Oracle® OFS STSA Application Pack, v8.1.2.8.0 Maintenance Release

Release Notes



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Oracle OFS STSA Application Pack, v8.1.2.8.0 Maintenance Release Release Notes, Release 8.1.2.8.0

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Description

OFS STSA 8.1.2.0.0 Maintenance Release #8 8.1.2.8.0 (ID 39605264).

Oracle Financial Services Stress Testing and Scenario Analytics (OFS STSA) is a model- and vendor-agnostic platform with three complementary capability areas:

Stress Testing Core: Enables business users to perform simulations, scenario analysis, and stress testing through integration with Oracle, in-house, and third-party business-as-usual (BAU) engines, supporting granular and aggregated impact assessment.

Model Management and Governance (MMG): Supports data preparation and the full model lifecycle—from development, training, and testing through hosting, deployment, serving, orchestration, monitoring, and retirement—with governed approvals, change management, version control, lineage, and auditability.

Model and AI Risk Management (MARM): Provides centralized model inventory, Model 360 views, configurable risk tiering, and guided independent validation, including backtesting and conceptual soundness review, across internally developed and third-party models.

This Release:

This release enables faster aggregated stress testing and simulation through Aggregation Studio and Aggregation Run, reusing governed and validated BAU engines. Guided variable creation, result overlap resolution, and enhanced results actions simplify configuration and analysis. MARM strengthens model risk oversight and validation, while MMG improves data and model operations.

The OFS STSA Application Pack release includes all enhancements and bug fixes delivered since v8.1.2.0.0.

> **Note**
>
> - For more information on STSA documentation, see https://docs.oracle.com/cd/G33002_01/get_started.htm.

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How to Apply this Release?

For instructions on how to install this OFS STSA Application Pack Release, see the Oracle Financial Services Stress Testing and Scenario Analytics Installation Guide for STSA Release 8.1.2.8.0.

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New Features and Enhancements in this Release

3.1 Stress Testing And Scenario Analytics

1. **Aggregation Studio**
   Aggregation Studio enables faster aggregated stress testing and simulation using the same governed and validated business-as-usual (BAU) engines that process detailed account- or contract-level data.

   Users define the aggregation scope, dimensions, and field treatments in an Aggregation Definition linked to an Analysis Configuration, then submit it for approval. At runtime, STSA applies the approved definition to produce aggregated datasets in a form consumable by the same downstream engines. This supports portfolio, balance-sheet line-item, and segment-level impact assessment while retaining existing calculation engines.

   Key Benefits

   - Supports faster stress testing at portfolio, balance-sheet line-item, and segment level
   - Reuses existing governed and validated BAU calculation engines
   - Produces aggregated datasets consumable by engines used for granular processing
   - Controls aggregation through defined scope, field treatments, and approval

2. **Aggregation Run Support in Projects**
   During project definition, users can enable Aggregation Run and select an approved Aggregation Definition for the project's Analysis Configuration. At execution, STSA applies that definition to aggregate the data, then runs the downstream engines on the aggregated datasets.

   This allows users to perform faster aggregated stress testing within the project workflow. Users can review the definition, field treatment plan, aggregation dimensions, and decision summary before execution. Execution is prevented if no definition is selected. The definition used for completed and historical runs remains available on the Execution and Results tab.

   Key Benefits

   - Enables aggregated stress testing through a choice made during project definition
   - Executes data aggregation and downstream calculations within the project run
   - Supports faster simulations using an approved aggregation and existing BAU engines
   - Preserves visibility of the Aggregation Definition used for each execution

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3. **Guided Variable Creation and Configuration**
   Configure variables through a guided workflow that presents the steps relevant to each type and subtype: Variable Profile, Configure Downstream Usages, Configure Downstream Mappings, Refine Variable Structure, optional Configure Analysis Dimensions, and Review and Validate. Reuse registered Matrix, PD/CCF/LGD Term Structure, and Interest Rate Curve definitions or configure them manually.

   Downstream configuration brings together metadata mappings, supporting-table relationships, source filters, applicable defaults, and Population Method guidance. A logical variable can map to multiple physical source columns, with configuration for each downstream usage. Direct Ingestion supports Numeric and Categorical variables at table level or for selected attributes.

