SERENA®

Dashboard 2.1

Synonyms Reference

Serena Proprietary and Confidential Information

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Welcome to Serena Dashboard

Thank you for choosing Serena® Dashboard as a reporting tool.

Serena Dashboard enables you to produce metrics and reports for all your ALM processes from definition to deployment into production using a variety of sources across distributed environments.

Audience and Scope: This document is intended for personnel who participate in the processes of managing Application Lifecycle Processes.

Before You Begin: See the Readme for the latest updates and known issues.

Contacting Technical Support

Serena provides technical support for all registered users of this product, including limited installation support for the first 30 days. If you need support after that time, contact Serena Support at the following URL and follow the instructions:

http://www.serena.com/support

Language-specific technical support is available during local business hours. For all other hours, technical support is provided in English.

Platform Support

For details of supported server and client platforms, third party integrations, and Serena Integrations, see the Serena Release Plan for Serena Dashboard at:

http://roadmap.serena.com

From the Products list, select Serena Dashboard, then click on the 2.0 release. From here you can display supported platforms and integrations.

Demonstrations

Demonstrations of Serena product features can be viewed at the following public Web site:

http://courseware.serena.com

Chapter 1

Dashboard Metric Data Introduction

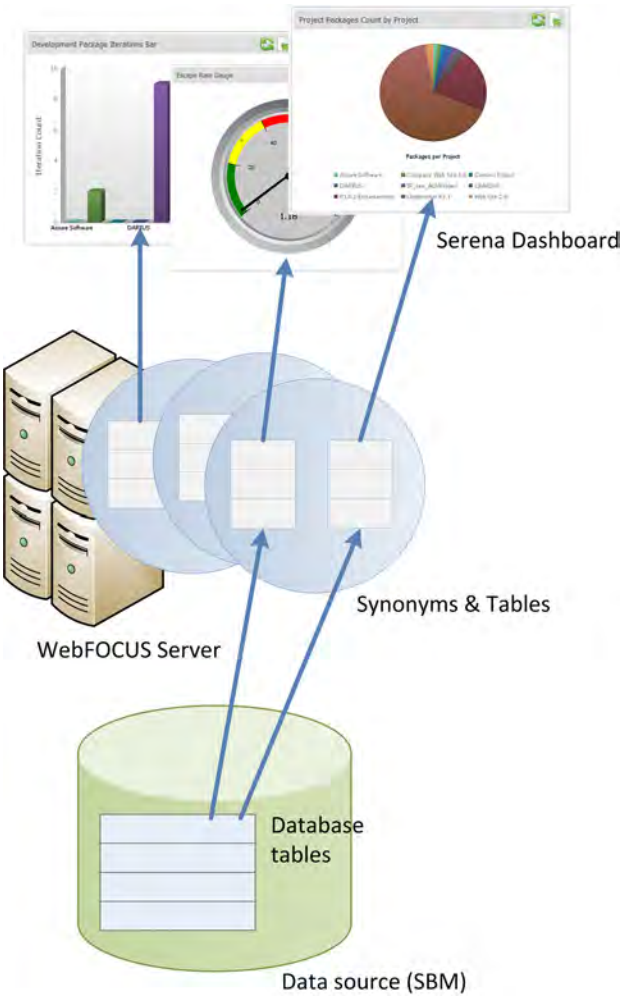
Overview

Serena Dashboard is built from the ground up to aggregate and report on the most meaningful project and status level data from the Serena Orchestrated ALM solutions, including Serena Release Manager, Serena Development Manager, and Serena Requirements Manager. Serena Dashboard is powered by IBI WebFOCUS, a rich report building and generation system that can consume and display relevant data from any enterprise data source. WebFOCUS uses synonym files to represent imported data in a series of tables.

Serena Dashboard uses these synonyms to import data from the key Serena systems, including Serena Business Manager and Serena Dimensions CM. The data is then available from these synonyms and their tables to the metrics that will make use of the data.

Understanding Synonyms

Serena Dashboard provides a set of pre-configured master files that are used within WebFOCUS to build and display metrics. These master files store all of the data about the synonyms and tables that represent the actual data from the source. In its simplest form, think of a WebFOCUS synonym as depicted below.



The master files in WebFOCUS define a synonym that maps to the source data and is refreshed with the latest data at run time. When you display a metric in Serena Dashboard, WebFOCUS queries the data source and returns the current data to the synonym, which is then rendered into the metric.

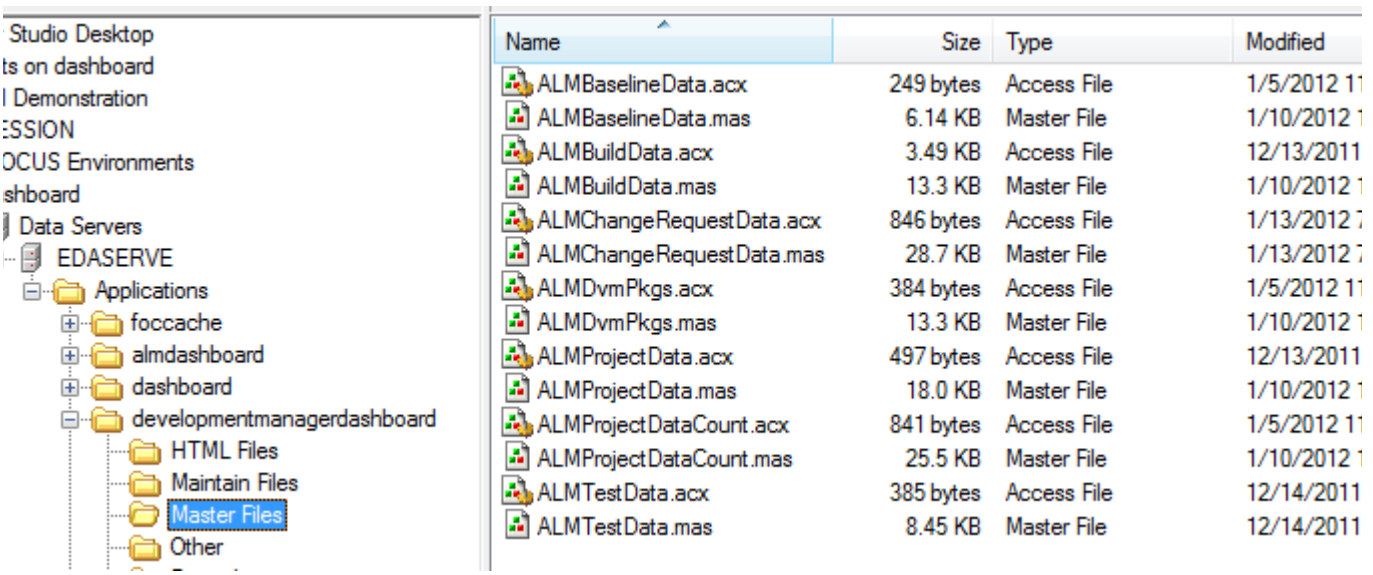
In order to build new metrics in WebFOCUS, you can take advantage of the existing synonyms that are provided out-of-the-box with Serena Dashboard, or consult the IBI WebFOCUS documentation to learn how to build your own. This document describes the tables, columns and other data structures that are mapped from SBM, Dimensions CM, and other systems into the out-of-box synonym tables; you can use it to find and understand what columns to pull into your own, custom metrics.

Displaying Serena Dashboard Synonyms

Once you have completed installation of Serena Dashboard as documented in the Serena Dashboard Installation and Configuration Guide, you can open any of the master files provided with Serena Dashboard from WebFOCUS Developer Studio. The master files (.mas) store the synonym and table definitions, mapping data from columns in the data source tables to fields in the synonym tables.

