

lateral buckling restraint - attaches - steel check - **creep** - charges climatiques - **dynamic analysis** - lateral buckling - brandweerstandsanalyse - **timber** - 1st order - verstijvers - huisverbinding - diseño de planos de armaduras - pando lateral - verbindingen - shear connection - verificación - armatures longitudinales - pórtico - unión base columna - voorontwerp - unión tubular - haunch - connexion moment - cimbras - **vérification acier** - unity check - **Eurocode 2** - mesh - retaining wall - raidisseur - Eurocode 3 - longitudes de pando - connections - ACI 138 - **acero** - 2nd ordre - portal frame - Eurocode 8 - andamios - kip - dwarskrachtverbinding - BS 8110 - dalle de fondation - seismische analyse - armaduras longitudinales - **BIM** - gelaste verbinding - 2de orde - buckling - funderingszool - poutre sur plusieurs appuis - maillage - malla - uniones - 2D raamwerken - fire resistance analysis - voiles - cracked deformation - **gescheurde doorbuiging** - longueurs de flambement - pando - reinforcement - **unity check** - cantonera - dynamische analyse - **hout** - ossatures 3D - koudgevormde profielen - placa de extreme - 1er orden - continuous beam - connexion soudée - momentverbinding - **praktische wapening** - renforts au déversement - fluencia - estribos - déformation fissurée - EHE - beugels - Eurocódigo 3 - platine de bout - análisis dinámico - column base plate - **kruip** - rigid link - welded connection - **charpente métallique** - moment connections - estructuras 2D - **kniestuk** - **assemblage métallique** - 3D raamwerken - second ordre - beam grid - cargas climáticas - Eurocode 2 - Eurocode 5 - wall - deformación fisurada - lien rígido - enlace rígido - 2D frames - estructuras 3D - **éléments finis** - vloerplaat - steel connection - **scheurvorming** - integrated connection design - **armatures pratiques** - analyse sismique - nieve y viento - practical reinforcement - charges mobiles - dalle - wapening - perfiles conformados en frío - **Eurocode 3** - connexion tubulaire - unión a momento - 3D frames - **treillis de poutres** - roof truss - practical reinforcement design - portique - **kipsteunen** - análisis sísmico - Eurocode 8 - seismic analysis - B.A.E.L 91 - uniones atornilladas - bolts - ossatures 2D - eindige elementen - losa de cimentación - restricciones para el pando lateral - **optimisation** - wand - kniklengtes - end plate - dakspanten - **kolomvoetverbinding** - stirrups - **acier** - staalcontrole - cálculo de uniones integrado - paroi - dessin du plan de ferrailage - stiffeners - mobiele lasten - Eurocódigo 8 - Eurocódigo 5 - longitudinal reinforcement - **doorlopende liggers** - rigidizador - **beton armé** - fluage - CTE - connexion pied de poteau - **langswapening** - connexions - **hormigón** - neige et vent - elementos finitos -



Release information

# Diamonds 2021

armaduras - **cold formed steel** - jarret - uittekenen wapening - puente grúa - analyse dynamique - flambement - keerwanden - optimisation - **steel** - cercha - 2º orden - slab on grade foundation - entramado de vigas - **Eurocode 5** - prédimensionnement - multi span beam - **bouten** - armatures - floor slab - poutre continue - pared - **staal** - 1er ordre - NEN 6770-6771 - connexion cisaillement - losa - déversement - viga continua - predimensionering - **1ste orde** - unión metálica - CM 66 - madera - análisis resistencia al fuego - **verbindingen** - 2nd order - **bois** - Eurocode 2 - profilés formés à froid - verificación acero - predesign - unión soldada - fisuración - **beton** - muro de contención - **optimalisatie** - foundation pads - fissuration - **concrete** - **AISC-LRFD** - HCSS - assemblage métallique - Eurocode 3 - viga con varios apoyos - armaduras prácticas - balkenroosters - unión a cortante - buckling length - **boulons** - cracking - **Eurocode 8** - knik - Eurocode 2 - radier - eindplaat - Eurocódigo 2 - **FEM** - tornillos - NEN 6720 - moving loads - balk op meerdere steunpunten - cargas móviles - **funderingsplaat** - étriers - analyse resistance au feu - cercha - globale knikfactor - dynamische analyse - wapening

