belonging to each other and always highlighted.

Cut lines symbols
For the cutting line, symbols for the representation of the cutting direction can be selected under S2 Options in the settings dialog of the cut. In addition, there are 15 new symbols for the cutting guide. The symbols are located under annotation / arrows.



New cut lines symbols

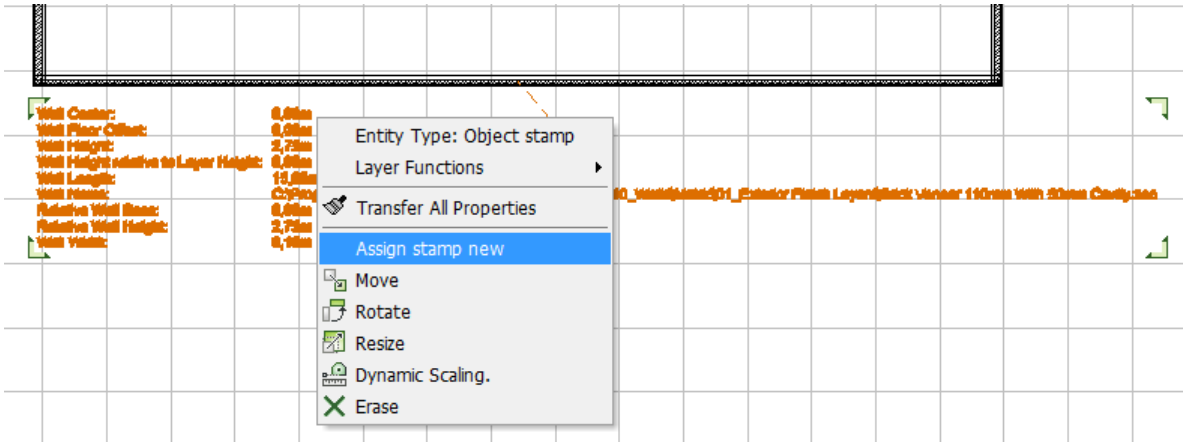
Value

- ✓ Clear assignment of a cutting line belongs to a cutting result.
- ✓ Improved display of the cutting line by new symbols.
- ✓ Improved traceability during subsequent identification of cuts.

Adaptations – Object stamp

Description

Object stamps that lose your assignment can now be reassigned via the context menu. Similarly, object stamps can be copied without your mother element. The subsequent assignment of the copied stamps with new elements is thereby possible.



Assigned object stamps and context menu of an object stamp

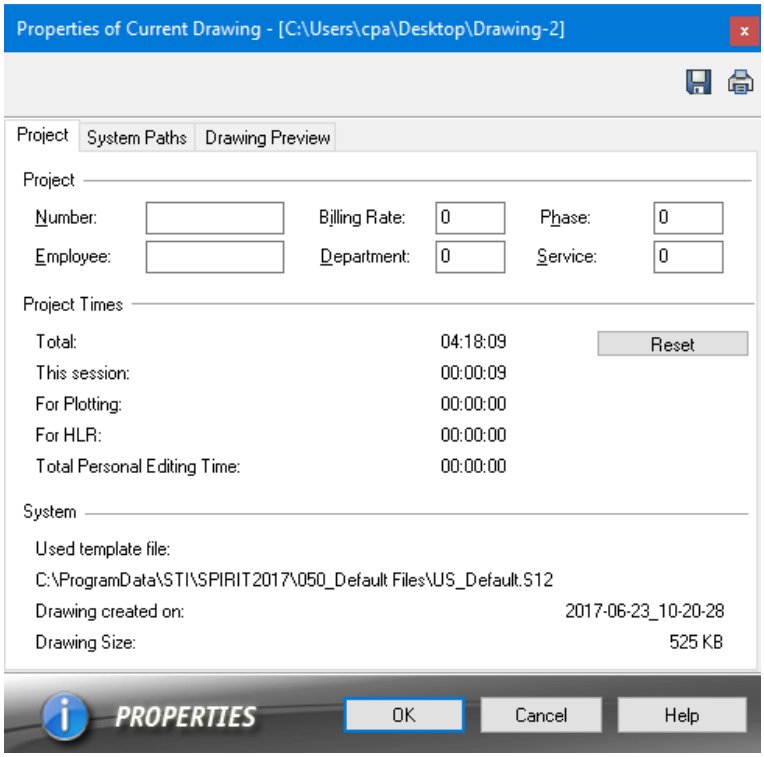
Value

- ✓ Directly assign object stamps in the drawing using the context menu.
- ✓ Quick recovery of lost connections.

Adaptations – Drawing properties

Description

SPIRIT provides some drawing information about the properties. Under File Drawing Properties…, it is now determined which default drawing is used for the drawing and when the drawing was created.



SPIRIT Properties

The accumulated total time is also documented here. This value can now be reset.

