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WHAT IS NEW in Advance Concrete 2012



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Welcome to Advance Concrete 2012

Advance Concrete 2012 is fully part of the Graitec BIM solution, named Graitec Advance and consisting of Advance Concrete, Advance Design and Advance Steel.

Graitec Advance is the 1st complete solution on the market which includes Design and Multi-material CAD in the same package.



Advance Concrete 2012 has important enhancements in several areas:

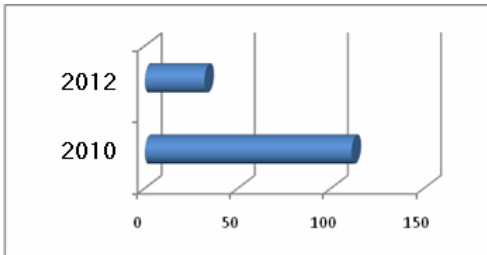
- Performance and stability
- Model
- Drawings and layouts
- Reinforcement
- Export
- Localization



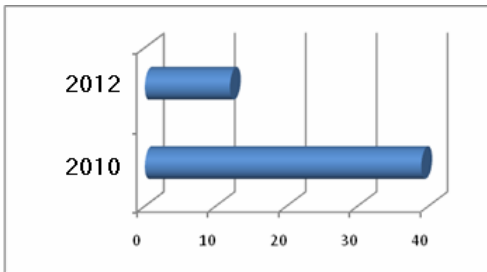
General

Performance and stability

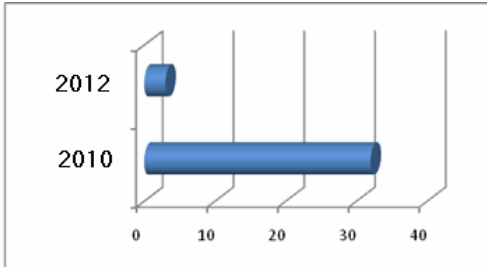
- Work was done on the performance and stability with Advance Concrete 2011 SP1 and this task was continued with Advance Concrete 2012.
- Some examples of the performance improvements
 - Startup speed



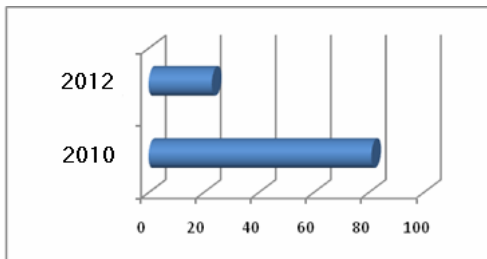
- Time to load a DWG



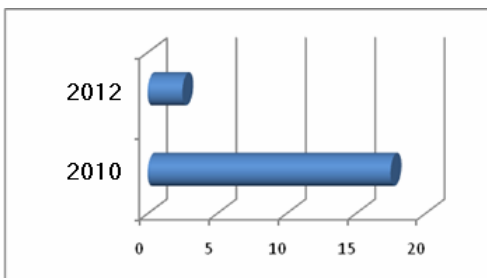
- Creation of a new Advance Concrete DWG file



- Creation of a new reinforcement drawing



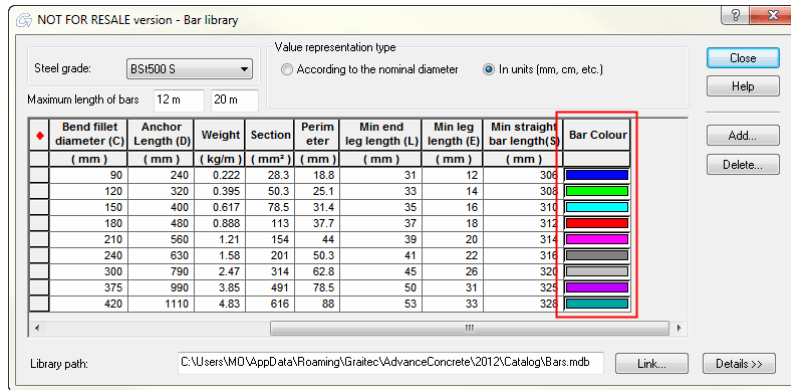
- Repositioning of reinforcement



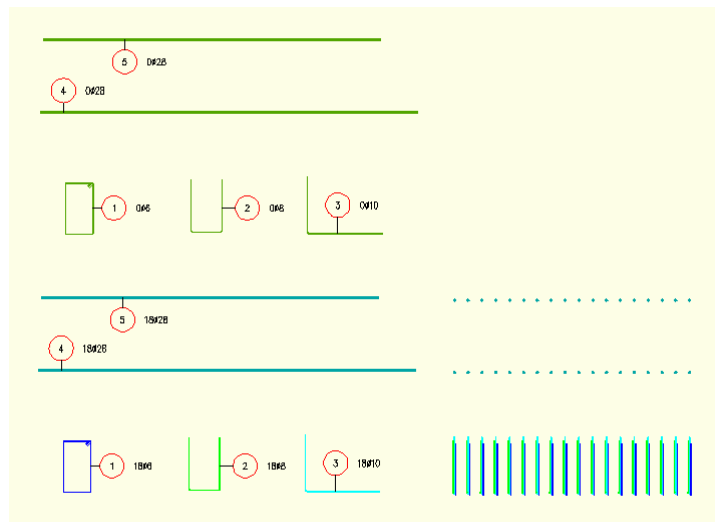
- ... and much more improvements in all Advance Concrete modules

New settings / options

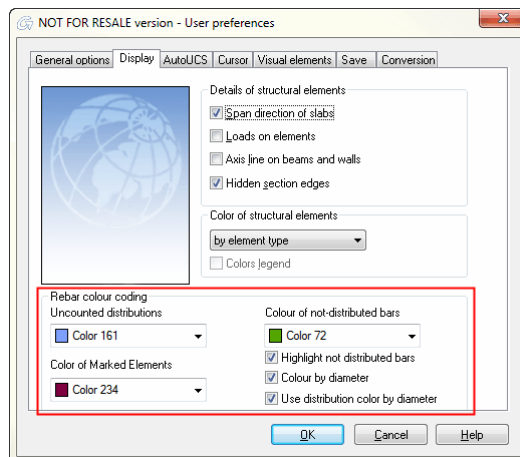
- Background processing for faster drawing creation and drawing update is available. You can enable this option in the project properties. Once enabled you get a better performance in exchange for CPU and Memory usage.
- Color by diameter improved
 - You can change the color in the "User preferences / Display".
 - Set the "color by diameter" in the bars library.



