UNIQUE cadcam

Your Partner for Dental CAD/CAM-Solutions

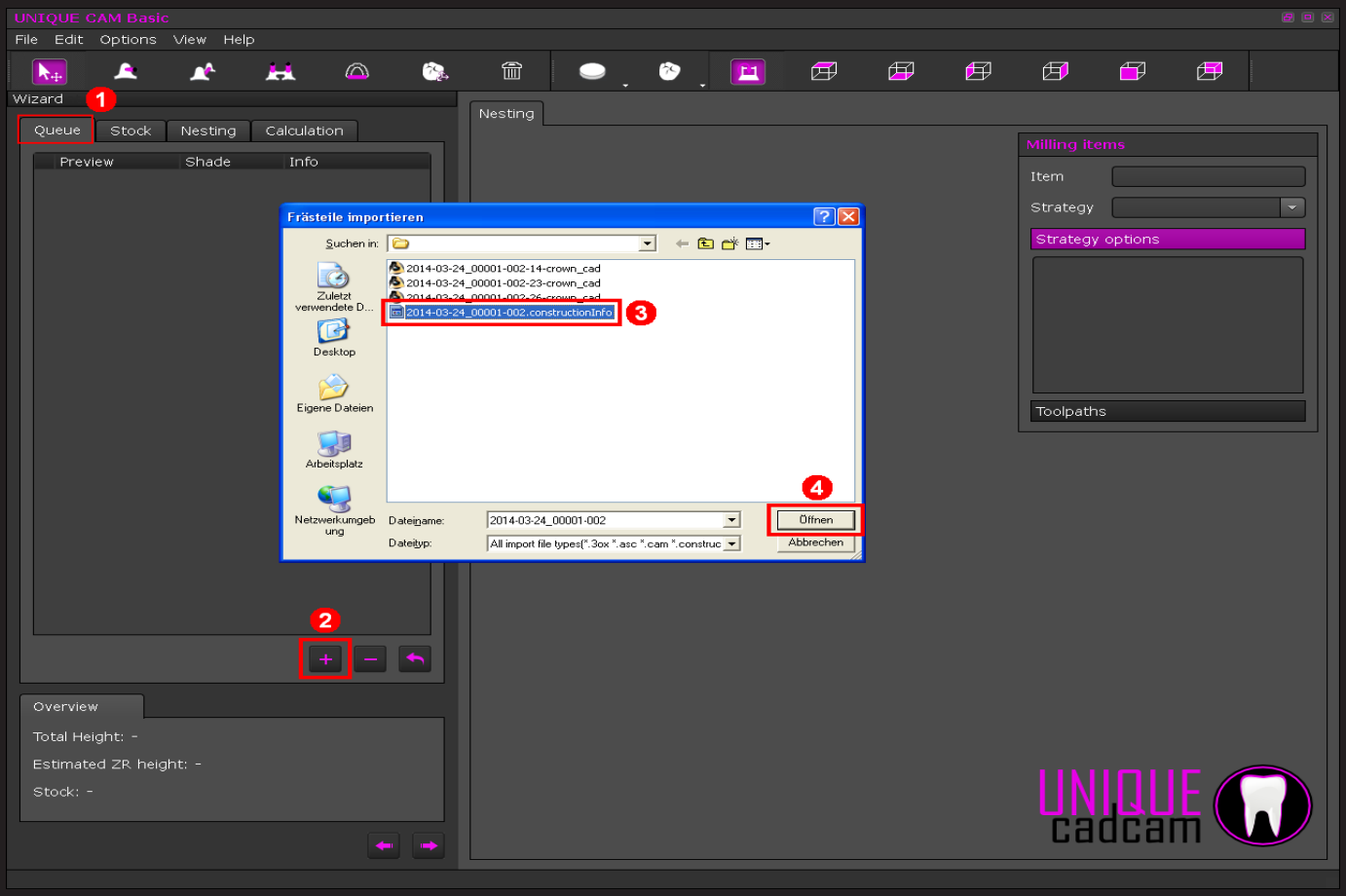
Quickstart guide for UNIQUE CAM v.1.2.x

Step 1 – Queue

1. Choose „Queue“ from the „Wizard“ window.
2. Press the „+“-button at the bottom of the „Wizard“-window.
3. Select all the files you want to nest.

