Tube & Pipe styles disappear

Symptom

On opening an assembly (which has tube & pipe runs) document it all looks OK. When double clicking "Tube & Pipe Runs" to open it up to work on pipe runs, the pull-down to select different pipe styles is blank. Or if you open Tube and Pipe Styles in the Run section it presents with no styles - except that perhaps the main folder headings are present e.g. "Rigid Pipe with Fittings", "Tubing with Bends" and "Flexible Hose".

Solution Overview

In writing this document I assume that you are familiar with Inventor, since I gloss over detail to give the concepts only.

1. According to a response from an Autodesk person, that advice was to do the copy, paste and save of a pipe Run then to make it adaptive. This didn't restore the styles.
2. Another idea was to export / import styles e.g. create a new assembly with Tube & Pipe and export the default styles, or scrounge around in older versions of the project to export known working styles etc etc. and import these in to the corrupt assembly. Tried that but it was far from workable - issues were that the styles had to be saved in to a new or different category to the defaults. See Figure 1. The default categories were all corrupt. You needed to save the styles in to a newly / differently named Category as shown in Figure 2. However, I could not spawn any new styles from this - it would not allow a copy of the style in order to edit and create a further one from the style "50mm feed water" shown in Figure 2. It would be way too cumbersome to now import each new style from somewhere else. This lead me to believe that there was a corrupt file that needed to be flushed.
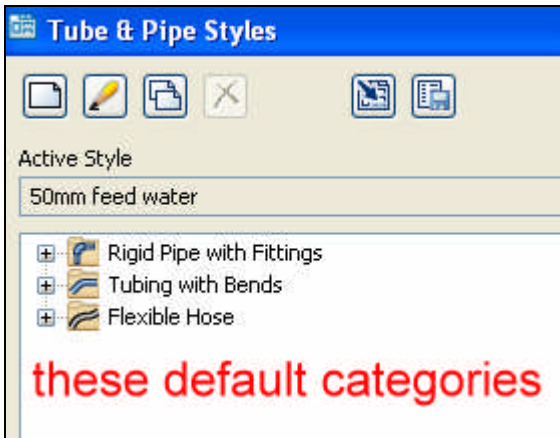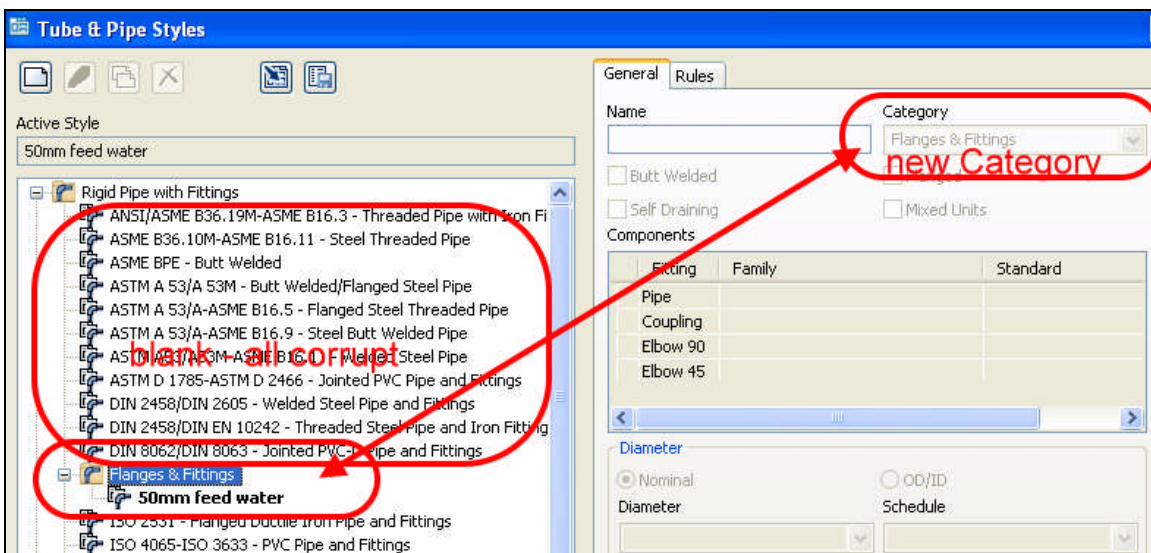
Figure 1

Figure 2

3. Another approach was then to flush all of the folders under AIP > Tube and Pipe, create a new Tube and Pipes instance in the history tree in the work space of the troublesome assembly and then re-populate the Runs folders with the folders which have the pipe runs and parts and routes. This will work if you have no earlier back up of the entire Project folders stored elsewhere. It is a long process but appeared bullet-proof(?)
4. And finally, after discovering 3, above to work I went back and tried replacing the suspected corrupt iam file only - and it solved the problem - this assumes that you

kept earlier instances of the Project and renamed them - in order to find a working copy of the file that we need.