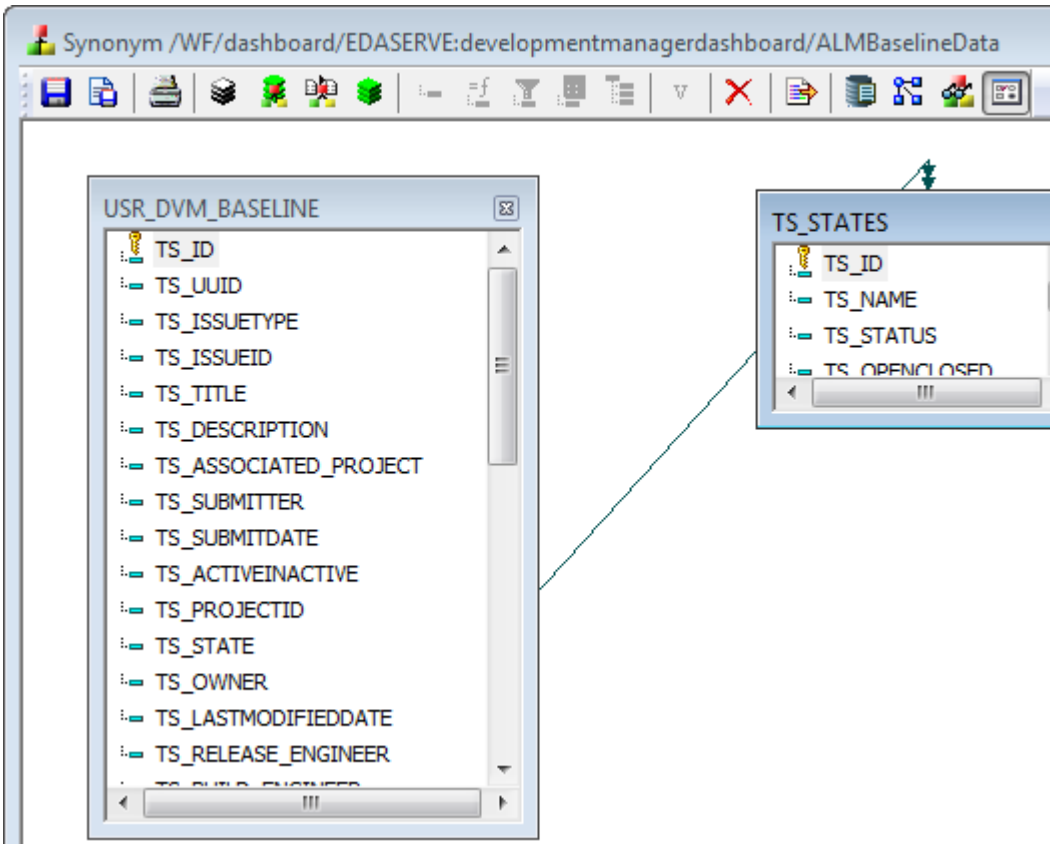
To display and work with master files:

1. Open WebFOCUS Developer Studio.
2. In the **Explorer** view, under WebFOCUS Environments, expand the Dashboard environment (or localhost, however it is defined), expand EDASERVE.
3. From here, you can open the \Applications folder and see all of the files for specific WebFOCUS applications. For example, under \developmentmanagerdashboard, you see all of the master files for the Development Manager metrics under the Master Files folder.



4. Each of the .mas / .acx file-pairs in this folder corresponds to a synonym, and stores the table definitions for that synonym. Double-click any of the .mas files to view the tables included in the synonym. For example, double-click ALMBaselineData to display the contents of the ALMBaselineData synonym.

5 From the open synonym file, click the **Modeling** tab to see the representations of tables.



6 This synonym includes two tables that map to data from the Development Packages process app in Serena Development Manager.

In this way, you can see for yourself the synonyms included with Serena Dashboard and review the data that each synonym can provide. This document provides a thorough overview of this data, however it does not list every column in every table; you may find that by exploring the synonyms directly you can find everything you need to build new metrics.

Using This Content

This content provides you with an overview of the data provided to you via the tables defined in the out-of-box Serena Dashboard synonyms. You can read through the table and field descriptions to determine which data you need, and then open the synonyms directly in WebFOCUS Developer Studio to start working directly with the synonyms (see Displaying Serena Dashboard Synonyms). This document provides shortcuts; you can scan tables and column names to find the data you need, then go to work building and customizing metrics in WebFOCUS Developer Studio.

Chapter 2

Release Manager Metric Data Reference

Introduction

Review these topics before you get started learning about the Release Manager schema used by Serena Dashbaord.

Data Sources for Release Manager Metrics

Data for metrics on Serena Development Manager may come from multiple sources, including:

- Serena Business Manager
- Serena Dimensions CM

Representing Data with Synonyms

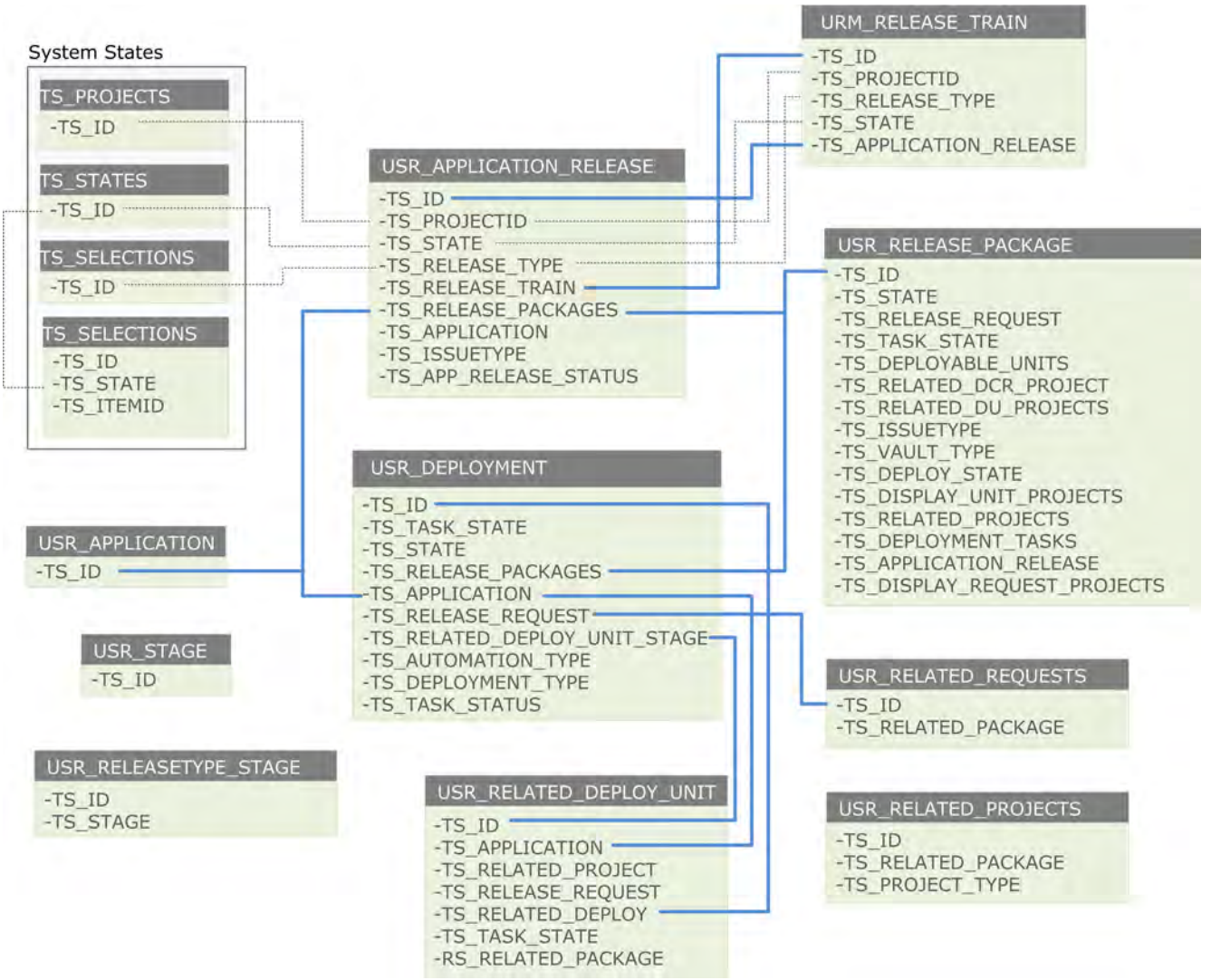
This data is aggregated into tables within several synonyms in WebFOCUS Developer Studio that the metrics can draw from as needed. These synonyms are collections of tables that represent data as it is stored in the database tables in Business Manager, Dimensions CM, and other data sources. All of the out-of-the-box metrics included with Serena Dashboard draw data from these synonyms. By using these synonyms, you do not need to interact directly with the databases for the data sources; the synonyms do the work of mapping metrics to the source data without requiring advanced knowledge of the source database schemas. For more information, see Understanding Synonyms.

Using This Content

To build your own metrics on Release Manager data, you can use the tables in these synonyms as well. This content is organized logically according to object type.

Synonym Overview

The following diagram illustrates the Release Manager object data that is available to you via the out-of-box Serena Dashboard synonyms.



By opening and displaying the WebFOCUS synonyms directly, you can review all of the many fields available to you as you build new metrics using the out-of-the-box Serena Dashboard synonyms. For more on working directly with Serena Dashboard synonyms, see Displaying Serena Dashboard Synonyms.

Release Trains

Data on release trains is stored in the URM_RELEASE_TRAIN table, which is used by several synonyms that provide project data to various metrics.

Out of the Box Usage

- The Compare Release Trains metric uses the RLMReleaseTrainData synonym to map data from the URM_RELEASE_TRAIN table to release data from other tables in the Release Manager synonyms. This metric compares the status and stage of multiple release trains.
- The Application Release Rates and Application Release Installation metrics use the RLMApplicationReleaseData synonym to map data from the URM_RELEASE_TRAIN table to deployment, request, application, and package data from other tables in the Release Manager synonyms. These metrics display application release rates and current status of installation steps.
- The Deployment Metrics metric uses the RLMDeploymentData synonym to map data from the URM_RELEASE_TRAIN table to deployment data. This metric displays the status of deployment activities by application and release train.