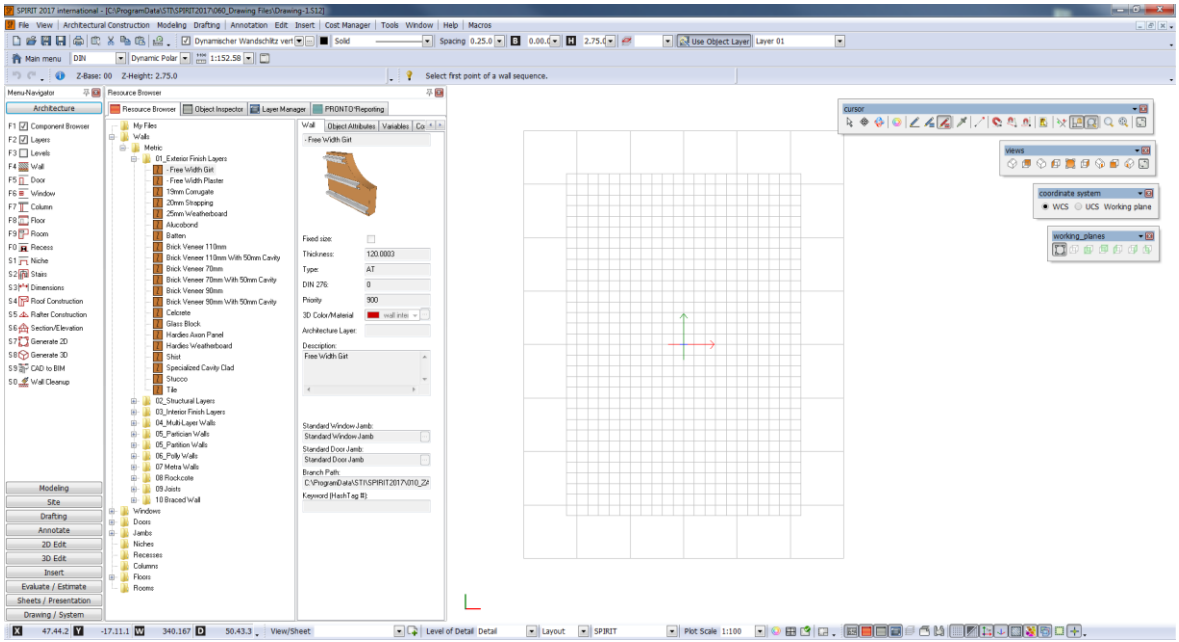
Value

- ✓ For better documentation and assistance with support cases, the user as well as the support can more easily understand the basis for the drawing.
- ✓ The accumulated total time for a project can now be reset to zero.

Adaptations – User Interface

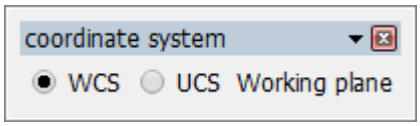
Description

We want new functions to be used optimally and are always keen to optimize SPIRIT. To comfortably work with the new functions - the 3D Orbit, the WCS and UCS, the SPIRIT interface has been optimized.



Standard interface SPIRIT 2017

With SPIRIT 2017, between world coordinate system and a user coordinate system can be changed for the first time. To do this, the Coordinate System toolbar is directly visible on the upper right-hand side of the screen.



Coordinate system toolbar

- Switch between WCS and UCS
- Create a new working plane and thereby adjust the UCS

The pull-down menu **View** is adapted for the new way of working with WCS and UCS. The control of the views in terms of the view of the model and the fast setting of a working plane in the UCS is directly selectable here. There are two new selections: **Views** and **Working Planes**. In addition, there are two identical toolbars, which can be showed/hid.

The **switches** toolbar with the most important functions is now placed on the right bottom of the screen.

Switches toolbar

Here visibilities for working to enable quick and easy on and off.

- Change layout and standard mode
- Turns on and off the dockable dialogs
- Turn the grid or line grid on and off
- Change between point and line grid
- Turning on and off the absolute zero point of the WCS
- Turns the viewcross on and off
- Turns the hatches on and off
- Switching on and off the hatches
- Turning the image files on and off
- Turning the clip frame on and off
- Turning objects on and off

Value

✓ Layout of the function bars for more intuitive use.

Operation – The world coordinate system, WCS for short

Description

Each point in the drawing or each component of the model is determined by its distance from the zero point (coordinate zero point) in the X, Y, and Z directions. In SPIRIT 2017 working in the world-coordinate system was fundamentally revised.

This allows you to move around in the virtual space and to define exact position data in the parallel projection using the standard tools Move, Copy, etc.

SPIRIT therefore no longer works only in a visual coordinate system (up to SPIRIT 2016).

All objects in a drawing are defined by the coordinates in the world coordinate system (WCS), which can´t be moved or rotated.

Due to the introduction of the world coordinate system, the 3D input in SPIRIT changes fundamentally.

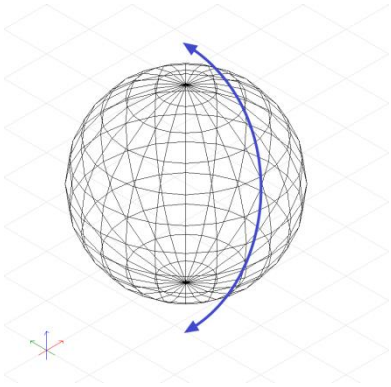
Operation – 3D-Orbit

Description

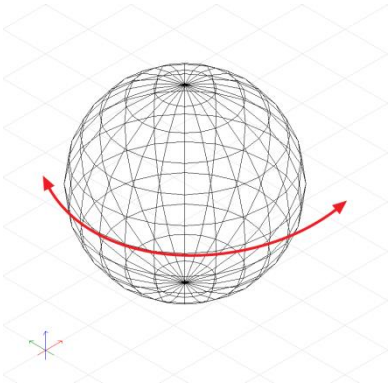
With the help of the 3D orbit you fly around your 3D model. The orbit allows you to move around, above and below your model. This makes it easier to construct in three-dimensional space. You will not want to miss the orbit in the future if you are modeling in SPIRIT 3D.

The orbit can be found in the cursor toolbar of SPIRIT as a further navigation option next to the Pan function.

Optionally, you can switch to orbit mode by pressing [CTRL] + [middle mouse button] at any time and turn around all objects in the drawing. The center of rotation is at the current cursor position.



Sphere in the WCS



Sphere in the WCS

If, for example, the mouse is pulled up or down, you move above or below the model. With a movement to the right or left one moves around the model.

Value

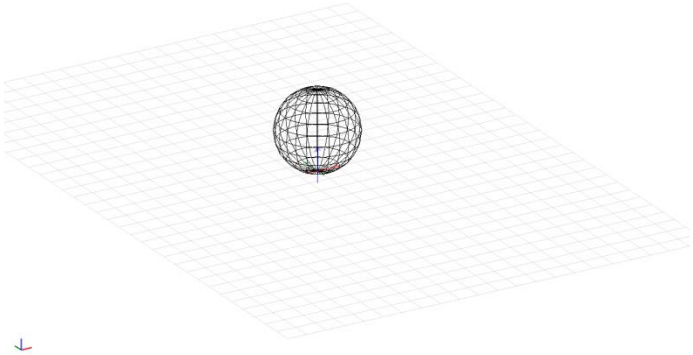
- ✓ Aligning the drawing surface is possible at any time.
- ✓ Views on the 3D model can be changed freely and at any time.