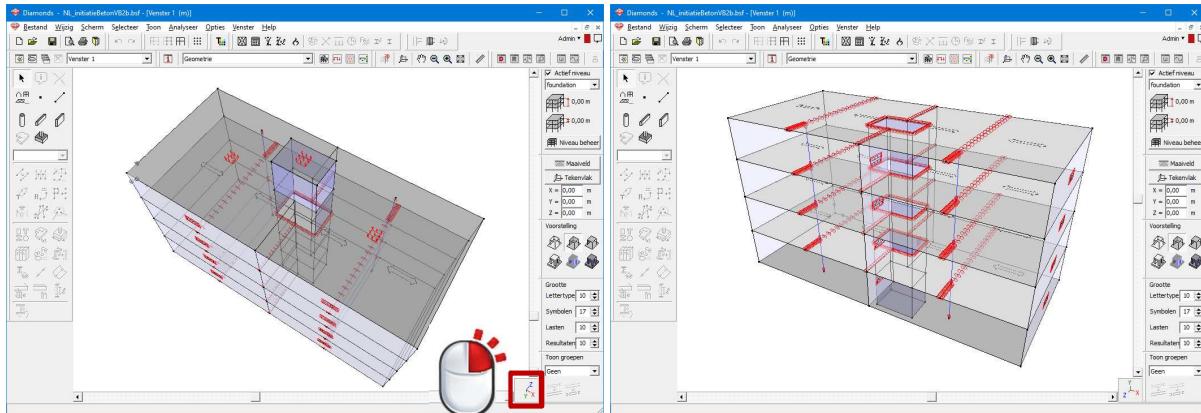
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# 1. Work environment

## 1.1. Hot key for standard 3D-viewpoint

When you've lost your orientation in a 3D view, you can ask a standard 3D viewpoint by clicking with the right mouse button on the coordinate system.

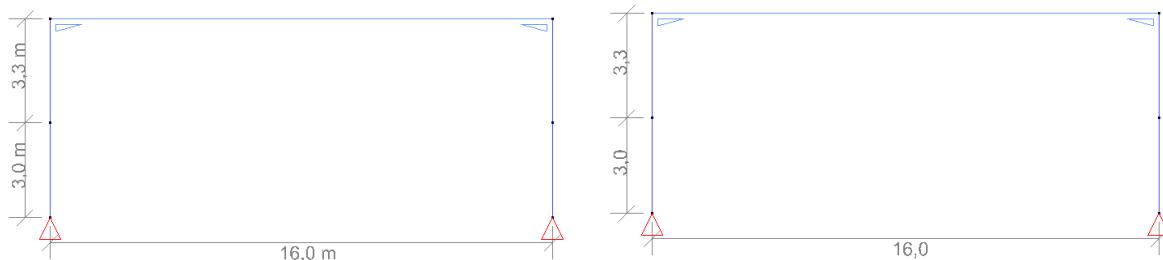
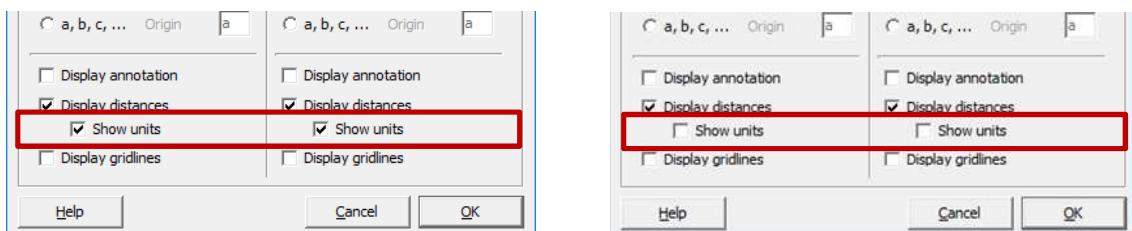


