

Ratings Gateway Model Repository August Release

Usability Team Review

- Contextual Inquiry Interviews
- UX Evaluation of July Release
- User Feedback Vs. Current Development
- Mock-ups of Information, Criteria, Team, Review, and Identifiers

Karen X Director Ratings, Analytical

Persona:

Karen uses the MDTS to prepare reports for the Model Oversight Committee (MOC). Karen currently manages 7-10 Models and reports her findings several times a month to the MOC in the form of a presentation. Karen finds the current MDTS Tool difficult to use. She can find what she needs, but it requires additional analytical work. Her reports to the MOC require much 'cut & paste' activity between the MDTS & MS Office. She would use the tool more if her needs were addressed, and become an Advocate if her wants are included. She was pleasantly surprised to find her input matters.

Use: 2-3 Times per week Average Session: 10 Minutes

Desktop: MS Office, IE.

Interview Findings

Application Access Limitations: Karen doesn't have access to the detailed Model Information modal. She extrapolates report information from the data available in the table.

Karen's Needs:

- Consistency in naming of support documents uploaded to the MDTS.
- The ability to 'Mark for Archive', outdated documents attached to Model.
- To have the following Model information easily available: Developer, Validator, Owner, Next Review Date, Methodology, Specification, FQA Report, and MID
- Her strongest need is to have the Model information above, searchable from the main search.

Karen's Wants:

- 'On-click' Report Generation from selected Models into a pre-structured report.
- The ability to export dataset extracts into various template formats
- Extended Table Row Header functionalities, such as search, filter and sort.
- Downloadable, templates for common Model support documents attachments.
- Creating Ad Hoc Infographic charting, i.e. Approvals per Sector.
- Also, a cleaner, tighter User Interface that conforms to S&P standards.

Summary:

Karen is interested in the continuing development of the App, and would like to participate in continuing user studies.

Alim X

Associate Director, Model Quality Review

Persona: Alim is an Expert User. He uses the Repository to check quality, & validate Models. He uses the information in the Repository to create reports. Alim currently works alone. In the near future he will be collaborating with another team member to develop and deliver reports.

Use: 3-5 Times per week Average Session: 3 Hours Desktop: MS Office, IE.

Alim's Needs:

- Improved Search Features
 - o Filter Results
 - Export Results
- Improved Table & Data Features
 - o Screen Capture
 - o Screen Sharing
 - o Print Datasets 'On the fly'
 - o In-Line Status of Attachments
 - Status Icons for new, updated & archived documents attached to the model

Alim's Wants:

- 'Canned Report Generation' from existing approved Templates
- 'Ad-Hoc Reports' by selecting any row, column or record in the system
- View Completion Status as a Timeline that displays
 - o Last Review Date
 - o Attachments
 - o Approvals
 - o Auditing of Line Item
- Save 'Last work item' to a Queue for easy retrieval
- Accurate, accessible, Role-Based functionalities

Summarv

Alim understands the potential of the App, but he is very frustrated with the quality ('Bugs as Features', the reliance of 'Cut & Paste', and Browser-based issues (Flash & JAVA). He also is forced to do additional research to locate information while using the tool. He feels the application's feature set is 'Half-Done'. He knows how to access the available Model criteria; he just has difficulty processing it for reports. He would like to stay updated with the development of the App.

James X Senior Director, Quantitative Analytics

Persona: James is a Senior User with expert knowledge of the MDTS. He is a part of the Model Advisory Committee. His responsibility is insuring the Models comply with policy. He guides his team in developing reports for the MAC. Currently, James team is growing, and he has additional leadership duties which will necessitate more time on the System.

Use: 1-2 Times per week Average Session: 2 Hours Desktop: MS Office, IE.

James's Needs:

- Robust Search Tool
- Export of 'Canned' Reports
- Report Building Toolset
- Charting & Infographics

James's Wants

- Rights Management on Uploaded Documents
- User & Sector/Sub-Sector based Risk Tier
- Approval/Validation of Timeline Periodic Review
- Aggregate Model Development
- View Default ID's on search results
- More information in result set:
 - o Ability to see Published Vs. Approved Models
 - o Approval/Validation of completion dates
 - o The ability to 'Left Click' on UI to see additional document options
 - o Search for Attached files

Summary

James is a very experienced user of MDTS. He occasionally trains new team members, which has temporarily increased his use of the system. He knows MDTS well enough to work around the UX issues such as left vs right clicks & search issues. He knows MDTS limitations, and what changes will increase productivity. He is interested in the continuing development of MDTS.

