In-class Tutorial 5: Navisworks 4D Modeling.

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Step1. Pin the Timeliner palette to the screen. (View tab>Windows> check Timeliner.)

Step 2. Within Timeliner, from the "Data Sources" tab, add the commercial building schedule provided in Cavnas. In the "Name" column, right click on the new link and select "Rebuild Task Hierarchy".

Step 3. From the task tab, right click on your tasks and select "Export to Sets".

Step 4. Attach related geometry to the newly created selection sets.

Step 5. Make sure all the selection sets are attached to your schedule from the "Attached" column within the "Tasks" tab.

Step 6. Within the "Configure" tab, delete the temporary task as we don't have any temporary task in this model.

Step 7. From the task tab, under the "Task Type" column, attach the demolition task to demolish, and the rest of tasks to construct.

Step 8. From the simulate tab, click on settings and make sure in the view panel, you are viewing the same type of schedule as you selected when importing the schedule. You can check this from the task tab.

Step 9. Watch your simulation from the "Simulate" tab. Now, think about some of the strategies that you can leverage to better visualize your 4D model. (examples: how to highlight, dim, or hide different tasks, providing legends, zooming in and out to illustrate details, etc.)

Step 10. You can use colors to help communicate the types of work that the 4D model represents. Create a list that outlines the different task types in your model and assign colors to each type (The task types can be detailed or more general based on what you are trying to communicate). Here is an example:

Demolition: Red

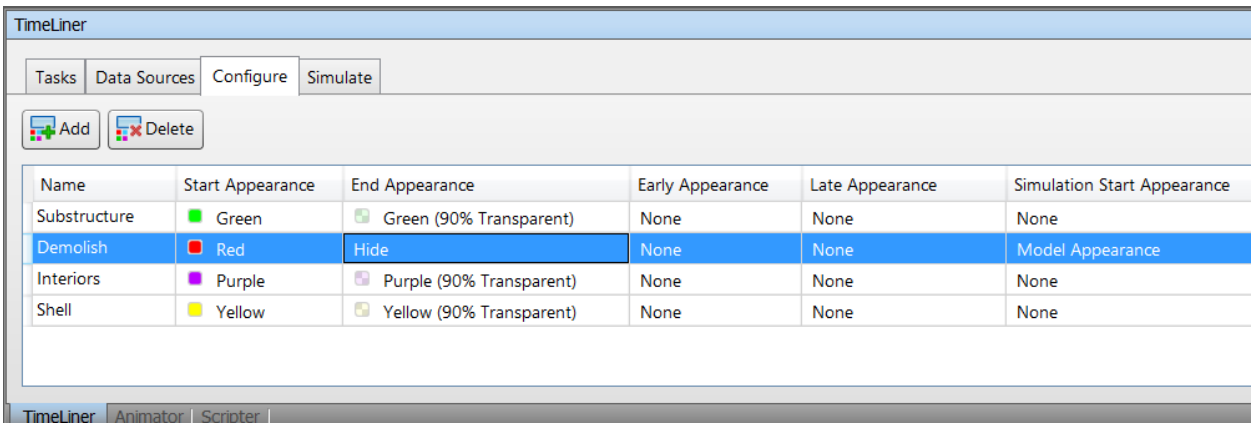
Substructures: Green

Shell: Yellow

Interiors: Purple

Step 11. Within the "Configure" tab, define the Appearance Definitions (button, upper right). This is your list of colors and transparency levels. Note that the default simulation start appearance is hidden and you can use the dropdown box at the bottom of this tab to change the start universally.

Step 12. Within the "Configure" tab, delete the previous task types and "Add" the task types that you created for this project. Assign the task types colors (from the list of Appearance Definitions) for the Start and End Appearance. Here is an example:



Step 13. From the task tab, under the "Task Type" column, attach the appropriate task that you just created in "Configure" from the drop down menu.

Step 14. Within the "Simulate" tab (Simulate tab > Settings > Overlay Text > Edit) Add a legend for the tasks colors. Here is an example of the code that can be pasted within the "Overlay Text" window:

%A %X %x Day=$DAY Week=$WEEK

$COLOR_REDDemolition

$COLOR_GREENSubstructure

$RGB255,255,0$RGBShell

$RGB0,255,255$RGBMEP

$RGB160,32,240$RGBInteriors

You can use the file provided in Canvas for finding RGB codes for other colors.

Step 15. You can also change the interval size unit for your simulation and choose “days” for this project.

Step 16. Watch your simulation from the “Simulate” tab. Make adjustments to your settings to make your simulation as clear as possible.

Step 17. Export your simulaiton as .avi (Adjust the size, FTP, and Antialiasing for better visualization).

Step 18. Submit your .nwd and .avi files.