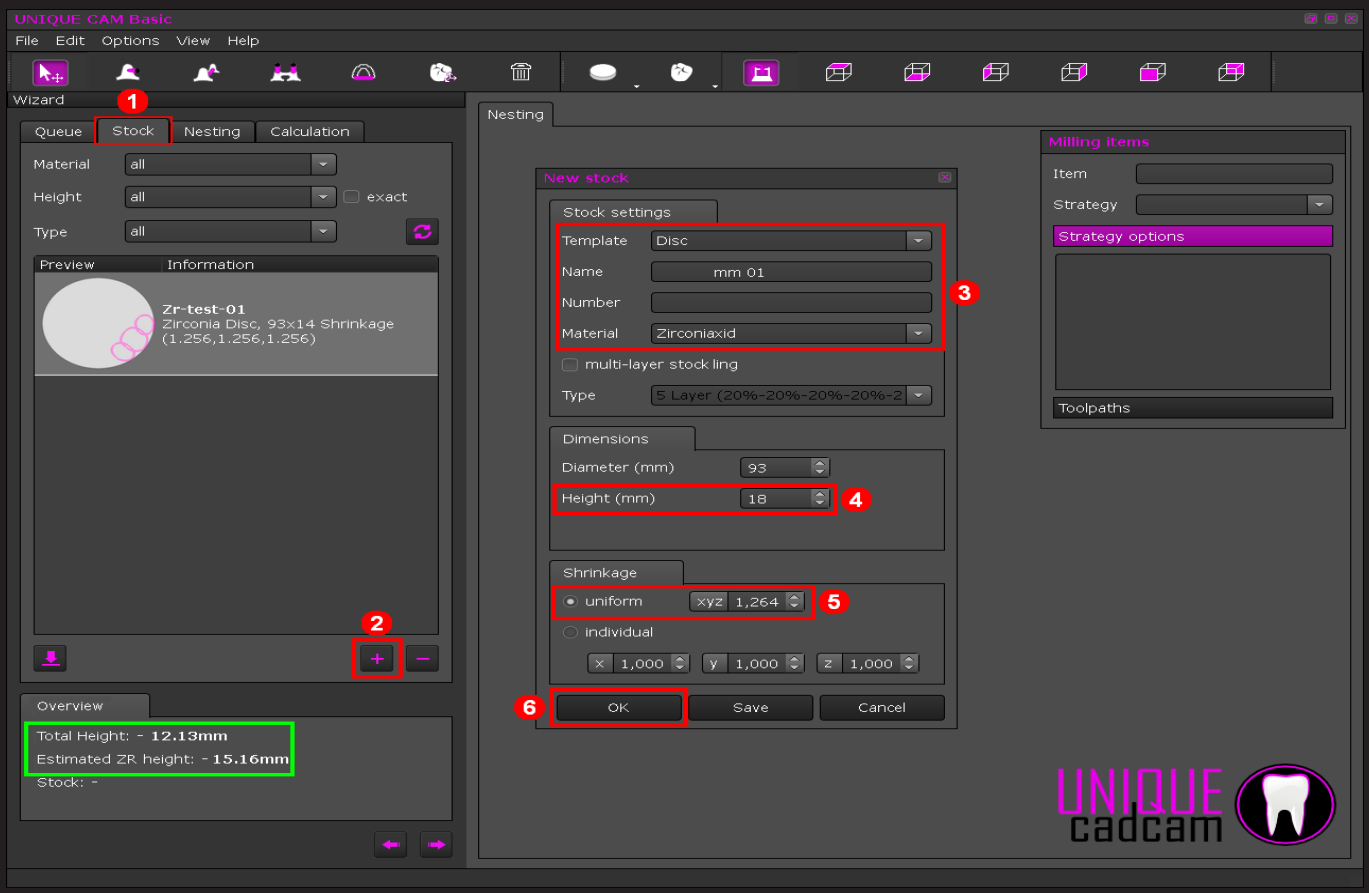
Important: Import the (additional-)construction-files (if available), instead of loading the STL-files directly. Otherwise parameters like insertion-directions and margin lines which have been set in the CAD before, cannot be loaded! File-formats that you should use are: .constructioninfo (like in the picture below), .cam, .pts, .3ox et cetera.

