



SERENA[®]

Dashboard 3.5

Synonyms Reference

Serena Proprietary and Confidential Information

Copyright © 2012 Serena Software, Inc. All rights reserved.

This document, as well as the software described in it, is furnished under license and may be used or copied only in accordance with the terms of such license. Except as permitted by such license, no part of this publication may be reproduced, photocopied, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of Serena. Any reproduction of such software product user documentation, regardless of whether the documentation is reproduced in whole or in part, must be accompanied by this copyright statement in its entirety, without modification.

This document contains proprietary and confidential information, and no reproduction or dissemination of any information contained herein is allowed without the express permission of Serena Software.

The content of this document is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by Serena. Serena assumes no responsibility or liability for any errors or inaccuracies that may appear in this document.

Trademarks

Serena, StarTool, PVCS, Comparex, Dimensions, Mashup Composer, Prototype Composer, and ChangeMan are registered trademarks of Serena Software, Inc. The Serena logo and Meritage are trademarks of Serena Software, Inc. All other products or company names are used for identification purposes only, and may be trademarks of their respective owners.

U.S. Government Rights

Any Software product acquired by Licensee under this Agreement for or on behalf of the U.S. Government, its agencies and instrumentalities is "commercial software" as defined by the FAR. Use, duplication, and disclosure by the U.S. Government is subject to the restrictions set forth in the license under which the Software was acquired. The manufacturer is Serena Software, Inc., 1850 Gateway Drive, 4th Floor, San Mateo California, 94404-4061.

Publication date: July 2012

Table of Contents

	Welcome to Serena Dashboard	5
	Contacting Technical Support	5
	Platform Support	5
	Demonstrations	5
<i>Chapter 1</i>	Dashboard Metric Data Introduction	7
	Overview	8
	Understanding Synonyms	8
	Displaying Serena Dashboard Synonyms	9
	Using This Content	10
<i>Chapter 2</i>	Release Manager Metric Data Reference	11
	Introduction	12
	Data Sources for Release Manager Metrics	12
	Representing Data with Synonyms	12
	Using This Content	12
	Synonym Overview	13
	Release Trains	13
	Out of the Box Usage	14
	Object Reference	14
	Release Packages	14
	Example Out of the Box Usage	15
	Object Reference	15
	System Data	16
	Object Reference	16
	Deployment Tasks	17
	Out of the Box Usage	17
	Object Reference	17
	Releases	18
	Out of the Box Usage	18
	Object Reference	19
	Applications	20
	Out of the Box Usage	20
	Object Reference	20
	Deployment Units	21
	Out of the Box Usage	21
	Object Reference	21
	Related Projects and Requests	21
	Out of the Box Usage	22
	Object Reference	22
	Workflow Stages	22
	Out of the Box Usage	23

Object Reference.	23
---------------------------	----

Chapter 3

Development Manager Metric Data Reference	25
Introduction	26
Data Sources for Development Manager Metrics	26
Representing Data with Synonyms	26
Using This Content	26
Synonym Overview	27
Builds.	27
Out of the Box Usage.	27
Build Objects Reference	28
Change Requests.	31
Out of the Box Usage.	31
Object Reference.	31
System Data	32
Out of the Box Usage.	32
Object Reference.	32
Development Packages.	33
Out of the Box Usage.	33
Object Reference.	34
Projects	35
Out of the Box Usage.	35
Object Reference.	35
Test Data	36
Out of the Box Usage.	36
Object Reference.	36

Chapter 4

Requirements Manager Metric Data Reference	39
Introduction	40
Data Sources for Requirements Manager Metrics.	40
Representing Data with Synonyms	40
Using This Content	40
Synonym Overview	41
Requirement Approvals	41
Out of the Box Usage.	41
Object Reference.	42
System Data	43
Object Reference.	43
Approval Ballots.	44
Out of the Box Usage.	44
Object Reference.	44
Projects	46
Out of the Box Usage.	46
Object Reference.	46

Chapter 5

ChangeMan ZMF Metric Data Reference	49
Introduction	50
Representing Data with Synonyms	50