Object Reference

There is one table, the URM_RELEASE_TRAIN table, that stores the release train data.

URM_RELEASE_TRAIN

Description The URM_RELEASE_TRAIN table retrieves data from Serena Business Manager on release trains in the system. The data includes the primary ID, the Release Control project to which it is associated, the type of release, and the stage that the release train is currently in.

Source SBM schema.

Fields

- TS_ID

  Primary key. Release train ID.

- TS_PROJECTID

  Project ID.

- TS_RELEASE_TYPE

  The type of release train. This may be major, minor, or emergency.

- TS_STATE

  The stage that the release train is currently in.

- TS_APPLICATION_RELEASE

  Associated application release.

Release Packages

Data on release packages is stored in the USR_RELEASE_PACKAGE table, which is used by the RLMApplicationReleaseData and RLMDeploymentPackHistory synonyms. Specific information about the package states and transitions are stored in the TS_CHANGEACTIONS, TS_TRANSITIONS, TS_STATES_PRIORSTATES, and TS_STATES_NEWSTATES tables.

Example Out of the Box Usage

- The Application Release Rates and Application Release Installation metrics use the RLMApplicationReleaseData synonym to map data from the USR_RELEASE_PACKAGE table to release train, request and application data from other tables in the Release Manager synonyms. These metrics display application release rates and current status of installation steps.
- The Break/fix metric uses the RLMDeploymentPackHistory synonym to pull data about packages, including the break / fix information for each stage in a package.

Object Reference

USR_RELEASE_PACKAGE

Description The USR_RELEASE_PACKAGE table retrieves data on release packages stored in SBM. This data includes change requests and deployment units associated with the package, type, and other relationships.

Source SBM schema.

Fields

- TS_ID

  Package ID.

- TS_STATE

  Release state that the package is currently in.

- TS_RELEASE_REQUEST

  ID of the associated release request.

- TS_DEPLOYABLE_UNITS

  Associated deployment units.

- TS_RELATED_DCR_PROJECT

  Project from which deployment change requests are retrieved.

- TS_RELATED_DU_PROJECTS

  Project from which deployment units are retrieved.

- TS_ISSUETYPE

  The type of release package, such as Dependent or Independent.

- TS_VAULT_TYPE

  The type of release vault.

- TS_DEPLOY_STATE
- TS_DISPLAY_UNIT_PROJECTS
- TS_RELATED_PROJECTS

  IDs of related projects from providers.

- TS_DEPLOYMENT_TASKS

  Associated deployment tasks.

- TS_APPLICATION_RELEASE

  Associated application release.

- TS_DISPLAY_REQUEST_PROJECTS
- TS_MESSAGE_LOG

System Data

System data tables provide unique identifiers for a variety of object types. These tables are used by various synonyms to supply the identifiers for these objects to metrics.

Object Reference

You can use the columns in the following tables to supply IDs to various objects in your own metrics.

TS_PROJECTS

Description Provides IDs for projects from providers. The USR_APPLICATION_RELEASE and URM_RELEASE_TRAIN tables refer to it.

Source SBM schema.

Fields
- TS_ID

  Project ID.

TS_SELECTIONS

Description Provides IDs for various objects. In the Release Manager tables, TS_SELECTIONS provides IDs for release types to the USR_APPLICATION_RELEASE and URM_RELEASE_TRAIN tables.

Source SBM schema.

Columns
- TS_ID

  Object ID.

TS_STATES

Description Provides IDs for workflow states. In the Release Manager tables, TS_STATES provides IDs for states to the USR_APPLICATION_RELEASE and URM_RELEASE_TRAIN tables.

Source SBM schema.

Fields
- TS_ID

  State ID.

- TS_NAME

  State name.

- TS_STATUS

- TS_OPENCLOSED

TS_CHANGEACTIONS

Source SBM schema.

Columns
- TS_ID

  Primary key. Change action ID.
- TS_ACTION

  The action.
- TS_ITEMID
- TS_TABLEID
- TS_TIME
- TS_USERID

Deployment Tasks

Data on deployment tasks - including associated packages, tasks, requests, and applications - is stored in the USR_DEPLOYMENT table, which is used by the RLMDeploymentData and RLMApplicationReleaseData synonyms.

Out of the Box Usage

- The Deployment Metrics metric uses the RLMDeploymentData synonym to map data from the USR_DEPLOYMENT table to release train data. This metric displays the status of deployment activities by application and release train.
- The Application Release Rates and Application Release Installation metrics use the RLMApplicationReleaseData synonym to map data from the USR_DEPLOYMENT table to release train, request, application, and package data from other tables in the Release Manager synonyms. These metrics display application release rates and current status of installation steps.

Object Reference

USR_DEPLOYMENT

Description Provides data about deployment activities as a whole; each record in this table includes information on associated release packages, requests, deployment units, stage in the deployment lifecycle, the type of deployment activity, the state of the associated deployment task, etc.

Source SBM schema.

Fields
- TS_ID

  Primary key. Deployment ID.

- TS_TASK_STATE

  Current state of the deployment task.

- TS_STATE
- TS_RELEASE_PACKAGES

  IDs of associated release packages, from the USR_RELEASE_PACKAGE table.

- TS_APPLICATION

  Associated application, from the USR_RELATED_DEPLOY_UNIT table.

- TS_RELEASE_REQUEST

  Associated request for a release, from the USR_RELATED_REQUESTS table.

- TS_RELATED_DEPLOY_UNIT

  Associated deployment unit from the USR_RELATED_DEPLOY_UNIT table.

- STAGE

  Current release stage, from the USR_RELEASETYPE_STAGE table.

- TS_AUTOMATION_TYPE

  Automation type.

- TS_DEPLOYMENT_TYPE

  Type of deployment task: manual, approval, vault, or automation.

- TS_TASK_STATES

  States in the deployment task.

- TS_RELEASE_ENGINEER

  Primary owner of the deployment process.

- TS_TEMPLATE

  The deployment process template.

- TS_VAULT_TYPE

  Type of release vault, such as CM or ZMF.

Releases

Data on application releases is stored in the USR_APPLICATION_RELEASE table, which is used by several synonyms that provide project data to various metrics.

Out of the Box Usage

- The Projects List metric uses the RLMApplicationData synonym to map application data from the USR_APPLICATION table to release data from the USR_APPLICATION_RELEASE table. This metric displays a list of applications as a project list.

- The Application Release Rates and Application Release Installation metrics use the RLMApplicationReleaseData synonym to map data from the USR_APPLICATION_RELEASE table to release train, deployment, request, application, and package data from other tables in the Release Manager synonyms. These metrics display application release rates and current status of installation steps.
- The Deployment Metrics metric uses the RLMDeploymentData synonym to map data from the USR_APPLICATION_RELEASE table to release train and deployment data from other tables in the Release Manager synonyms. This metric displays the status of deployment activities by application and release train.
- The Compare Release Trains metric uses the RLMReleaseTrainData synonym to map data from the USR_APPLICATION_RELEASE table to release train and application data from other tables in the Release Manager synonyms. This metric compares the status and stage of multiple release trains.

Object Reference

USR_APPLICATION_RELEASE

Description Provides data about application releases.

Source SBM schema.

Fields

- TS_ID

  Primary key. ID of the release.
- TS_UUID
- TS_ISSUETYPE

  Type of associated request.
- TS_ISSUEID

  ID of associated request.
- TS_TITLE

  Application release name.
- TS_APPLICATION

  ID of the application.
- TS_RELEASE_TRAIN

  ID of the release train.
- TS_DESCRIPTION

  Description of the application release.
- TS_PROJECTID

Applications

Data on applications is stored in the USR_APPLICATION table, which is used by several synonyms that provide application data to various metrics.

Out of the Box Usage

- The Projects List metric uses the RLMApplicationData synonym to map application data from the USR_APPLICATION table to release data from the USR_APPLICATION_RELEASE table. This metric displays a list of applications as a project list.
- The Application Release Rates and Application Release Installation metrics use the RLMApplicationReleaseData synonym to map data from the USR_APPLICATION table to release, release train, deployment, request, and package data from other tables in the Release Manager synonyms. These metrics display application release rates and current status of installation steps.
- The Deployment Metrics metric uses the RLMDeploymentData synonym to map data from the USR_APPLICATION table to release train and deployment data from other tables in the Release Manager synonyms. This metric displays the status of deployment activities by application and release train.
- The Compare Release Trains metric uses the RLMReleaseTrainData synonym to map data from the USR_APPLICATION table to release train and release data from other tables in the Release Manager synonyms. This metric compares the status and stage of multiple release trains.