   Review and Validate checks the profile, Data Catalog and source mappings, subtype configuration, dimensions, and rating mappings. Required checks must succeed and all Critical alerts must be resolved before submission. Users can inspect incomplete or conflicting mappings and navigate to corrective actions.

   Key Benefits

   - Simpler configuration: Shows the steps and settings relevant to each variable subtype.
   - Reuse across usages: Maps one logical variable to multiple physical source columns.
   - Reuse of production definitions: Imports Matrix, PD/CCF/LGD Term Structure, and Interest Rate Curve definitions into STSA variables.
   - Flexible source integration: Configures mappings, relationships, filters, and applicable defaults for each downstream usage.
   - Clearer population guidance: Explains whether values come from scenarios, variable fields, execution context, imported data, lookups, or defaults.
   - More granular analysis: Adds optional business dimensions and validates their mappings across downstream usages.
   - Greater ingestion control: Supports table-level or selected-attribute ingestion for Numeric and Categorical Direct Ingestion variables.
   - Earlier issue detection: Identifies missing or conflicting mappings and requires resolution of Critical alerts before submission.

   Note

   - Downstream mappings apply to Matrix, PD/CCF/LGD Term Structure, Exchange Rate, Interest Rate Curves, Micro/Macro Economic, and Ordinal variables.
   - Optional analysis dimensions apply to Matrix, PD/CCF/LGD Term Structure, Micro/Macro Economic, Other Dependent Granular, Nominal, and Ordinal variables. They do not apply to Direct Ingestion, Exchange Rate, or Interest Rate Curves.
   - For Matrix and PD/CCF/LGD Term Structure variables with a default hierarchy, the hierarchy's owning dimension is excluded from additional analysis dimension choices.
   - Ordinal supports rating-type variables only. Its downstream configuration covers metadata and relationships, without Default Values screens.
   - Changing Logical References for a Direct Ingestion variable resets attribute selections. Reconfigure the affected table and attribute selections.

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4. **Result Overlap and Aggregation Resolution in Analysis Configurations**
   Resolve overlapping model and process outputs before reviewing analysis results. When selected models produce the same metric for a shared scope, users can inspect the affected metrics and scopes and set the model run order that determines which result is retained. STSA combines compatible surviving outputs. When primary-key differences prevent aggregation, Result Metric Review identifies the affected outputs and separate result metrics are generated.

   Key Benefits

   - Identifies models that produce the same metric for a shared scope
   - Makes result selection explicit through configured model run order
   - Automatically combines compatible outputs with matching structures
   - Keeps outputs separate when their structures prevent aggregation

5. **Enhanced Execution and Results Actions Menu**
   Access comparison reports through a consistent menu on the Execution and Results tab of Stress Testing Projects. View Results, Publish Results, and View Publish Results now offer the same report types: Trend & Composition Reports, Variance from Base Reference Date, Variance Between Two Dates for a Given Scenario, and Variance Between Scenarios.

   Key Benefits

   - Provides a consistent route to reports across results actions
   - Improves visibility of execution details in Latest Execution
   - Reduces navigation when reviewing and comparing execution outcomes

6. **Viewing Audit Trail Reports**
   Review workspace security and application activity directly in STSA through the Audit Trail Report page in the user context menu. Separate Security Logs and Application Logs tabs provide date-range selection, search, and filters for Module, Action Source, User, Action, and Source URL. All, Success, and Failure counts help focus review. Users can refresh entries and download audit information.

   Key Benefits

   - Centralizes workspace security and application activity for review
   - Helps users locate relevant events through targeted search and filtering
   - Provides downloadable audit information for offline review

   > **Note**
   >
   > - Application logs are currently available for the project module only.

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Sample Reference Calculator and Model

7. **RWA Calculator**
   The RWA Calculator is an abridged reference calculator for stress testing that uses a base RWA run as the starting point for RWA simulations. It is provided for reference and illustration only.

   An accompanying sample STSA project, together with an Analysis Configuration and predefined scenarios, gives users a working example they can install, run, and review. The example shows how STSA variables, models, configurations, scenarios, and result metrics come together for impact assessment. Users can explore and extend the calculator to meet their custom requirements.

