AccuMark® 3D

What's New for AccuMark 3D

Feb 2020 / v13.0.0

Highlights

- ❖ Colorways
- ❖ Add & Edit Trim Images in PDS
- ❖ Add 3D Accessories
- ❖ Move & Scale Pieces in Pre-Sim
- ❖ Articulated Avatars

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AccuMark® 3D
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Improved Display of Stitching Details

Improvements have been made to the Avatar Window which allow for a visual representation at a higher resolution for images and trims. Finer details can be viewed in higher quality when zoomed in and/or when rendered or exported.

v12.2.0

v13.0.0

Add & Edit Trim Images inside of 3D PDS

Images now require the use of an Image Library. To learn more about how to set up an Image Library, please refer to the AccuMark PE What's New.
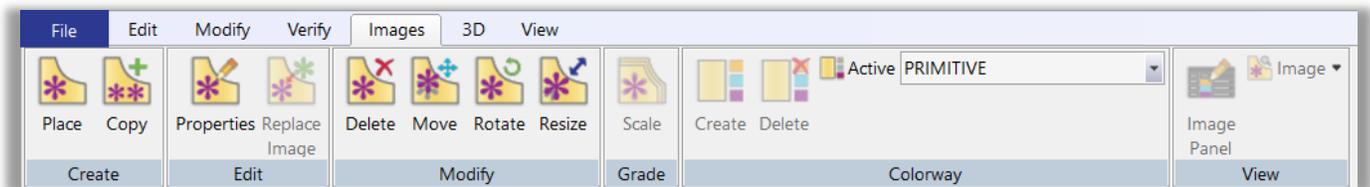
Place Image

Similar to 2D Pattern Design, **Place Image** is used to add Trim images to a 3D simulation and allow it to save back to the 2D pattern.

To add Trim images to a 3D simulation:

1) Select the Place Image function. The system prompts, "Select the location of the new Trim Image." Click on the simulation at the location for the new image. The Properties dialog box displays.

2) Select the Image Source [...] button. The Image Selector dialog box displays. Note, the default location is the Image Library.

3) Navigate to the desired subfolder on the left and select the desired image.

4) Select OK.

5) If the Select Source Colorspace Profile dialog displays, select the color profile. The system will attempt to pre-determine the profile for you.

6) The selected image displays in the Trim Image Properties dialog. Make any necessary adjustments.

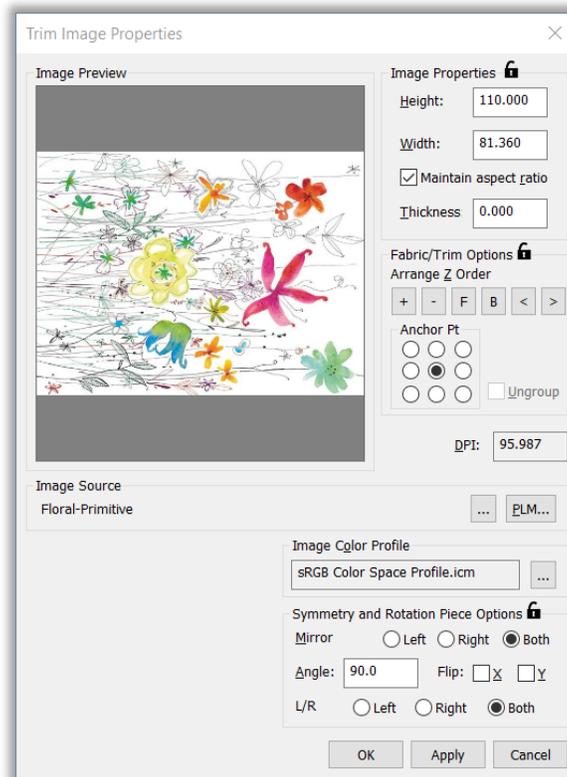7) Select OK. The dialog closes and the image is displayed at the selected location on the simulation.

Properties

The properties dialog box is the same in 2D and 3D to ensure users are experiencing consistency with modifying trim images between the work areas.

Note: For the February 2020 release only Trim Images can be modified in 3D. Fabric and Edge finishes can only be modified in 2D.