- "Color by diameter" also affects distributions.



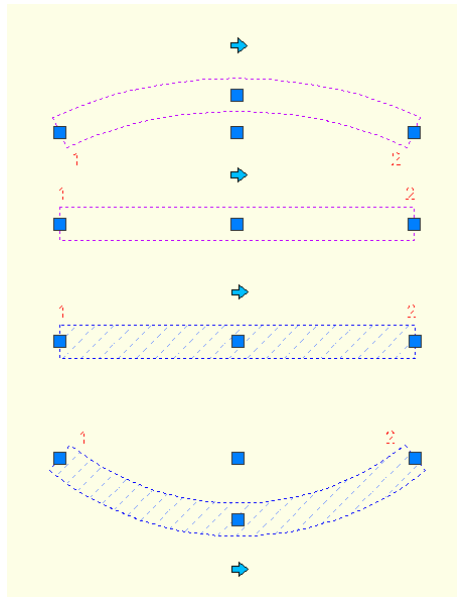
- You can use the "color by diameter" and "Highlight non distributed bars" options at the same time.



Model

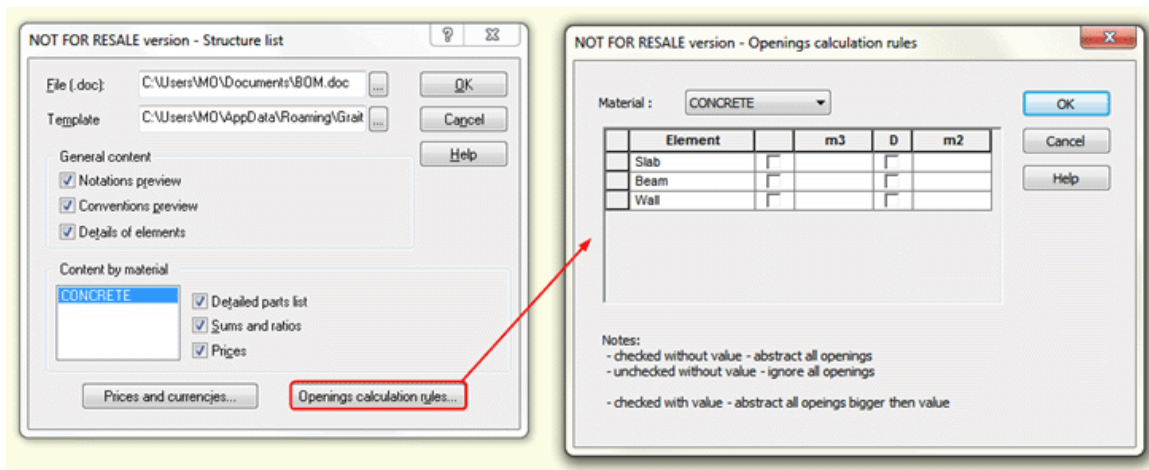
Element extremities visible on selection

- Select a structural member (beam, wall or continuous footing) and Advance displays a small number which indicates the extremity of the object. You can use this information to change the junctions.



Bill of material (BOM) - Volume calculation options for openings

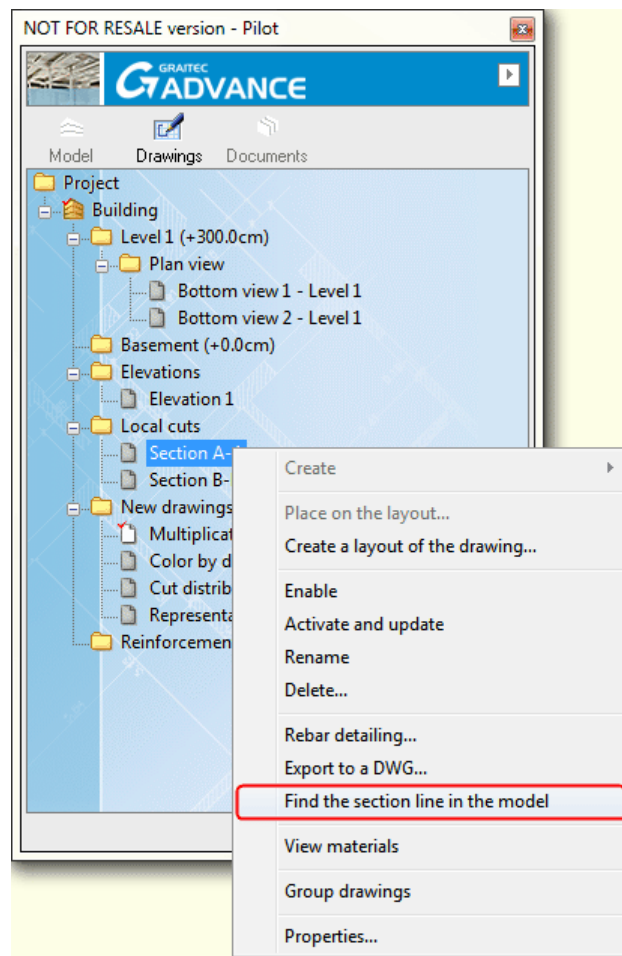
- Specify an opening size to subtract openings from the structural member in the BOM
- For each type of structural member
- For each material used in the model
- Subtract square meter or cubic meter
- Several calculation options:
 - Ignore all openings
 - Subtract all openings
 - Subtract all openings bigger than a value



