

# ***SPIRIT* 2012**

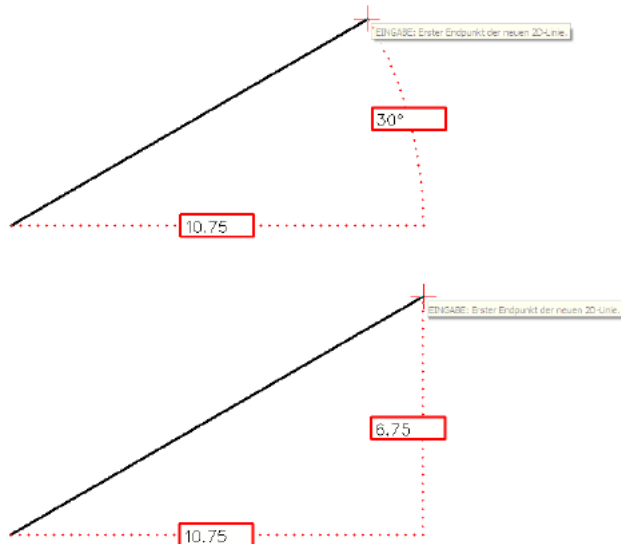
**What's New**

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## 2. 2D-System

### 2.1. New Dynamic Cursor


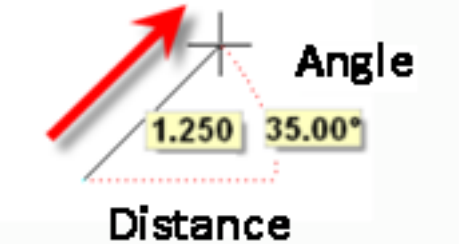


*New Input Cursor with Help lines and Input boxes*

#### Function

The new dynamic input cursor in SPIRIT 2012 simplifies the entry in SPIRIT for beginners and planners who do not use a CAD system on a regular basis.

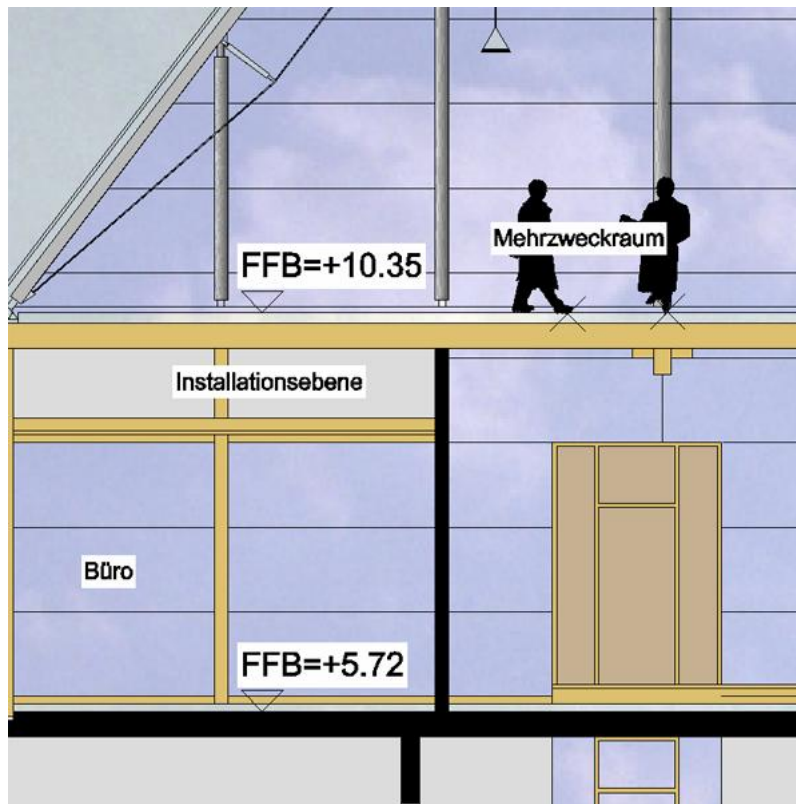
In addition, two variations are available with the dynamic cursor

1. Dynamic Cartesian (X-, Y- Values)	2. Dynamic Polar (Distance and Angle entry)
<p><b>Move Direction</b></p>  <p><b>X-Direction</b></p> <p><b>Y-Direction</b></p> <p>Input of X- and Y- Distances</p>	<p><b>Move Direction</b></p>  <p><b>Distance</b></p> <p><b>Angle</b></p> <p>Input of Distance and Angle</p>

If one of the dynamic input modes is set active, input boxes will appear in the drawing area when constructing elements. Values are entered directly into these input boxes.