   The calculator was developed with reference to relevant guidelines. Oracle makes no claim of regulatory compliance and does not undertake to maintain or ensure ongoing compliance. Oracle offers a dedicated OFS Basel SKU to address Basel regulatory requirements comprehensively. OFS STSA integrates seamlessly with the OFS Basel application.

   Key Benefits

   - Provides an abridged RWA calculator for stress testing
   - Includes a sample STSA project users can install and run to view results
   - Enables users to explore and extend the calculator for custom requirements
   - Helps users quickly see STSA's value through a working impact assessment

8. **VAR Model for Forecasting Macroeconomic Variables**
   The Vector Autoregression (VAR) model is provided for reference and illustration only. The sample supplies the model and its integration with STSA, without a preconfigured STSA project or project execution.

   Once trained and executed in MMG, the model can create scenarios directly in STSA. This demonstrates how macroeconomic models can be integrated to generate and ingest scenarios for downstream impact assessment. Following the applicable review and approval workflow, these scenarios can be used in separately configured STSA projects, such as IFRS 9 Expected Credit Loss (ECL) simulations or RWA simulations.

   The model was developed with reference to relevant guidelines. Oracle makes no claim of regulatory compliance and does not undertake to maintain or ensure ongoing compliance.

   Key Benefits

   - Provides a reference VAR model for forecasting macroeconomic variables
   - Demonstrates direct scenario creation in STSA after model training and execution
   - Shows how generated scenarios can support downstream ECL and RWA simulations
   - Helps users understand how macroeconomic models connect to STSA scenario workflows

   > **Note**
   >
   > - Administrator provisioning and an approved model version are required. Model approval does not approve generated scenarios.

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3.2 Model Management And Governance

This release enhances MARM dashboards, registration of external models, tiering, and backtesting. OFS MMG 26.2.0 expands dataset flexibility and improves data and model operations.

3.2.1 Model and AI Risk Management (MARM)

1. **Model Dashboard**
   The enhanced MARM Model Dashboard helps risk managers and the Risk Management Committee of the Board (RMCB) review model risk and validation priorities.
   - Any KPI or chart opens the corresponding filtered Model Inventory view
   - Risk-prioritized Critical Validation Backlog highlights validation demand
   - New charts have been added to show model risk by business domain and validation status for production models

   Key Benefits
   - Brings model risk, inventory, and validation demand into one view to support prioritization
   - Enables users to drill down from any KPI or chart to the corresponding Model Inventory view
2. **Vendor-Agnostic Model Registration in MARM**
   Guided registration paths bring models from other vendors and third parties into STSA for model risk management through MARM.
   1. A dedicated registration path brings external models into the MARM evaluation and validation lifecycle.
   2. For models already managed in MMG, a readiness check confirms whether the selected model is ready to enter evaluation or validation.

   Key Benefits
   - Provides a clear registration path for external models, bringing them into MARM model risk management workflows
3. **Model Tiering**
   Enhanced model tiering provides out-of-the-box scoring based on model materiality, exposure, purpose, complexity, and other configurable criteria. The scoring is fully configurable and customizable to align with an institution's model risk management policy. Tiering is included in the guided model validation workflow, with visibility of the previous tier and controlled manual override.

   Key Benefits
   - Provides out-of-the-box scoring for model tiering
   - Allows full configuration and customization to align with the institution's model risk management policy
   - Includes model tiering in the guided model validation workflow
4. **Backtesting**
   An As-of Date lets validators select the historical point at which a model is to be validated. Backtesting coverage now includes classification, multiclass, regression, and traditional models.

   Key Benefits
   - Supports validation at the relevant historical date across a broader range of models

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5. **Audit Logging**
   MARM now records validation-related activities in the original pipeline audit logs.

   Key Benefits

   - Provides a consolidated history of validation activity alongside the underlying pipeline audit record.

6. **Role-Based Access Controls**
   Three seeded personas provide granular view, validation-execution, and approval functions: Model Owner, Model Validator, and Lead Validator / Validation Approver. Access follows the MMG/OFSAA User-to-User Group-to-Role-to-Function model.

   Key Benefits

   - Separates responsibilities: Model Owners have read-only access, Model Validators perform validation, and Lead Validators / Validation Approvers review and finalize outcomes.

7. **Findings and Observation Tracking**
   Track findings and observations identified during validation and carry open findings into subsequent validations until closure.