Drawings and layouts

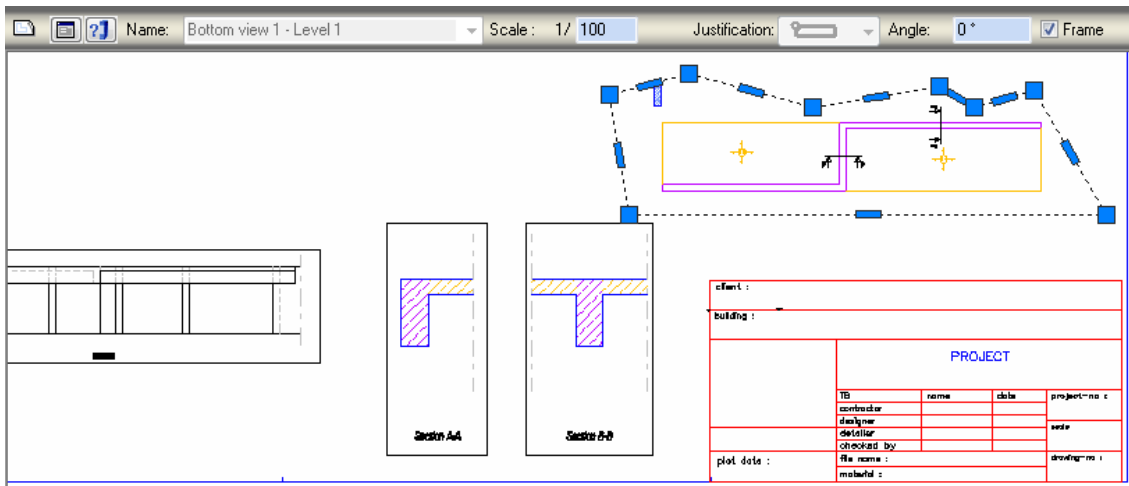
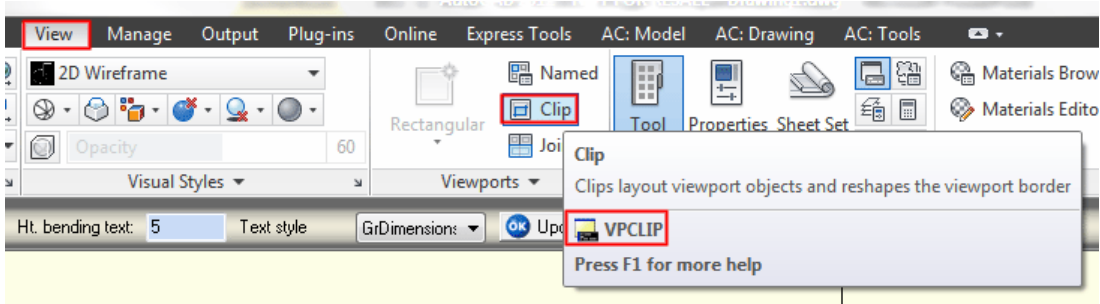
Find the drawing definition in the model

- There is a new entry in the pilot context menu to find the definition of a drawing (top/bottom view, section view, elevation view) in the model.
- Right click on the drawing in the pilot "Drawings" module and select the command in the context menu. Advance Concrete switches to the "Model" module and centers the drawing definition or elements on the screen.
- You can use the command with the following drawings:
 - Section views - "Find the section line in the model"
 - Elevation views - "Find the elevation line in the model"
 - Top/bottom views - "Find the definition in the model" (useful for finding local top/bottom views)



Layout: Polygonal viewports

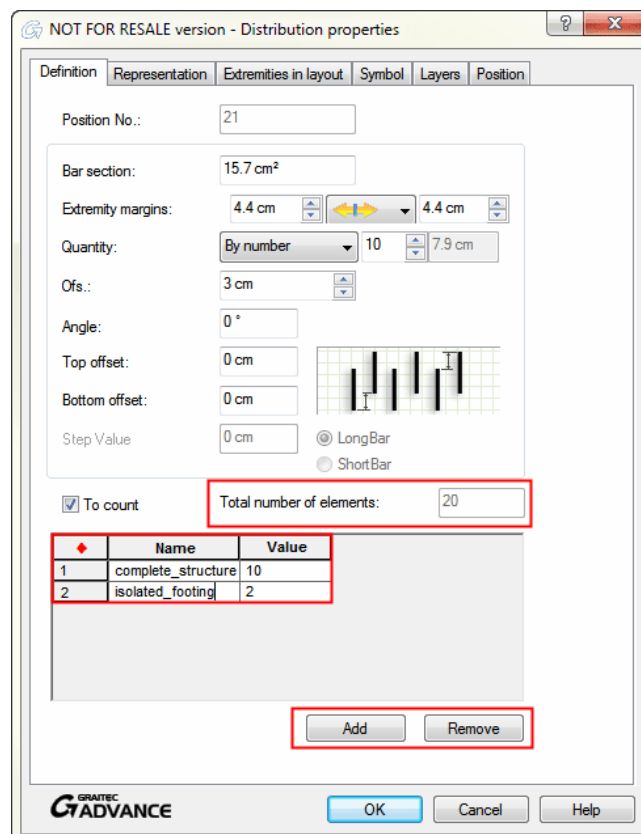
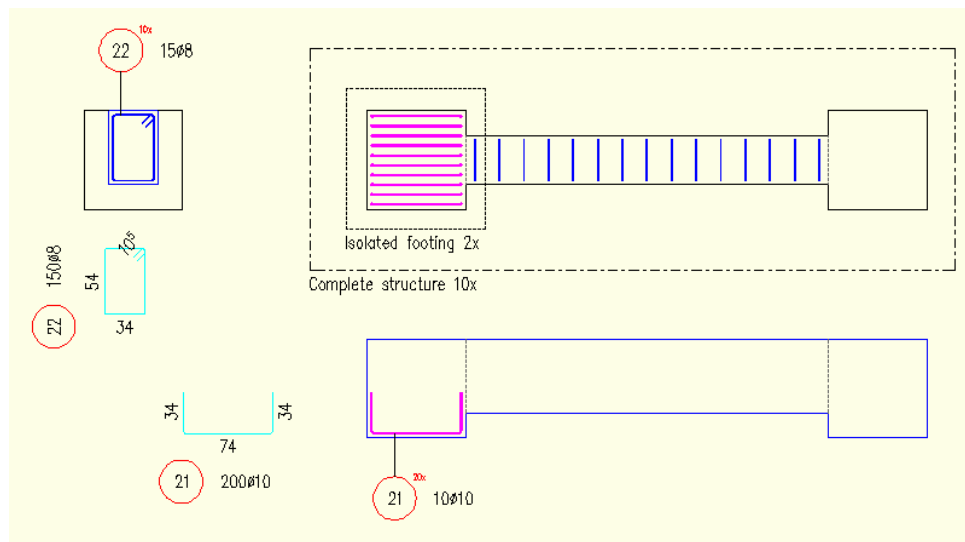
- Drag and drop the drawing to the layout (as normally done) and use the AutoCAD command "_vclip" to create a polygonal view port and follow the instructions on the command line.
- The Advance Concrete properties are available for the polygonal viewport.