## 2.1.Reference and Text Background Mask



*Reference file and text with masked background.*

### Function

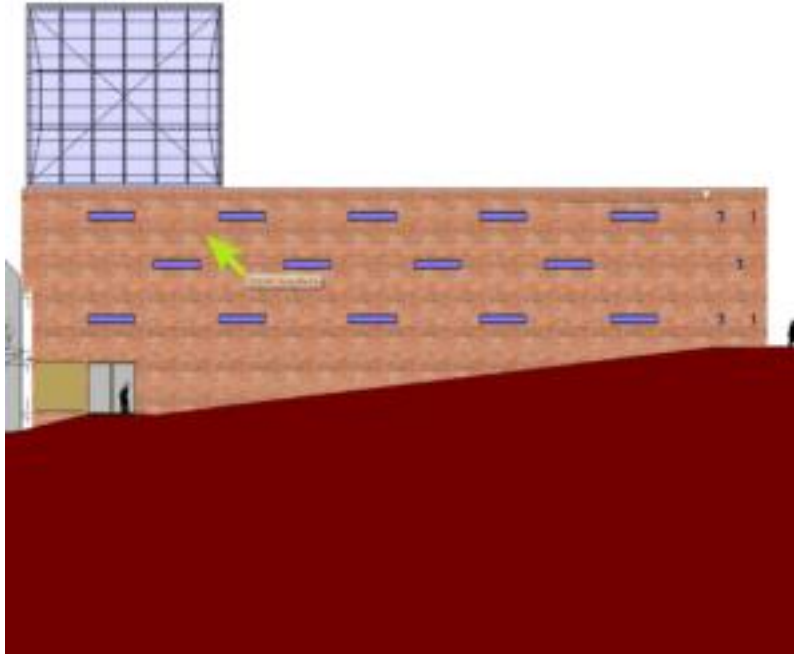
In addition to **Dimension text**, **Standard text**, **Text Blocks** and **Reference files** can now have their background color masked. This attribute can be changed subsequently for elements that have already been inserted into the drawing via the Object Inspector (Background Mask – Yes / No).

With text, this attribute can be assigned via the Object Style, so that upon drag and drop, background mask is already set active.

### New

- In the working drawing phase a tool now exists that makes text more legible.
- In layouts, important information can now be highlighted in a more effective way.
- Reference files can now receive a white background which can enhance the compilation of plotting sheets, by improving visual legibility.

## 2.2. Dynamic Polylines



*Dynamically generated polylines in the drawing area*

### Function

In SPIRIT 2012, polylines can now be generated dynamically, offering a preview of the resultant contour prior to generating the actual polyline with the left mouse button. The **“Dynamic”** option is available in the polyline menu when both **“Contour Search”** and **“Closed”** are set active. An additional option **“with Voids”** will automatically recognize and generate closed polylines within the master polyline boundary as voids (holes), so that defining voids in an additional operation is no longer required. Incidentally, segments of 3d elements are also recognized with the dynamic polyline function.

### New

- Hatch and color/bitmap fills for elevations can be generated much faster now due to the fact that it is no longer necessary to manually generate polylines for the cutouts of openings.
- Floors with cutouts for stair wells or other internal building cores (such as elevator shafts) are now automatically generated like for rooms.
- With the dynamic preview, areas to be calculated are immediately identified on screen.
- Additionally, the size of the areas can be shown with and without deductions for voids.

