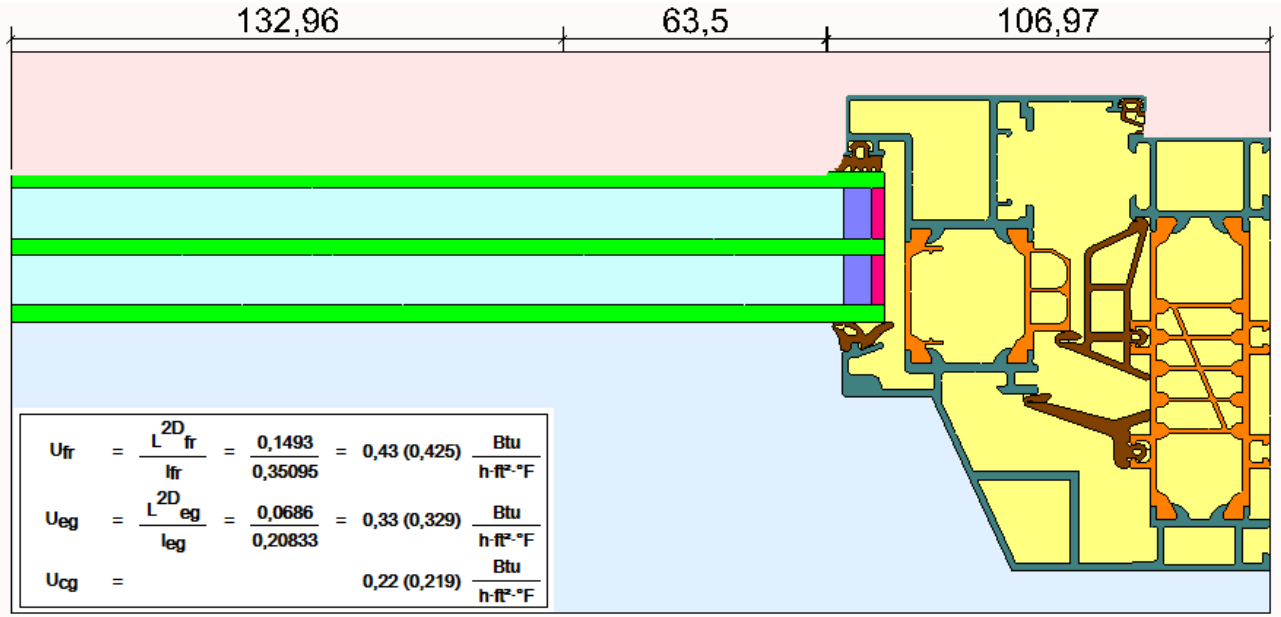
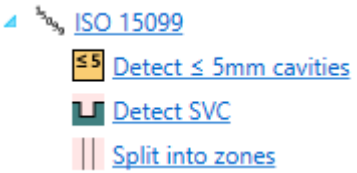
**Sommer Informatik GmbH**
Sepp-Heindl-Straße 5 * 83026 Rosenheim