Operation – New Grid

Description

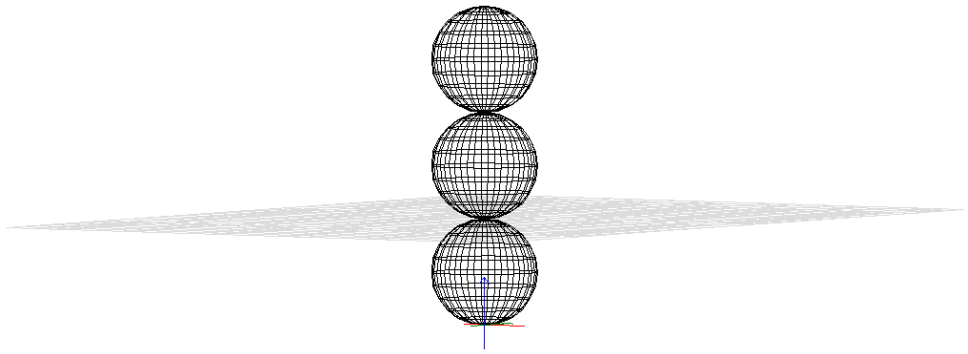
When you start a new drawing, the new predefined line grid of the default drawing catch the eye. In SPIRIT 2017, the user can choose whether to construct with a dot grid or a line grid. The new line grid facilitates orientation in 3D orbit and is defined by Drawing / System ➪ F6 Grids ➪ F5 Grid size ➪ F5 Line Grid. There can only be a line or a dot grid in a drawing.

The functionality to define different grids per layer remains.



Line grid in parallel projection

The line grid always refers to the currently set base of the drawing. Thus, the user always has the current input base in view. The working plane thus simultaneously defines the position of the line grid.

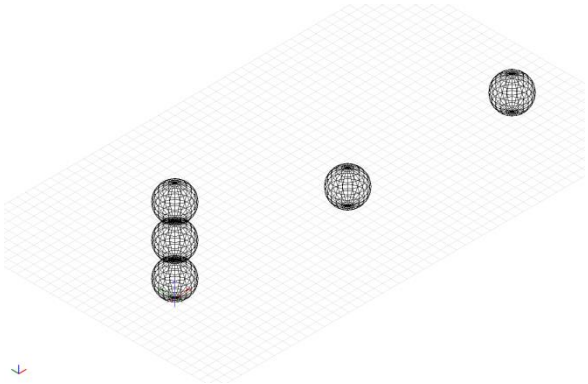


Line grid based on 4m (Sphere diameter per Sphere 4m, origin Sphere 1 on basis 0)

As a new function, the grid area is available with the line grid, which can be defined under Drawing / System. The range defines the size of the grid in relation to the grid set.

The representation of the line grid is limited to this range, but is also available outside. If the cursor is fixed to the grid (short-distance key [x]), it also considers the "grid points" outside the lines shown.

If drawing elements are drawn outside the defined range, the line grid increases automatically.



Line grid enlarged in X-axis by copying the sphere

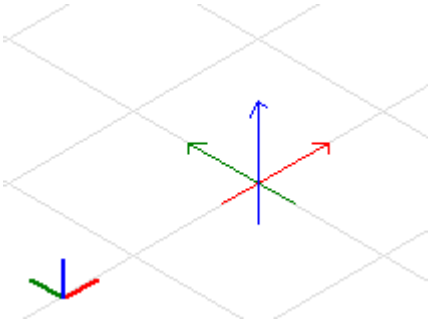
Value

- ✓ The line grid serves for better orientation in 3D.
- ✓ The line grid always points to the set base, on which drawing and construction is carried out.
- ✓ The grid always shows the orientation, whether WCS or UCS (working plane).
- ✓ The line grid grows with the drawing contents and displays distant elements from the absolute zero point.

Operation – Coordinate crosses

Description

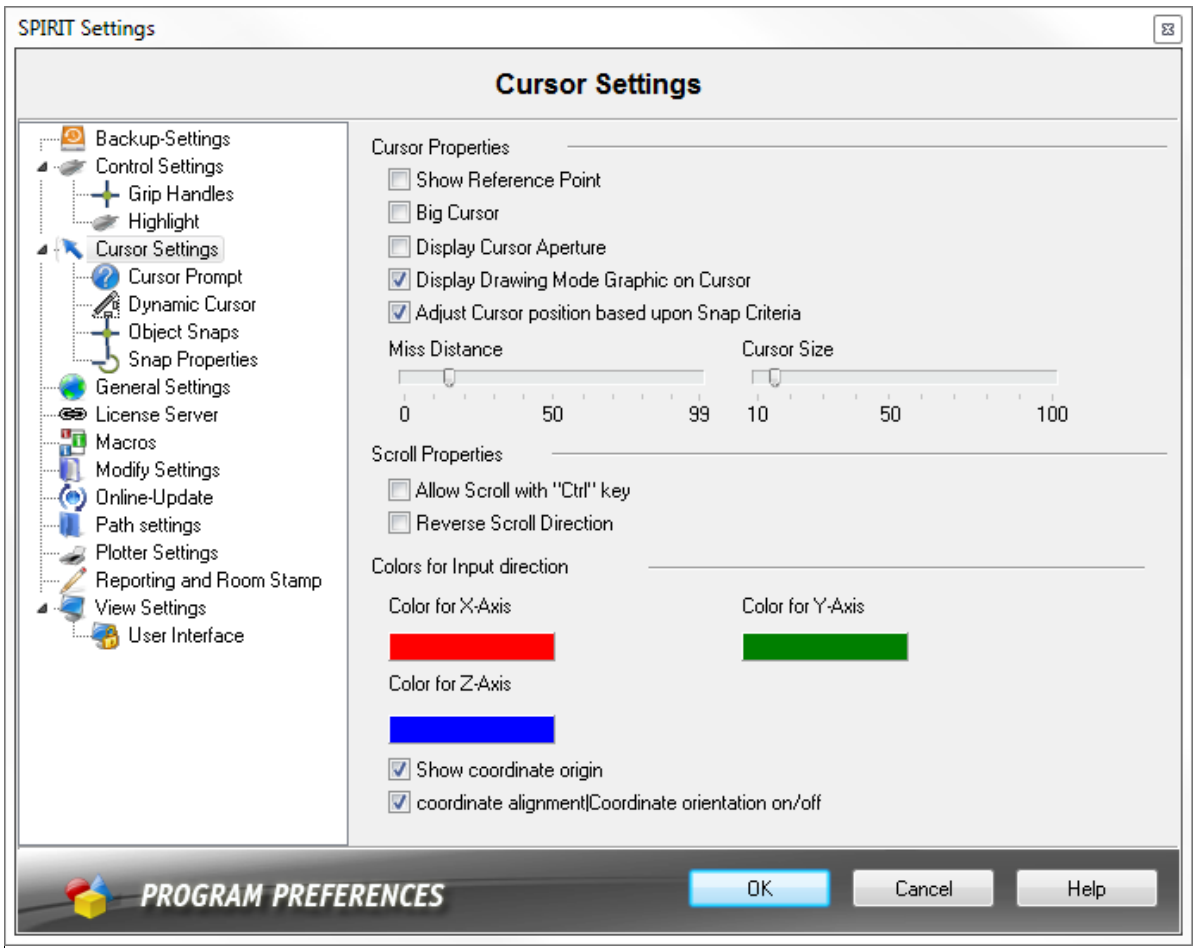
The coordinate point of origin and the view cross indicate the alignment of the WCS / UCS and are helpful when using the orbit. The color settings are selected according to the standard colors.