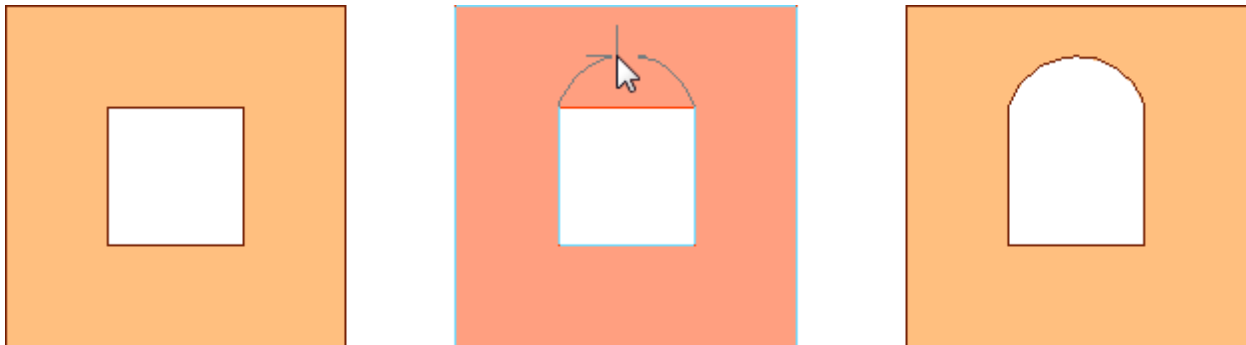
## 2.3.Edit Polyline Voids



*Advanced Polyline Function: Corners of Voids can be edited immediately*

### Function

Polyline voids can now be edited directly using the advanced functions of the Polyline Edit menu, such as “Add Corner”, “Drag Edge” etc. With the exception of the fillet, chamfer and delete edge functions, all other functions of the polyline edit menu can be applied to polyline voids.

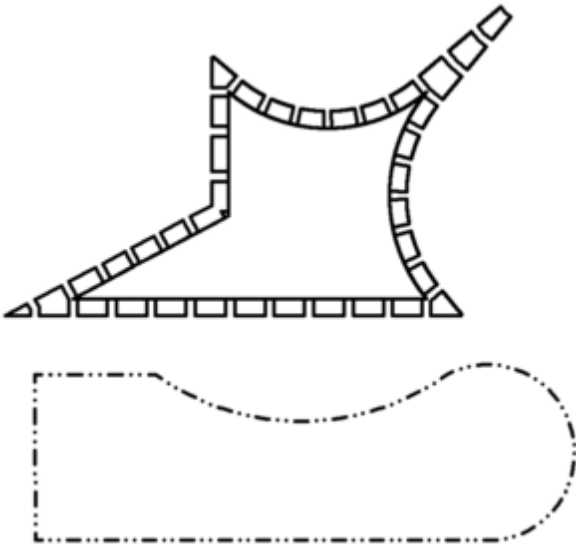


*Example: The Arc > Edge function being used on a polyline void.*

### New

Polyline void contours can now be edited directly, without first having to convert the void back to a polyline.

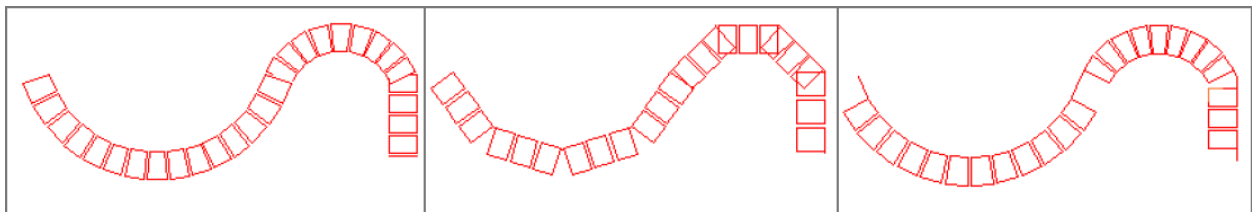
## 2.4.Improved Line-types



*Improved Line-types – presentation for town planning*

### Function

Line-types in SPIRIT are now correctly administered at polyline corners and also correctly represented on arcs. The representation can also be manually changed in the line-type definition file.