Delete

Delete Image is used to delete Trim images on a 3D simulation and allows it to save back to the 2D pattern.

To delete trim images from a 3D simulation:

1) Select the Delete Image function. The system prompts, "Select the Trim Image to remove."

2) Move the cursor over the 3D simulation and the various trim images highlight.

3) When the desired image is highlighted, click the left mouse button. The image is removed from both the 3D simulation and the 3D workspace pattern.
4) Save to sync the delete back to the 2D pattern.

Move

Move Image is used to reposition trim images on a 3D simulation and allow it to save back to the 2D pattern.

To move trim images on a 3D simulation:

1) Select the Move Image function. The system prompts, "Select the trim image to move."
2) Move the cursor over the 3D simulation and the various trim images highlight. When the desired image is highlighted click the left mouse button. The image is attached to the cursor.
3) Move the cursor to the desired location and left click. The image position is updated on both the 3D simulation and the 2D pattern.

Rotate

Rotate Image is used to rotate Trim images on a 3D simulation and allow it to save back to the 2D pattern.

To rotate trim images on a 3D simulation:

1) Select the Rotate Image function. The system prompts, "Select the trim image to rotate."
2) Move the cursor over the 3D simulation and the various trim images highlight. When the desired image is highlighted click the left mouse button. The image is attached to the cursor.
3) Move the cursor to rotate the image to the desired location and left click. The image position is updated on both the 3D simulation and the 2D pattern.

Note: Similar to working with images in 2D, the anchor points can be used for rotating around a specific point when rotating an image. Best practice would be to set the anchor point to its original position before saving in 3D in order to maintain the correct position of stacking of images for grading purposes.

Resize

A new image function, Resize Image, is used to Resize Trim images on a 3D simulation and allow it to save back to the 2D pattern.

To resize trim images on a 3D simulation:

1) Select the Resize Image function . The system prompts, "Select a new size for the trim image."
2) Move the cursor over the 3D simulation and the various trim images highlight. When the desired image is highlighted click the left mouse button. The image is attached to the cursor.
3) Move the cursor to resize the image to the desired size and left click. The image size is updated on both the 3D simulation and the pattern in the 3D workspace.

Note: if the trim image is graded, be sure to double check the grading under the **Resize** Function in 2D to ensure the grading of the new resized image is correct for all sizes. Resize is only available in 3D.

Copy

Copy trim ![icon] is used to copy an existing trim image to another location on the 3D simulation. It does not copy any of the existing trim image properties' or z-order only copies the actual image.

To copy a trim image on a 3D simulation:

1. Select the Copy Image function. The system prompts, "Select a Trim Image to Copy."
2. Use the mouse cursor and select the trim image in the 3D window to copy.
3. Next the system prompts, "Select the location of the copied Trim image." Use the left mouse button to select a location on the 3D simulation to place the trim image.
4. The copied trim image is updated on both the 3D simulation and the pattern in the 3D workspace.
5. Navigate to **Edit Properties**, to define any new or different properties to this trim image, especially if it is on a mirror or flip piece.

Colorways

See AccuMark PE What's New for information on creating and modifying colorways in 2D.

Once colorways are defined for a model, the colorways can easily be viewed on a 3D simulation.

1) Open a model in 3D and simulate.
2) In the new Image Tab, in the Colorway Panel use the drop down menu next to **active** to select the desired colorway.
3) This displays the simulation in the selected colorway.
4) Use Export Image or Turntable to create a file that can be shared.
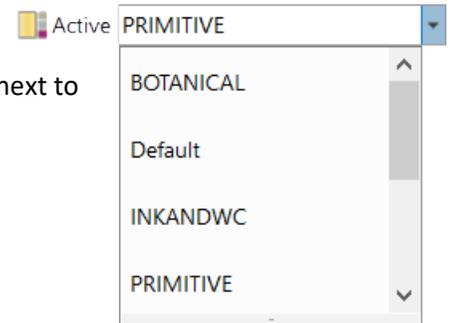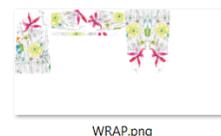
Export Simulation