- X-axis red
- Y-axis green
- Z-axis blue

View cross and coordinate point of origin

Settings for the visibility of the two crosses are possible via the new toolbar of the SPIRIT interface and in the program preferences. In the Cursor Settings, you can control not only the visibility, but also the color settings of the individual axes.



Settings dialog - Settings Cursor

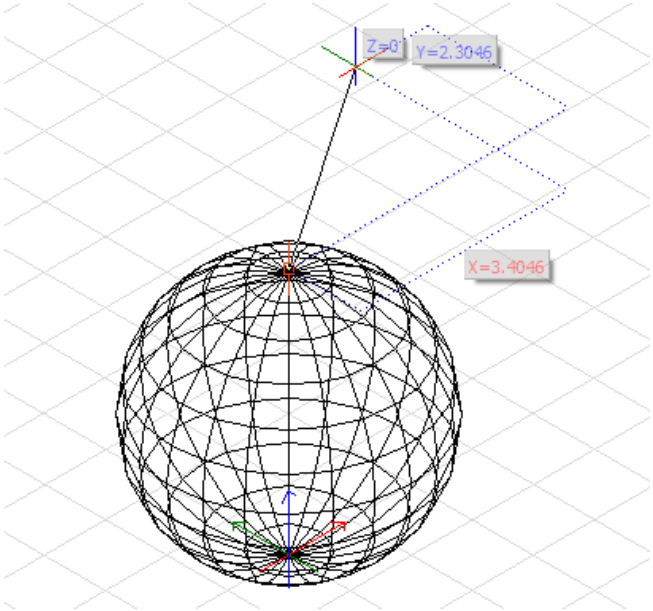
Operation – Optimized 3D input

Description

Through the introduction of the WCS and the 3D orbit the input methods have also been adapted.

In the dynamic cursor input relative dynamic and polar dynamic, the Z axis can now also be defined in SPIRIT 2017.

This Z value is available at the cursor for all processing functions (copying, moving, stretching, mirroring, etc.).



Dynamic cursor relatively dynamic with Z axis

In the course of the new 3D input, the magnetic snap and the snap with the middle mouse button have also been adapted to work in parallel projection. The snap points now react in 3D and refer to the actual points on the element. This makes editing in 3D much more easier.

Likewise, during dynamic processing, the construction line for the Z axis is fixed in the same way as the handling for the X and Y axes in the 2D area. The individual input fields of the axes are still changed with tab and fixed.

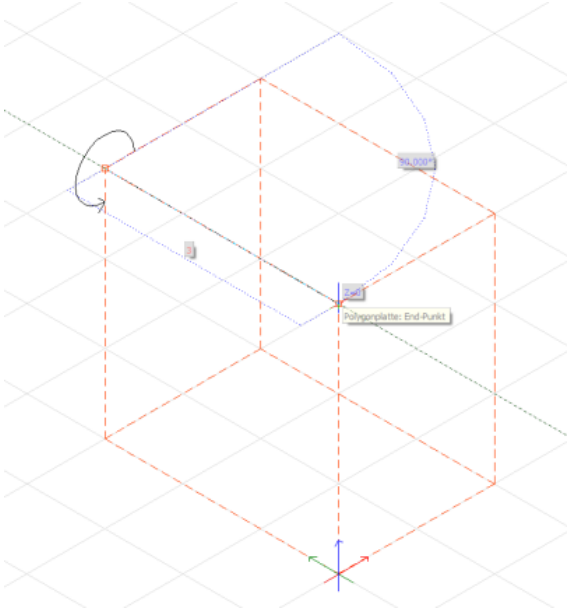
Value

- ✓ Working in any parallel projection is possible.
- ✓ Intuitive and comprehensible input in 3D.

Operation – The 3D rotate

Description

The adjustments to the processing functions also have an impact on the rotary functions. In SPIRIT 2017, you can also dynamically rotate the elements selected with the cursor in parallel projection. To do this, you can optionally set the axis of rotation dynamically in the rotate menu.



Definition of the axis of rotation

With two clicks, you define a free axis in which the selected elements rotate.

