

Model Change Control

Proper management of Model Risk depends on an effective change control environment and practices.

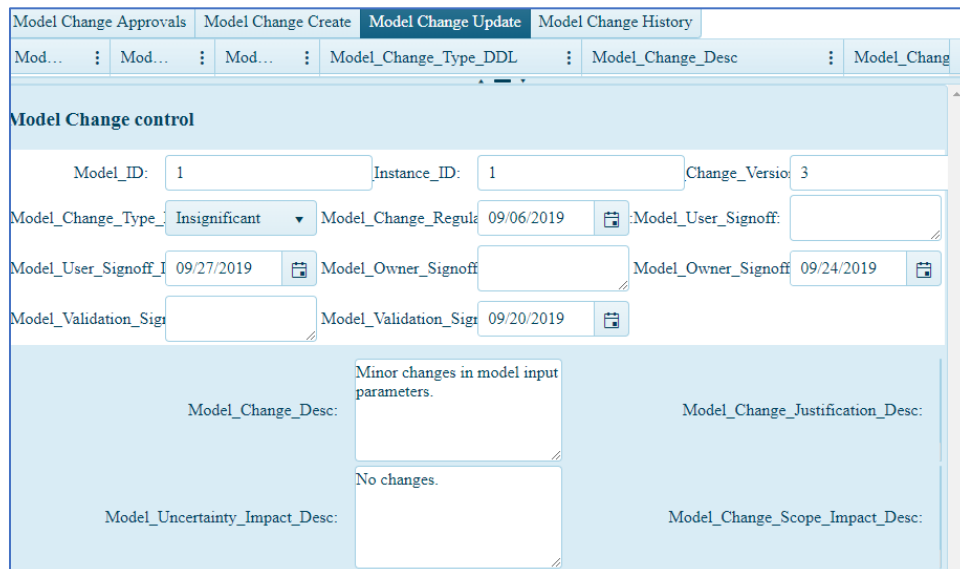
Models may evolve over time either extended to include additional uses such as new portfolios, new segments or to adapt to new business environment.

Sometimes model need to be changed to refit based on on-going monitoring usage findings.

In all cases, where a model changes proper change management including governance, approvals and documentation need to be maintained.

“Material changes in model structure or technique, and all model redevelopment, should be subject to validation activities of appropriate range and rigor before implementation. “

-Federal Reserve, SR 11-7



| Model Change Approvals | Model Change Create | Model Change Update | Model Change History | | |
|--------------------------------|--|---------------------------|-----------------------|----------------------------------|-------------|
| Mod... | Mod... | Mod... | Model_Change_Type_DDL | Model_Change_Desc | Model_Chang |
| Model Change control | | | | | |
| Model_ID: | 1 | Instance_ID: | 1 | Change_Version: | 3 |
| Model_Change_Type: | Insignificant | Model_Change_Regulation: | 09/06/2019 | Model_User_Signoff: | |
| Model_User_Signoff: | 09/27/2019 | Model_Owner_Signoff: | | Model_Owner_Signoff: | 09/24/2019 |
| Model_Validation_Signoff: | | Model_Validation_Signoff: | 09/20/2019 | | |
| Model_Change_Desc: | Minor changes in model input parameters. | | | Model_Change_Justification_Desc: | |
| Model_Uncertainty_Impact_Desc: | No changes. | | | Model_Change_Scope_Impact_Desc: | |

Solution Overview

The Model Inventory Engine enables organizations to manage model changes effectively to minimize model risk. Some key features include:

- ✓ Model change is controlled at the model, instance and version levels.
- ✓ When a new change is created previous version are locked for updates.
- ✓ Model Owner, User and Validation approval signoffs are uploaded through Document Management function.
- ✓ Detailed change description including the potential impact of the change is captured.

“Material changes to models should also be subject to validation. It is generally good practice for banks to ensure that all models undergo the full validation process, as described in the following section, at some fixed interval, including updated documentation of all activities. “

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| Model Change Approvals | | | Model Change Create | Model Change Update | Model Change History |
|------------------------|--------|--------|-----------------------|------------------------------------|----------------------|
| Mod... | Mod... | Mod... | Model_Change_Type_DDL | Model_Change_Desc | Model_Change_ |
| 1 | 1 | 3 | Insignificant | Minor changes in model input pa... | Correct the input |
| 1 | 1 | 2 | Fundamental | Model Parameters re-calibrated ... | Based on on-go... |
| 1 | 1 | 1 | Significant | Model Parameters were recalibra... | The new parame |

1 - 3 of 3 items

Model Change control

Model_ID: 1 Instance_ID: 1 Change_Versio: 3

Model_Change_Type: Insignificant Model_Change_Regula: 09/06/2019 :Model_User_Signoff:

Model_User_Signoff_I: 09/27/2019 Model_Owner_Signoff: Model_Owner_Signoff: 09/24/2019