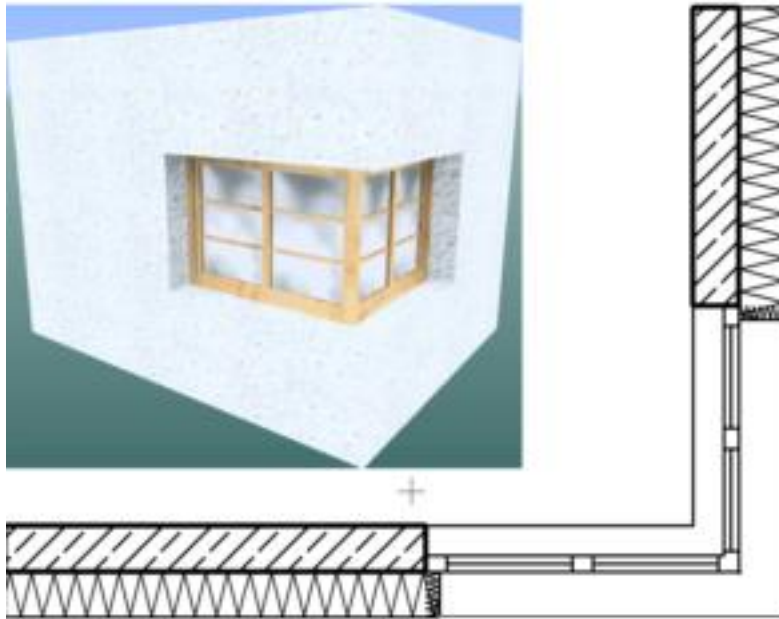
*Line ends and connections are shown according to the configuration of the line in the line-type file.*

### New

- Town planners now have the possibility of using line types correctly (see image above)
- The representation of contours on a plan can visually be improved.

## 3. Architecture-System

### 3.1. Corner Window



*Corner window in multi-layered wall.*

#### Function

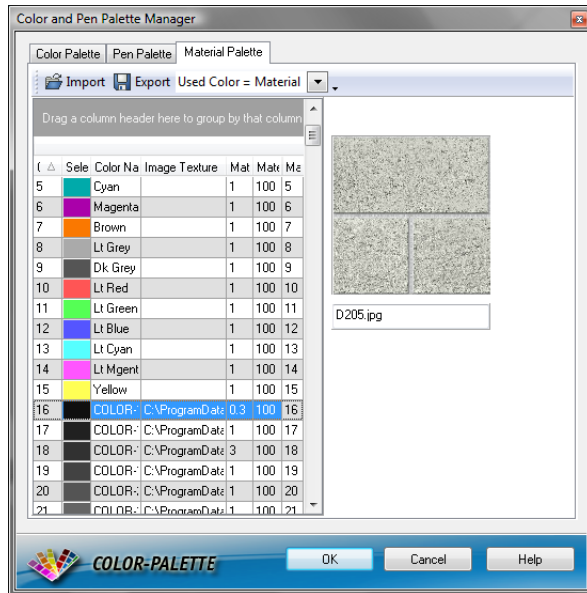
SPiRiT now has the capability to insert a corner window into a multi-layered wall, that is correctly represented and dimensioned in 2d and correctly modeled in 3d with the removal of the corner wall connector at the opening . Quantity extraction and reporting is correctly generated as well.

A new “**Corner Window**” menu option was added to the Window menu (Architecture) to facilitate the input of the new corner window. The process first involves inserting a window component into each of the walls that are connected at an I-intersection. The windows are then trimmed together using the new “Corner Window” function. This function is very similar in concept to trimming two lines or walls at an I-intersection.

#### New

- Corner windows can now be incorporated as simply as standard windows.
- A complex manual construction of corner windows is no longer required.