Using This Content	50
Table Overview	51
List of All ZMF Objects	51
Object Reference.	51
ZMF Servers	52
Object Reference.	52
ZMF Dates	52
Object Reference.	52
ZMF Subsystems	53
Object Reference.	53
ZMF Apps	53
Object Reference.	53
ZMF Packages	54
Object Reference.	54

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 current 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	8
Understanding Synonyms	8
Displaying Serena Dashboard Synonyms	9
Using This Content	10

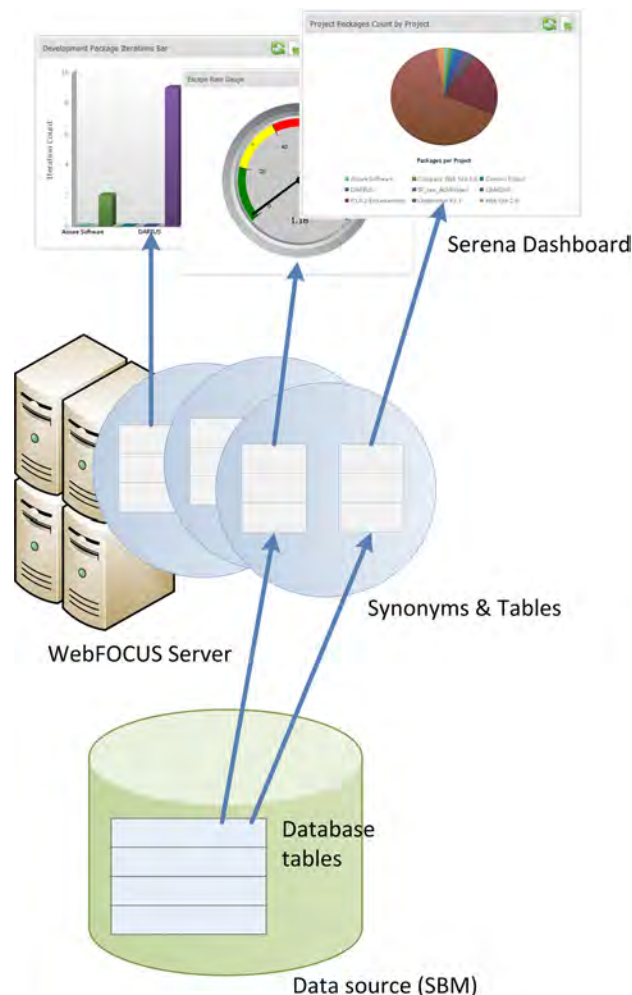
Overview

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.

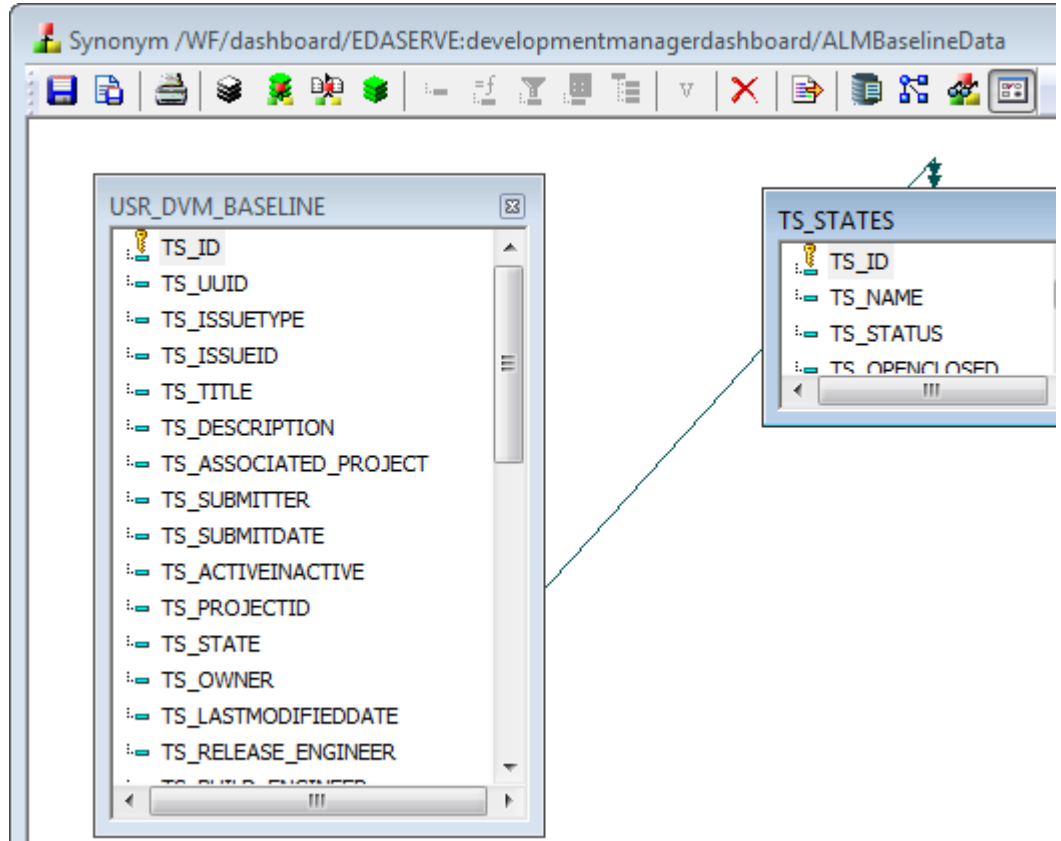
To display and work with master files:

- 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.

Name	Size	Type	Modified
ALMBaselineData.acx	249 bytes	Access File	1/5/2012 11
ALMBaselineData.mas	6.14 KB	Master File	1/10/2012 1
ALMBuildData.acx	3.49 KB	Access File	12/13/2011
ALMBuildData.mas	13.3 KB	Master File	1/10/2012 1
ALMChangeRequestData.acx	846 bytes	Access File	1/13/2012 7
ALMChangeRequestData.mas	28.7 KB	Master File	1/13/2012 7
ALMDvmPkgs.acx	384 bytes	Access File	1/5/2012 11
ALMDvmPkgs.mas	13.3 KB	Master File	1/10/2012 1
ALMProjectData.acx	497 bytes	Access File	12/13/2011
ALMProjectData.mas	18.0 KB	Master File	1/10/2012 1
ALMProjectDataCount.acx	841 bytes	Access File	1/5/2012 11
ALMProjectDataCount.mas	25.5 KB	Master File	1/10/2012 1
ALMTestData.acx	385 bytes	Access File	12/14/2011
ALMTestData.mas	8.45 KB	Master File	12/14/2011

- 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.

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



- 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	12
Synonym Overview	13
Release Trains	13
Release Packages	14
System Data	16
Deployment Tasks	17
Releases	18
Applications	20
Deployment Units	21
Related Projects and Requests	21
Workflow Stages	22