4. Press „Open“.



Step 2 – Stock

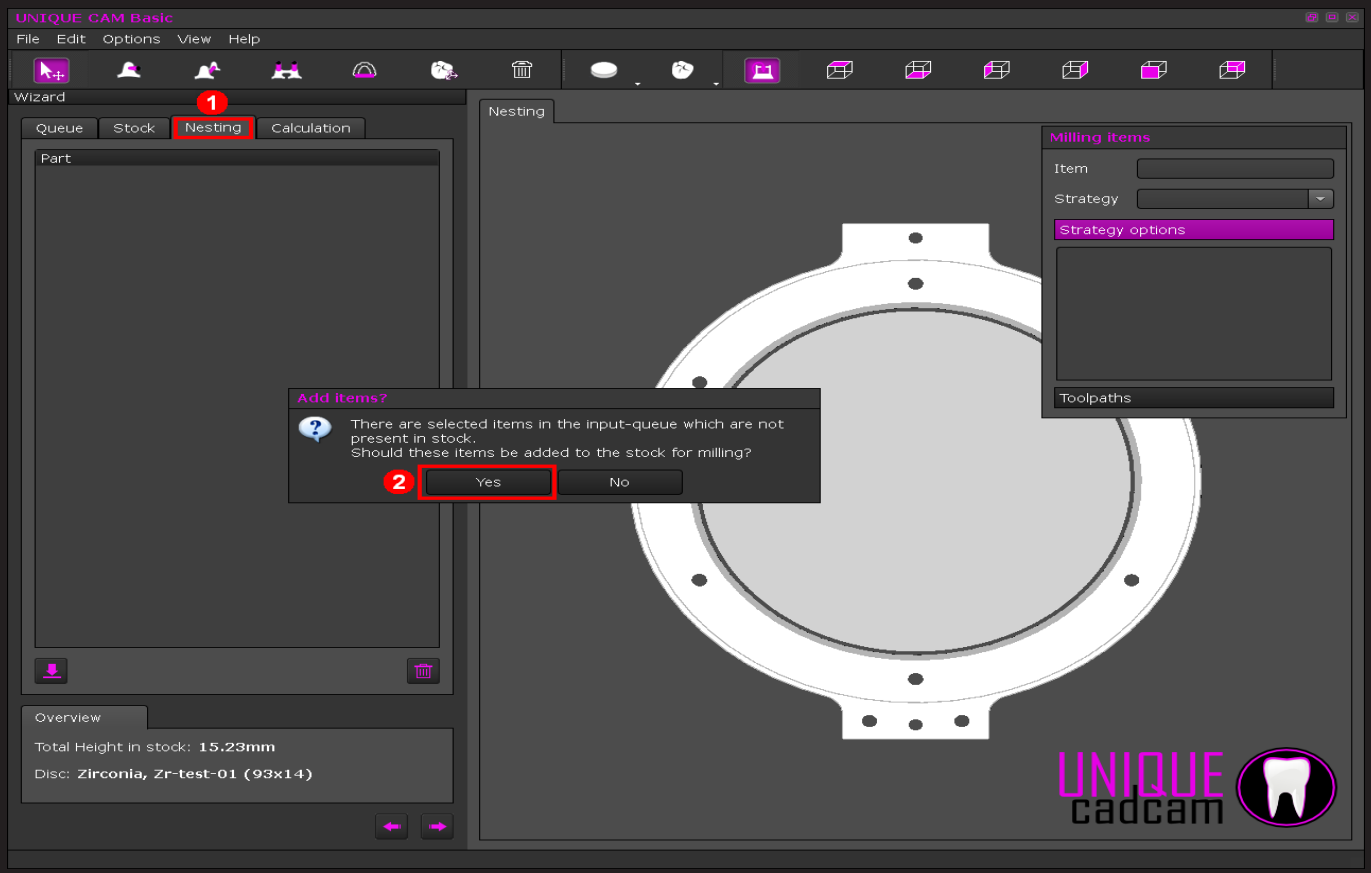
1. Choose „Stock“from the „Wizard“.
2. Press the „+“-button at the bottom of the „Wizard“-window (see next page).
3. Create Stock.
- „Template“: choose which kind of stock you want to use (disc or block).
- „Name“: insert a description for the stock.
- „Number“: put in the batch number for example.
- „Material“: choose the material which the stock is made of.
4. At „Dimensions“ put in the measurement of your stock (the editable stock-dimensions may vary depending on the stock-type).
Please note: The height-value from „Estimated ZR Height“ is a rough estimation and may not be precise. Always check the Z-placement from a side-view (see point 9)!
5. If you have choosen a material like Zirconia, which has to be sintered after the milling process, insert the shrinking-factor here. In our example the value is 1,264.
6. Confirm with OK.