Robert X Director Rating, Cash Flow Modeling

Persona: Robert is an Experienced User with great knowledge of the MDTS. He is a part of the Model Advisory Committee. His responsibility is insuring the Models are complete and comply with policy.

Use: 3-5 Times per week Average Session: 3 Hours Desktop: MS Office, IE.

Robert's Needs:

- Robust Search with optional Advanced search using Metatags
- Export of 'Canned' Reports
- Ad-Hoc Reports Toolset
- Charting & Infographics

Robert's Wants

- Identify model Version Completeness in-grid
- Visible 'Audit Trail' for Documents & Reporting
- Visible Warnings for WIP
- Search using; Criteria Articles, Sub Regions, Owners
- View Attachments without opening [i.e. Governance(4)]
- More information in result set:
 - o See Gaps i.e. Missing Documents
 - o Indicators & Warnings (i.e. Expirations & Risk) in Header
 - o The ability to select individual Versions across Models for export
 - o Search Using Metatags

Summary

Robert is an experienced user of MDTS. He knows MDTS well enough to work around the UX issues, but this adds time to his schedule. He knows MDTS limitations, and what changes will increase productivity. He is interested in the continuing development of MDTS.

Michael X Analyst,

Persona: Michael is a Super User with expert knowledge of the MDTS. His responsibilities include Model Creation and insuring the Models comply with policy. He creates, edits, and updates models. He also manages Versions by uploading attachments.

Use: 5 Times per week Average Session: 8 Hours Desktop: MS Office, IE.

Michael's Needs:

- Robust Search Tool
- Drag and Drop from Outlook to MDTS
- Ad Hoc Report Building Toolset
- In-grid views of Model version information

Michael's Wants:

- Previews & Details on Uploaded Documents
- User & Sector/Sub-Sector based Risk Tier
- Approval/Validation Timeline of Models & Versions
- Visible Model Status Updates
- Repository Dashboard
- More information in result set:
 - o Approval/Validation of completion dates
 - o The ability to 'Left Click' on Versions to select details in modal
 - o Search for Attached files

Summary

Michael is a Super User. He has expert knowledge of the repository. He knows MDTS limitations, and what changes will increase productivity. He is constantly on the system, with the application always open on his desktop. He would like to have more robust tools in the application such as customizable search fields and easier editing and updating of Versions. Michael would like a Dashboard view. He is interested in the continuing development of MDTS.

Tamera X Associate Director, Ratings Analytical, Commercial Mortgage

Persona: Tamera is a user with good knowledge of the MDTS. Her responsibilities include Model validation, and insuring documentation attached to the Models comply with policy. She identifies expired or incorrect documents and sends individual notification emails to Model Owners and their teams to delete, edit, and update version information. Due to her role permissions, she doesn't upload documentation herself.

Use: 2/3 Times per week Average Session: 2 Hours Desktop: MS Office, IE.

Tamera's Needs:

- Robust Search Tool with the ability to search by Model Owner
- Batch upload and removal of documents to multiple Model versions
- Batch notifications of Model owners & team with version status & approval
- Access to Criteria articles attached to Versions
- Documentation displayed by with least important or retired at bottom of order

Tamera's Wants:

- Previews & Details on Uploaded Documents
- Visible timeline of document submission, approval and retirement
- Visible Model Status Updates
- Repository Dashboard displaying status of all attachments
- Drag & Drop files from Outlook to MDTS

Summary

Tamara is a standard or baseline User. She can view all, but edit none. She has good knowledge of the repository. She knows MDTS limitations, and what changes will increase her productivity. She would like to have more robust tools in the application such as group notifications and attachment tools. Tamera would like an Audit Timeline view for Criteria & Documentation. She is interested in the continuing development of MDTS.