In summary, try step 4. above first, (See para. "Step 4" below) otherwise use step 3 above - which is described under heading "A Method that Worked" below..

Importing...?

If you happen to have an earlier folder that has been saved to e.g. external drive and you activate that project and open the same assembly (the files & folders must be swapped and renamed i.e. move the corrupt project folder in its entirety to the external drive with another name then move the older project folder to the active project location and name it as if it is the current working copy).

Opening that same assembly will present the correct styles and tube and pipe data. Export that whole set of styles and then copy it to the corrupt version on the external drive.

Close & exit Inventor and swap and rename the entire project folders to get back to the versions that were present when the problem was noticed - except now you have the styles xml that you exported.

Open the corrupt assembly > open Tube and Pipe Runs in the history tree and click the Tube & Pipe Styles icon to open the pop-up window "Tube & Pipe Styles". It will still be blank so now try importing the xml file that you exported in the last step.

If this fails it means one of the assembly files is likely corrupt - one of those in the assembly that caused the error - not the entire project!

A Method that Worked

In my set up I had an issue in the assembly called "Economiser Pump Skid".

If you have a Frame or a Pipe Run in that assembly it creates a sub folder beneath where the assembly file is located (if you left all the defaults as is) - inside this is a folder for the pipe runs called AIP - see highlighted below. Below AIP is a folder called Tube and Pipe and beneath that are the folders housing the pipe runs e.g. Run03, Run04, Run05 for me.
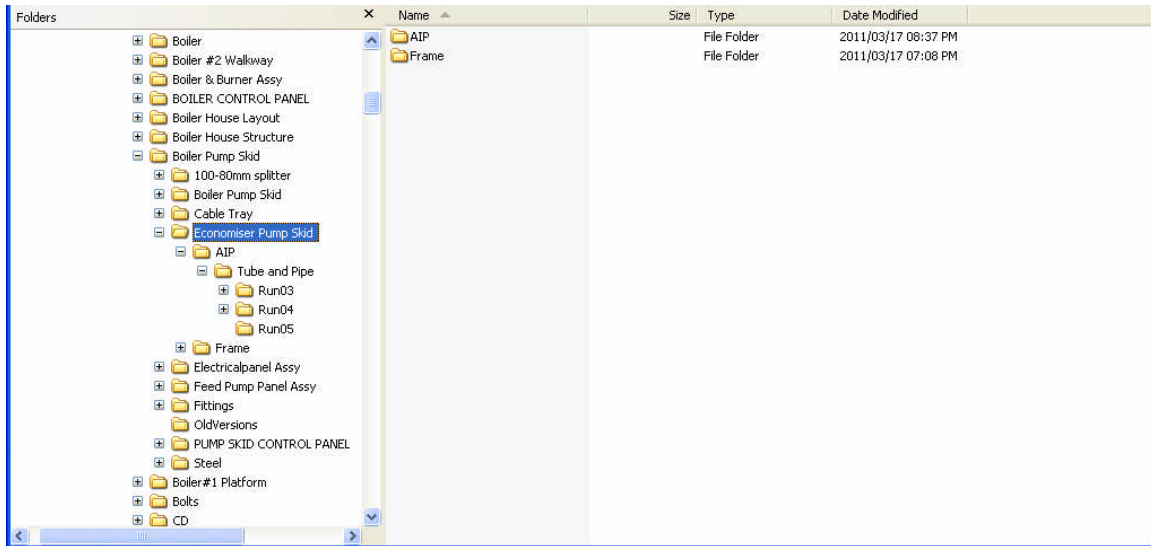
Figure 3

Copy the AIP folder and place it somewhere far removed from the project folder path - to be sure that Inventor does no sniff it out.

Now go back in to open the troublesome assembly and delete the entire Tube and Pipe Runs item from the history tree - (see below)

Save the assembly without the tube and pipe runs - (you will have kept a copy on your external drive!)