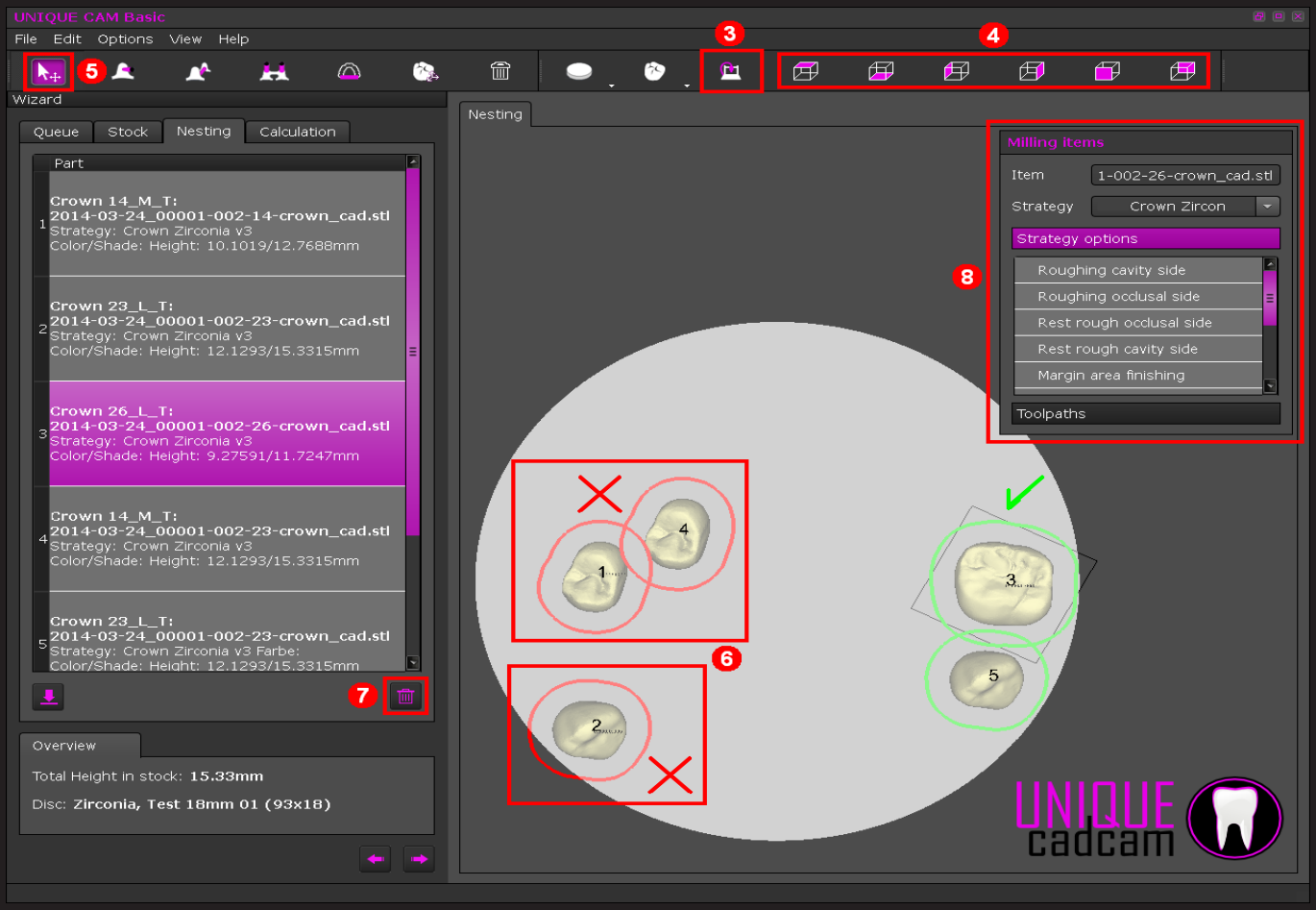


Step 3.1 – Nesting + Choose strategy

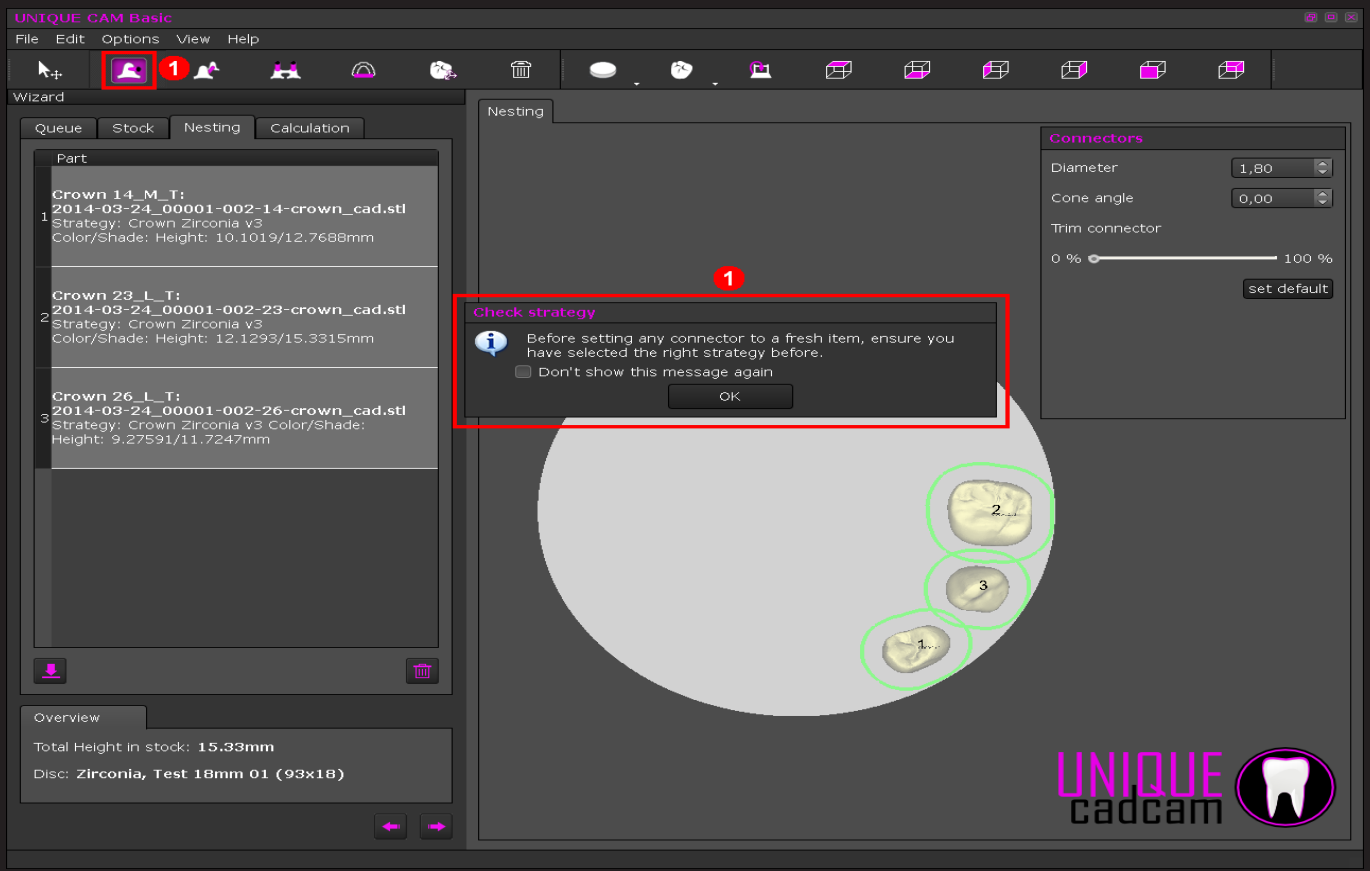
1. When you click the button „Nesting“, a message-box will be shown.
2. Confirm with „Yes“ and all active items from the input-queue will be added to the stock.
3. Click „Show machine“ to show/hide the stock-holder of the machine.
4. To change the view/camera use the six „Set camera-view“-buttons. You can also zoom in and out by using the mousewheel (see next page).
5. To position items click the „Select, Move, Rotate items“ button in the upper left (see next page).
- Select item: Click the left mousebutton to select an item. You can also select it from the item-list on the left. Selected items are rendered with a black colored bounding-box.
- Move: Select an item, hold the left mouse-button and move the mouse.
- Move in Z (height): Select an item, hold the left mouse-button, press and hold the ALT-key. Move the mouse to change the Z-position of the item.
- Rotate: Select an item, hold the left mouse-button and press/hold the CTRL-button. Move the mouse up/down to rotate it.