## 3.2.Wall Component with Default Color for Material



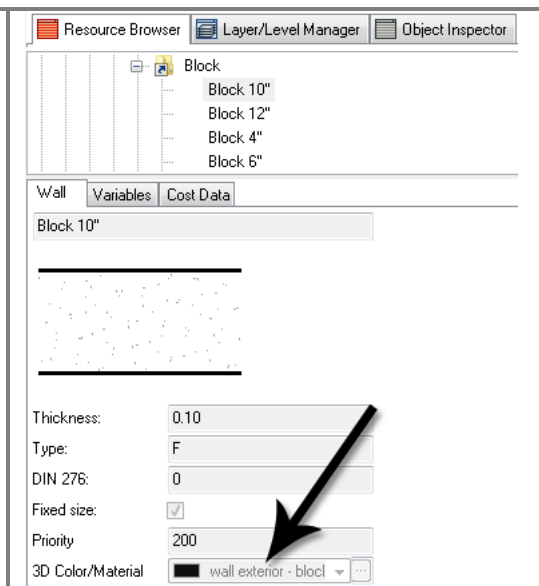
Wall Component with Standard-Color for Rendering

### Function

In the wall component and/or its model file (\*.zac) a standard color (3D Color/Material) can be defined, that determines the drawing color for 3d representation upon inserting of the wall per Drag and Drop.

This color assignment is important for the material assignment, because the color number is also the index of the material.

(If no material is to be assigned, the first listed option from the 3D Color/Material dropdown list “no Material” should be selected).



### New

- With this assignment Material, the components are always represented in 3D with the same color number, independent of the current drawing color.
- All standard SPIRIT walls already have a material assignment that is stored with the system “Color=Material” in the Material Palette Manager.

## 4. Rendering

### 4.1. FrescoII Global Illumination



*Realistic lighting for interiors and exteriors with Global Illumination*

#### Function

The rendering kernel in SPIRIT 2012 is now capable of producing realistic lighting for interior and exterior scenes. A new internal shader has been added to facilitate this capability.

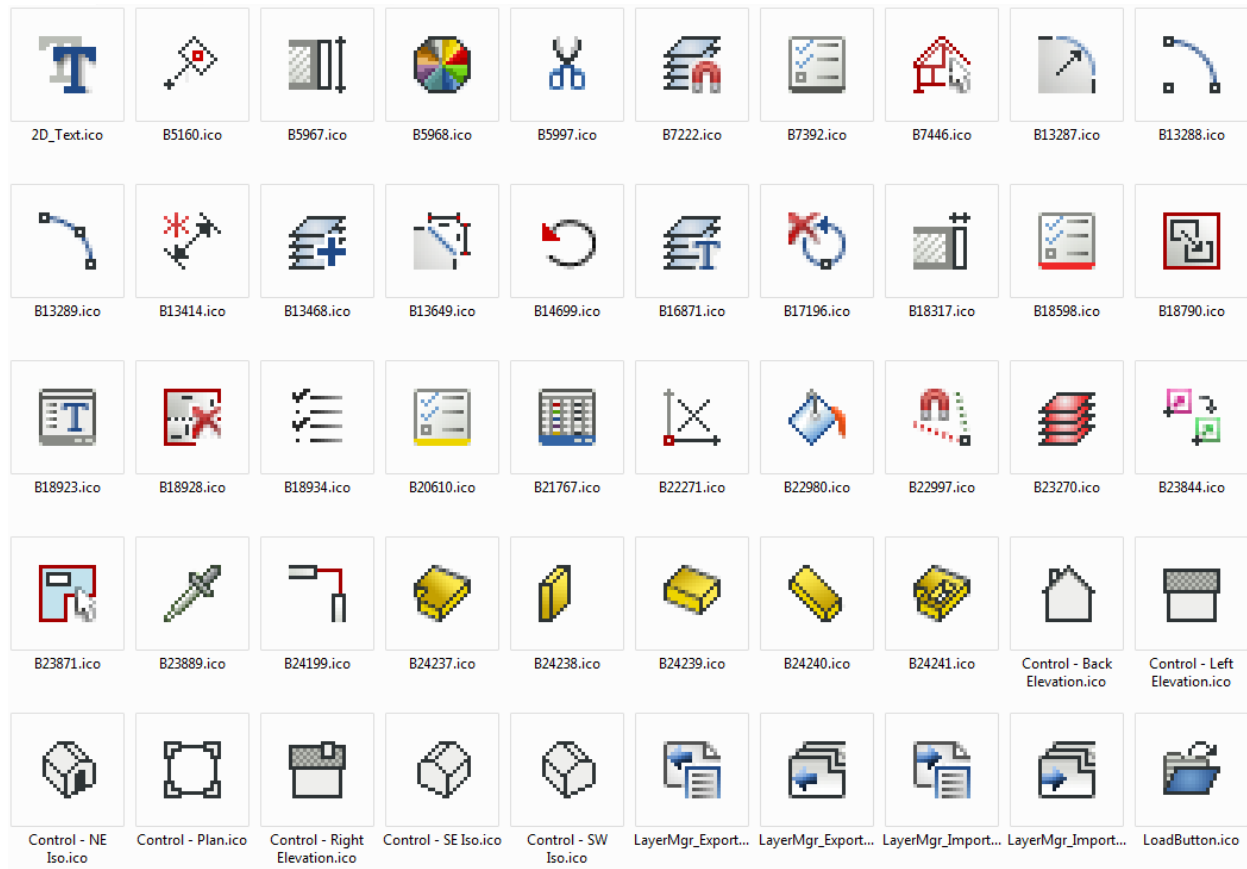
**Global illumination** is a general name for a group of algorithms used in 3D computer graphics that are meant to add more realistic lighting to 3D scenes. Such algorithms take into account not only the light which comes directly from a light source (*direct illumination*), but also subsequent cases in which light rays from the same source are reflected by other surfaces in the scene, whether reflective or non (*indirect illumination*). Images rendered using global illumination algorithms often appear more photorealistic than images rendered using only direct illumination algorithms.