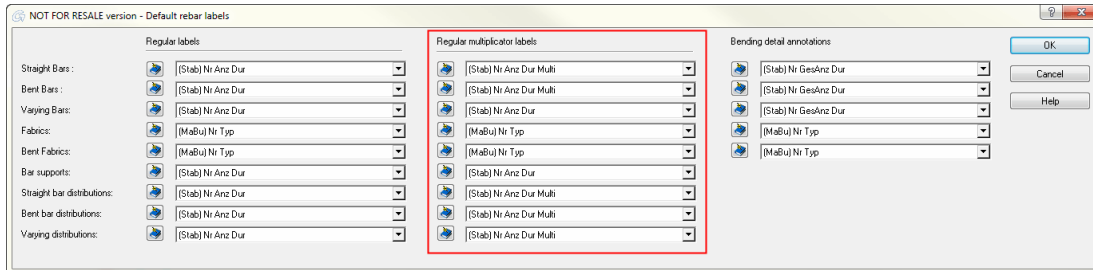
Reinforcement

Several multiplication factors for distributions

- It is now possible to use several multiplication factors with a distribution. We improved the distribution properties dialog box with some new entries:
 - Set the multiplication factors.
 - Change the multiplication factor name.
 - Add and remove multiplication factors.
 - Field to display the total multiplication factor

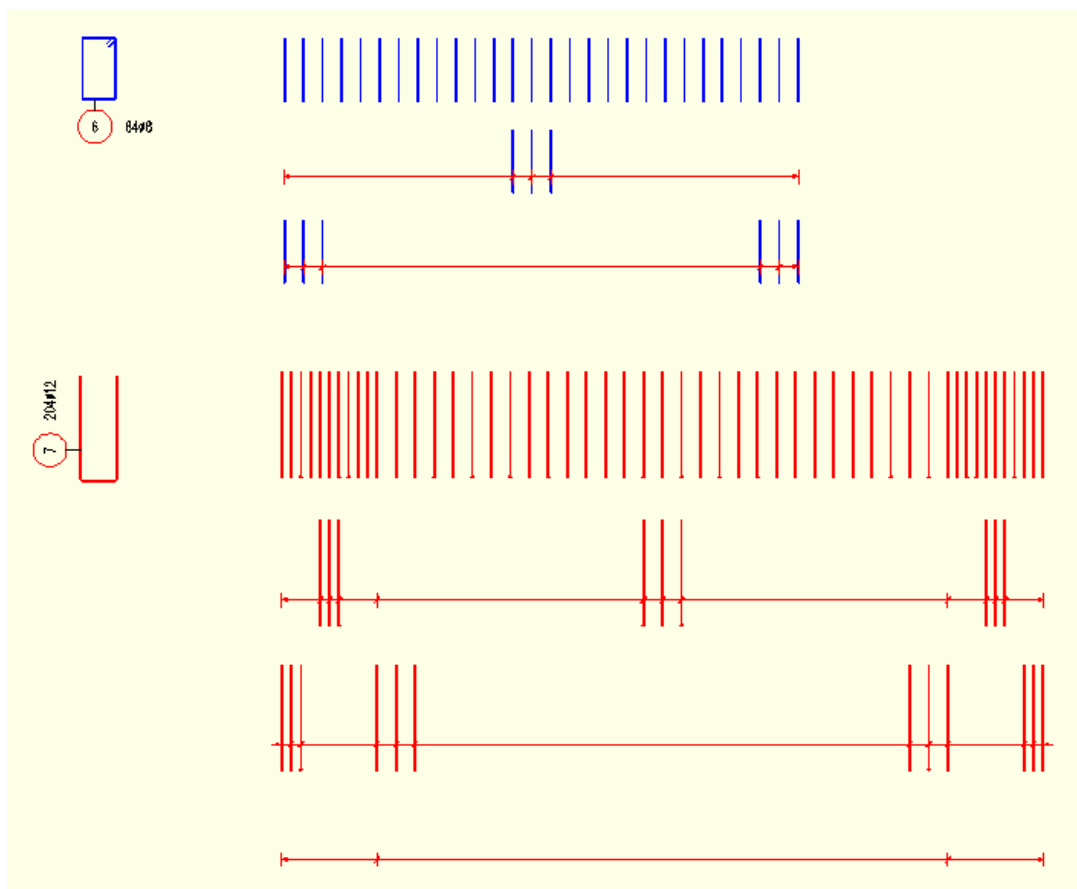


- It is also usable with the Advance Concrete "Apply a multiplication factor to a distribution" (*grtcrepartnumber*) command. You have to enter a name first (or use the default name) and then enter the multiplication factor value.
- New default rebar symbols settings. If a multiplication factor is used then Advance Concrete can switch to the specific symbols. Open the "Project preferences", select the "Drawing annotation" tab and click the "default rebar labels" button.



