

M.A.D. DoubleCheck

DC

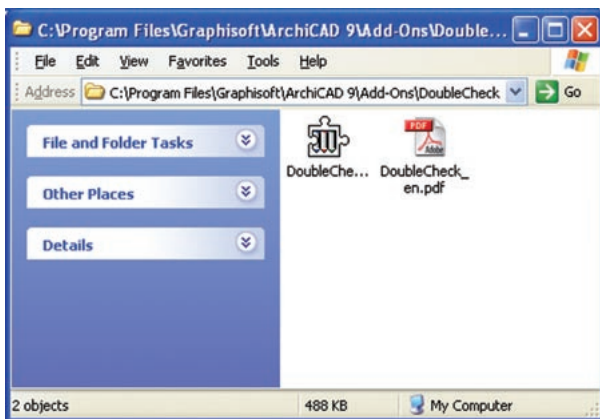
M.A.D. DoubleCheck is an ArchiCAD add-on that searches for duplicate elements which are difficult to find visually. An example of a duplicate element is a wall that covers entirely another wall. Found elements can be selected, their pens can be changed or they can be moved to another layer. Demonstration version just tells number of duplicate elements.

1 Installation

Check your ArchiCAD version and download DoubleCheck according to your ArchiCAD version.

Close ArchiCAD.

Create folder DoubleCheck under Add-Ons folder. Add-Ons folder is under ArchiCAD installation folder (C:\Program Files\Graphisoft\ArchiCAD 9 on Windows and Programs/Graphisoft/ArchiCAD 9 on Mac as default). Unzip installation zip into that folder. After unzipping the folder should look like:



Start ArchiCAD. You will find M.A.D. DoubleCheck from Tools-menu.

2 Registering

The add-on works as demonstration version until registered. To register the product, order a registration code from M.A.D. (<http://www.mad.fi/mad/english/englishdoublecheck.html>), enter the registration code to its field and press Register-button.

This is the demo version of M.A.D. DoubleCheck. This Demo version only shows you the number of duplicates found, but does not highlight them in any way.

To get more information or/and upgrade DoubleCheck program to full version, send your protection key number to one of the following addresses:

WWW:	<input type="text" value="http://www.mad.fi/doublecheck/"/>
Email:	<input type="text" value="mad@mad.fi"/>
Fax:	<input type="text" value="+358-9-4555091"/>
Phone:	<input type="text" value="+358-20-7419700"/>
Your key#:	<input type="text" value="5092887"/>

Enter your five digit registration code here. Please note that you need a new code if your protection key changes.

Code:	<input type="text"/>	<input type="button" value="Register"/>
English	<input type="button" value="Cancel"/>	<input type="button" value="Continue"/>

3 Settings

Tolerance:	<input type="text" value="1"/>	mm
Operation for found duplicates		
<input checked="" type="radio"/> Select		
<input type="radio"/> Move to layer <input type="text" value="DoubleCheck"/>		
<input type="radio"/> Change pens <input type="text" value="1"/> <input type="checkbox"/>		
<input type="checkbox"/> Check all floors		
Element	ID	
<input type="checkbox"/> Wall	<input type="checkbox"/>	Select elements you want to check.
<input type="checkbox"/> Column	<input type="checkbox"/>	
<input type="checkbox"/> Beam	<input type="checkbox"/>	Select ID if you want DoubleCheck to treat two elements different if their IDs are different.
<input type="checkbox"/> Window	<input type="checkbox"/>	
<input type="checkbox"/> Door	<input type="checkbox"/>	
<input type="checkbox"/> Object	<input type="checkbox"/>	
<input type="checkbox"/> Lamp	<input type="checkbox"/>	
<input type="checkbox"/> Slab	<input type="checkbox"/>	
<input type="checkbox"/> Roof	<input type="checkbox"/>	
<input type="checkbox"/> Mesh	<input type="checkbox"/>	
<input type="checkbox"/> Zone	<input type="checkbox"/>	
<input type="checkbox"/> Hatch	<input type="checkbox"/>	
<input type="checkbox"/> Line	<input type="checkbox"/>	
English	<input type="button" value="Cancel"/>	<input type="button" value="OK"/>

Tolerance value is used when comparing two elements of similar type (wall, column etc.). If smaller of the elements is not visible more than given tolerance value, it is considered as a duplicate. For example if wall does not come out more than 1 mm from another wall, it is a duplicate.

Duplicate elements can be:

- selected
- moved to defined layer
- or their pens may be changed to selected

If selecting elements is chosen, checking is

done only in active storey. Checked element types are defined in Element-column. All types can be selected or unselected by clicking Element-button.

ID-column defines whether elements' ID-value matter in search. If ID is checked, elements will never be duplicates if their ID is different. This feature can be used to accept situations where two elements are intentionally nested.

OK starts DoubleChecking.

4 Checking the elements

For each elements following basic checks are done:

- elements are in the same storey
- elements' ids are the same (if selected from settings)
- element under inspection fits totally inside surrounding element vertically

After that following checks are done:

Line. Line is inside another one if it fits completely inside the other. Line type is ignored.

Wall. Includes outline presentation Walls are checked by comparing outline presentations. If wall fully fits into another wall in the plan, then elevations are compared. Two overlapping walls are accepted if another one fits in a hole of the other wall.

Column. Includes outline presentation Outline presentation is compared.

Slab. Includes outline presentation Outline presentation is compared.

Roof. Includes outline presentation Outline presentation is compared. If roof is inside another one then sections are compared. When checking sections, the outline presentation is simplified to contain just four nodes.

Zone. Includes outline presentation Outline presentation is compared.

Hatch. Includes outline presentation Outline presentation is compared.

Mesb. Includes outline presentation Outline presentation is compared.

Beam. Includes outline presentation Outline presentation is compared.

Window. Only windows in same wall are compared. Window is inside another one if rectangular outline of window fully fits inside the other.

Door. Only doors in same wall are compared. Door is inside another one if rectangular outline of door fully fits inside the other.

Object. Includes outline presentation, not 3D-box Outline presentation is rectangle of object (a*b).

Lamp. Includes outline presentation, not 3D-box As object.

5 Faulty functioning

All malfunctioning should be reported to M.A.D. by email including the file which was not working to address tuki@mad.fi. In reasonable limits we will try to correct any problems in the software.