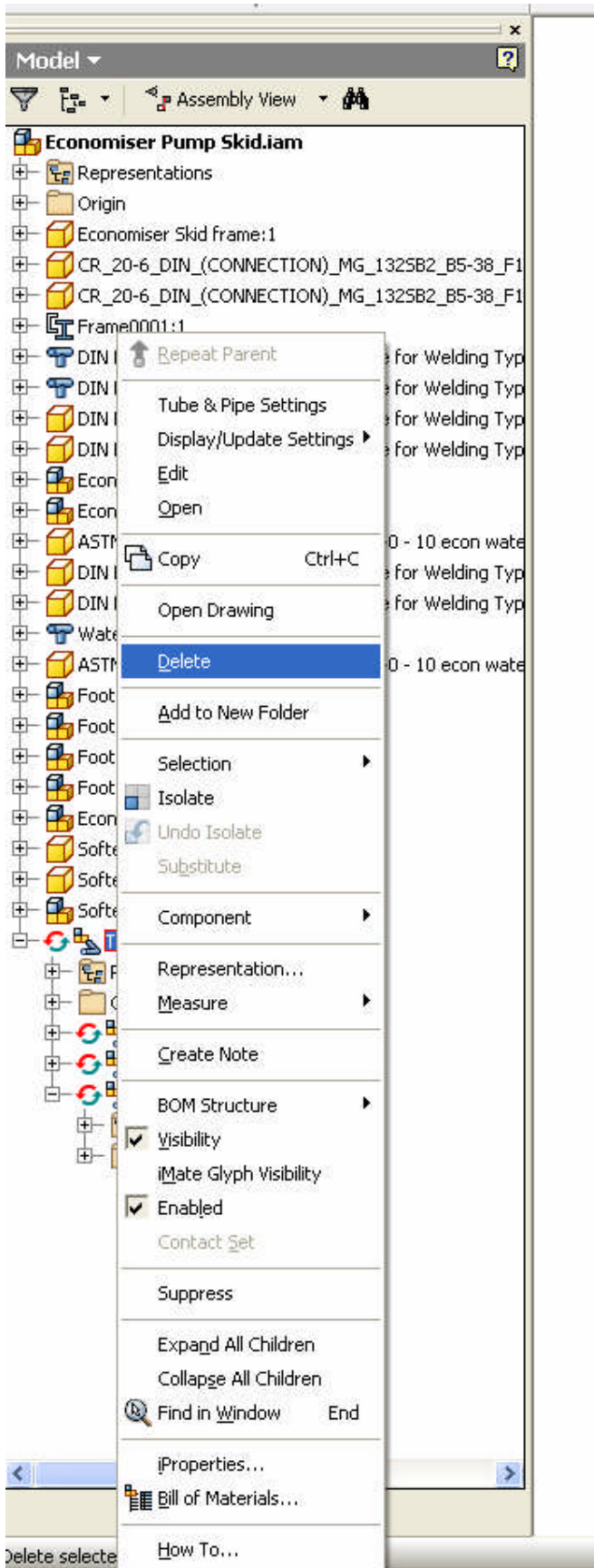The idea is that this flushes the iam file of anything that is corrupting it(?)

Exit Inventor and go to Explorer.

Figure 4

Delete anything that may still be in the AIP folder.

Now open Inventor and open the assembly and start Tube and Pipe and create pipe runs with the same names as those you had - all we want is the shell folder - no routes etc. - just the folder structure.

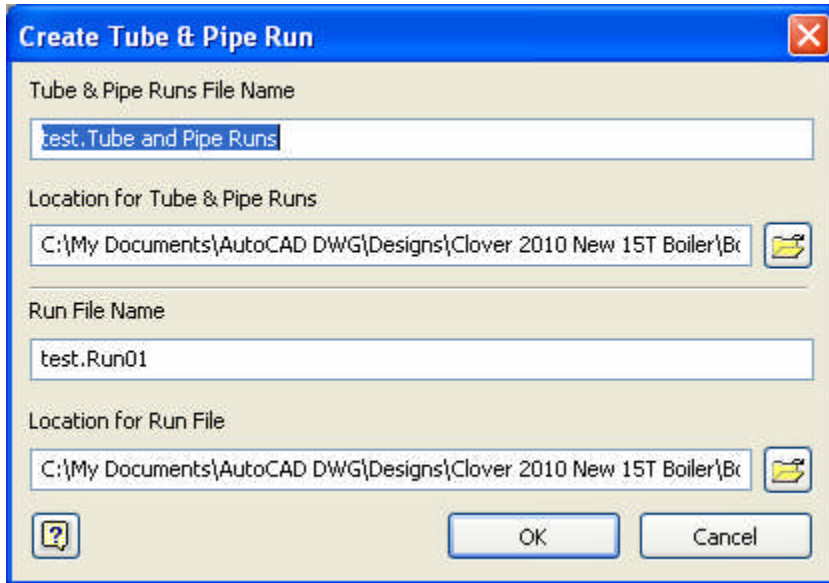Inventor may offer a name that now includes the assembly name e.g.