Object Reference

USR_APPLICATION

Description Stores data about application definitions, which is in turns associated with releases.

Source SBM schema.

Fields

- TS_ID

  Primary key. Application ID.

- TS_UUID
- TS_TITLE

  Name of the application.

- TS_DESCRIPTION

  Application description.

- TS_LASTMODIFIEDDATE

  Date when the application was last modified.

- TS_DEPLOYMENT_PROCESS
- TS_LASTMODIFIER

  ID of the user that last modified the application.

Deployment Units

Data on deployment units is stored in the USR_RELATED_DEPLOY_UNIT table, which is used by the RLMApplicationReleaseData synonym.

Out of the Box Usage

- The Application Release Rates and Application Release Installation metrics use the RLMApplicationReleaseData synonym to map data from the USR_RELATED_DEPLOY_UNIT table to release, deployment, request, and package data from other tables in the Release Manager synonyms. These metrics display application release rates and current status of installation steps.

Object Reference

USR_RELATED_DEPLOY_UNIT

Description Provides data on deployment units stored in SBM.

Source SBM schema.

Fields

- TS_ID

  Primary key. Deploy unit ID.

- TS_APPLICATION

  Release application.

- TS_RELATED_PROJECT

  Project from the provider.

- TS_RELATED_REQUEST
- TS_RELATED_DEPLOY

  Related deployment task.

- TS_TASK_STATE

  State of the related task.

- RS_RELATED_PACKAGE

  Related deployment task.

Related Projects and Requests

Data on related projects and requests is provided by several tables. Request and project information originates with the registered change request and deployment provider.

Out of the Box Usage

- The Application Release Rates and Application Release Installation metrics use the RLMApplicationReleaseData synonym to map data on releases, release trains, deployment tasks, requests, and packages various Release Manager tables. These metrics display application release rates and current status of installation steps.

Object Reference

USR_RELATED_REQUESTS

Description Provides information about related requests from the request provider.

Source SBM schema.

Fields
- TS_ID

  Primary key. Request ID.
- TS_UUID
- TS_TITLE

  Name of the request.
- TS_OWNER

  User that owns the request.
- TS_PACKAGE_ID

  ID of the associated package.

USR_RELATED_PROJECTS

Description Provides information about projects from request and deployment unit providers.

Source SBM schema.

Fields
- TS_ID

  Primary key. Request ID.
- TS_PROJECT_TYPE

  SBM or Dimensions CM.
- TS_RELATED_PACKAGE

  Associated package.

Workflow Stages

Data on workflow stages and transitions is provided by several tables that are used by the RLMDeploymentPackHistory synonym. This includes the TS_TRANSITIONS, TS_STATES_PRIORSTATES, TS_STATES_NEWSTATES, and TS_TIMEINSTATE tables.

Out of the Box Usage

- The Break/fix metric uses the RLMDeploymentPackHistory synonym to pull data about packages, including the break / fix information for each stage in a package.

Object Reference

TS_TIMEINSTATE

Description Amount of time spent in a particular state in the workflow.

Source SBM schema.

Fields
- TS_ID
- TS_ENTERCHGACTIONID

  ID of the change action that moved the package from the previous state into the current state.
- TS_EXITCHGACTIONID

  ID of the transition that moved the package into the next state.
- TS_CALENDARID
- TS_ELAPSEDTIME

  Measurement of elapsed time.

TS_STATES_NEWSTATES

Source SBM schema.

Fields
- TS_ID

  Primary key. State ID.
- TS_NAME

  State name.
- TS_STATUS

  State status.
- TS_OPENCLOSED

  Whether the state is open or closed.

TS_STATES_PRIORSTATES

Source SBM schema.

Fields
- TS_ID

  Primary key. State ID.
- TS_NAME

  State name.

- TS_STATUS

  State status.

- TS_OPENCLOSED

  Whether the state is open or closed.

TS_TRANSITIONS

Description Workflow transitions.

Source SBM schema.

Fields

- TS_ID

  Primary key. State ID.

- TS_NAME

  State name.

- TS_PROJECTID
- TS_OLDSTATEID

Chapter 3

Development Manager Metric Data Reference

Introduction

Review these topics before you get started learning about the Development Manager schema used by Serena Dashboard.

Data Sources for Development Manager Metrics

Data for metrics on Serena Development Manager may come from multiple sources, including:

- Serena Business Manager
- Serena Dimensions CM
- HP Quality Center

Representing Data with Synonyms

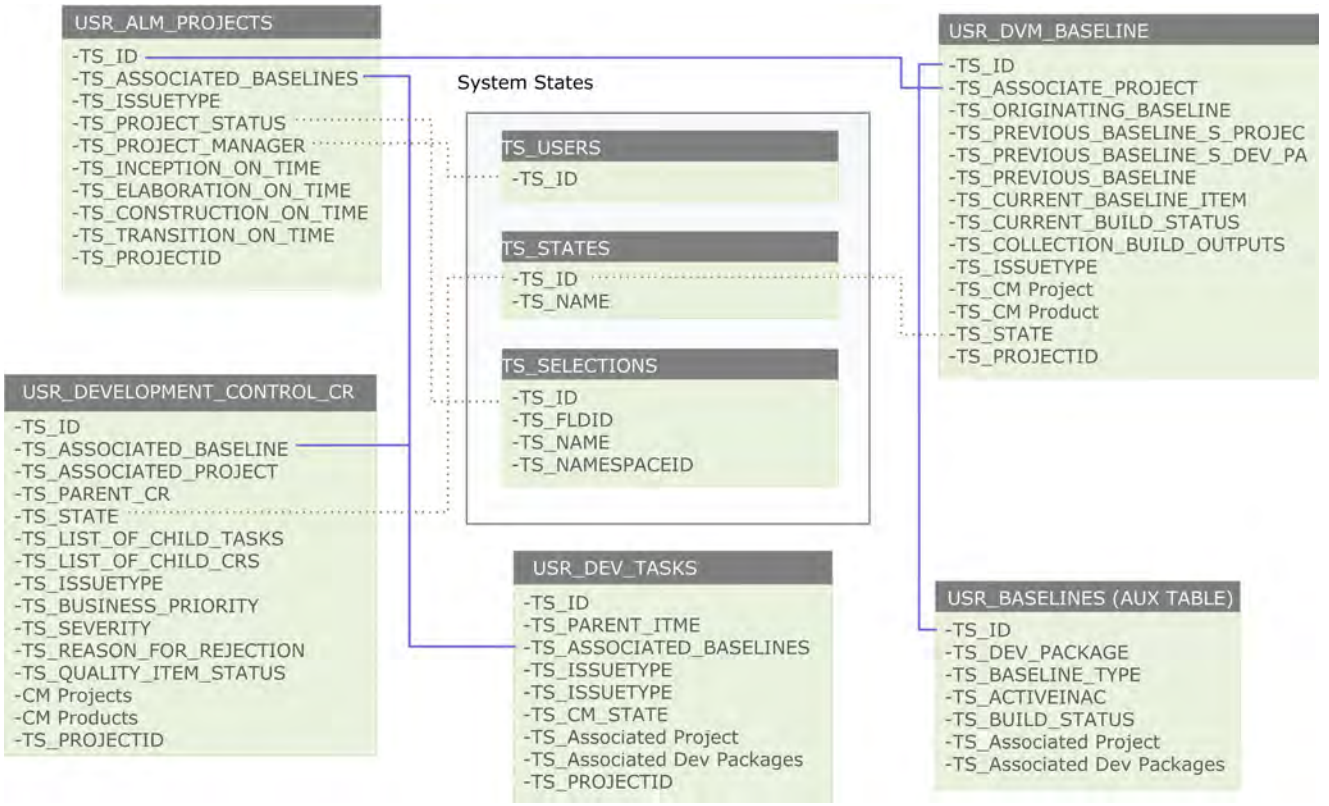
This data is aggregated into tables within several synonyms in WebFOCUS Developer Studio that the metrics can draw from as needed. These synonyms are collections of tables that represent data as it is stored in the database tables in Business Manager, Dimensions CM, and other data sources. All of the out-of-the-box metrics included with Serena Dashboard draw data from these synonyms. By using these synonyms, you do not need to interact directly with the databases for the data sources; the synonyms do the work of mapping metrics to the source data without requiring advanced knowledge of the source database schemas. For more on this, please see Understanding Synonyms.

Using This Content

To build your own metrics on Development Manager data, you can use the tables in these synonyms as well. This content is organized logically according to object type. For example, if you want to build a new metric that will report on change requests, refer to Change Requests for details on the tables and fields that are available to you from the WebFOCUS synonyms.

Synonym Overview

The following diagram illustrates the set of tables related to Development Manager that are available to you via the out-of-box Serena Dashboard synonyms.



By opening and displaying the WebFOCUS synonyms directly, you can review all of the many fields available to you as you build new metrics using the out-of-the-box Serena Dashboard synonyms. For more on working directly with Serena Dashboard synonyms, see Displaying Serena Dashboard Synonyms.

