

Managing TDM Drawings Lifecycle WorkFlow

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Introduction

- Due to TDM data integrity control and requirements for migration from TDM to Teamcenter the following workflow has been implemented in all Fermilab TDM's using the macro programs to control items.
- Reference: See [Protecting Your Data Using States in TDM](#) on the CAD web site for information on using states.
- All TDM's have been configured so that the RELEASE drawing macro will set the Drawing's state to RELEASED which means that the Library Drawing is locked from any future modification as it should be. In order to modify a released drawing, a new version is created.
- Problem 1: The new version created still has the Revision level of the released drawing it was created from. This is not desirable and the drawing will be forced to the next revision level the first time you get it from your bin.
- Problem 2: Not all users are following the required Release / Revise cycle for drawings.
- Problem 3: You can no longer undo certain things, i.e. you create a new version of a released drawing, check out, open which forces a revision, modify, and then determine the revision is not required. It requires a Manager role person to fix these for you by rolling back to the previous Released drawing and removing the Revision record.
- Problem 4: There are likely existing problems in items that were incorrectly set to RELEASED state or items that were not correctly released in the TDM. These will require Manager assistance to correct.
- Problem 5: The revise drawing macro can't check in a drawing that is out of date.
- But wait – how do I do my work now? Read on

Drawing Lifecycle – Initial Revision

- All drawings created under the macro control must follow this lifecycle to assure proper release and revision control.
 1. Create Drawing, using a standard Drawing Template if possible.
 2. Check drawing in to the Correct Project Library. Use the Check in Keep to modify macro to avoid incorrect Library location.
 3. Work on the drawing checking in to secure the data as often as required.
 4. When the drawing is ready for checking and approving, plot the file and get required signatures.

If you are using an external release process which includes an ECO or Release document, process the required hardcopy to the final stage of your release.
 5. Record all signatures and dates on the electronic drawing to preserve the history, and secure the information in case the original hardcopy is destroyed.
 6. Run the RELEASE THIS DRAWING macro to release the electronic CAD file and lock it from modification. This also creates archived files for disaster recovery as well as pdf files for use in the online web query tool. Note that Release does not necessarily imply Fabrication, this the documented history of the drawing and only assures that a record of the drawing in the current state is preserved.

These are the steps for processing all new drawings.

Drawing Lifecycle – Revision Control

- All drawings created under the macro control must follow this lifecycle to assure proper release and revision control.
 1. After the initial revision has been released (locked) the drawing can only be modified by using the Create New Version library procedure.
 2. Check out the New Version you create which has a state of INITIAL.
 3. When you get the drawing from the model file bin, the REVISE THIS DRAWING macro will run and increment the drawing revision level. **NOTE:** Ideas will not allow an out of date drawing to be checked in, so the revise drawing macro can't push a new revision to the library in these cases. The revision will be correctly applied to the drawing, and logged, but it is the users responsibility to make sure the drawing is updated and checked in to commit the revision to the Library.
 4. When the drawing is ready for checking and approving, plot the file and get required signatures.
If you are using an external release process which includes an ECO or Release document, process the required hardcopy to the final stage of your release.
 5. Record all signatures and dates on the electronic drawing to preserve the history, and secure the information in case the original hardcopy is destroyed.
 6. Run the RELEASE THIS DRAWING macro to release the electronic CAD file and lock it from modification. This also creates archived files for disaster recovery as well as pdf files for use in the online web query tool. Note that Release does not necessarily imply Fabrication, this the documented history of the drawing and only assures that a record of the drawing in the current state is preserved.

These are the steps for processing all subsequent Revision cycles.