Figure 5

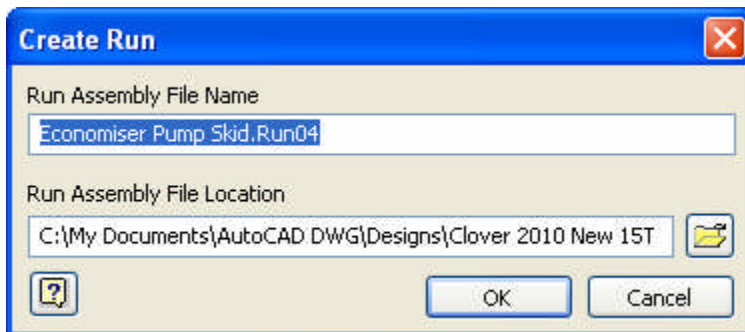where "test" was the name of this assembly when initially creating Tube and Pipe.

Figure 6

and this was the assembly named Economiser Pump Skid when creating a new pipe run.

If it was just Run04 before and you are not sure what is going to happen with the naming, just go ahead and accept the default offered - we can change them later.

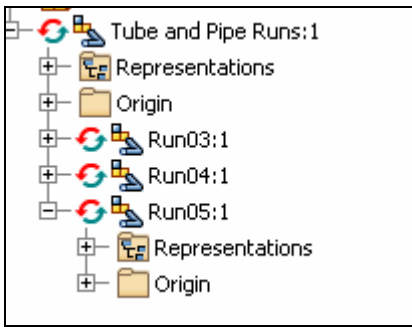Once you have the Tube and Pipe Runs created in the history tree;

Figure 7

save the assembly and close Inventor. No need to create routes!!!!

You now have the structure that we need to put our original folders back into and tidy up the names.

First, delete everything under folder Tube and Pipe as shown below in the red box.
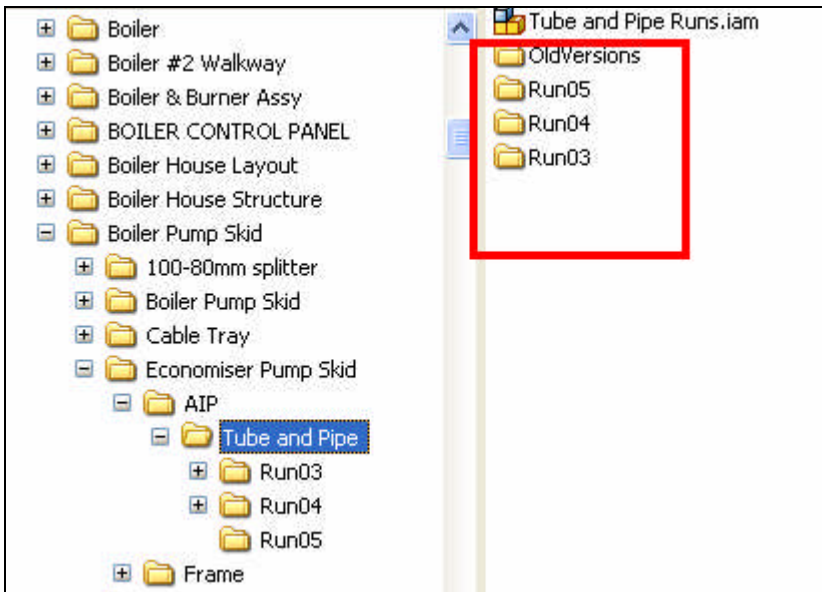

Figure 8

These are the empty folders. The Tube and Pipe Runs.iam I *think* is the file that was corrupt and now has the styles in it - this file has the same name as the history tree naming for Tube and Pipe Runs in the workspace. (It could be prefixed with the assembly name - just making the naming too long - nothing else).

Step 4

i.e. in Figure 8 above, the file shown with name "Tube and Pipe Runs.iam" is the culprit - you need to find a known working version of this and replace it. Yours may have a different name - it is in the same folder path as in the Figure - beneath YOUR assembly file that contains the tube & pipe run/s..