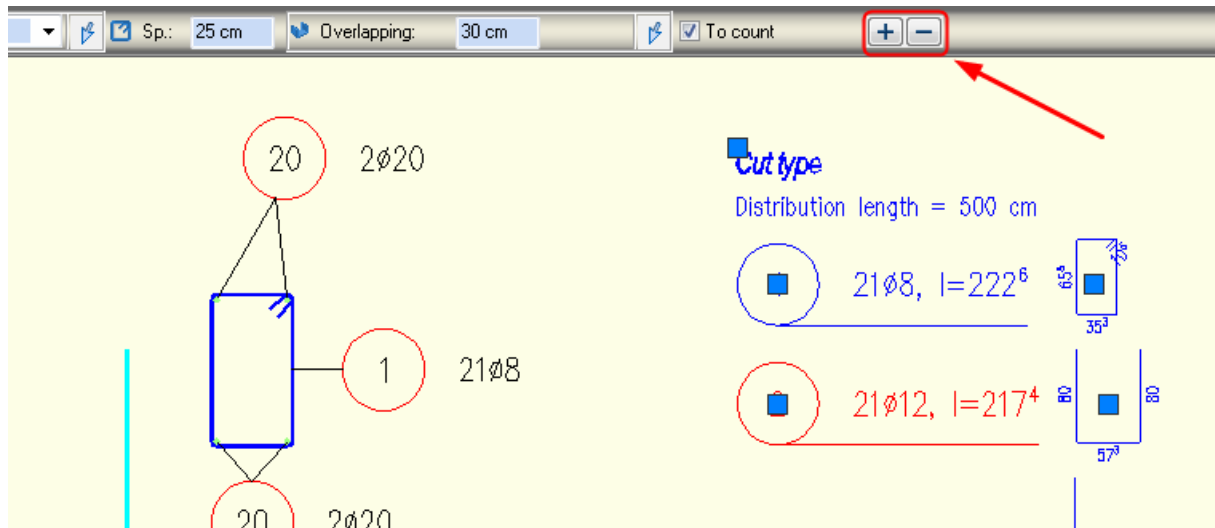
Distribution representation: 3 bars in the middle / 3 bars edge

- We improved the distribution representation and split the old "3 bars representation" into two styles.
 - 3 bars in the middle
 - 3 bars edge
- Small improvement for the "Dimension line" representation. This representation style shows a small separator between the ranges.

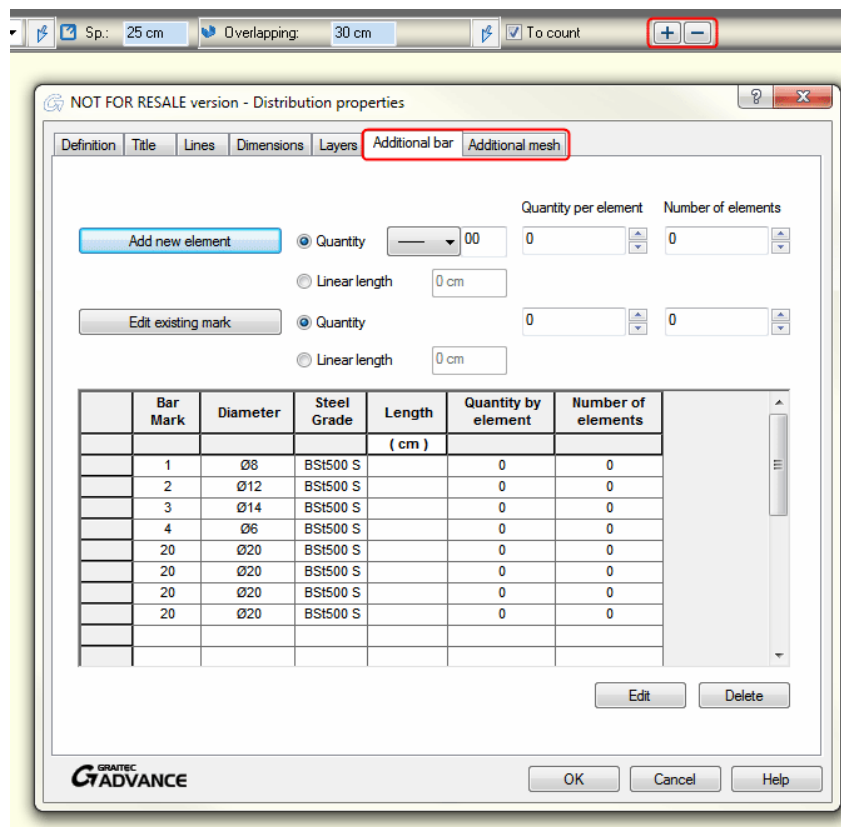


Cut distribution

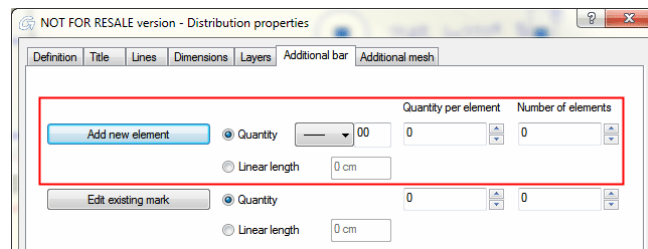
- Add/remove bar to/from cut distribution
 - It is possible to add a bar to an existing cut distribution.
 - It is possible to remove a from a cut distribution.
 - There are two new buttons on the Smartbar to add a bar to the cut distribution and to remove a bar.



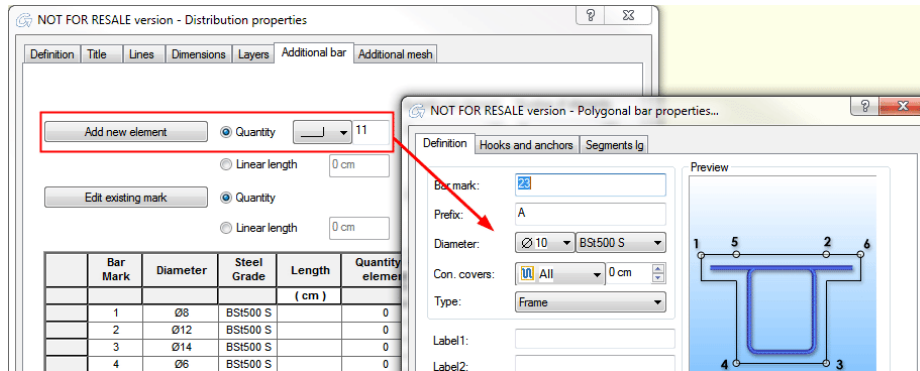
- Add/remove fictive bar or fabric
 - You can add a "fictive" bar to the cut distribution. This bar (or fabric) is without a definition in the drawing, it is just added as an additional bar to the cut distribution.