#### New

- Interior room scenes can now be realistically represented.
- Direct and indirect light sources and its influence on the model can now be more effectively represented

# 5. Program Interface and Menus

## 5.1. New Icons



*New, more recognizable icons for the interface*

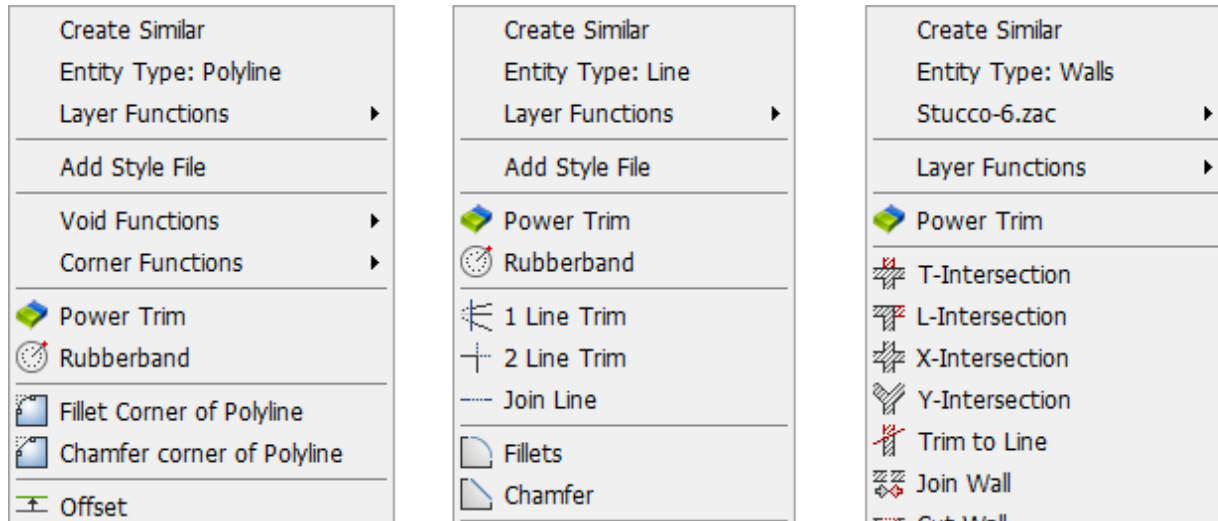
### Function

SPiRiT 2012 contains more than 1350 new icons in 16x16 and 24x24 pixels respectively. The new icons are found in all areas of program operation: Icon bars, context bars, menu bars, pull-down menus and context menus.