Stephen X MD-Lead, AM SC US Structured Credit

Persona: Stephen is a Power User with good knowledge of the MDTS. His responsibilities include; Model evaluation & approval and insuring the Models comply with policy. Through his team, he directs the creation, edits, updating, and retirement of Models.

Use: 1 Times per week

Average Session: 15 minutes

Desktop: MS Office, IE.

Stephen's Needs:

- Robust Search Tool
- Versioning Control with visible iteration
- Attachments listed by importance
- In-grid views of Model version information

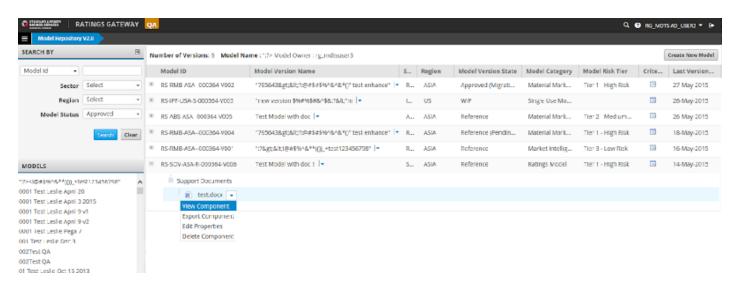
Stephen's Wants:

- Previews & Details on Uploaded Attachments
- Notifications of Model Status Updates (i.e. new Criteria)
- Repository Dashboard
- More information in result set:
 - o Approval/Validation of completion dates
 - o Versioning
 - o Search for Attached files
 - o 'Excel like' filtering

Summary

Stephen is a Power User. He has excellent knowledge of the repository. He knows MDTS limitations, and what changes will increase productivity. He is rarely on the system, with the application opened to resolve a particular issue. He would like to have more robust tools in the application such as customizable search fields and easier notifications for editing and updating of Versions. He is interested in the continuing development of MDTS.

UX Design & Information Architecture

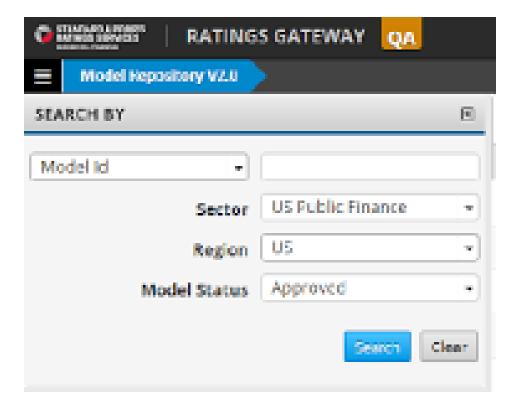


The MDTS Model Search system is currently based on the Adobe FLEX platform which is currently being retired in favor of the ExtJS framework which will allow greater control over the UI and give additional functionalities. The current implementation of the ExtJS platform is neither Adaptive nor Responsive in design. The UI contains fixed 'containers' for Model search fields, Model search results in left column and Versions of Models, selected from results in the right column. The left column width can be adjusted, but the contents are not dynamic, and will 'squish'. The left column can be collapsed, which will cause the contents of the Model Version to resize dynamically.

The model search results are displayed below the search 'box'. The result set occupies the remainder of the vertical space. There is one column; the Model name. The User selects the model to display in the model version window.

User Interface Feedback

- Adaptable Interface that resizes to fit browser window
 - o Responsive Design Example
- Ability to add, remove, reorder & resize containers
 - o <u>Portal Example</u>



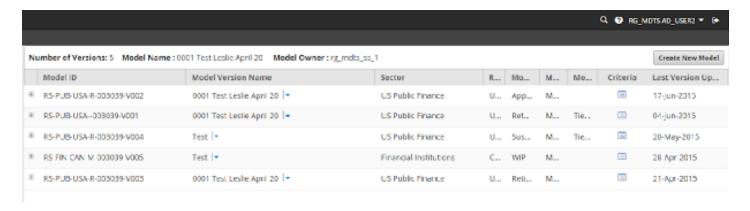
Search Box User Feedback

- Additional options in the select list for free search box
 - o Model Owner
 - o Model Validator
 - o Model Developer
- Additional selections search options
 - o Risk Tier
 - o Select within time period
- Advanced & Ad Hoc Search
 - o Use any field in Repository to search upon
 - o Add/Remove any additional field to search
 - o Save & Share search criteria