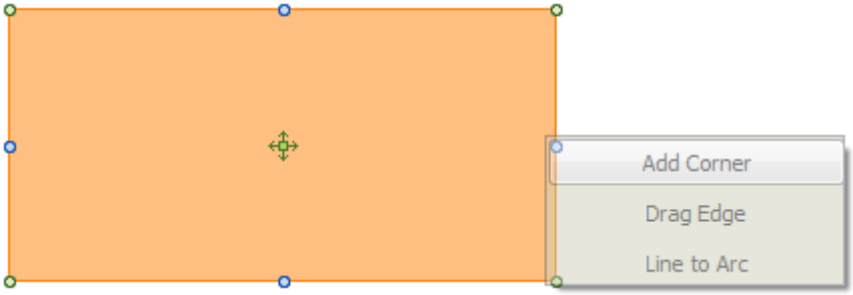
Value

- ✓ Elements can be rotated in 3D around any axis.
- ✓ The axis of rotation can be selected freely.

Operation – Grip handles context menu and 3D-grip handles

Description

The grip handles in SPIRIT have been reworked for input in the world coordinate system. First of all, the handles on all SPIRIT objects have been reduced. Nevertheless, all functionalities are still available. For a better handling the handles are reduced and now offer a small selection box with the possible functions at the respective grip handle.

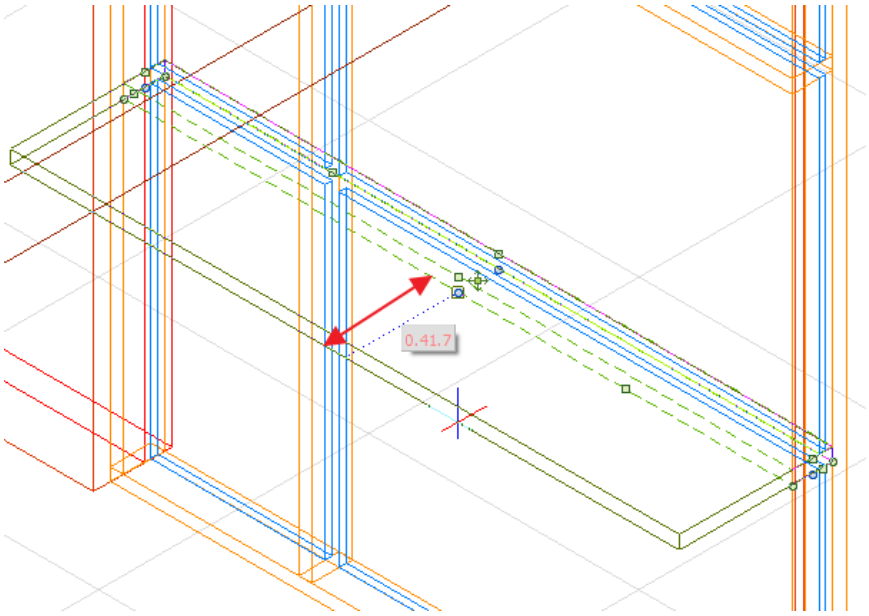


Polyline with reduced grip handles and selection box

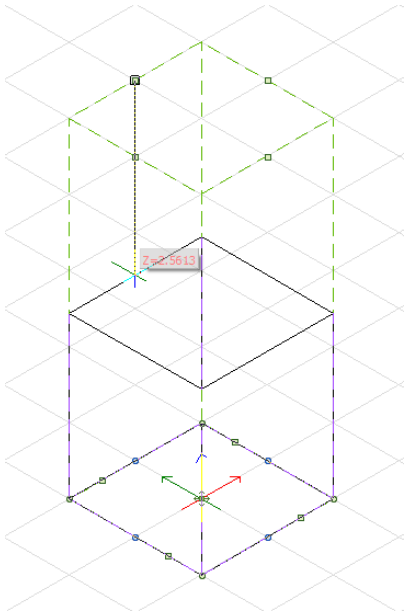
For this purpose, a setting for the grip handle delay is available. This setting controls the time for the appearance of the selection box.

Depending on the object, different functions are available in the selection box. One standard function has been defined directly on the grip handle so that you do not have to wait for the selection box to insert a corner into a polyline.

In SPIRIT 2017, the handling of the distance input at the grid handles was additionally optimized. The length inputs are now fixed in a fixed position and always display the actual length regardless of the cursor position.



Polyslab move edge - vertical dimension input



In order to work optimally with the objects in the parallel projection, these are also available in 3D for polyslabs, cylinders, cones, truncated cone, sphere, torus, etc.

This allows almost all objects to be edited in their Z-alignment. In analogy to the 2D input, the distance input for the Z axis has always been fixed perpendicularly.

In connection with the new dynamic input, it is possible, e.g. with the aid of the grip handles, to select references in 3D and to make changes to the object in 3D.

Polyslab z-axis on cursor

Value

- ✓ Improved appearance for grip handles.
- ✓ Grip handles can now also be used in 3D.
- ✓ Reference points and distances on the grip handles are perpendicular, so the correct distance is displayed.

Operation – User coordinate system (UCS)

Description

The user coordinate system is a user-displaceable coordinate system in which a working plane can be freely defined in space over the X, Y, Z axis, horizontal or vertical direction, or element references. For working in 3D the setting of a working plane is indispensable. In addition, moving and rotating the UCS offers useful advantages when working in 2D.

With the introduction of the user coordinate system, the 3D input in SPIRIT changes fundamentally.

Operation – Views and working planes

Description

In SPIRIT 2017 a distinction is made between two concepts. **Views** are purely for visual control of the model. When switching between the views, the WCS or the UCS remains unaffected.

A UCS is defined by setting the **working plane**. A working plane can be freely defined. For the quick placement of working planes in the classic views, SPIRIT also offers directly a respective UCS with aligned working planes for the back, front, left and right.

Value

- ✓ Clear distinction between a view and a working plane.
- ✓ Views are views of the model - no UCS is set, origin is always WKS.
- ✓ Working planes are views of the model - including UCS is set.