Builds

Data on build configurations from Dimensions CM are stored in the tables that belong to the ALMBuildData synonym. The ALMBuildData synonym stores data imported from Dimensions CM on build jobs, their status, development areas, and more.

Out of the Box Usage

In Serena Dashboard, the out of box metrics Build Details and Build Success Rate both pull in data from the ALMBuildData Synonym, in order to display information about build jobs that are managed in Dimensions CM and graphically indicate the overall rate of success of builds.

Build Objects Reference

The ALMBuildData synonym contains the following tables. You can use the columns in the synonym tables to build your own metrics on build data.

BLD_BUILD_JOB

Description Data on Dimensions CM build jobs. You can learn more about Dimensions CM published views in the *Serena Dimensions CM Reports Guide*.

Source Dimensions CM schema.

Fields

- BUILD_JOB_ID

  Primary key. Stores the ID of the Dimensions CM build job.

- BUILD_ENV_ID

  ID of the associated Dimensions CM build environment.

- BUILD_AREA_ID

  ID of the associated Dimensions CM build area.

- BUILD_JOB_START_TIME

  The start time for the build job.

- BUILD_JOB_STOP_TIME

  The stop time for the build job.

- BUILD_JOB_USER

  The user who created the build job.

- BUILD_JOB_RESULT

  The result of the build job.

- BUILD_CONFIG_VERSION_ID

  The ID of the version of the build configuration for the job.

- CLEAN_BUILD

  Whether the build job should clean the target directory before running.

- SRC_BLINE_ID

  The ID of the source baseline that the build job compiles.

BLD_BUILD_ENV

Description Data on Dimensions CM build environments.

Source Dimensions CM schema.

Fields

- BUILD_ENV_ID

  Primary key. ID of the build environment.

- BUILD_CONFIG_ID

  ID of the build configuration for the environment.

- BUILD_AREA_ID

  ID of the build area.

- BUILD_ENV_ASKPASSRUNTIME

  Whether a password is required at runtime in order to run a build.

BLD_BUILD_CONFIG

Description Data on Dimensions CM build configurations.

Source Dimensions CM schema.

Fields

- BUILD_CONFIG_ID

  ID of the Dimensions CM build configuration.

- PROJECT_ID

  ID of the Dimensions CM build project.

- PLATFORM_ID

  ID of the Dimensions CM build platform.

- BUILD_CONFIG_CURRENT_ID

  ID of the current build configuration.

BLD_BUILD_CONFIG_VERSION

Description Data on versions of Dimensions CM build configurations.

Source Dimensions CM schema.

Fields

- BUILD_CONFIG_VERSION_ID

  ID of the Dimensions CM build configuration version.

- BUILD_CONFIG_ID

  ID of the Dimensions CM configuration.

- BUILD_CONFIG_VERSION_NUMBER

  Dimensions CM build configuration version number.

- BUILD_CONFIG_VERSION_DATE

  Date that the build configuration version was created.

BLN_CATALOGUE

Description Data on Dimensions CM baselines.

Source Dimensions CM schema.

Fields

- OBJ_UID

  Baseline ID.

- OBJ_SPEC_UID

  Baseline specification ID.

- TYPE_UID

  The type of baseline.

BLN_SPEC_CATALOGUE

Source Dimensions CM schema.

- OBJ_SPEC_UID
- TYPE_UID
- PRODUCT_ID

  Product ID.

- OBJ_ID

AREA_CATALOGUE

Description Data on Dimensions CM areas.

Source Dimensions CM schema.

Fields

- AREA_UID

  Area UID.

- AREA_ID

  Name of the area.

- NETWORKNODE_UID

  ID of the network node.

- DIRECTORY

  Directory path to the area.

WS_CATALOGUE

Description Dimensions CM project / stream specification.

Source Dimensions CM schema.

Fields

- OBJ_UID

  Project / steam ID.

- OBJ_SPEC_UID

  Full specification of the project / steam.

- TYPE_UID

  The type of project or stream.

- REVISION

WS_SPEC_CATALOGUE

Source Dimensions CM schema.

Fields

- OBJ_SPEC_UID

- TYPE_UID
- PRODUCT_ID

  ID of the Dimensions CM product.
- OBJ_ID

Change Requests

Data on change request objects are stored in the USR_DEVELOPMENT_CONTROL_CR table. This table is used by the ALMChangeRequestData synonym, which stores data from Serena Business Manager on change requests and more.

Out of the Box Usage

- Using the ALMChangeRequestData synonym, the Project Defects Found metric maps data from the USR_DEVELOPMENT_CONTRL_CR table to data from the USR_ALM_PROJECTS table to display a bar graph of all defects in specific projects.
- Using the ALMChangeRequestData synonym, the Projects Defects by Month metric maps data from the USR_DEVELOPMENT_CONTROL_CR table to data from the USR_ALM_PROJECTS table to display an area graph of all defects found in specific projects on a month by month basis.
- Using the ALMChangeRequestData synonym, the Defects Escape Rate maps data from the USR_DEVELOPMENT_CONTROL_CR table to data from the USR_ALM_PROJECTS table to display a table of open and escaped defects for specific projects.

Object Reference

USR_DEVELOPMENT_CONTROL_CR

Description This table stores data on development change requests managed by the Dev Change Requests process app.

Source SBM schema.

Fields
- TS_ID

  Change Request ID.
- TS_ASSOCIATED_BASELINE

  Associated Dimensions CM baseline.
- TS_ASSOCIATED_PROJECT

  ID of the related project.
- TS_PARENT_CR

  If the request is a child request, stores the ID of the parent request.
- TS_STATE

  Current state of the request.

- TS_LIST_OF_CHILD_TASKS

  ID of tasks related to the request.

- TS_LIST_OF_CHILD_CRS

  ID of any child requests, if the request is a parent request.

- TS_ASSOCIATED_DEV_PACKAGES

  Associated development packages.

- TS_ISSUETYPE

  Type of request, such as Defect.

- TS_BUSINESS_PRIORITY

  Business priority of the request.

- TS_SEVERITY

  Severity of the request.

- TS_REASON_FOR_REJECTION

  If the request was rejected, the reason provided for the rejection.

- TS_QUALITY_ITEM_STATUS

  Status of associated quality center items.

- CM Projects

  Associated Dimensions CM projects.

- CM Products

  Associated Dimensions CM products.

- TS_PROJECTID

  ID of the associated ALM project.

System Data

System data tables provide unique identifiers for a variety of object types. These tables are used by various synonyms to supply the identifiers for these objects to metrics.

Out of the Box Usage

Using the ALMChangeRequestData synonym, the Project Defects Found, Project Defects by Month, and Defects Escape Rate metrics map IDs from the system tables to various objects.

Object Reference

The following topics describe the system data tables.

TS_STATES

Description Data about workflow states.

Source SBM schema.

Fields
- TS_ID

  State ID.
- TS_NAME

  State name.

TS_SELECTIONS

Description Provides IDs for various objects.

Source SBM schema.

Fields
- TS_ID

  Object ID.
- TS_FLDID
- TS_NAME

  Object name.
- TS_NAMESPACEID

TS_USERS

Description Provides information on users.

Source SBM schema.

Fields
- TS_ID

  User IDs.

Development Packages

Data on development packages is stored in the USR_DVM_BASELINE table, which is used by the ALMBaselineData and ALMDvmPkgs synonyms.

Note that the synonym and table names refer to baselines, however this is not to be confused with Dimensions baselines. Baseline here refers to development packages.

Out of the Box Usage

- Using the ALMBaselineData synonym, The Project Baselines metric displays the success / failure rate for development packages in each project.
- Using the ALMDvmPkgs synonym, the Development Package per Project metric displays the total number of packages contained in each project, and at each state in the project.

Object Reference

USR_DVM_BASELINE

Description This table stores data on development packages from the Dev Packages process app in Serena Development Manager.

Source SBM schema.

Fields

- TS_ID

  Development package ID.

- TS_ASSOCIATED_PROJECT

  Associated project from the ALM Projects process app.

- TS_ORIGINATING_BASELINE
- TS_PREVIOUS_BASELINE_S_PROJEC

  When creating a new revised baseline, this is the project or stream in Dimensions CM to which the original baseline belongs.

- TS_PREVIOUS_BASELINE_S_DEV_PA

  When creating a new revised baseline, this is the development package to which the previous baseline is associated.

- TS_PREVIOUS_BASELINE

  When creating a revised baseline, the ID of the baseline to be revised.

- TS_CURRENT_BASELINE_ITEM
- TS_CURRENT_BUILD_STATUS

  Status of a current build task associated with the package.

- TS_COLLECTION_BUILD_OUTPUTS
- TS_AUTO_REVISE_BASELINE_W
- TS_ISSUETYPE
- TS_CM Product

  Associated Dimensions CM product.

- TS_CM Project

  Associated Dimensions CM project or stream.