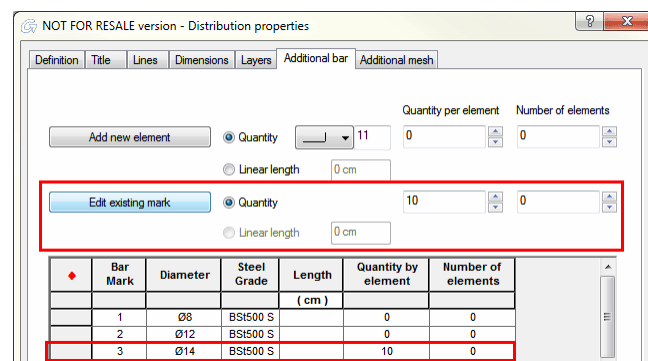
- Add an element with a quantity or with a linear length



- New elements according to the shape code library

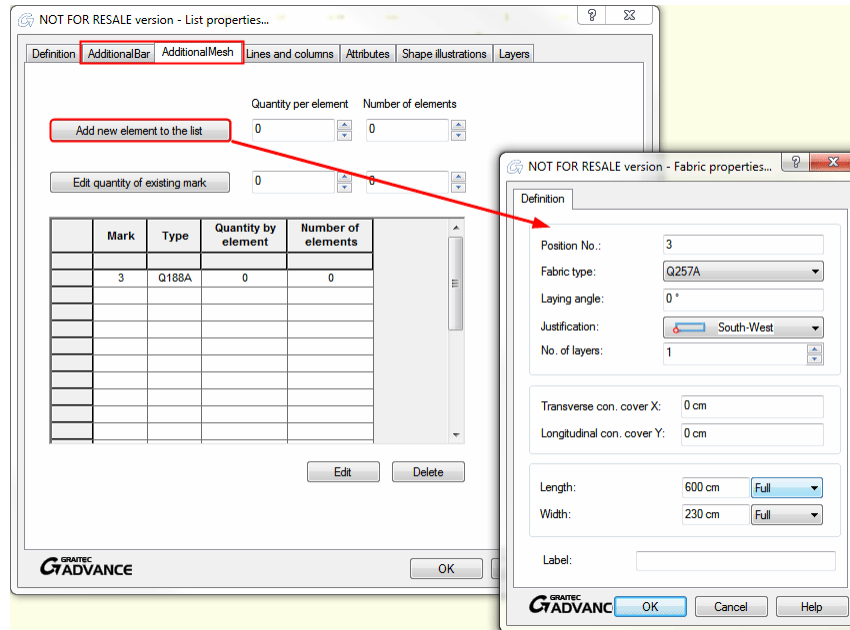


- It is also possible to add a quantity to an existing bar mark, just select the row and add an additional quantity to this bar mark.



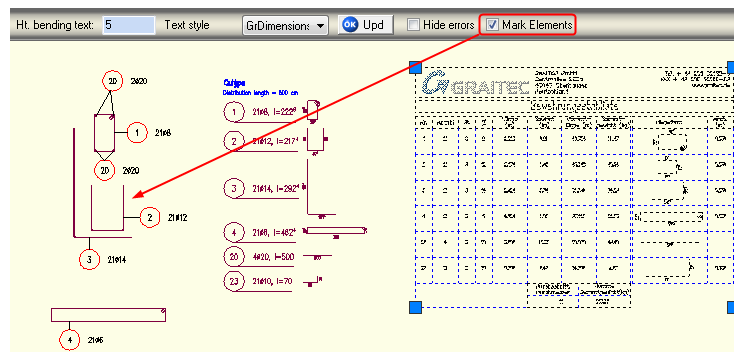
Rebar list: Add/remove fictive bar

- A new option to add / delete a fictive bar to / from a rebar list is available. It is the same workflow as add / remove fictive bar to / from cut distribution.
- You can see how you can add a fabric to a rebar list, just click the button and change the fabric properties in the dialog box:

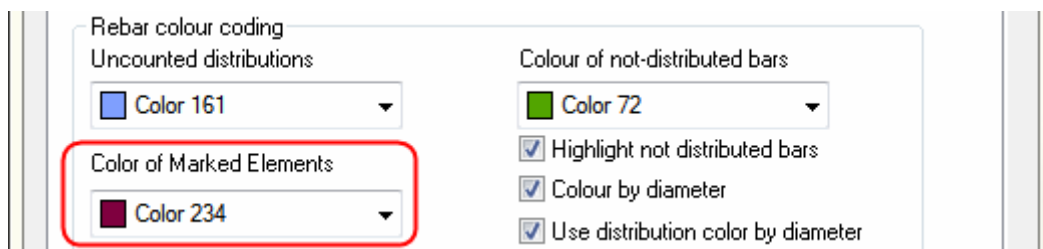


Highlight bars / fabrics belonging to a list

- There is a new checkbox on the Smartbar of a rebar list. Activate it and you can see all the bars and fabrics belonging to the list with a specific highlight color.

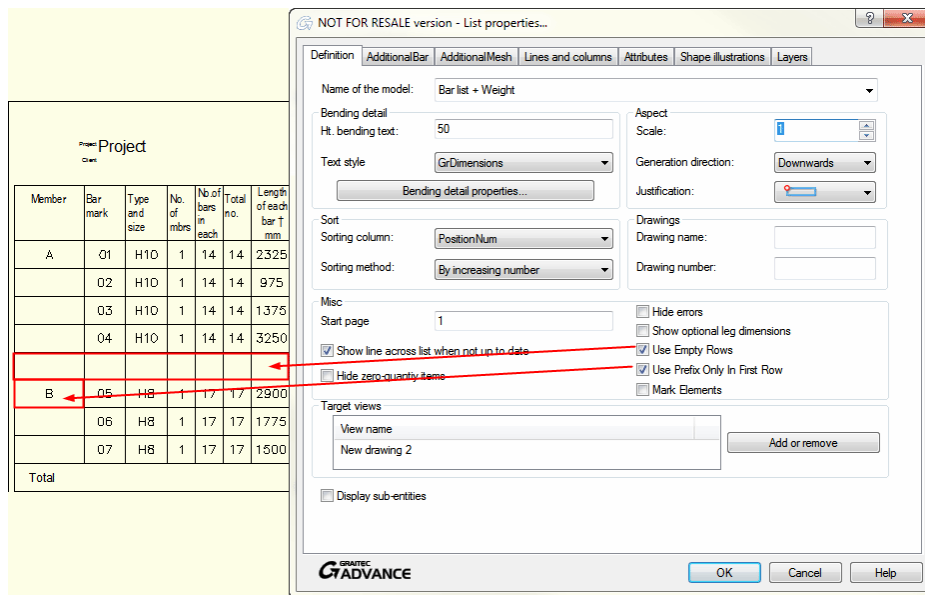


- Unselect the list and all the bars are still in the highlight color and you can continue your work as usual. If you want to switch back to the default bar color - just select the list again and uncheck the option.
- Change the highlight color in the user preferences.