Operation – define a working plane

Description

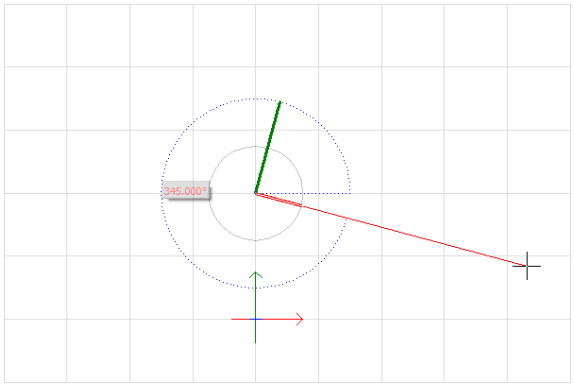
The working plane is the user defined UCS. With the aid of this so-called working plane, which is represented by the new line grid, a free working plane can be defined in three-dimensional space. At this stage, work can be modeled freely.

Work as before

Before the WCS and UCS existed, SPIRIT was constructed from the views in a visual coordinate system. When changing to a view, the Z-axis was always directed perpendicularly to the user in front of the screen. In order to continue to work in this way, SPIRIT directly provides the selection of working planes for floor plan, parallel, rear, front, left and right. This is switched to the corresponding view and the working plane is set simultaneously. You then work in the UCS of the selected view.

Define working plane

To define an UCS, the working plane is available in the Coordinate System toolbar. The definition of a new working plane can be done in three ways. For this purpose, there is a separate new menu working plane in the menu overview.
The possibilities are:



Definition of a working plane (UCS) at the cursor

Definition about the three axes

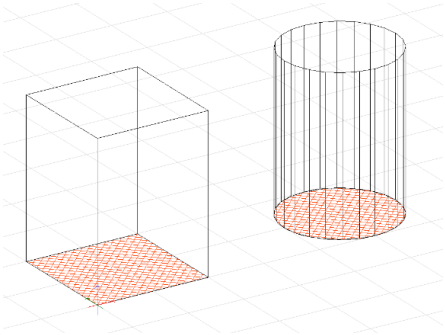
The working plane is defined by the left mouse button. X, Y, and Z axes are defined using the cursor. When the command is called, the UCS is attached directly to the cursor. After setting at least one axis, the function can be canceled with the left mouse button.

F1 Image level

The current view in which you are located is defined as UCS. For this purpose, the origin point of the drawing or the position of the coordinate cross of the WCS is taken into account.

F2 Element level

What is the element level? Each geometric element has a base and a height. The element level is the underlying 2D contour of a 3D element.

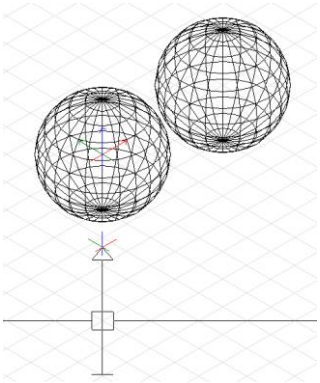


Polyslab and cylinder 2D contour (red) with height

The working plane is set on this 2D contour of the 3D element.

Base and height at working planes
The base indicates the position at which the working plane begins. The height always defines the height. Depth, thickness, thickness of the element with respect to the Z-axis.

Define working plane above view
The working plane can be defined from the basic plan view in the WCS using the function **working plane above view**. A simple view of the object (model) is defined. The specified starting point of the direction of view becomes the center point of the new working plane of the UCS.



Define the working plane above view

More functions
In the menu overview in the menu working plane there are further functions for processing the working level, such as, for example, the turning over the individual axes or the visibility of the UCS, which can be selected with the help of the function keys. F3 align view - WCS or UCS accordingly to the orthogonal view.

Value

- ✓ The UCS allows you to work in any orientation in 3D.
- ✓ Working planes can be set in the simplest way.
- ✓ Standards such as front, back, etc. can be easily selected from the menu.
- ✓ Working planes (UCS) enable the drawing surface to be aligned in 2D when the WCS is rotated.

Operation – working planes for 2D

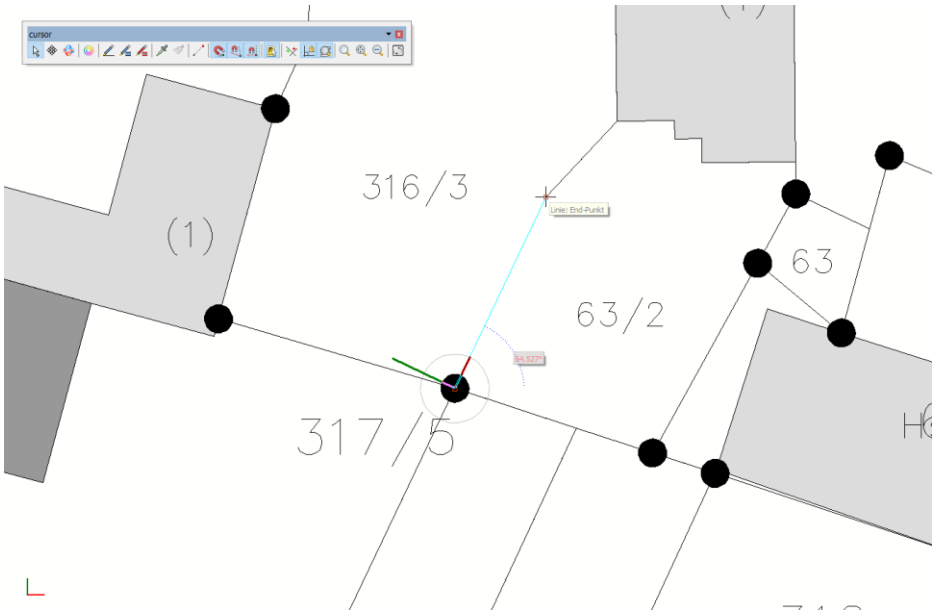
Description

The UCS can also be used in 2D to rotate the drawing surface around the Z axis, thereby setting a working plane. In contrast to the known function tangents, the cursor is not changed, but the entire drawing surface is rotated.