You can rotate the view/camera by pressing/holding right mouse-button andmoving the mouse (or press/hold the mouse-wheel while moving the mouse).
6. Take care while positioning items: never let the milling-boundary around the object touch any other object like shown in the picture (1+4). Also the item boundaries can't be placed outside of the stock. Only stocks, like pintype-blocks, allow the user to position the milling-boundary (partially) outside the stock.
7. Remove any selected item by pressing the „Remove selected items from stock“ button. You can also select multiple items and remove them alltogether.
8. If all items are nested well, choose a milling strategy. Select one or more items in the nesting-list, then choose a strategy you want to apply under „Strategy“.



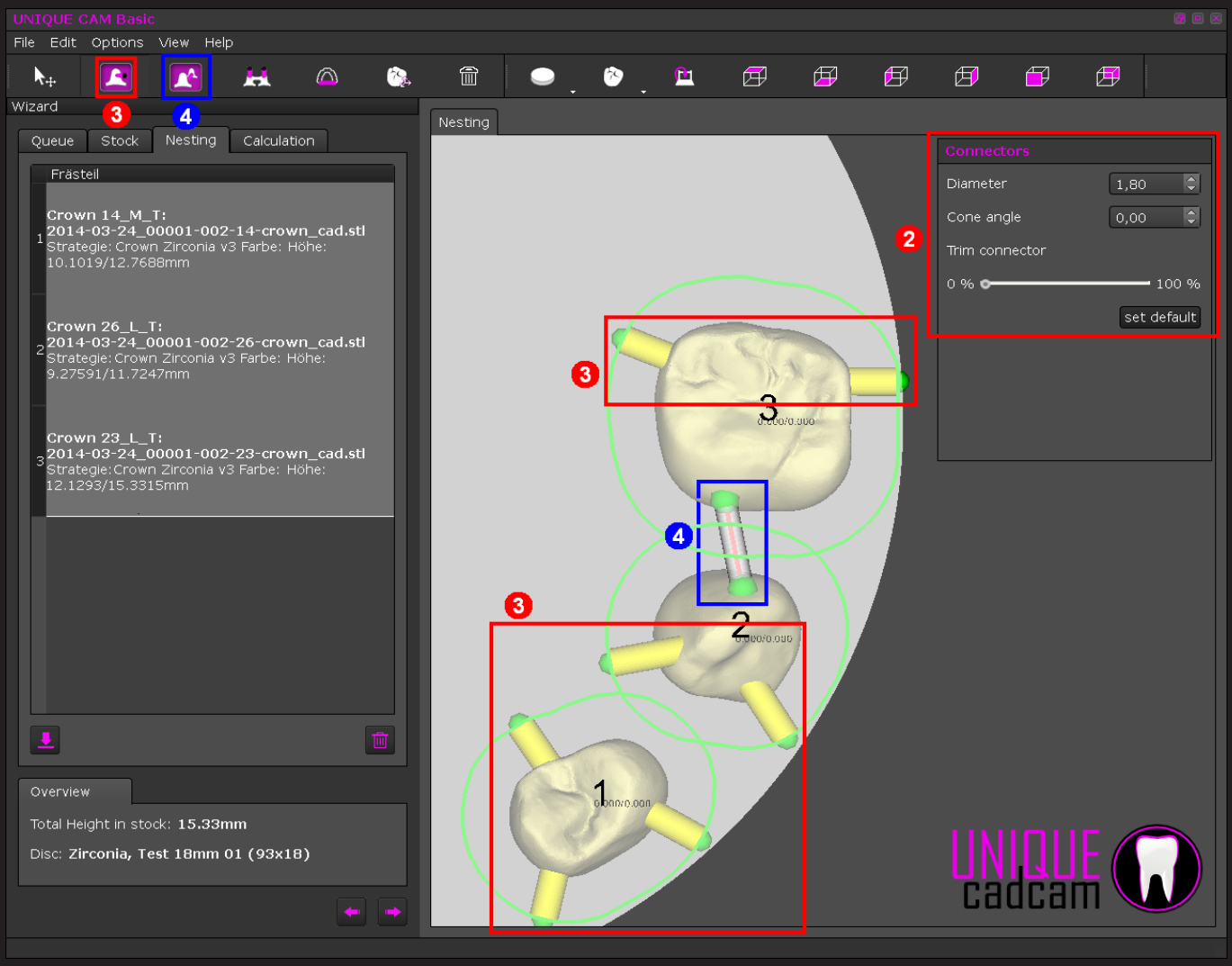


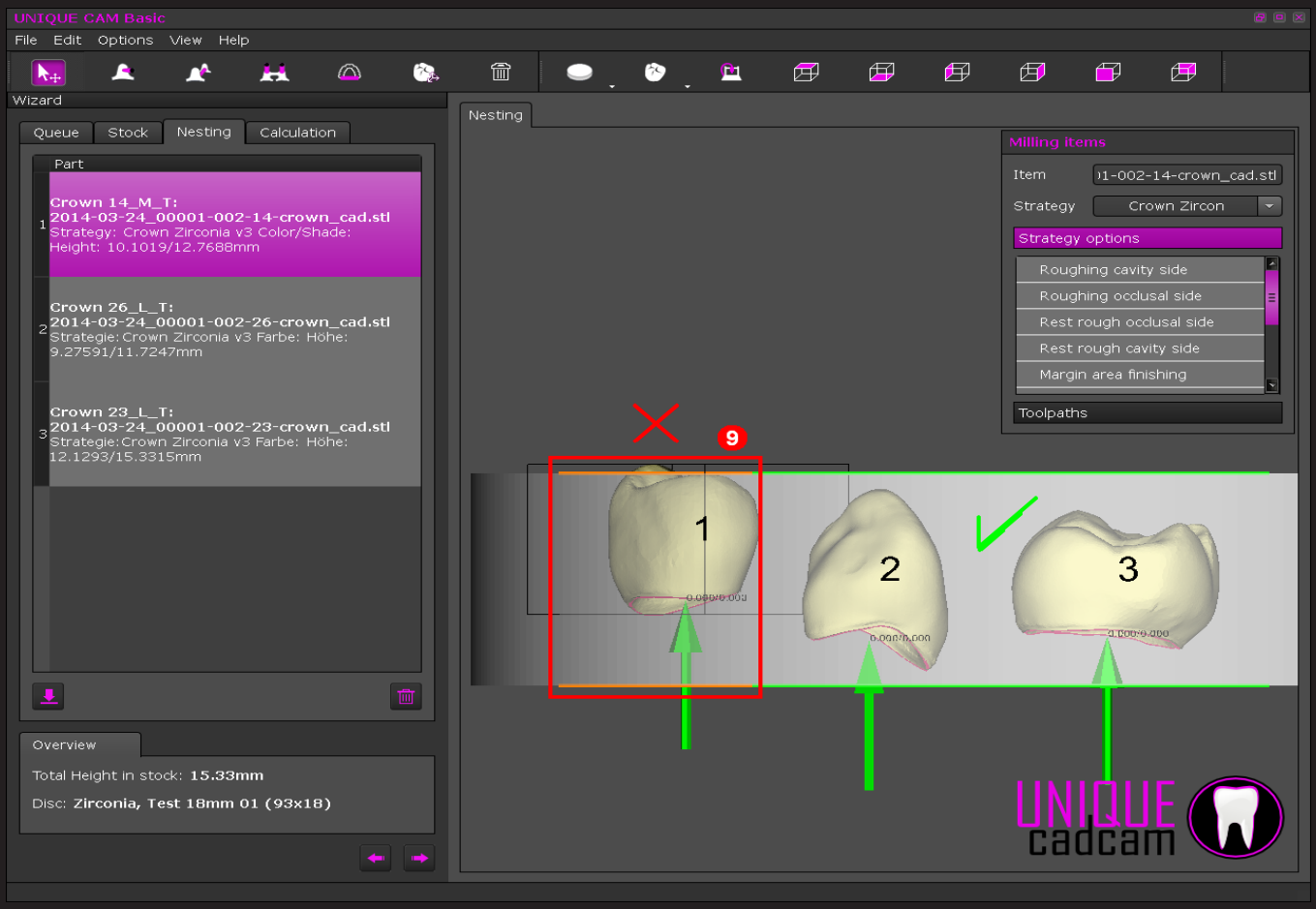
9. Please check the Z-position of the items. If any item needs to be repositioned in height, select the item press and hold the ALT-key and then move the item. Items that stand out of the the stock will be rendered with a orange milling-boundary (see next page).