   Key Benefits

   - Keeps unresolved validation matters visible and supports follow-through across validation cycles.

3.2.2 MMG General Features

1. **User Provisioning and Identity Diagnostics**
   Improved SAML validation, error handling, and diagnostics help administrators investigate authentication and provisioning issues. Stronger user and identity-mapping validation, with safer fallback behavior, provides clearer responses when user or group data is missing or invalid.

   Key Benefits

   - Helps administrators diagnose SAML, user-provisioning, and identity-mapping issues with clearer validation and error information.

2. **HTTP Strict Transport Security**
   HTTP Strict Transport Security (HSTS) has been added to response headers to enforce HTTPS browser communication.

   Key Benefits

   - Enforces HTTPS browser behavior through the HSTS response header.

3.2.3 MMG Workspace

3. **Data Sourcing and Model Upload Diagnostics**
   Workspace Data Sourcing and model uploads now provide clearer object-level status, failure visibility, and progress tracking. Improvements support failure isolation for large uploads and batches, dependency-aware database-object handling, troubleshooting of partitioned objects, and separate AAI-DMM service logs.

   Key Benefits

   - Helps users identify the objects and processing stages involved in Data Sourcing and model upload failures.

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MMG Workspace (continued)

4. **Optional Synonym Creation**
   Workspace Data Sourcing now makes synonym creation optional, allowing users to skip it when synonyms are not required.

   Key Benefits

   - Avoids creating unnecessary synonyms during Data Sourcing.

3.2.4 MMG Datasets

5. **Dataset Feature Restriction Removed**
   The Dataset screen no longer limits datasets to 100 features.

   Key Benefits

   - Allows users to work with datasets containing more than 100 features on the Dataset screen.

6. **Independent Custom SQL Queries**
   During Step 3 of dataset creation, users can define complex custom SQL queries independently against a single datastore.

   Key Benefits

   - Provides more flexibility when defining dataset logic against a single datastore.

3.2.5 MMG Model Pipelines

7. **Open Session Monitoring and Management**
   Model Pipelines now provides controls to monitor and manage open sessions.

   Key Benefits

   - Gives users visibility into open sessions and controls to manage them.

8. **Model Monitoring Metadata Management and Persistence**
   Model Monitoring metadata can now be managed and persisted for continued use.

   Key Benefits

   - Retains monitoring metadata for subsequent management and review.

9. **Model Monitoring Pipeline View**
   A Pipeline View is now available for Model Monitoring.

   Key Benefits

   - Presents monitoring information in the context of the model pipeline.

Performance Improvements

Technology Stack

- This release includes the following technology updates:
  - Data Studio version 26.1.2
  - Oracle Database 26.ai support in addition to existing supported versions
  - Java versions 17, 21, and 25
  - RAPID version 20
  - OJet version 19.1
  - Third-party library updates for performance and security

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Known Issues and Limitations

Workspace

Data Model

- When Views or Tables are selected during Data Sourcing, referenced database-object dependencies are replicated to the target schema. These automatically included dependencies are processed by the backend but are not shown as selected in the user interface. Dependent synonyms are not replicated automatically and must be selected manually.
- Workspace Edit operations do not synchronize deletion of database tables between source and target schemas.

Data Population: Error log table creation is not supported when source tables contain LONG, CLOB, BLOB, BFILE, or ADT columns.

Datasets

- Cache operations are not supported for dataset definitions based on the Modin library.
- Profiler and drift support is limited on Python 3.13 and later. Python 3.12 is the last fully qualified version for these capabilities.

Model Catalog: Deployment from the Model Catalog is for test purposes. Publish models intended for deployment from Model Pipelines.

Model Pipelines

Reports: The PDF produced by Generate Report does not include data in the output sections.

Deployment: Publishing from the Model Summary page does not automatically include dependent Graphs, Parameter Sets, Datasets, and Models. Publish from the Pipeline Canvas to promote dependencies.

Installer

Python 3.12 and Later with Apache Flink: Apache Flink does not provide full support for Python 3.12 and later. Installation warnings or errors related to Flink on these versions are expected and can be ignored.

Guardian AI Installation: The oracle-guardian-ai package is no longer installed automatically with mmg-python. Install and configure it separately in the appropriate Conda environment when Guardian AI functionality is required.

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