# 2. Geometry

## 2.1. Omit units when showing data on screen

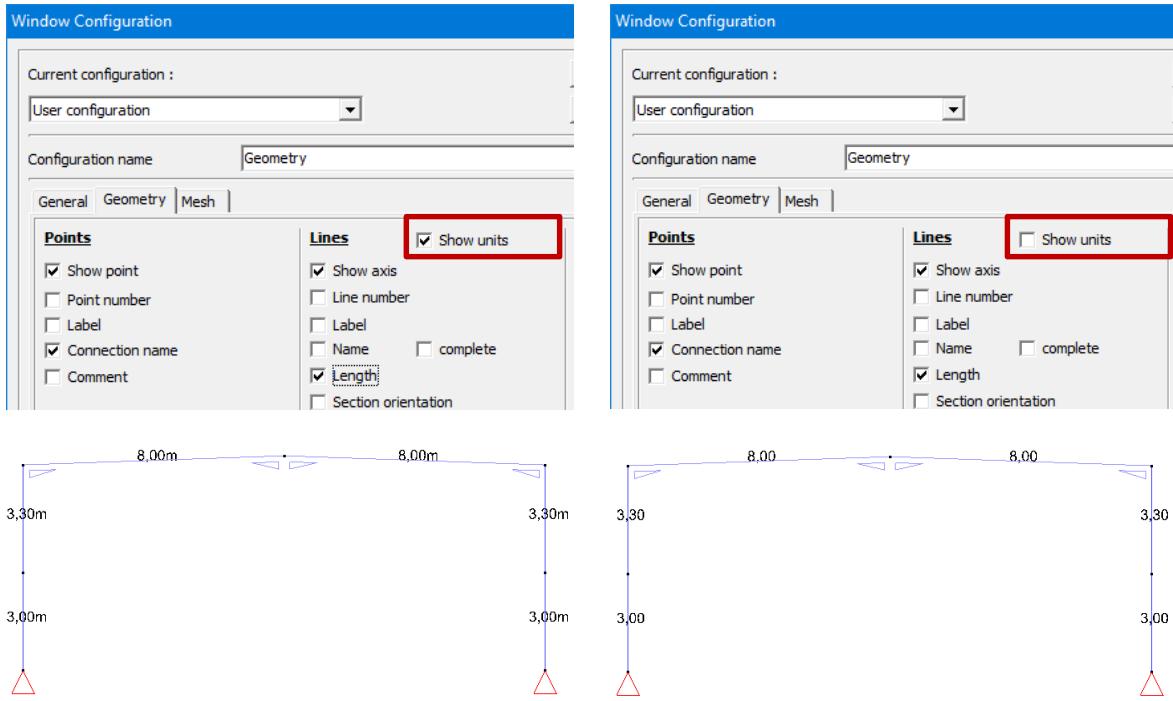
### 2.1.1. In the Grid settings

In the grid settings , you can now omit the units when using a variable grid.



## 2.1.2. In the Configuration settings

In the configuration settings , you can now omit the units when using a variable grid.



## 2.2. Eccentricities in data table

You can show the value of the eccentricities in the data table 

The screenshot shows the 'Data' dialog with the 'Parameters' tab selected. On the left, there's a table with rows for 'bar', 'Eccentricity y', 'Eccentricity z', '3', and '4'. The '3' row contains the text 'right surface beam = left surface plate begin: no eccentricity end: no eccentricity'. The '4' row contains 'no alignment begin: no eccentricity end: no eccentricity'. On the right, the 'Data parameters' panel is open, showing several groups of checkboxes. Under 'Nodes', the 'eccentricity' checkbox is checked. Under 'Bars', the 'eccentricity' checkbox is also checked. Under 'Plates' and 'Footings', the 'eccentricity' checkboxes are not checked. At the bottom of the dialog, there are 'Help', 'Parameters' (which is highlighted with a red box), and 'OK' buttons.

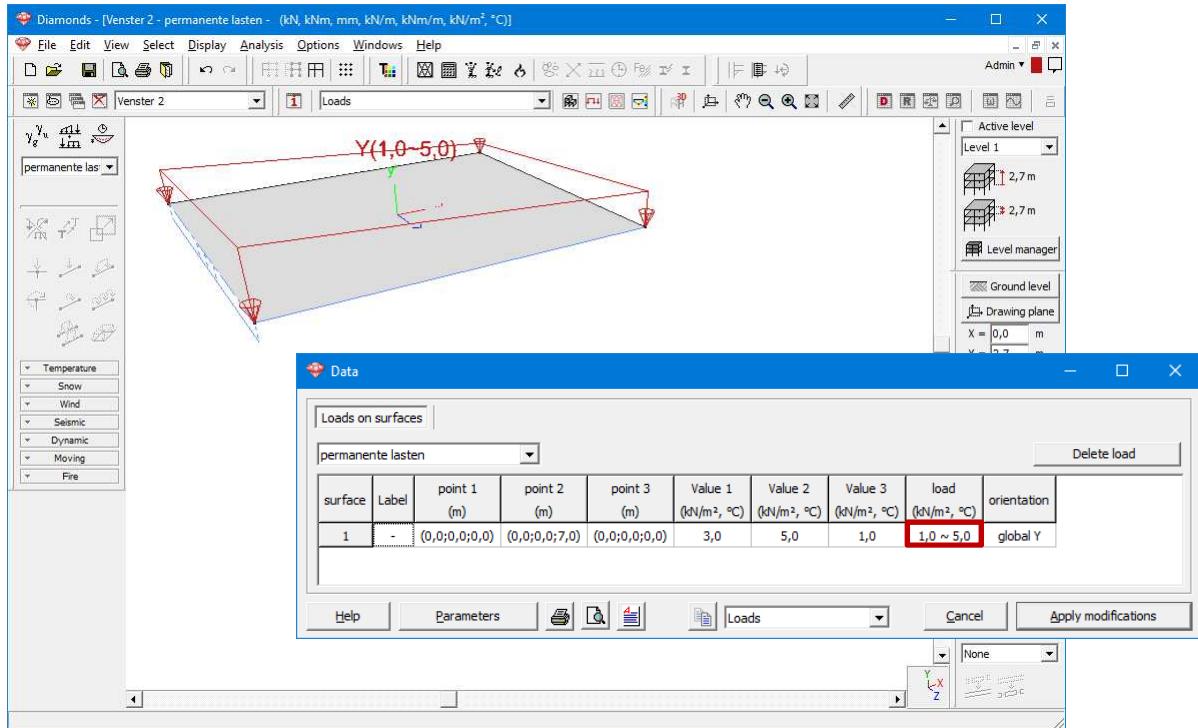
## 2.3. New intumescent paint added to the library