Step 3.2 – Setting up connectors

1. Choose „Add/edit Connectors“. A prompt will remind you that you have to choose the correct strategy before placing any connectors, click on „OK“.
Note: You can turn off the prompt by echcking the „Don't show this message again“-checkbox. Please be sure to always check the strategy to avoid bad milling-results due to a wrong strategy.
2. Set up the values for the connector:
- „Diameter“: set the connector diameter.
- „Cone Angle“: set the connector's shape – parallel (0°) or conical (>= 1°).
- „Trim connector“: set how many percentage of the connector should be trimmed after milling. For efficient usage set the default trimming-value first and then add the connectors: all connectors will use the same settings (see next page).
3. Click on „Add/edit connectors“, then place all connectors (see next page).
Move a connector by selecting it and dragging with the left mouse-button. You can drag also the green spheres to modify the direction of the connector (see next page).
4. Click on „Add/edit connectors between items“ if you want to inter-connect items to increase the stability.




UNIQUE CAM Basic
File Edit Options View Help
Wizard
Queue Stock Nesting Calculation
Part
1 Crown 14_M_T:
2014-03-24_00001-002-14-crown_cad.stl
Strategy: Crown Zirconia v3 Color/Shade:
Height: 10.1019/12.7688mm
2 Crown 26_L_T:
2014-03-24_00001-002-26-crown_cad.stl
Strategie:Crown Zirconia v3 Farbe: Höhe:
9.27591/11.7247mm
3 Crown 23_L_T:
2014-03-24_00001-002-23-crown_cad.stl
Strategie:Crown Zirconia v3 Farbe: Höhe:
12.1293/15.3315mm
Overview
Total Height in stock: 15.33mm
Disc: Zirconia, Test 18mm 01 (93x18)
Nesting
Milling items
Item
Strategy
Crown Zircon
Strategy options
Roughing cavity side
Roughing occlusal side
Rest rough occlusal side
Rest rough cavity side
Margin area finishing
Toolpaths
9
1
2
3
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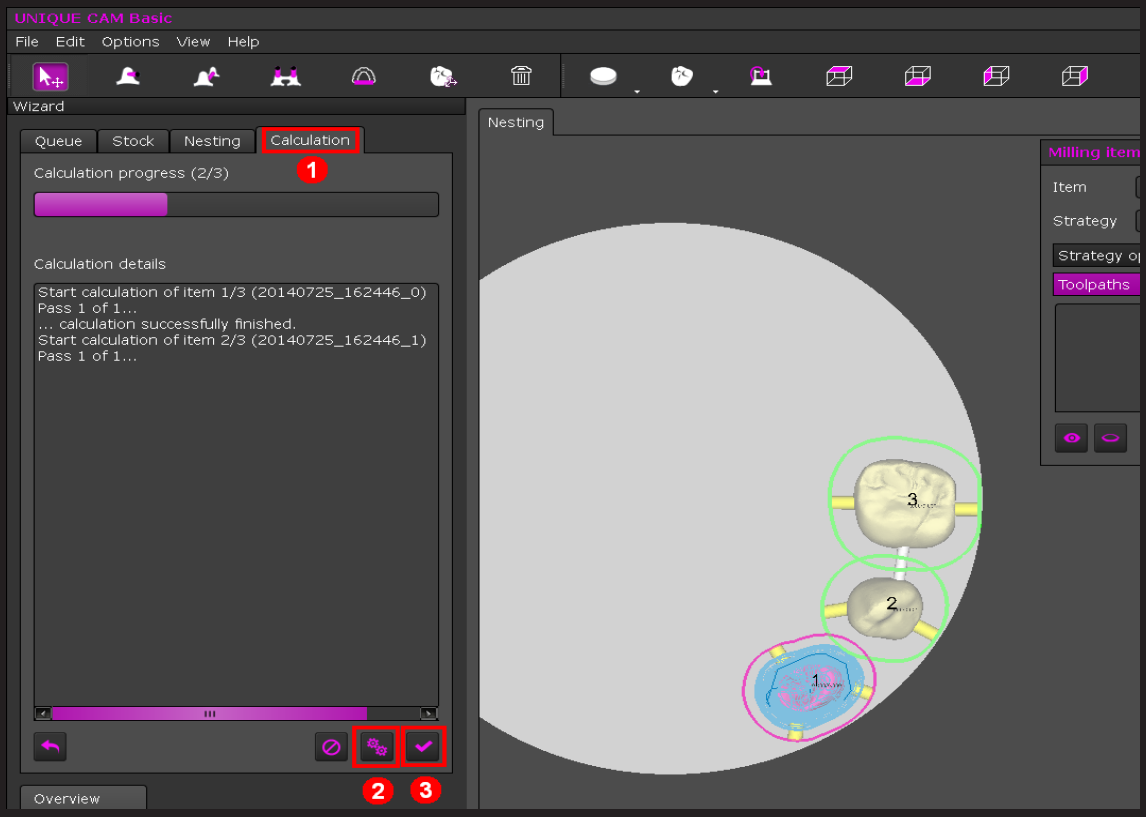
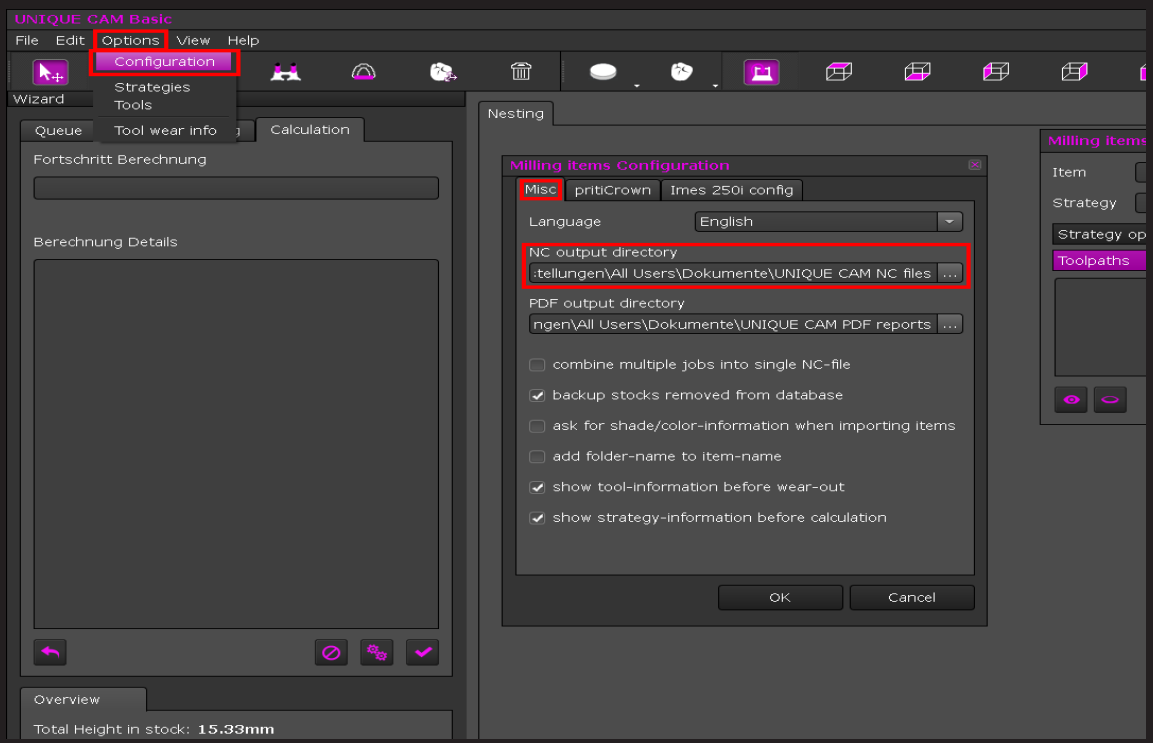
Step 4 – Calculation