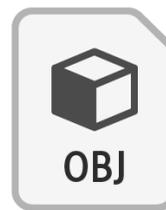Simulations can be exported by selecting Export Simulation from the File menu.
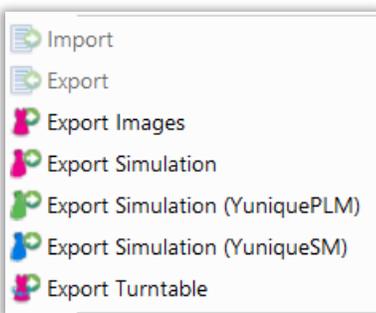
The exported zip file can be saved and shared and will include the simulated garment as an '.obj' file as well as supporting materials (.mtl file) and a (.png file) of the pieces for the simulated garment.

The exported 3D garment can then be imported into other 3rd party rendering software or third party 3D viewer applications.

Did You Know?

Windows 10 has a built-in 3D viewer. From your windows explorer, navigate to the exported '.obj' file (or any '.obj' file) you'd like to view. Double click to open or right click and select Open with 3D Viewer.
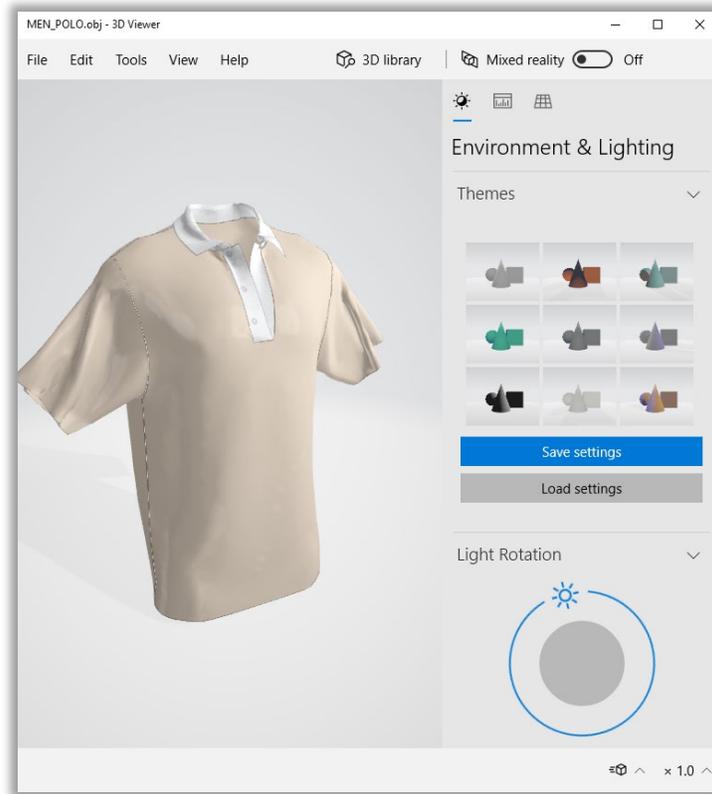
Export Simulation to YuniquePLM

Selecting the Export Simulation (YuniquePLM) will automatically export the 3D simulation and opens it in YuniquePLM.

After selecting Export Simulation (YuniquePLM) the YuniquePLM Credentials must be completed in order to connect to the platform.
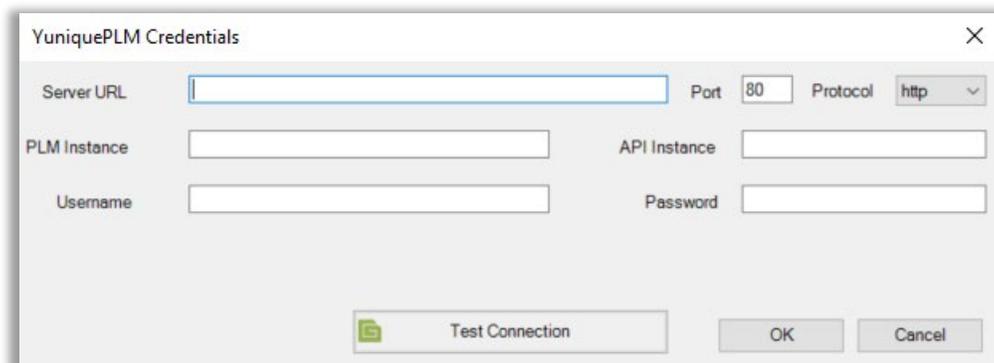
Export Simulation to Yunique Sample Manager

Selecting the Export Simulation (YuniqueSM) will automatically export the 3D simulation and opens it in Yunique Sample Manager.