Search Results User Feedback

- Sorting by Owner, Validator or Developer
 - o Buffer Tree Grid Example
- Result Sorting and Selection
 - o Custom Tree Drop Logic
- Column that displays Model Status
- Color or Icon Indicator that denotes positive, neutral or negative Model status



Version Results User Feedback

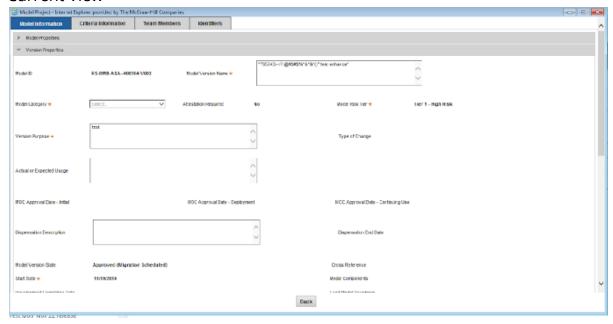
- Improved freeform search of the grid
 - o Live Search Grid Example
- Version Summary without opening Modal
 - o Data Binding Code Example
- Additional columns: Owner, Validator or Developer
- Column that display version completion based upon a checklist of approvals, attachments and other criteria
 - o Simple Task Example
 - o Remote Summary Grid Example
 - o Locking Group Summary Example
- Color or Icon Indicator that denotes positive or negative Version status
- Checkbox on each row (including attachment row) that allows for global actions.
 - Export to Excel
 - o Add to Queue, i.e. Marked for Review, Archive or Inclusion in report
 - o Group Update Replace or Delete attachments
 - o Row Editing Grid Example
- Grid Buffering or Pagination
 - o **Buffered Grid Example**
- Improved Documentation preview without download
 - o Windows Example

Model Version Details

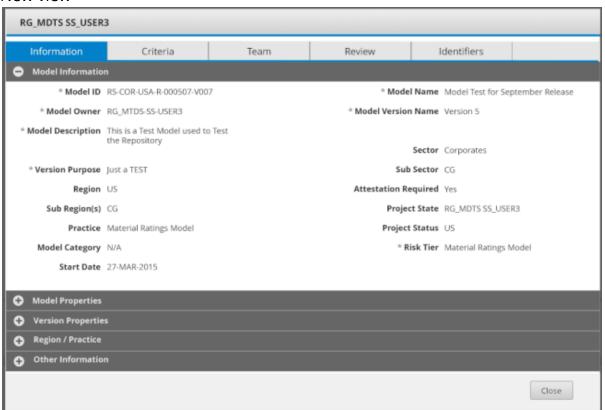
The current detail Modal is a PEGA application that is a compilation of various PEGA versions.