### New

- The individual menu functions are now visually more recognizable.
- The representation of the icons with respect to the functional characteristics they portray was visually enhanced.

## 5.2. New composition of Context Menus



Context menus in SPIRIT

### Function

In SPIRIT 2012, the structure and functionality of the context menus has been completely revised for every element. Context menus now have a uniform structure and orient the functions explicitly for the selected element.

	<p>Create Similar was set as the primary function of all context menus due to the central importance of this function in generating like elements.</p> <p>The selected Element type was placed in second position to highlight the drawing element currently being handled.</p> <p>Layer Properties can now be handled via the new Layer Functions flyout on the context menu.</p>
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### New

- Improved and more user-friendly structuring and consequently easier orientation within the context menus.
- Important functions of the element are directly available and it is no longer necessary to invoke these functions from the pull-down menus or the menu navigator resulting in more productive operation.

## 6. General

### 6.1. General Improvements

#### More Speed

SPIRIT 2012 is clearly faster in the handling of text and large architectural projects and requires less memory in the process.

*FRESCOII* initiates much faster than in previous versions.

#### Cursor Icon bars are preserved

When a change of task in SPIRIT is initiated that causes another program to come to the foreground, all docked iconbars will be preserved when SPIRIT is reactivated.

#### Zoom Control Improvements in the 3D Viewer.

The zoom control of models in the 3D Viewer has been improved to automatically resize the 3d model and the zoom in and zoom out functions have been simplified.

#### 3D-Displaylist Switchable.

A new option “**Initialize 3D Viewer upon Opening Drawing**” has been added to the General Settings category in Program Preferences... (Tools pull-down menu). When activated, the 3D-Displaylist will be initialized upon opening a drawing, when deactivated, the 3D-Displaylist will be initialized when first opening a model in the 3D Viewer.

If this option is deactivated, the drawing will load faster, but initial opening of the model in the 3D Viewer will be somewhat slower. This setting is drawing specific, not global.

#### Updating Rooms.

Values of Rooms can be updated with a new function. For a Room, for all visible Rooms and for all Rooms of a specific type in the drawing. Modifications to an Embedded Family Room can automatically be transferred to additional rooms, e.g. amenities and also positions. This function is also available in the Reporting.

#### Make Unique for Floors, Rooms and Layout components.

With version 2012, Floor, Room and Layout components can now also be made unique and swapped for other components accordingly.

## Switchable Area Selection with Crossing.

In Program Preferences... (Tools pull-down menu) under the Control Settings section, an option “**Area selection with automatic crossing**” has been added that determines if Area selection from left to right (standard area selection) or from right to left (Area selection with Crossing) will be used.

## Material Assignment stored in the Drawing.

The Material assignment (Color=Material, Color+Layer=Material) and the associated material file/assignment is now saved on a per drawing basis.

## Template file with FrescoII Material assignments.

The drawing template file in SPIRIT can now also include a material assignment. The LWA file is stored with the template file.

## Measurement results automatically in the Windows Clipboard.

When using the measurement function in SPIRIT 2012, the values are automatically transferred to the Windows Clipboard so that they can be pasted into the drawing or even into another program.

## Editing the Pen Palette.

When defining pen width values in the pen palette, a comma or point can be used and will be treated as a decimal separator.

## Classic menu view.

The position of the function keys (left/right side) in the classic menu are now stored in the user-settings file.

## Large Icons in the icon bars.

When using large icons in the status bar, all interface elements are optimized so that the screen no longer shifts.

## Selection cursor and Magnetic cursor.

If the selection cursor is made active (this applies equally to Area selection), the magnetic cursor is temporarily disabled. The first corner of the selection window will no longer jump to a point on an element in the drawing.

## Stretching Symbols about their insertion point.

A new option “**Consider Symbol Insertion point when using Stretch**” has been added to the Modify Settings category in Program Preferences... (Tools pull-down menu). When active, a symbol will be moved during a stretch operation if only the insertion point of the symbol is included within the selection window. If deactivated, the entire symbol must lie within the selection window.

## **IFC-Import Improvements.**

Curved walls are now correctly interpreted. Points (".") in Layer names are replaced by an "x" during the import process.