The intumescent paint Nullifire SC901/902 was added to the library. It can now be used to protect bars against fire.

## 3. Loads

### 3.1. Easy adjustment of surface loads

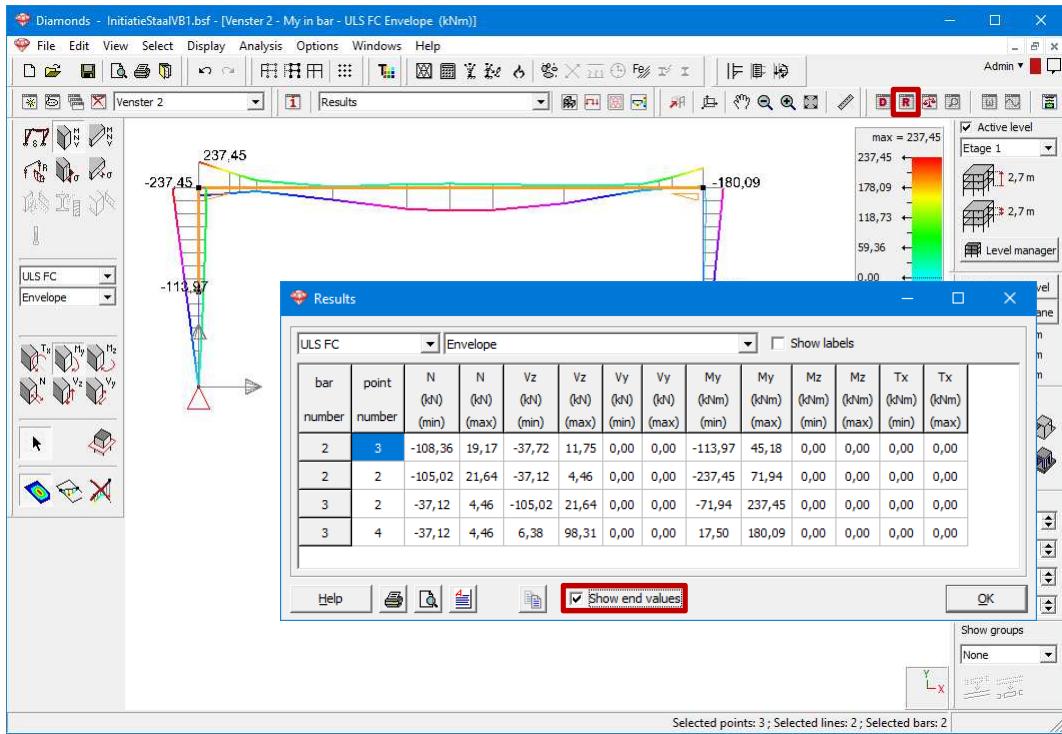
A trapezium load can easily be transformed into a uniform load by changing the value in the column *Load*.



