Taking care of Resolve Mode failures is a basic three step process. Actually, even before you start on step one, remember step zero: Don't panic. There is no reason to panic just because you end up in Resolve Mode.

The recovery process in Resolve Mode is a basic and straightforward three-step process:

1. Figure out what is failing.
2. Figure out why it is failing.
3. Fix the problem.

Step 1: Figure Out What is Failing

This step is simple. Simply read the Failure Diagnostics window to figure out which feature or component in the model is failing. That's all there is to it.

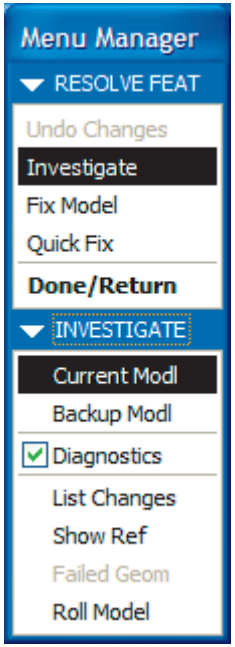
It also helps to look at the model tree. Remember, the feature that failed and all the features after it will be unregenerated. The failed feature is the one immediately after the red "Insert Here" arrow, and will have a box with an X inside it next to it.

Step 2: Figure Out Why It Is Failing

This step is a little more in-depth. There are two different tools to help determine why the feature failed: the **Feature Info** choice in the Failure Diagnostics window, and the **Investigate** command in the Resolve Feature menu.

After you know which feature is failing, you want to find out everything you can about that feature. The more you know about the feature, the better you can deduce the problem. Everything about the feature is available from Feature Info. Some things that are helpful to know include

- The feature type. Is it a round, a chamfer, an extrude or a revolve and so on? Different feature types tend to fail differently, so knowing the type can help narrow the potential cause.
- The parents. Since parent-child relationships are the primary cause of Resolve Mode failures, it helps to take a look at the parents.
- The attributes and options.
- The dimensions.



The second tool is the **Investigate** command in the Resolve Feature menu. This will trigger a submenu that will give you a choice of working on the current model or the backup model.

Remember, in the current model, the feature that failed and all the subsequent features will be unregenerated. That's why you have the ability to investigate the backup model. Choosing backup model will trigger a File Open dialog box that will allow you to select a previously saved model to investigate. This can be the last saved version of the model, or if you have the Make Regen backup option set in the Environment menu, it will be a saved version of the model right before the feature failed.

The Investigate command submenu will also include these commands:

- **List Changes**. This lists everything that has been done to the model since the last successful regeneration.
- **Show Ref**. This will open the Reference Information Window that will allow you to explore the parents of our failed feature. **This is a very helpful tool in determining missing references!** Compare the current model references to the backup model references to find what reference failed and to which geometry it was attached.
- **Failed Geom**. Sometimes Pro/ENGINEER may be able to show you where the geometry in your model is failing.
- **Roll Model.** This is Another tool to help answer the question "What failed?" Use this on the backup model to step forward and backward in the regeneration of the features. Options "before failed" and "failed feature" will display the failed feature in the working window.

This step is more in-depth because it requires some thinking and deducing to figure out what the problem is and devise a potential solution. As you become more experienced in Pro/ENGINEER, Resolve Mode gets easier to use. Remember that missing references are the number one cause of feature failure, so 90% of the time you will just need to determine what references are missing and then fix them.