OK, now that we have deleted the folders marked in the red square, we copy the equivalent folders that we stashed away earlier - you now only need the folders to replace these - not the whole AIP folder.

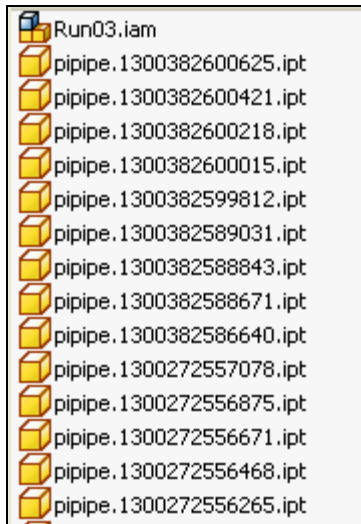These sub folders e.g. Run03, contain the parts that make up the tube & pipe run:

Figure 9

Now that you have copied the "populated" folders here, we can start Inventor and open the troublesome assembly again.

You should now have a working set of tube and pipe runs with styles - perhaps the only two tidy-ups needed are the naming of pipe runs (to eliminate the assembly name prefix) and secondly to put the colour styles back in to the runs.

The naming is done by closing Inventor and renaming the iam file in Figure 8 (to exclude the assembly name prefix) and the iam file in Figure 9 for each of the Run0x folders e.g. inside folders Run03, Run04, Run05 etc.

Now when you open the assembly in Inventor it will ask you which file to use - it will likely already be pointing in the correct directory and you just have to highlight the renamed file and then click Open.
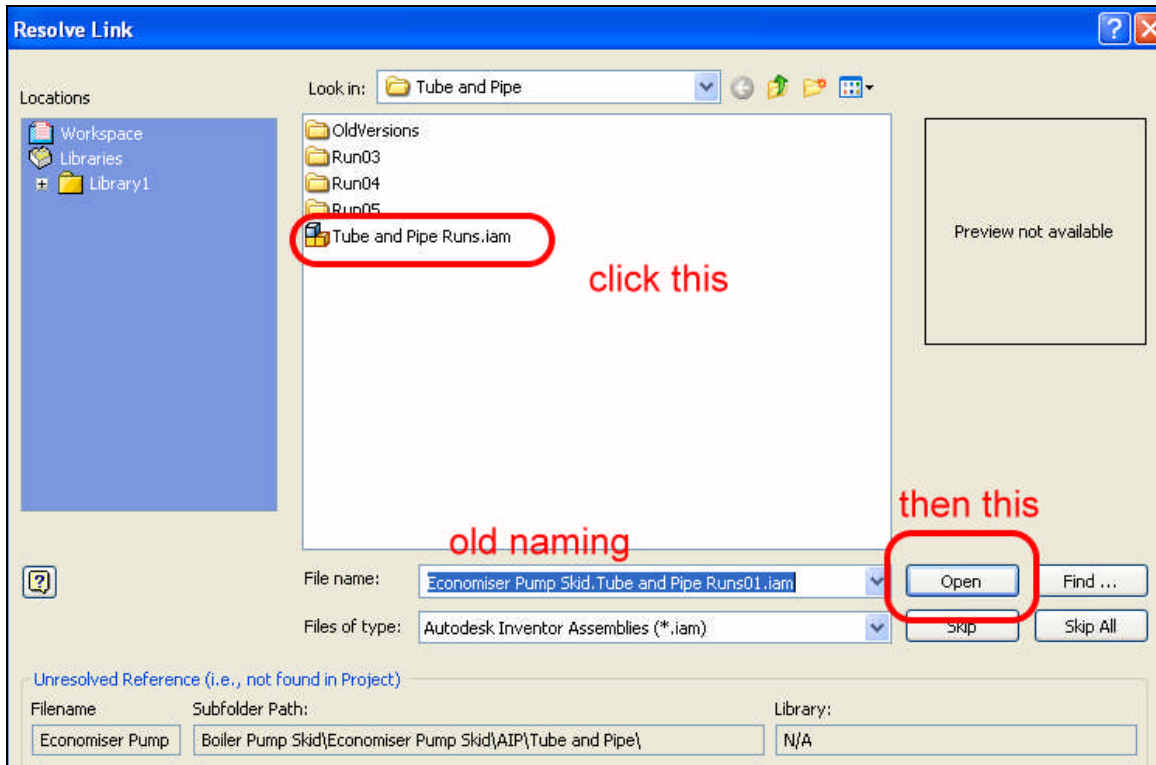

Figure 10

If all has gone to plan we are back in the opened assembly file which is working and now has correctly named tube & pipe Runs.