Sommer Informatik

# Addon Calculation according to ISO 15099

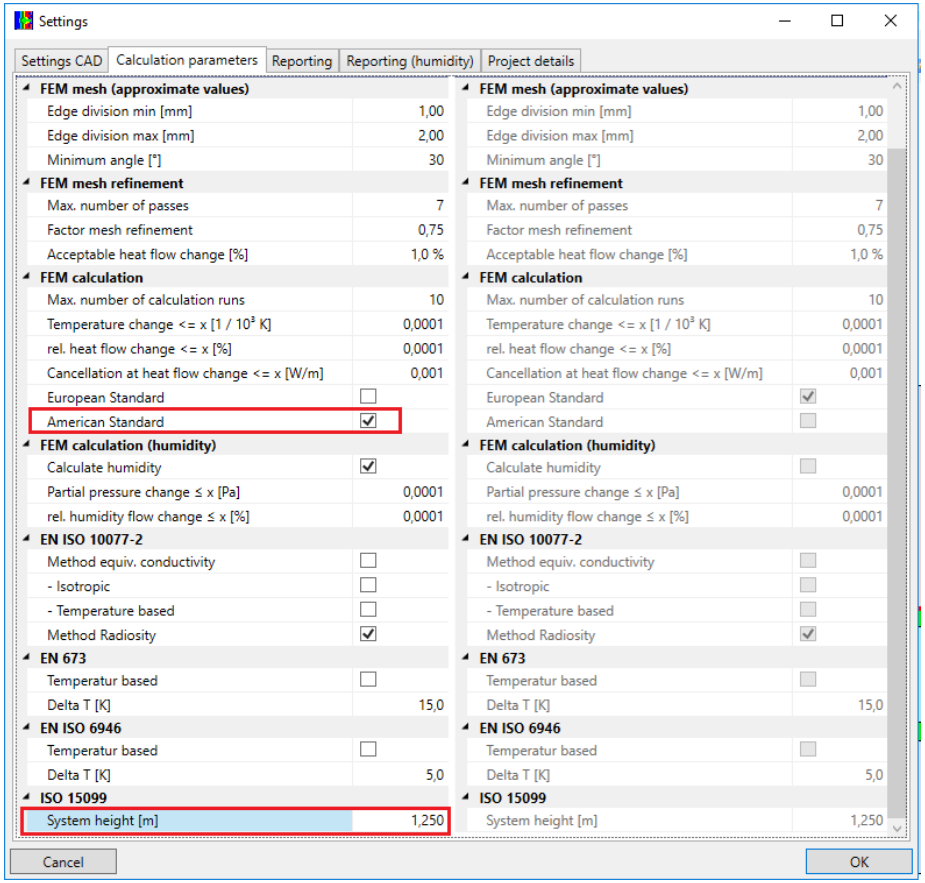


# Addon WinIso® ISO 15099

To perform calculations according to ISO 15099, the "American standard" must be set.

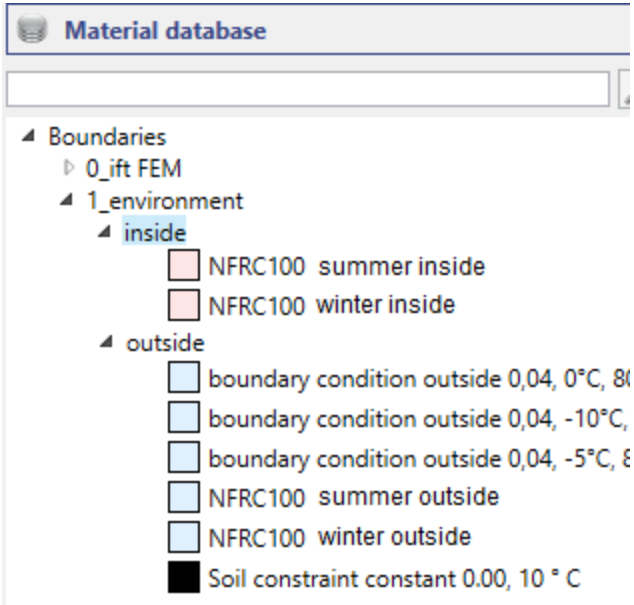
Before starting the calculation model, the system height can be adjusted.



# Addon WinIso® ISO 15099

*Boundary conditions indoor/outdoor air:*

When CAD processing is complete, the boundary conditions in project mode are assigned from the material database to the drawing via the inside / outside air for summer/winter.
No increased heat transfer resistance may be applied to the inside of the room in corner areas.



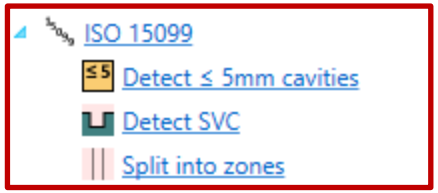
# Addon WinIso® ISO15099

*Cavity calculation according to ISO 15099*

In the material database there is another tab " ISO 15099" under the gases. The gases for the space between the panes and the various "air types" for the cavity calculation are listed here. The air type must be selected for the respective heat flow direction.

# Addon WinIso® ISO15099

*ISO 15099" tab in project mode:*




- *<= 5mm Detect cavities:Cavities with a distance <= 5mm are detected and automatically separated.*

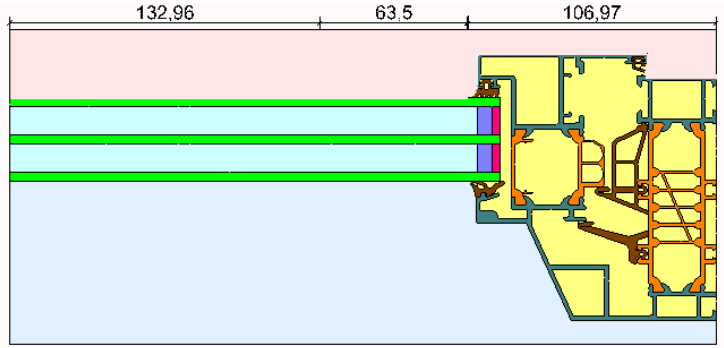
- *Determine LBH:*
  *Openings to the room or outside are detected as LBH and filled with the corresponding air for LBH.*

- *Divide into zones:*
  *Profile is used for U-value calculation in three different zones. U-value on the frame, corner and in the middle of the glass (Ufr, Ueg, Ucg).*

# Addon WinIso® ISO 15099

*ISO 15099 tab in evaluation mode:*


By selecting "Ufr, Ueg, Ucg"
the profile is divided into three sections
and with the section width the
U-values calculated.




$$U_{fr} = \frac{L^{2D}_{fr}}{l_{fr}} = \frac{0{,}2583}{0{,}10697} = 2{,}4\ (2{,}415)\ \frac{W}{m^2K}$$

$$U_{eg} = \frac{L^{2D}_{eg}}{l_{eg}} = \frac{0{,}1187}{0{,}06350} = 1{,}9\ (1{,}870)\ \frac{W}{m^2K}$$