- TS_STATE

  Current workflow state of the package.

- TS_PROJECTID

Projects

Data on development projects is stored in the USR_ALM_PROJECTS table, which is used by several synonyms that provide project data to various metrics.

Out of the Box Usage

- The Project Change Request metric uses the ALMProjectData and ALMChangeRequestData synonyms to map project data from the USR_ALM_PROJECTS table to change request data from the USR_DEVELOPMENT_CONTROL_CR table. This metric displays the number of change requests in each stage in every project.
- The ALM Project Status metric uses the ALMProjectData synonym to pull data from the USR_ALM_PROJECTS table and display the current state, status, project manager, and last modified date of each project.
- The Development Package Iteration Count metric uses the ALMProjectDataCount synonym to map project data from the USR_ALM_PROJECTS table to development package data from the USR_ALM_PROJECTS table. This metric displays the number of attempts each package required before it was released. You can display a tabular version of this metric that indicates the project to which each package belongs.
- The Project Defects Found, Project Defects by Month, and Defects Escape Rate use the ALMChangeRequestData to map project data from the USR_ALM_PROJECTS table to change requests data from the USR_DEVELOPMENT_CONTROL_CR table. These metrics display defect counts against specific projects.
- The Development Package per Project metric uses the ALMDvmPkgs synonym to map data from the USR_ALM_PROJECTS table to data from the USR_DVM_BASELINE table. This metric displays the number of development packages in specific projects.

Object Reference

USR_ALM_PROJECTS

Description: Stores data about projects from the ALM Projects process app.

Source: SBM schema.

Fields:

- TS_ID

  Stores the

- TS_ASSOCIATED_BASELINES
- TS_ISSUETYPE

  Project type, such as Innovation or Operational.

- TS_PROJECT_STATUS

  Current project status.

- TS_PROJECT_MANAGER

  User who is the project manager.

- TS_INCEPTION_ON_TIME

  Whether the Inception phase is currently on-time.

- TS_ELABORATION_ON_TIME

  Whether the Elaboration phase is currently on-time.

- TS_CONSTRUCTION_ON_TIME

  Whether the Construction phase is currently on-time.

- TS_TRANSITION_ON_TIME

  Whether the Transition phase is currently on-time.

- TS_PROJECTID

Test Data

Data on testing is stored in the ALM_TEST_DATA table, which is used by the ALMTestData synonym to provide project data to test metrics.

Out of the Box Usage

The Test Execution Status metric uses the ALM_TEST_DATA synonym to pull data from the ALM_TEST_DATA table and display status information on tests.

Object Reference

TC_TESTCYCL

Description Data about test cycles from the test management system.

Source SBM schema.

Fields

- TC_TESTCYCLE_ID

  Test cycle ID.

- TC_CYCLE_ID
- TC_TEST_ID

  Tests included in the test cycle.

CYCLE

Source SBM schema.

Fields

- CY_CYCLE_ID

  Cycle ID.

- CY_CYCLE

  Cycle name.

- CY_OPEN_DATE

  Date the cycle was started.

CYCL_FOLD

Source SBM schema.

Fields
- CF_ITEM_ID
- CF_ITEM_NAME
- CF_ITEM_PATH

Chapter 4

Requirements Manager Metric Data Reference

Introduction

Review these topics before you get started learning about the Requirements Manager schema used by Serena Dashboard.

Data Sources for Requirements Manager Metrics

Data for metrics on Serena Development Manager may come from multiple sources, including:

- Serena Business Manager
- Serena Dimensions RM

Representing Data with Synonyms

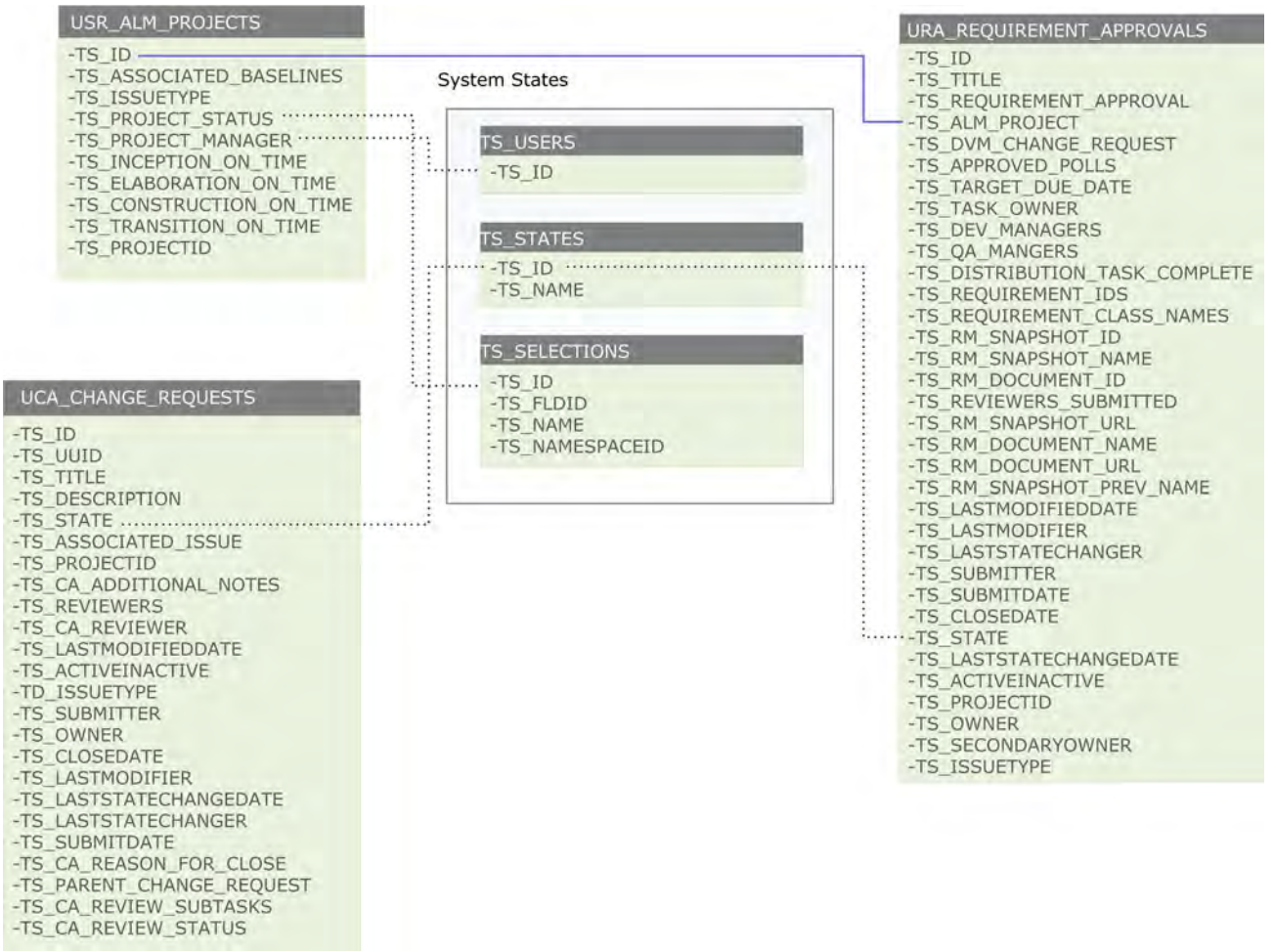
This data is aggregated into tables within several synonyms in WebFOCUS Developer Studio that the metrics can draw from as needed. These synonyms are collections of tables that represent data as it is stored in the database tables in Business Manager, Dimensions RM, and other data sources. All of the out-of-the-box metrics included with Serena Dashboard draw data from these synonyms. By using these synonyms, you do not need to interact directly with the databases for the data sources; the synonyms do the work of mapping metrics to the source data without requiring advanced knowledge of the source database schemas. For more on this, please see Understanding Synonyms.

Using This Content

To build your own metrics on Development Manager data, you can use the tables in these synonyms as well. This content is organized logically according to object type.

Synonym Overview

The following diagram illustrates the set of tables related to Requirements Manager that are available to you via the out-of-box Serena Dashboard synonyms.



By opening and displaying the WebFOCUS synonyms directly, you can review all of the many fields available to you as you build new metrics using the out-of-the-box Serena Dashboard synonyms. For more on working directly with Serena Dashboard synonyms, see Displaying Serena Dashboard Synonyms.

Requirement Approvals

Data on requirement approval objects are stored in the UCA_CHANGE_REQUEST table.

Out of the Box Usage

The UCA_CHANGE_REQUEST table provides information on requirement approvals to any metrics that reports on requirement approval status. This includes the *Requirement Approval Status Distribution Across Projects* and *Averge Requirement Approval Iteration Count Across Projects* metrics.