After selecting Export Simulation (YuniqueSM) the YuniquePLM Credentials must be completed in order to connect to the platform.

Add Accessories to 3D Simulations

Import Accessory

3D accessories, such as buttons or zipper heads, etc. can be imported into PDS as '.obj' files and placed onto a simulated garment in the avatar window. The accessory features can be accessed from the 3D avatar window

toolbar by clicking on the Accessory icon   .

Note: If the accessory being imported has a '.mtl' (material file) attached to it, the accompanying texture will be brought into PDS as a single diffuse map. If there are no material files accompanying the accessory file, then by default a light gray color texture will be assigned to the object. (More options will follow in future versions)

To import an accessory:

1. Select the   icon from the drop down menu.
2. A windows browser to the 3D Accessories folder will automatically display. AccuMark 3D includes a default library of accessories stored in the following folder: C:\ProgramData\Gerber Technology\Silhouette 2000\Accessories
3. Select the desired 3D accessory and left click open in the browser.
4. The accessory is tied to the mouse cursor, select the location on the simulation in the 3D window to place the accessory then left click to place.

Move/Scale/Rotate Accessory

The 3D accessory can be moved, scaled or rotated as needed by selecting the Move/Scale/Rotate Accessory icon

from the Accessory drop down menu.

Using the widget the Accessory can be modified in the following manner:

- The colored circles rotate the object along the X/Y/Z axis.
- The colored arrows move the location of the object in 3D space along the X/Y/Z Axis.
- Alternatively, use the box in the center of the widget to move the object free-form in the active perspective plane.
- The box next to the widget (top right corner) can be used to proportionally scale the object.

Delete Accessory

3D accessories can be deleted from the 3D avatar window by clicking the Delete Accessory icon from the Accessory drop down menu and selecting the desired object(s) to be deleted.

Saving the Model with Accessories

When a 3D simulation is saved, all 3D accessories placed on the garment will also save with the model to be reloaded at a later time.

The accessories will also be visible when the garment is rendered and exported as an image or a turntable.

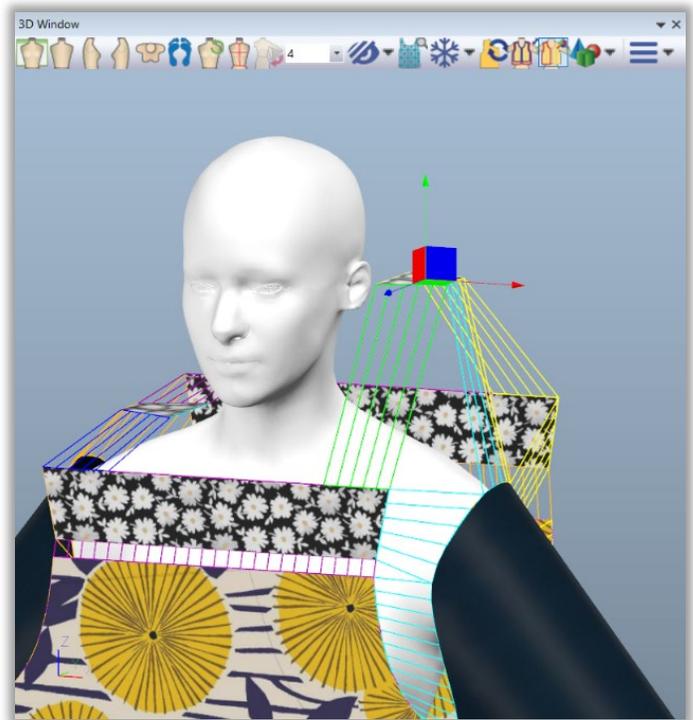## Move and Scale in Pre-Simulation

Move Piece

The Move Piece function is helpful to position pieces around the avatar prior to simulation, especially on more complex garments. The piece can be moved directly rather than having to reposition the cylinder.