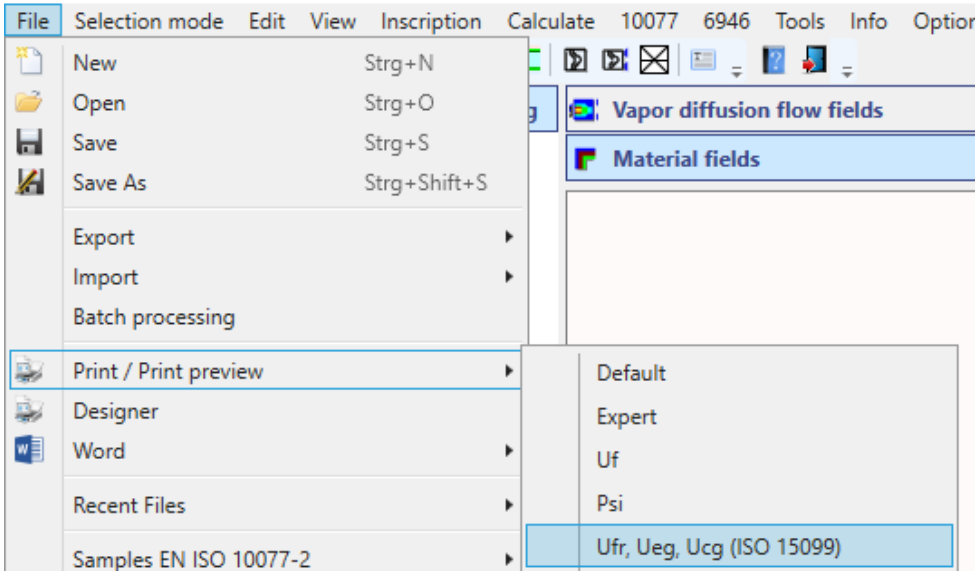
$$U_{cg} = 1{,}2\ (1{,}245)\ \frac{W}{m^2K}$$

# Addon WinIso® ISO 15099

*Printouts:*
The printout for ISO 15099 is available under "Print/Page View".

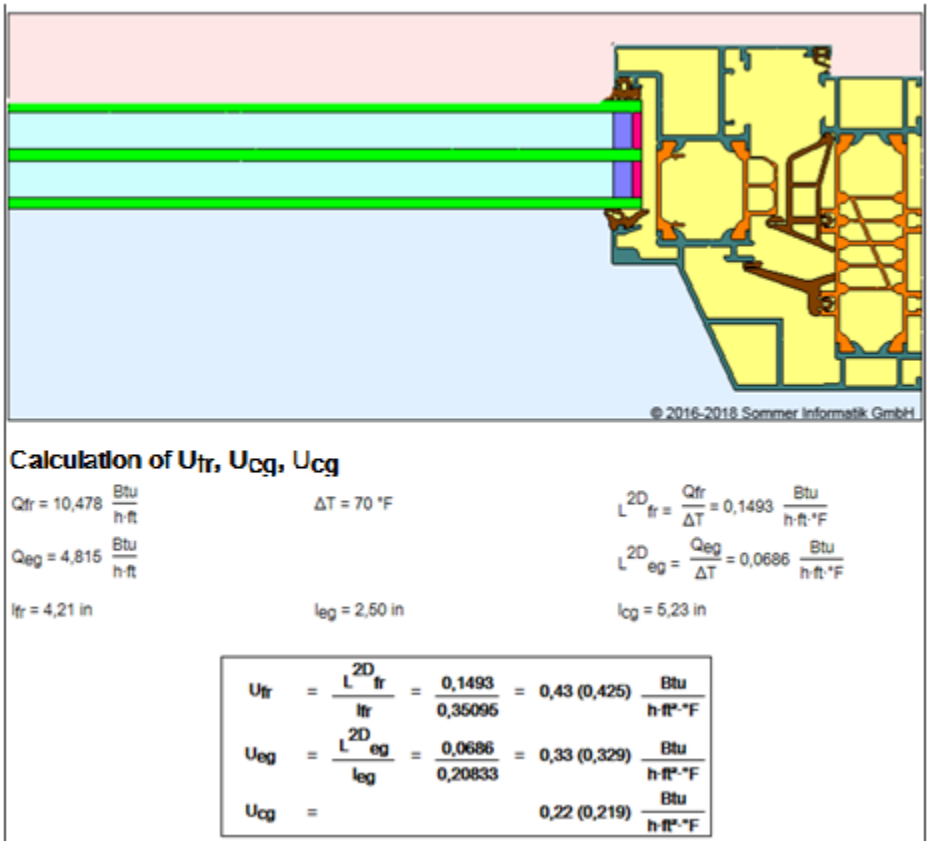
In the Designer, the printout can be individually adapted.

The printout is also available for Word export.



# Addon WinIso® ISO 15099

*Printouts:*
The "Standard" expression lists the materials used and displays the calculation results with the corresponding Imperial units.



# More information

www.winiso.de

Sommer Informatik GmbH
Sepp-Heindl-Str. 5
D-83026 Rosenheim
Tel.: +49 (0)8031 2488-1
Fax: +49 (0)8031 2488-2