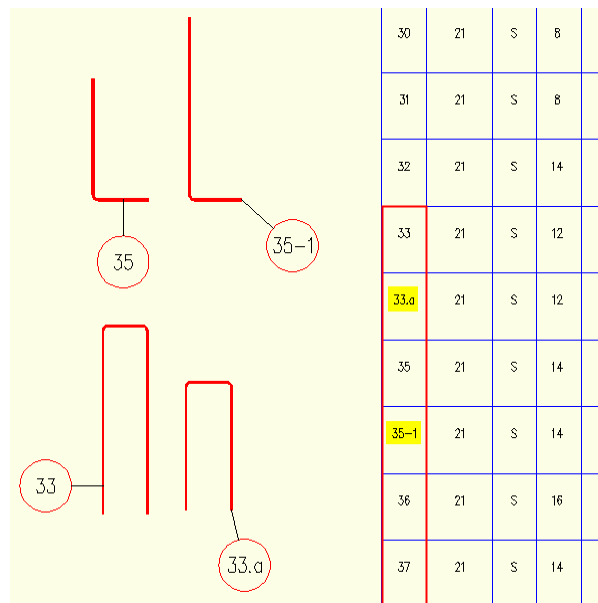


Rebar list improvements

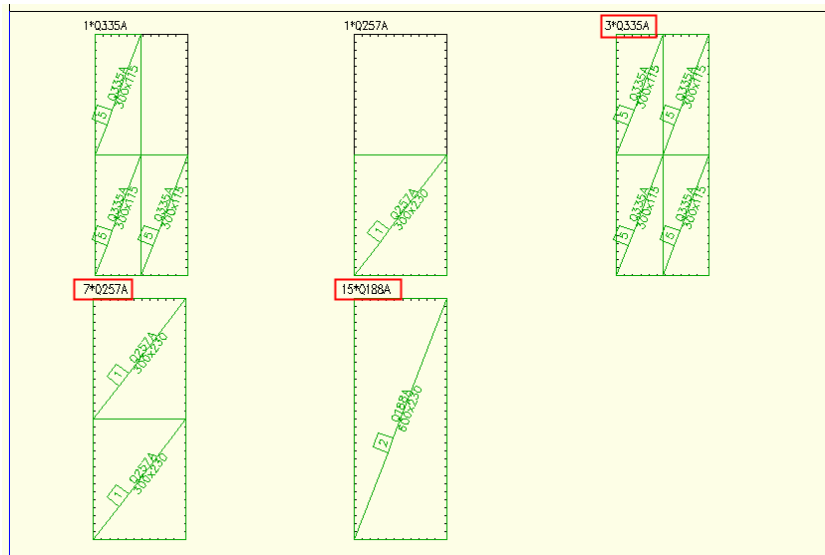
- Two new options in the list properties to control the "empty rows between different prefix" and "display prefix". You can switch on/off to control the list layout.



- The attribute <Increment> is available for the evaluation in lists. You can use this attribute to calculate and show the length difference between two variable bars.
- Sort lists by bar mark with "special" characters. You can use specific characters in the bar mark (point or dash with a number or a letters) and the "sort by bar mark" order places the special bar marks at the right position in the list.



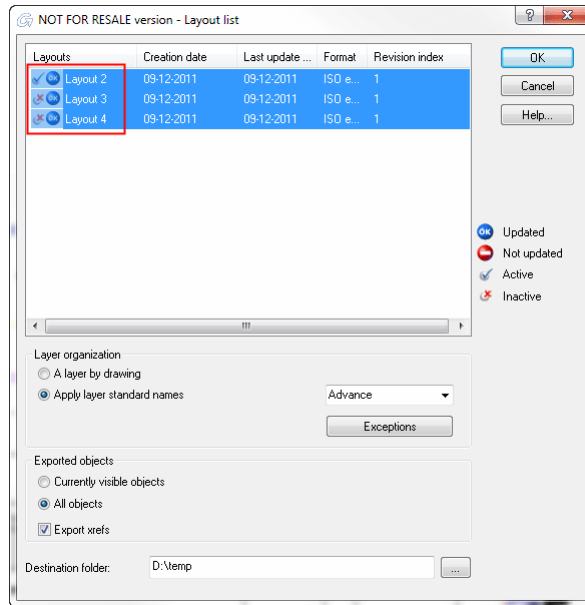
- Excel Export improvement --> see "EXPORT" section.
- Bugs fixed (some examples):
 - Empty rows disappear from the list after list update
 - Layout / representation split pages with empty rows is not correct
 - Number of layers correctly evaluated in the mesh cut list. Use the "Optimize fabric rest" command before updating the list.



Export

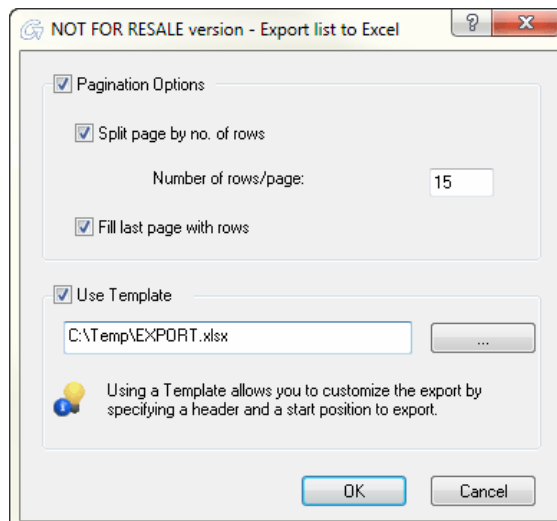
Batch export to DWG for Layouts

- It is now possible to export several layouts in one step. You can define a few settings and a destination folder (for the exported DWG files). Use "SHIFT+click" and "CTRL+click" to select the layouts in the dialog box.