## 4. Analysis and results

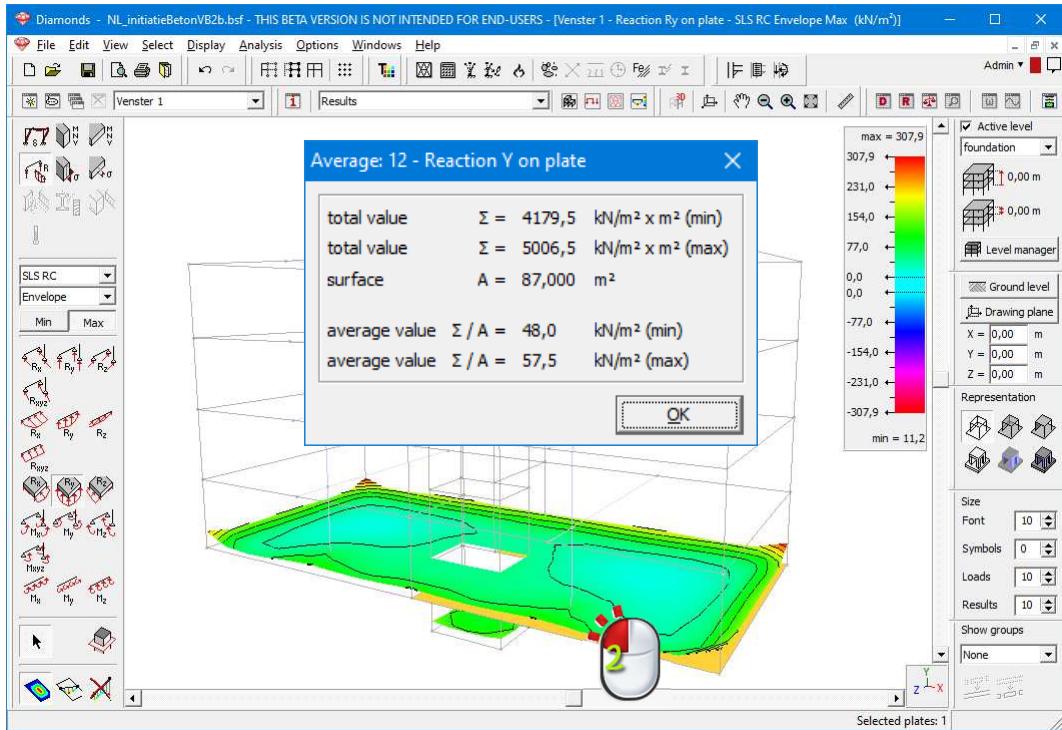
### 4.1. Ask results at bar ends in results table

When you select two (or more bars) and open the results table , you have the option to show the results only at the bar ends. This might come in handy when passing on the internal forces.



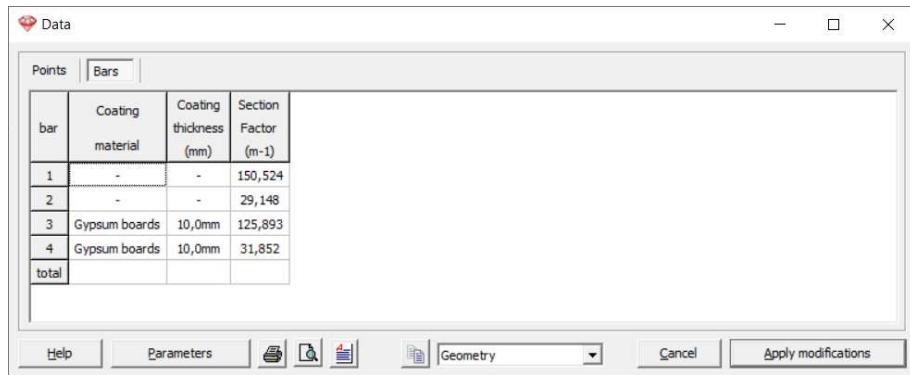
## 4.2. Total and mean plate reaction

When you double click a plate while looking at the plate reactions, a new dialog shows the total and mean reaction on the selected plate.



### 4.3. Section factor

After performing a thermal analysis , Diamonds displays the section factor in the data table .

