Delmia - Inserting a Human Manikin into a Workspace

- You will need a .igs or .cgr drawing of the workspace which you are attempting to insert the human manikin.
- During the process of loading Delmia, your Delmia might display a pop up window regarding licensing issues. Under this window, select all the check boxes, click ok. Quit and restart Delmia.
- To open Delmia:

*Illustration 1: It is going to be a long wait if you are opening it for the first time. Your AARP card might arrive before your program is ready.*
1. In the initial screen upon loading Delmia, select 
   \( \text{Start} \rightarrow \text{Ergonomic Design + Analysis} \rightarrow \text{Human Builder} \)

   ![Illustration 2: Location of human builder](image)

2. Highlight \textit{Product} on the component tree, located on the upper left of the screen. Select 
   \( \text{Insert} \rightarrow \text{Existing Component} \)
   
   Open the .cgr file
   
   The diagram of the workspace should open.

   ![Illustration 3: Component tree with Product1 highlighted](image)
3. Manipulate view. To manipulate the angle and position of the diagram, drag on individual arcs/lines on the three dimensional arrow/arc located on the bottom right of the screen. It can also be done by dragging while simultaneously holding down the scroll and right button.

![Illustration 4: 3D arrow/arc](image)

4. Zoom. To zoom in and out, hold down the scroll button, right click once, and move the mouse forward (in) and back (out).

5. Insert manikin. Click on the button located on the right tool bar that shows a plus sign and a human figure. Select a father product on the component tree (workspace). Select a referential point. For example, if the manikin is to stand in the work space, the referential point should be between feet.

![Manikin](image)

6. Move manikin. To move the manikin, select the entire manikin by selecting it from the component tree, then turn on place mode by clicking an icon on the right side of the screen which shows a manikin with an arrow pointed to an anchor. A placement arrow (a line with a square on the end) would appear. The square represents where the referential point of the manikin would be place, and it will try to stick on surfaces while it is being moved. Once it is decided where to place the manikin, left click, and the manikin should now be at the desired location. The rotation arrows should appear once the manikin is placed and it can be used to rotate the manikin.

7. Posture. Posture editor can be used to make adjustments to the posture of the manikin.

8. Vision. The icon with a picture of an eye will open a window that displays the view of the manikin.

9. Reach envelope: The reach envelope can be viewed by clicking on the icon with a hand pointing to a curved surface.

10. To tie certain parts of the body to an object, use coincident constraint.

11. To change characteristic of the manikin, select Profiles → Anthropometry.

To make your person walk:

1. Go to: Start → Ergo Design & Analysis → Human Task Simulation
2. Go to: Insert → Insert product
3. The workstation should now appear. Reorient the workspace so you can see the walking surface (floor).
4. Select the manikin on the product tree, and from the right menu bar, click “Rule Based Walk”.
5. On the window that comes up, click “selected” in the “walking plane” area. Reorient the workspace, and start clicking and moving on the walking plane. Lines and arcs would appear, showing the path of walk. When you are done, right click. Click “Generate Postures”
6. Under the manikin branch of the product tree, find program → task list → (the task you just
created). Select “start” to highlight it.

7. From the top menu, click “Process simulation”. Click play.