Pieces can be moved while constrained to the X, Y or Z axis by using the arrows of the Move widget. Alternatively pieces can be moved on an XY, XZ or YZ plane using the colored squares of the move widget.

1) Select Move Piece in the avatar window toolbar. The system prompts to "Select a piece to move." The Move Piece icon is only enabled when the garment is in the pre-simulation state.
2) Select a piece in the avatar window. Once the piece is selected the Move Piece widget will display. If a flip piece (has both left and right flips) is selected both pieces highlight.
3) Press and hold the left mouse button down on one of the arrows or boxes to move the piece, release the button to place the piece.
4) Right click to deselect and exit the function.

Note: If the piece to be moved IS the only piece on the cylinder, and the cylinder IS NOT saved in the body file, the cylinder is moved with the piece. If piece to be moved IS NOT the only piece on the cylinder, or the cylinder IS saved in the body file, a new cylinder is automatically created, and associated with the piece to be moved. Outside of the Move Piece function, the pieces will move free-form along the surface of the cylinder with left mouse click, release and left mouse click again to place the piece.

Scale Piece

The Scale Piece function is helpful to position pieces around the avatar prior to simulation, especially when pieces are oversized for the avatar. This function DOES NOT scale the real piece geometry. It only scales the pre-simulated piece so that the system can successfully stitch the pieces together without colliding with the avatar or other pieces. The 2D pattern does not get impacted by using Scale Piece in 3D.


Before Scaling   After Scaling

Pieces can be scaled in the length, width or scaled in both directions.

1) Select Scale Piece   in the avatar window toolbar. The system prompts to "Select a piece to scale". The Scale Piece tool is only enabled when the garment is in pre-simulation state.
2) Select a piece in the avatar window. Once the piece is selected the Scale Piece widget is displayed.
3) Left click on one of the scale handles to scale the piece (middle handles scale in corresponding axis direction only, the corner handles scale proportionally) Change the piece size so that if fits correctly on the avatar. Hold the CTRL key down to scale both pieces in a flipped set together.
4) Right click, select OK to accept the change and deselect highlighted piece; or, select Cancel to return to previous state.
5) To exit the function, click OK in the User Input panel or right click and select OK.
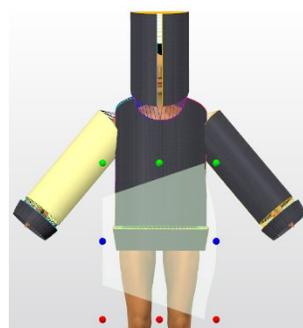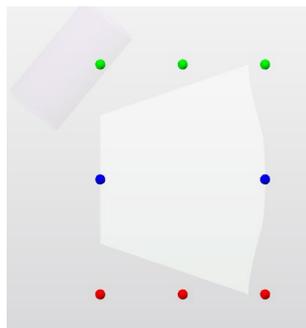
Articulated Avatars

A new graded set of posing avatars have been created and are available as part of the AccuMark 3D install in a sub-directory: C:\ProgramData\Gerber Technology\Silhouette 2000\Avatars\ArticulatedBodies

These avatars can be used interchangeably with any other avatar through the Model Editor or in Pattern Design; Right Mouse Button, 3D Model Garment Properties. Some repositioning of the cylinders and pieces may be necessary when using these avatars with previously set-up 3D models.

The ending pose of each avatar is defined in the file name. Each starting with A-Pose. Ending poses are:

- A-Pose
- Contra (One leg holding weight and other relaxed; shoulders relaxed)
- Sitting
- Sitting Driver
- Standing Driver
- Standing Relaxed

The pose can switch directions use the change pose icon in the 3D window tool bar; as implemented in version 12.2.0.

Note: it can take anywhere from 30-55 frames for these avatars to complete their end pose.