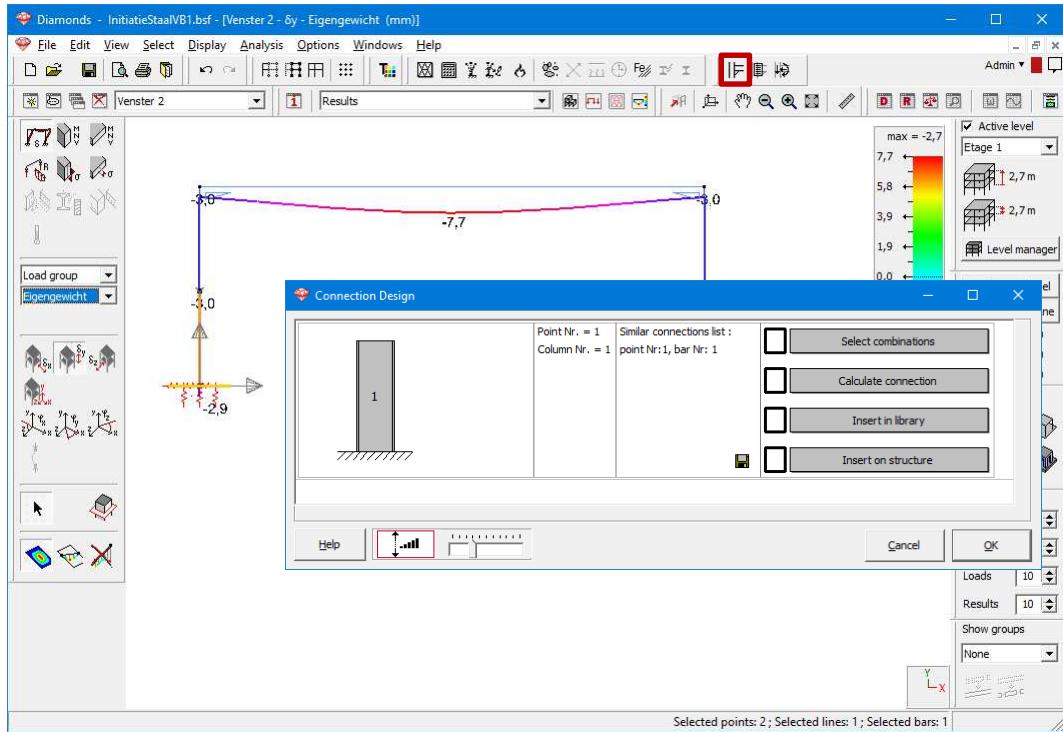


bar	Coating material	Coating thickness (mm)	Section Factor (m-1)
1	-	-	150,524
2	-	-	29,148
3	Gypsum boards	10,0mm	125,893
4	Gypsum boards	10,0mm	31,852
total			

## 5. Design

### 5.1. Send footing to PowerConnect

A footing can now be send to PowerConnect. This was already possible since Diamonds 2020r01.

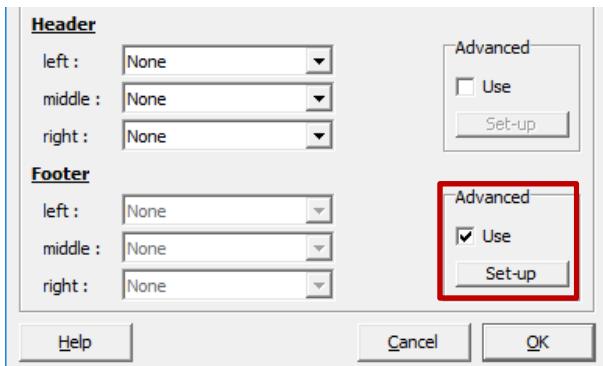


## 6. Report

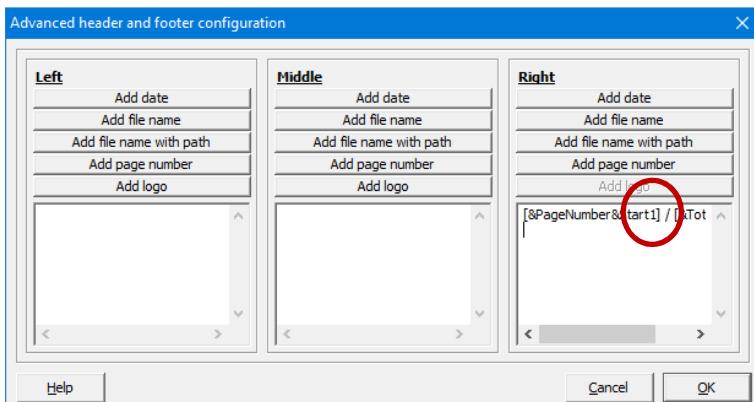
### 6.1. Start page number at random number in advanced foot/header

You can now start your report at a random page number. To do so:

- Open the *Report Manager*  and open the *Page setup*.
- Activate the *Advanced Footer* (or header) and click on the button *Setup*.



- Select the option for the page numbers.



- Change the number '1' in the shortcode to the desired number.