Information

Current View

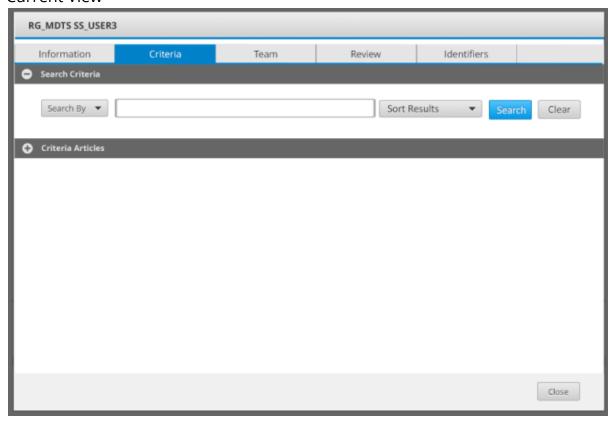


New view



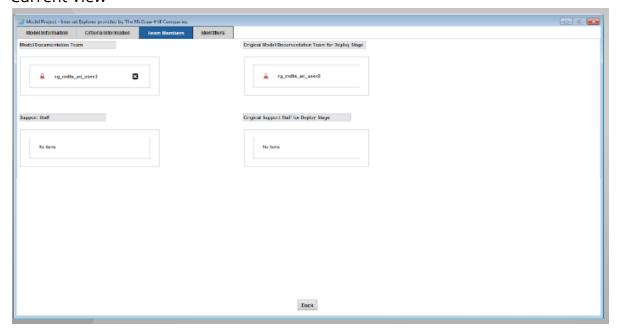
Criteria

Current View

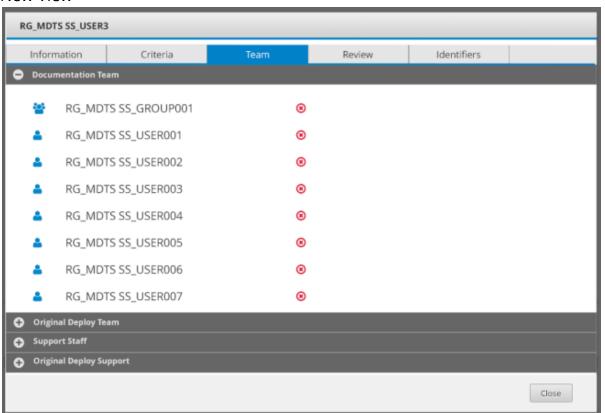


Team

Current View

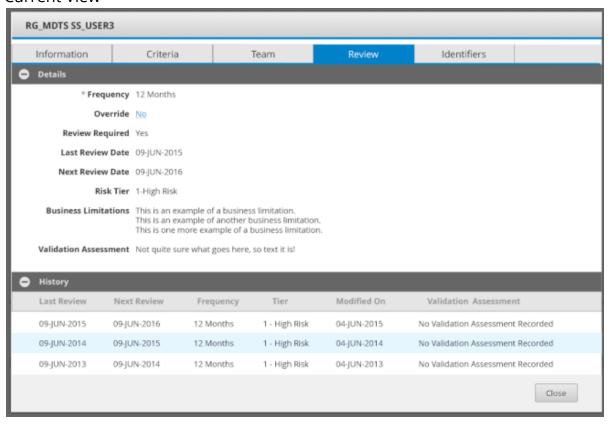


New View



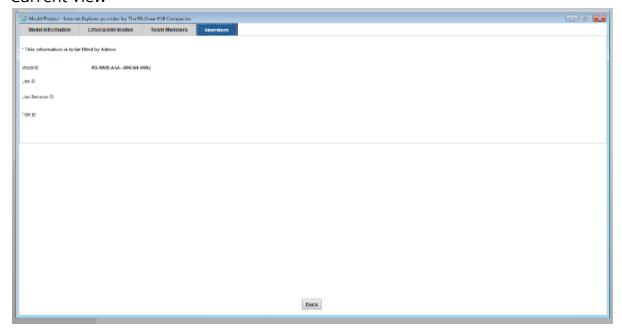
Review

Current View

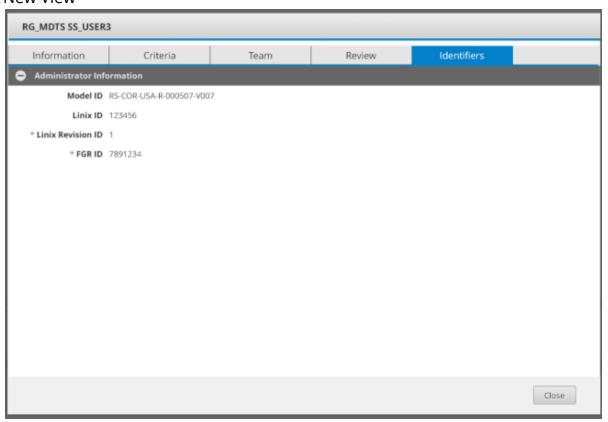


Identifiers