If you had selected a colour style and that is now defaulted to "material" I found the following method resolved that.

Colours

Open a Run and a Route - so now you are in the line sketch to edit the pipe route. From the pipe style pull-down, choose another style (a different style) and let it settle down with that information (do NOT exit). Then re-select the correct style that you had.
Now exit the Route edit window (Click the green check tick - "Finish Route")

The pipe segments should now refresh with the correct colour.

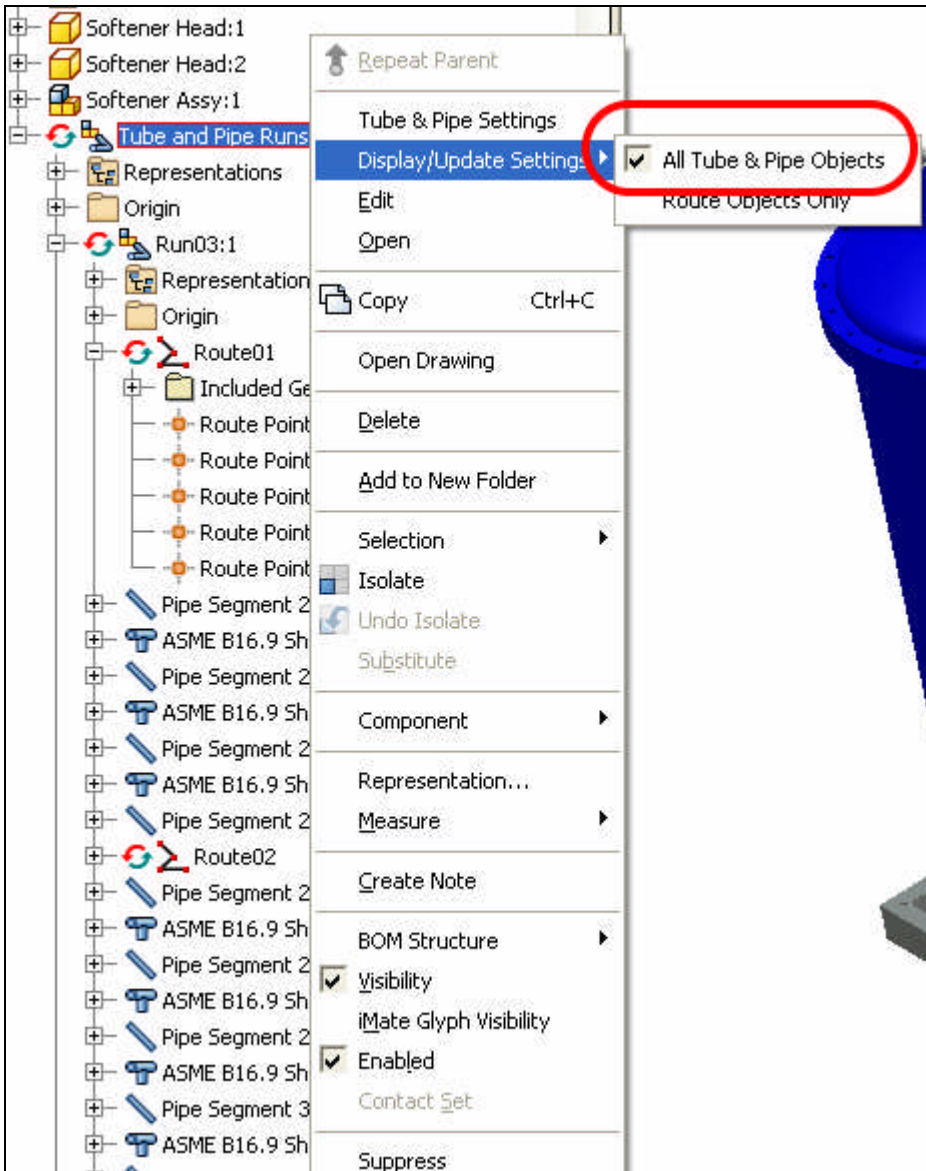I didn't try it at the top level:

Figure 11

but this may well sort the problem out in one go - otherwise you have to repeat the above for each Route.

Good Luck!!