Object Reference

UCA_CHANGE_REQUESTS

Description The UCA_CHANGE_REQUESTS table stores data on requirement approvals in Serena Requirements Manager. All metrics that display information about requirement approvals draw data from this table.

Source SBM

Fields

- TS_ID

  Requirement approval ID.

- UUID

  Unique identifier for the requirement approval.

- TS_TITLE

  Requirement approval title.

- TS_DESCRIPTION

  Requirement approval description.

- TS_STATE

  Current state of the approval.

- TS_ASSOCIATED_ISSUE

  ID of issue related to the approval.

- TS_PROJECT_ID

  ID of associated ALM project.

- TS_CA_ADDITIONAL_NOTES

  Additional comments in the approval.

- TS_REVIEWERS

  Requirement approval reviewers.

- TS_CA_REVIEWER

- TS_LASTMODIFIEDDATE

  Date when the approval was last updated.

- TS_ACTIVEINACTIVE

  Whether the approval is active or inactive.

- TS_ISSUETYPE

  Type of approval.

- TS_SUBMITTER

  Submitter of the approval.

- TS_OWNER

  Owner of the approval.

- TS_CLOSEDATE

  Close date for the approval.

- TS_LASTMODIFIER

  User that last modified the approval.

- TS_LASTSTATECHANGEDATE

  Date of the last change to a state.

- TS_LASTSTATECHANGER

  User that last changed a state.

- TS_SECONDARYOWNER

  Secondary owner of the approval.

- TS_SUBMITDATE

  When the approval was submitted.

- TS_CA_REASON_FOR_CLOSE

  Reason for closing the approval.

- TS_CA_PARENT_CHANGE_REQUEST
- TS_CA_REVIEW_SUBTASKS
- TS_CS_REVIEW_STATUS

System Data

System data tables provide unique identifiers for a variety of object types. These tables are used by various synonyms to supply the identifiers for these objects to metrics.

Object Reference

The following topics describe the system data tables.

TS_STATES

Description Data about workflow states.

Source SBM schema.

Fields

- TS_ID

  State ID.

- TS_NAME

  State name.

TS_SELECTIONS

Description Provides IDs for various objects.

Source SBM schema.

Fields
- TS_ID

  Object ID.
- TS_FLDID
- TS_NAME

  Object name.
- TS_NAMESPACEID

TS_USERS

Description Provides information on users.

Source SBM schema.

Fields
- TS_ID

  User IDs.

Approval Ballots

Data on approval ballots (how users choose to vote on requirement approvals) is stored in the URA_REQUIREMENTS_APPROVALS table.

Out of the Box Usage

Data from the URA_REQUIREMENTS_APPROVALS table is used in metrics that display approval status, such as Requirement Approval Distribution for a Project, or Requirement Approval Distribution Across Projects.

Object Reference

You can use the columns in this table to build your own metrics on development package data.

URA_REQUIREMENT_APPROVALS

Description Stores data on approval ballots.

Source SBM

Fields
- TS_ID

  Approval ballot ID.
- TS_TITLE

  Title of the approval ballot.
- TS_REQUIREMENT_APPROVAL (id)

Identifier for the approval ballot.

- TS_ALM_PROJECT

  Associated ALM project.

- TS_DVM_CHANGE_REQUEST

  Associated change request from Development Manager.

- TS_TARGET_DUE_DATE

  Target due date for the ballot.

- TS_DEV_MANAGERS

  Development managers assigned to the ballot.

- TS_QA_MANAGERS

  QA managers assigned to the ballot.

- TS_DISTRIBUTION_TASK_COMPLETE
- TS_REQUIREMENT_IDS

  IDs of the requirements to be approved.

- TS_REQUIREMENT_CLASS_NAMES
- TS_RM_SNAPSHOT_ID

  ID of the snapshot in Dimensions RM.

- TS_RM_SNAPSHOT_NAME

  Name of the snapshot in Dimensions RM.

- TS_RM_DOCUMENT_ID

  ID of the requirements document in Dimensions RM.

- TS_REVIEWERS_SUBMITTED
- TS_RM_SNAPSHOT_URL

  URL to the Dimensions RM snapshot.

- TS_RM_DOCUMENT_NAME

  Name of the requirements document in Dimensions RM.

- TS_RM_DOCUMENT_URL

  URL to the requirements document in Dimensions RM.

- TS_RM_SNAPSHOT_PREV_NAME

  Previous name of the Dimensions RM snapshot.

- TS_LASTMODIFIEDDATE

  Last modified date of the approval ballot.

- TS_LASTMODIFIER

  User who last modified the approval ballot.

- TS_LASTSTATECHANGER

User who last changed the state of the approval ballot.

- TS_SUBMITTER

  User who submitted the approval ballot.

- TS_SUBMITDATE

  Date when the approval ballot was submitted.

- TS_CLOSEDATE

  Date when the approval ballot was closed.

- TS_STATE

  Current state of the approval ballot.

- TS_LASTSTATECHANGEDATE

  Date when the state was last changed.

- TS_ACTIVEINACTIVE
- TS_PROJECTID

  ID of the ALM project (as stored in the USR_ALM_PROJECTS table).

- TS_OWNER

  Owner of the approval ballot.

- TS_SECONDARYOWNER

  Secondary owner of the approval ballot.

- TS_ISSUETYPE
- TS_APPROVED_POLLS

Projects

Data on development projects is stored in the USR_ALM_PROJECTS table, which is used by several synonyms that provide project data to various metrics.

Out of the Box Usage

All out of box metrics that display information on a project by project basis, such as Requirements Approval Status Distribution Across Projects, pull data from the URS_ALM_PROJECTS table.

Object Reference

USR_ALM_PROJECTS

Description Stores data about projects from the ALM Projects process app.

Source SBM schema.

Fields

- TS_ID

  Stores the project ID.

- TS_ASSOCIATED_BASELINES

  Associated baselines.

- TS_ISSUETYPE

  Project type, such as Innovation or Operational.

- TS_PROJECT_STATUS

  Current project status.

- TS_PROJECT_MANAGER

  User who is the project manager.

- TS_INCEPTION_ON_TIME

  Whether the Inception phase is currently on-time.

- TS_ELABORATION_ON_TIME

  Whether the Elaboration phase is currently on-time.

- TS_CONSTRUCTION_ON_TIME

  Whether the Construction phase is currently on-time.

- TS_TRANSITION_ON_TIME

  Whether the Transition phase is currently on-time.

- TS_PROJECTID

  Unique identifier for the project.

Chapter 5

ChangeMan ZMF Metric Data Reference

Introduction

Review these topics before you get started learning about the ChangeMan ZMF data abstraction used by Serena Dashboard.

Representing Data with Synonyms

ChangeMan ZMF data (on packages, servers, subsystems, etc.) is aggregated into tables within several synonyms in WebFOCUS Developer Studio. The Serena Dashboard metrics can then draw from these synonyms as needed. These synonyms are collections of tables that represent data as it is exposed via its XML API. All of the out-of-the-box metrics included with Serena Dashboard draw data from these synonyms. By using these synonyms, you do not need to interact directly with ZMF; the synonyms do the work of mapping metrics to the source data without requiring advanced knowledge of the source database schemas. For more on this, please see Understanding Synonyms.