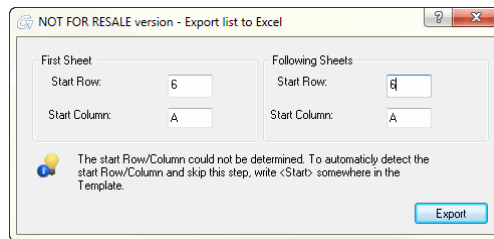
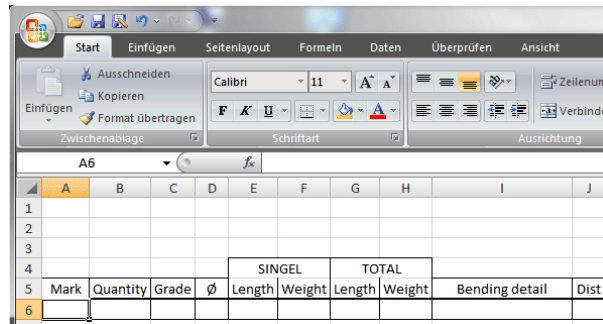


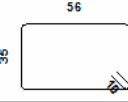
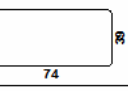
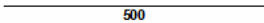
Excel export for better results

- New behavior with specific Excel templates
- Option to split pages and fill last page with empty rows during Excel export



- Specific Start point in the Excel file to insert the exported information
 - By dialog during the export
 - Keyword <Start> in the Excel file to define the insert point

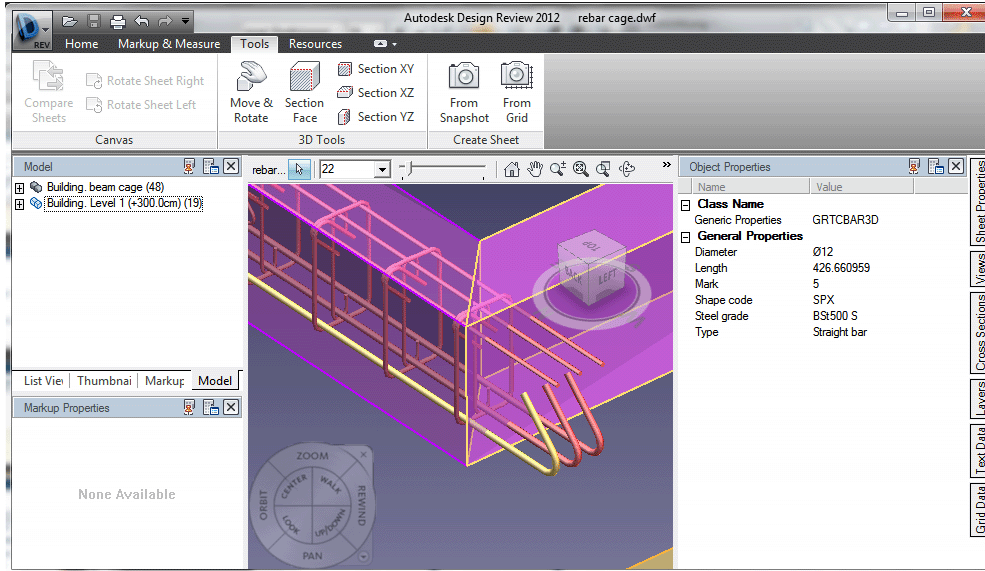


	A	B	C	D	E	F	G	H	I	J
1										
2										
3										
4						SINGEL	TOTAL			
5	Mark	Quantity	Grade	ø	Length	Weight	Length	Weight	Bending Detail	Dist
6	1	21	S	8	2,03	0,8	42,68	16,86		0,25
7	2	21	S	10	1,88	1,16	39,38	24,3		0,25
8	3	3	S	20	10	24,7	30	74,1		

- Note for internal information: "Mesh scrap list" is not exportable to Excel, because it contains only "images" and no information which can be used in Excel format. Better workflow: Print those lists to a PDF file directly from AC.

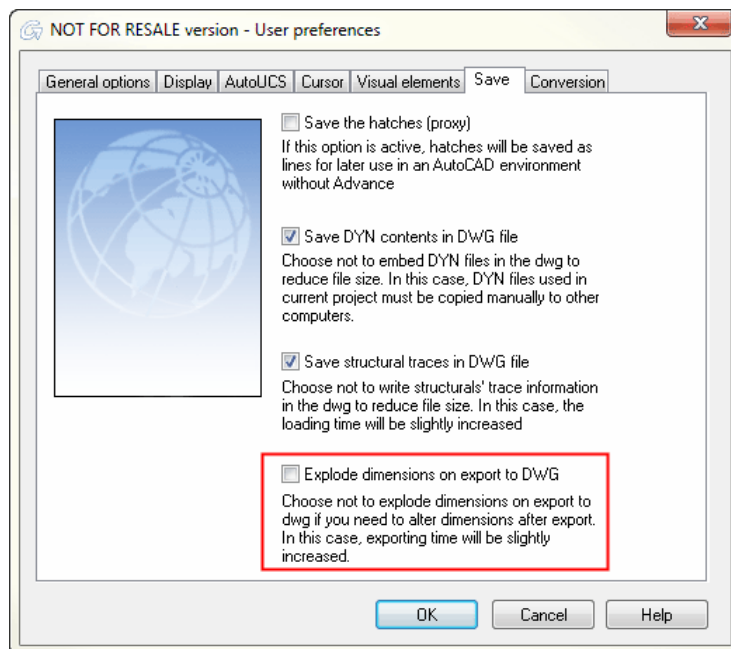
Export DWF with properties

- Model elements with properties (e.g. section, material)
- 3D Rebar cage with properties (e.g. diameter, steel grade)
- Combine several 3D DWF in Autodesk Design Review



Export to DWG with or without exploding dimension lines

- You can define how to export dimensions during the Export to DWG (User preferences /performance option for huge "not exportable" drawings).
 - Disabled: Dimensions lines not exploded during export to DWG
 - Enabled: Dimension lines exploded during the export to DWG. This option can help if you have problems to export drawings to DWG.



Localization

Localization for Russia

- GUI translation
- Codes and rules
- Libraries, symbols and templates

Localization for South Africa

- Codes and rules
- Libraries, symbols and templates

Updated localization for Poland

- Dimension styles
- Symbols and templates

Others

- Small correction in the GUI translations and localizations for all installations

