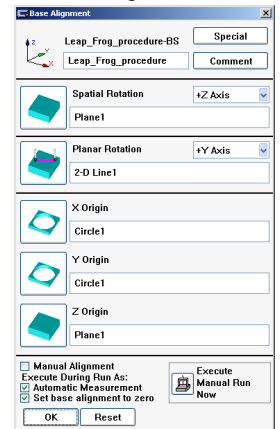
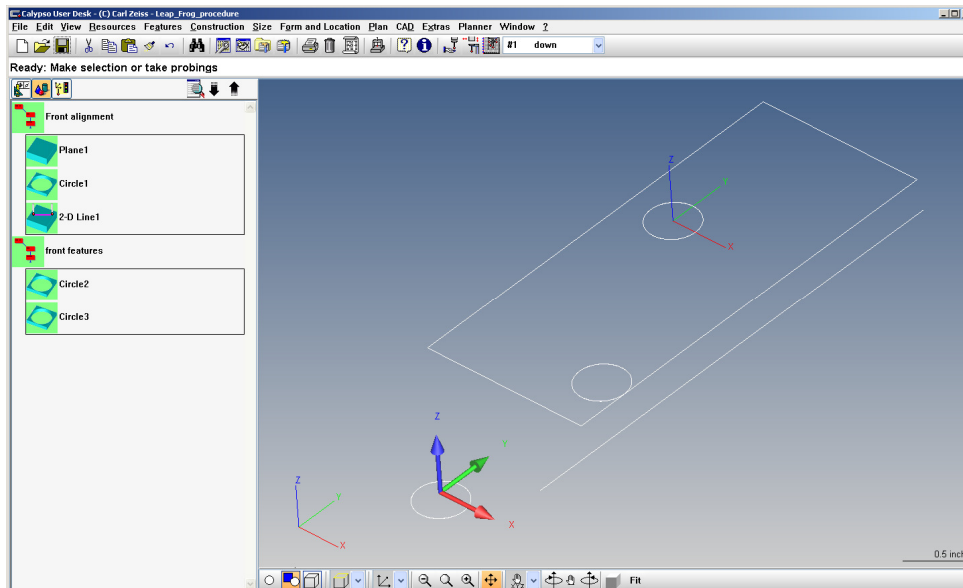


# Leapfrog Alignments

When measuring long or otherwise very large parts it is often a requirement to either shift the part within the machine volume or to move the instrument in the case of portable arms or laser trackers. Calypso handles this requirement in an ingenious manner, allowing the operator to maintain the Base Alignment throughout the system. This method will inherently make reporting over the scope of the full part streamlined, as all data collected will be considered in a unified alignment system.

In preparation for leapfrogging the alignment, naturally a normal base alignment should be made just as you would for any program. The alignment should be run and tested as usual.

The actual leapfrog procedure happens long after this step. It is imperative that you will now, with the current base alignment, measure/program any and all features that pertain to this instance of the alignment. The leapfrog procedure doesn't make a new alignment, but instead creates a virtual extension of the alignment. Because it is impossible to distinguish, other than location, in what portion of the base alignment a feature was measured you must be sure to get them wrapped up before proceeding.



Once you have created the features that are relevant to the first section of your inspection (I named my features "Front Features" in the example above) you can then consider moving the system. Be sure to save at this point!

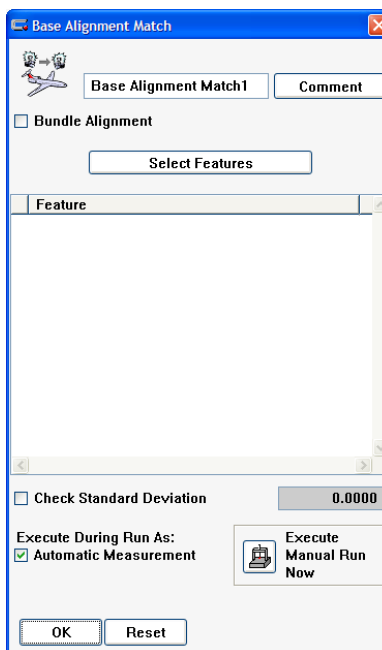
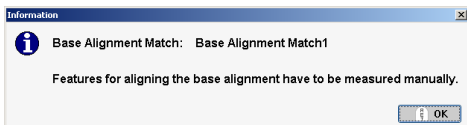
The next step is to create what I call bridge features. These are features that you can measure from your current base alignment and once again on the part once it has been translated.

While it is technically not required to have any more than one bridge feature, I would suggest that you create at least two, if not several features.

Once you have the features selected, go under the Resources menu to Utilities. Choose the option Base Alignment Match.

Open the new object and choose Select Features. From the list choose your bridge features. Make sure that Automatic Measurement is selected.

Once you have selected the features and you select OK, you will be prompted to measure manually those features.



Once you have measured the features manually, Calypso will want to re-measure the features in CNC. Once it is done you will be now in the “new” base alignment.

Continue measuring now on the offset part.