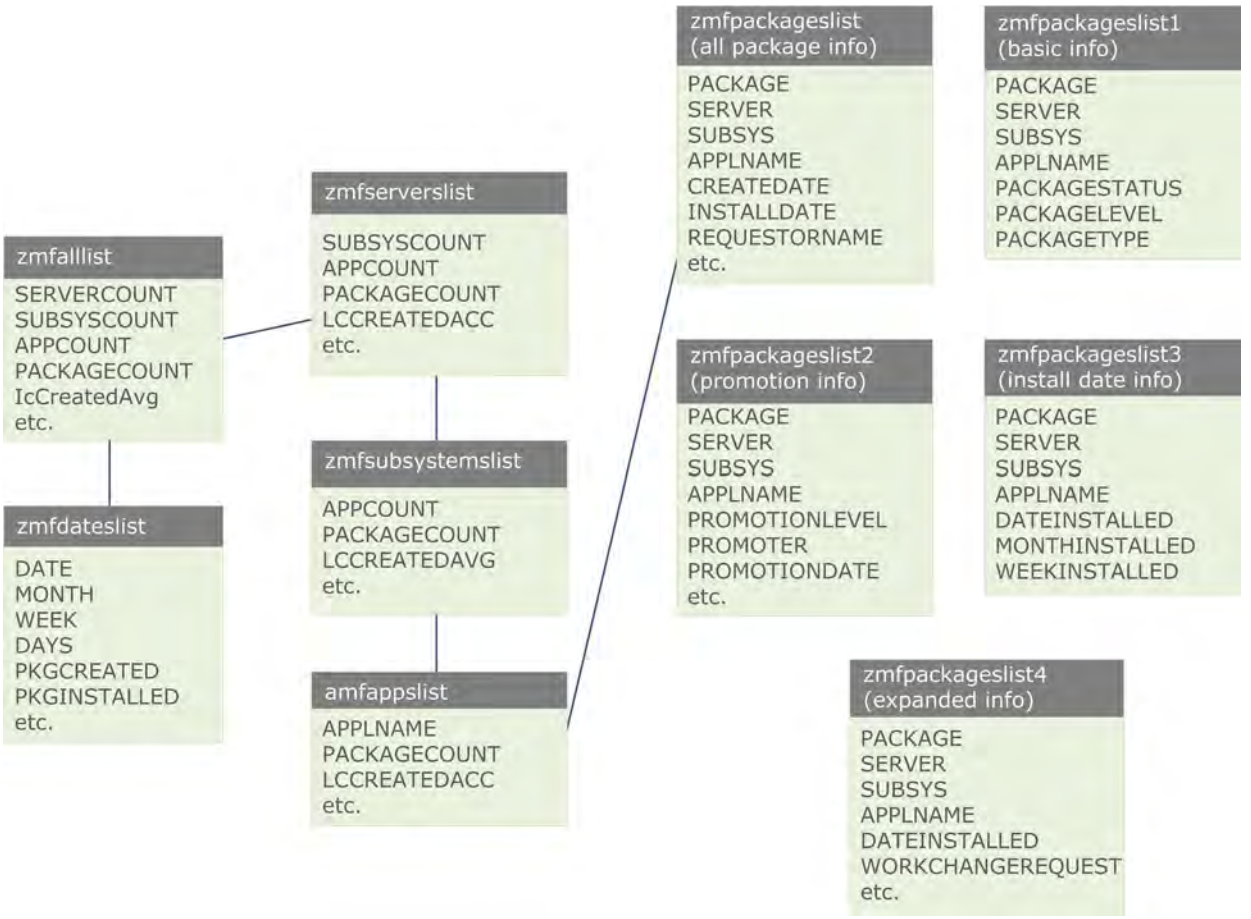
Uniquely to the ChangeMan ZMF metrics within Serena Dashboard, all of the data is stored in local XML files that are mapped, one to one, to the synonyms in WebFocus. These XML files can be refreshed as needed with new data from ChangeMan ZMF. In this way, the ZMF data is essentially cached in local files; The synonyms from which the Dashboard metrics are generated never directly interact with ChangeMan ZMF. This in turn improves performance. When you add ChangeMan ZMF data sources in Serena Dashboard, you determine how frequently the data should be refreshed.

Using This Content

To build your own metrics on Development Manager data, you can use the tables in these synonyms as well. This content is organized logically according to object type.

Table Overview

The following diagram illustrates the set of tables related to Requirements Manager that are available to you via the out-of-box Serena Dashboard synonyms.



By opening and displaying the WebFOCUS synonyms directly, you can review all of the many fields available to you as you build new metrics using the out-of-the-box Serena Dashboard synonyms. For more on working directly with Serena Dashboard synonyms, see Displaying Serena Dashboard Synonyms.

List of All ZMF Objects

High level data on all ZMF objects including a count of servers, subsystems, applications, and packages is stored in the **zmfalllist** synonym. This synonym is used by the **All Packages Average Lifecycle** metrics.

Object Reference

Description The zmfalllist synonym stores summary data on ZMF objects across the implementation.

Source ZMF

Fields
- SERVERCOUNT

  Number of ZMF servers in the implementation.
- SUBSYSCOUNT

  Number of ZMF sub-systems in the entire implementation.
- APPCOUNT

  Number of applications in the entire implementation.
- PACKAGECOUNT

  Number of packages in the implementation.

Many more fields are available as well, including ICCREATEDACC, ICCREATEDCOUNT, ICFROZENACC, ICFROZENCOUNT.

ZMF Servers

High level data about ZMF servers is stored in the **zmfserverslist** synonym.

Object Reference

Description The **zmfserverslist** synonym contains data about specific ZMF servers.

Source ZMF.

Fields
- SUBSYSCOUNT

  Number of subsystems on the server.
- APPCOUNT

  Number of applications on the server.
- PACKAGECOUNT

  Number of packages on the server.

Many more fields are available as well, including LCCREATEDACC, LCCREATEDCOUNT, LCCREATEDAVG, LCFROZENACC, LCFROZENCOUNT.

ZMF Dates

Date information that can be mapped to ZMF objects is stored independently in the **zmfdateslist** synonym. This synonym is used by the **All Packages Installed** and **All Packages Scheduled** metrics.

Object Reference

Description The zmfdateslist synonym stores date information for ZMF objects.

Source ZMF

Fields
- DATE

  A date, in the format YYYY-MM-DD.
- MONTH

  A month, in the format YYYY-DD.
- WEEK

  A week, in the format YYYY-MM-DD
- DAYS

  A week, in the format YYYY-MM-DD

ZMF Subsystems

Data on ZMF Subsystems is stored in the **zmfsubsystemslist** synonym.

Object Reference

Description The zmfsubsystemslist synonym stores data about ZMF subsystems.

Source ZMF

Fields
- SUBSYS

  Subsystem ID.
- APPCOUNT

  Number of applications in the sub system.
- PACKAGECOUNT

  Number of packages in the subsystem.

Other fields include LCCREATEDACC, LCCREATEDCOUNT, LCCREATEDAVG, LCFROZENACC, and more.

ZMF Apps

Data on ZMF applications is stored in the **zmfappslist** synonym. This synonym is used by the **All Applications by Instance**, **Application Average Lifecycle**, and **Instance Packages Average Lifecycle** metrics.

Object Reference

Description The zmfappslist synonym stores data about ZMF applications.

Source ZMF

Fields
- SUBSYS

  Subsystem ID.
- APPLNAME

  Application name.
- PACKAGECOUNT

  Number of packages in the application.

Other fields include LCCREATEDACC, LCCREATEDCOUNT, LCCREATEDAVG, LCFROZENACC, and more.

ZMF Packages

Data on ZMF Subsystems is stored in a number of zmfpackageslist synonyms. Each synonym stories unique information on the packages. These synonyms include:

- **zmfpackageslist**: Stores all data about ZMF packages. This synonym is used by the All Packages by Application metric.
- **zmfpackageslist1**: Stores basic data about ZMF packages, and is used by several metrics that display basic package information. This synonym is used by the **All Packages by Level**, **All Packages by Status**, **All Packages by Type**, **Application Packages by Status**, **Instance Packages by Application**, and **Status Packages by Instance** metrics.
- **zmfpackageslist2**: stores promotion information about ZMF packages.
- **zmfpackageslist3**: stores installation date information about ZMF packages.
- **zmfpackageslist4**: stores expanded information about ZMF packages. This synonym is used by the **Application Packages by Status** and **Application Packages** metrics.

Object Reference

zmfpackageslist

Description The zmfpackageslist synonym stores all data about ZMF packages.

Source ZMF

Fields
- PACKAGE

  Name of the package.
- SERVER

  Server the package belongs to.
- SUBSYS

  Subsystem the package belongs to.
- APPLNAME

Application the package belongs to.

- REQUESTORNAME

  User that requested the package.

zmfpackageslist1

Description The zmfpackageslist1 synonym Stores basic data about ZMF packages.

Source SBM schema.

Fields

- PACKAGE

  Name of the package.

- SERVER

  Server the package belongs to.

- SUBSYS

  Subsystem the package belongs to.

- APPLNAME

  Application the package belongs to.

- PACKAGESTATUS

  Current status of the package.

- PACKAGELEVEL

  Package level.

- PACKAGETYPE

  Type of package.

zmfpackageslist2

Description The zmfpackageslist2 synonym stores promotion information about ZMF packages.

Source ZMF.

Fields

- PACKAGE

  Name of the package.

- SERVER

  Server the package belongs to.

- SUBSYS

  Subsystem the package belongs to.

- APPLNAME

  Application the package belongs to.

- PROMOTIONLEVEL

  Promotion level of the package.

- PROMOTER

User that promoted the package.

- PROMOTIONDATE

  Date that the package was promoted.

zmfpackageslist3

Description The zmfpackageslist3 synonym stores installation date information about ZMF packages.

Source SBM schema.

Fields

- PACKAGE

  Name of the package.

- SERVER

  Server the package belongs to.

- SUBSYS

  Subsystem the package belongs to.

- APPLNAME

  Application the package belongs to.

- DATEINSTALLED

  Date the package was installed.

- MONTHINSTALLED

  Month that the package was installed.

- WEEKINSTALLED

  Week that the package was installed.

zmfpackageslist4

Description The zmfpackageslist4 synonym stores expanded information about ZMF packages.

Source ZMF

Fields

- PACKAGE

  Name of the package.

- SERVER

  Server the package belongs to.

- SUBSYS

  Subsystem the package belongs to.

- APPLNAME

  Application the package belongs to.

- DATEINSTALLED

  Date the package was installed.

- WORKCHANGEREQUEST

Change request that lead to creation of the package.