1. Choose the tab „Calculation“ in the „Wizard“ (see next page).
2. Press the button „Start calculation“. Be sure that all items have green colored roughing boundaries and green colored insertion-direction arrows (if applicable) – this indicates a correct nesting of the item.
Calculated items will be rendered in pink with the NC-paths.
3. To update the CAM press „Finish calculation and update stock + input-queue“. The NC-file will be created in the directory that is set under „Options – Configuration – Misc – NC output directory“.

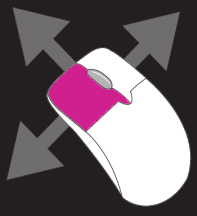




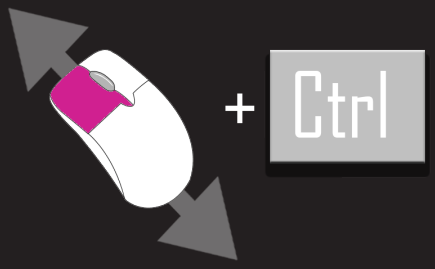
Shortcuts:

Nest milling item

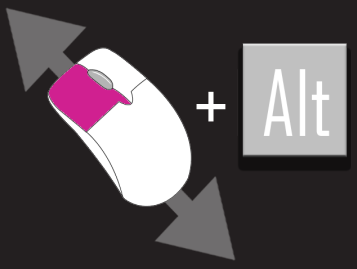
Move (milling part)



Rotate (milling part)



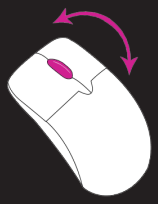
Move (milling part) in height



View (camera)

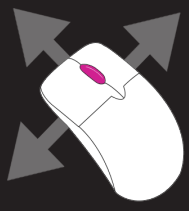
Rotate (view)

Zoom (view)



Rotate (view) in center

Translate view



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