Current View

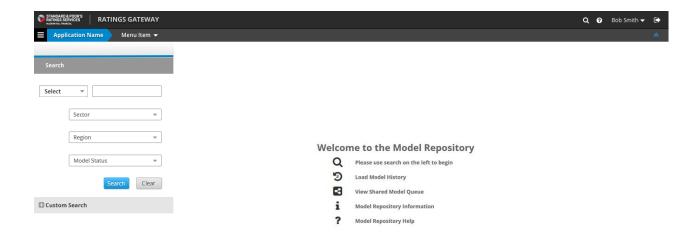


New View

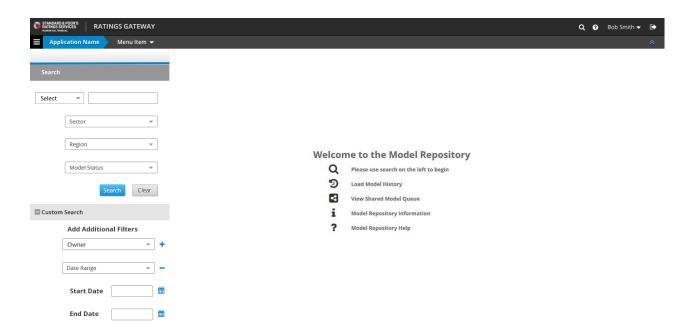


Future State

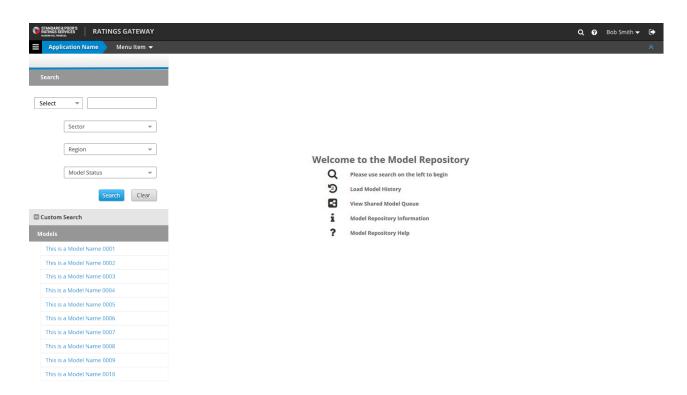
Welcome



Advanced 'Custom' Search

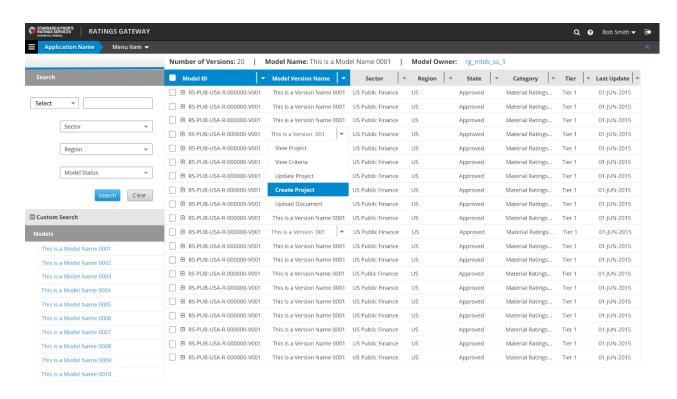


Model Search Results

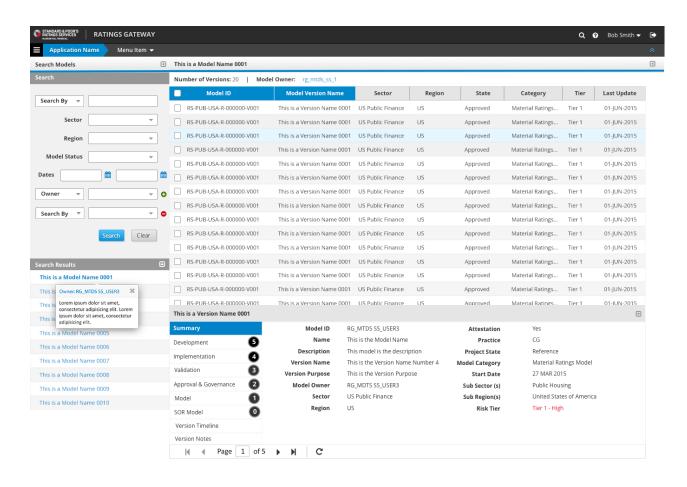




Version Results Option Menus



Version Details



Version Information