The procedure is the same as for defining a working plane in 3D. The setting of a UCS is called with the help of the function **Working Plane (UCS)** or via the menu.

The center point of the UCS can now be set on the cursor and the alignment of the X axis with the second click. No further reference axis is then required.

Optionally, the orientation of the X-axis can also be defined via the angle specified on the dynamic cursor.



Alignment Cadastre plan with the aid of the working plane (UCS)

Value

- ✓ Working planes (UCS) enable the drawing surface to be aligned in 2D when the WCS is rotated.
- ✓ Orthogonal drawing, even if the WCS is rotated.

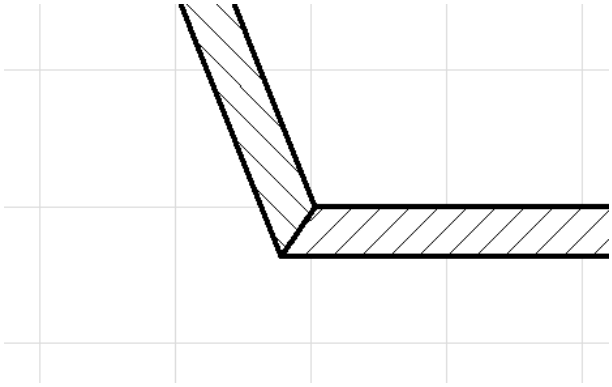
Architectural Construction – Wallhatch

Description

The representation of hatching for architectural detailing within the respective ZAC file is defined for each wall component. Depending on the building and the orientation of the wall, it can lead to the fact that the predetermined hatching conveys an unsuitable appearance.

The object inspector can be used to set whether the hatching angle is represented by the orientation defined in the component or whether the wall angle is to be taken into account. Like all properties, this option can be applied via the object inspector and the format brushes.

The L-intersection with the wall termination option allows you to separate the wall display.



Wall connection with wall termination of two walls with different hatching

Value

- ✓ The wall representation (hatching) can be adapted according to the orientation of the building.
- ✓ Wall termination can also be used for the correction of the display in the L- intersection.

PRONTO Reporting – Create a parts list

Description

In PRONTO Reporting of SPIRIT, parts lists can be created for the shell construction, for drawing styles, free components, cost elements and all other elements. To do this, SPIRIT provides two layouts for parts list tables. These can be selected via a drop-down menu in the General tab of the respective node and named as **parts list current node** and **parts list current node expanded.**

Contents of the parts lists

parts list current node :	Number | Article
parts list current node expanded:	Number | Article | Name | Description

List of parts in the drawing

The created Excel list is placed in SPIRIT as a reference in the drawing. After inserting the reference, SPIRIT jumps to the Insert menu in the menu navigator and the reference hangs on the cursor. Value, select the options from the menu and click the left mouse button to move the reference to the desired location in the drawing.

Value

- ✓ Drawing styles, components, cost elements and symbols can be evaluated in a new form.
- ✓ Parts lists for different elements are created by drag-and-drop in SPIRIT.
- ✓ Symbols in drawings can be displayed in lists.

Interfaces – PDF Im- and Export

Description

In SPIRIT 2017 some improvements were made to the PDF interface.

Import the PDF file
SPIRIT offers two options for importing PDF-files. Thereby, to import the PDF-file as an image file or as a vector reference. When selecting an image file, the image quality can be set under the advanced settings tab. When selecting as a vector reference, the PDF-file is almost identical in appearance in a PDF viewer on the drawing surface. Also point snap on relevant points is still possible.

You can use the context menu to explode the imported PDF vector reference.

Create PDF in external processes
In the print settings of the SPIRIT settings, the PDF generation can be converted to an external printing process. Select create PDF in external process. The PDF file is not generated directly in SPIRIT, but in an external process. Each PDF file is created in a separate process. This leads to the fact that the error message 110 in various PDF viewers belongs to the past.

Value

- ✓ PDF files are displayed in SPIRIT almost 1-to-1 as in a PDF viewer.
- ✓ The display of the PDF file has been accelerated.
- ✓ Working with large PDF files (zooming, panes, etc.) is now more fluid.
- ✓ Improved data exchange.

Interfaces – DWG/DXF-Export

Description

In SPIRIT 2017 some improvements were made to the DWG / DXF interface.

Texts when exporting to DWG / DXF
The DWG / DXF file contains so-called text styles. SPIRIT is created from the date formats DXF / DWG 2013 these styles no longer as SPIRITSTYLE, but with the corresponding file names. For example, if the Arial font is used in SPIRIT a text style with the name Arial is created.

Layernames for self-references
If drawings with self-references are exported, the self-reference ends up as so-called block reference within the DWG / DXF file on its own layer.

The layer name consists of the drawing name, slide layer (layer on which the reference) and, if necessary, a number for the number of identical self-references. The layers within the self-reference are no longer exported.

Transfer to the paperspace
With SPIRIT 2017 it is possible for the first time to transfer plans directly into the paperspace of export AutoCAD®. In the export dialog of SPIRIT, you can select whether the existing print layouts as a paperspace. This allows in AutoCAD® on any plan can be accessed.

In SPIRIT 2017 wurden einige Verbesserungen an der DWG/DXF-Schnittstelle vorgenommen.

Value

- ✓ Planlayouts also land in the corresponding area of the DWG / DXF file.
- ✓ Printouts from the DWG / DXF file with corresponding programs no longer need to be adjusted.
- ✓ Improved data exchange.

Interfaces – to IFC

Description

Colors of the components
If colors are defined for the components in the IFC-file, these are interpreted as best as possible and presented in SPIRIT. With the new ST 3D viewer, IFC models are wonderful look at.

IFCObjects as SPIRIT symbol
IFCObjects are imported into SPIRIT as symbols. The symbol name is made up of the name of the IFCObjects and the GUID.

Improved attribute export
The standard information is now output identically for all SPIRIT components and written to the IFC-file. Identification using the SOLIBRI® IFC Viewer.

- Name = component type + unique number
- Type = name ZAC component
- Description = Path to SPIRIT component
- Material = Part name + Thickness / Thickness / Height
- Number = Room number
- Cost elements and free components are exported as an IFC object.

Level zone as IfcBuilding
The level zone created by the level manager are stored as ifcBuilding in the IFC-file and serve the internal organization of a building or different buildings within the S12.

Foundation, beam and pile
The wall types F and U are available for the foundation and the beam. Has a wall such Type, this is exported as IFCFooting or IFCBeam. The same is true of the column which can be defined as a pile foundation with the type P and is exported as IFCPile.

Advanced door accessories
The delivered SPIRIT doors now have the following type definitions for the impact direction entered.

Type = 'D' // DOUBLE_SWING	Type = 'S' // SLIDING
Type = 'O' // REVOLVING	Type = 'R' // ROLLINGUP
Type = 'F' // FOLDING_DOOR	Type = nothing // SINGLE_SWING

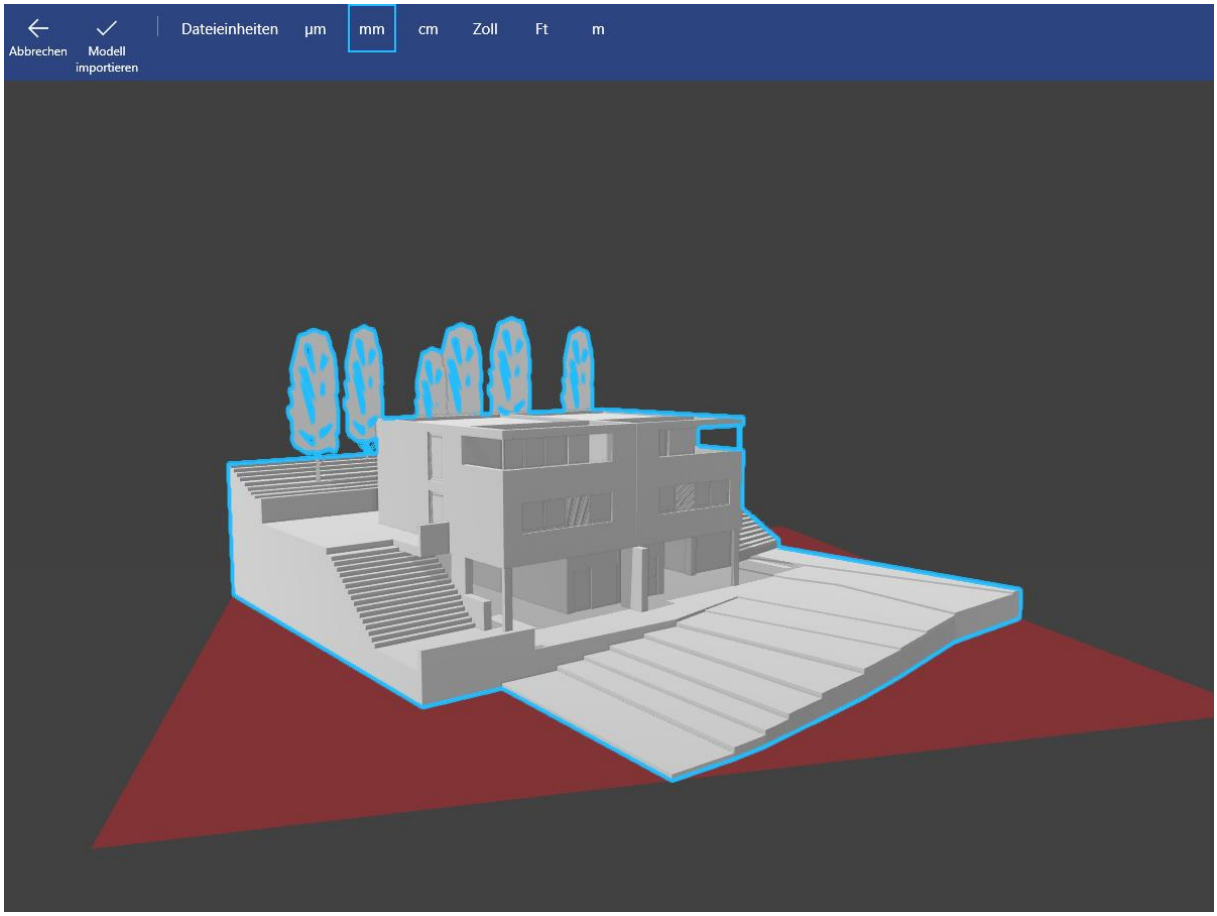
Value

✓ Improved information flow via IFC file

Interfaces – STL

Description

With the STL interface, 3D models can now also be exported as STL files. STL files are often used to transfer 3D models to 3D printers. Especially nowadays 3D printers are becoming more and more popular. Building models, competition models or even prototypes can be created using SPIRIT and exported for 3D printing.



3D Builder from Microsoft – STL-File.

Value

- ✓ Fast export of 3D models for 3D printing.
- ✓ Direct presetting of the model scale, making the right size for the 3D printer is exported.
- ✓ STL export respects the layer circuit, so that either the complete model or only Items are exported.

Interfaces – SimLab Composer

Description

SPIRIT 2017 has a direct connection to the SimLab® Composer. This makes it possible to transfer models directly from SPIRIT to the SimLab® Composer. With this transfer, active links can be established. The linked model synchronizes the data between SPIRIT and SimLab®. Model changes will be transferred and existing work on the model in the SimLab® Composer does not have to be repeated

What does the SimLab® Composer do for my SPIRIT projects?
The SimLab® Composer is a powerful, yet easy-to-use 3D rendering software that brings 3D models to life. The SimLab® Composer allows you to create high-quality images, animations, rendered movies, VR experience and animated 3D PDF files.

SPIRIT and SimLab
The transfer of the 3D model is called under **File → Export → to Simlab.**

Value

- ✓ Simple transfer.
- ✓ Direct model linkage.