Introduction

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

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

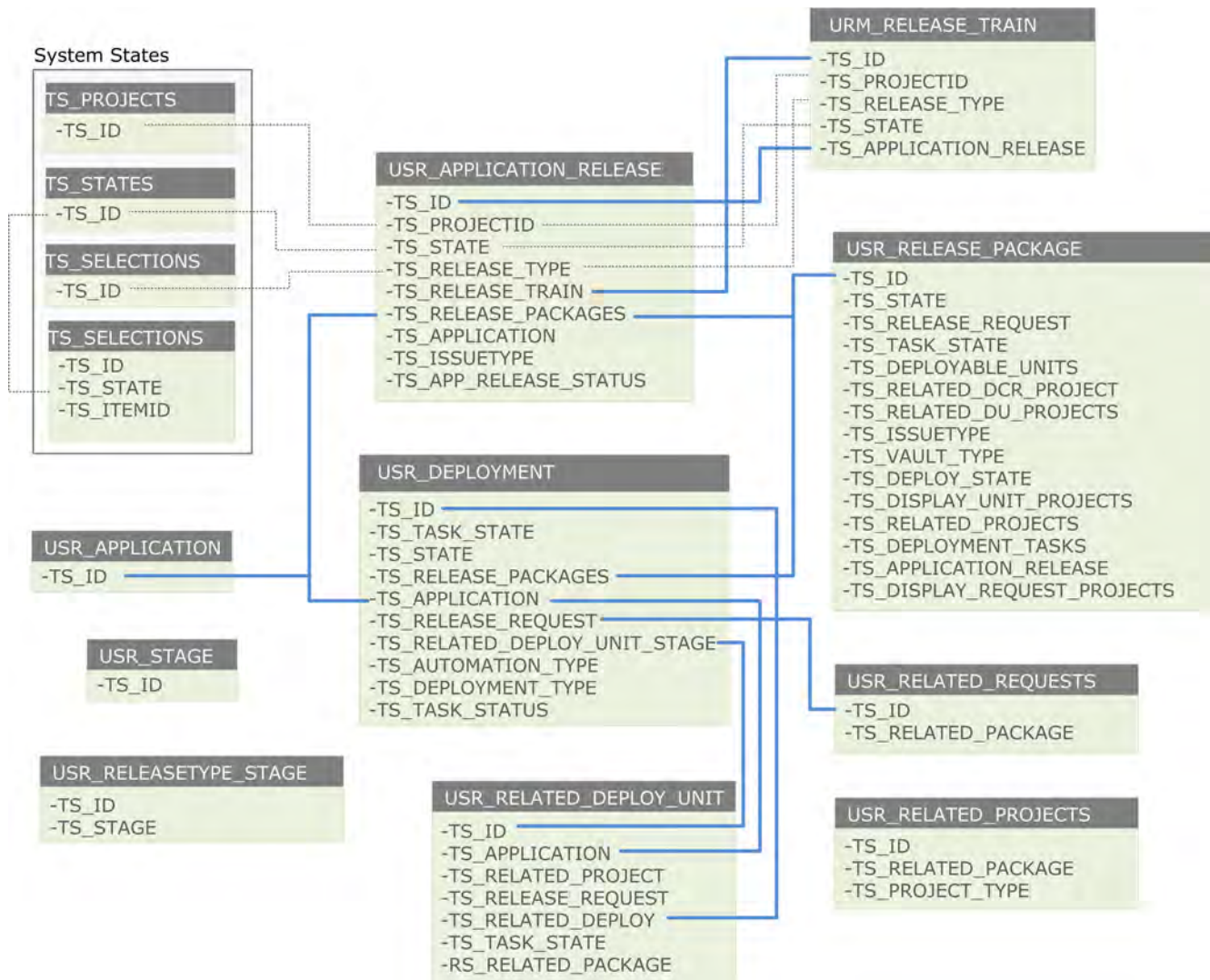
This data is aggregated into tables within several synonyms in WebFOCUS Developer Studio that the metrics can draw from as needed. These synonyms are collections of tables that represent data as it is stored in the database tables in Business Manager, Dimensions CM, and other data sources. All of the 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	<ul style="list-style-type: none">■ 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 RLMAApplicationReleaseData 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none">■ 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	<ul style="list-style-type: none">■ 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	<ul style="list-style-type: none">■ TS_ID State ID.■ TS_NAME State name.■ TS_STATUS

- TS_OPENCLOSED

TS_CHANGEACTIONS

Source	SBM schema.
Columns	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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 RLMAplicationData 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	<ul style="list-style-type: none">■ <code>TS_ID</code> Primary key. Application ID.■ <code>TS_UUID</code>■ <code>TS_TITLE</code> Name of the application.■ <code>TS_DESCRIPTION</code> Application description.■ <code>TS_LASTMODIFIEDDATE</code> Date when the application was last modified.■ <code>TS_DEPLOYMENT_PROCESS</code>■ <code>TS_LASTMODIFIER</code> 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 RLMAApplicationReleaseData synonym.

Out of the Box Usage

- The Application Release Rates and Application Release Installation metrics use the RLMAApplicationReleaseData 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 RLMAApplicationReleaseData 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	<ul style="list-style-type: none">■ TS_ID Primary key. State ID.■ TS_NAME State name.■ TS_PROJECTID■ TS_OLDSTATEID

Chapter 3

Development Manager Metric Data Reference

Introduction	26
Synonym Overview	27
Builds	27
Change Requests	31
System Data	32
Development Packages	33
Projects	35
Test Data	36

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

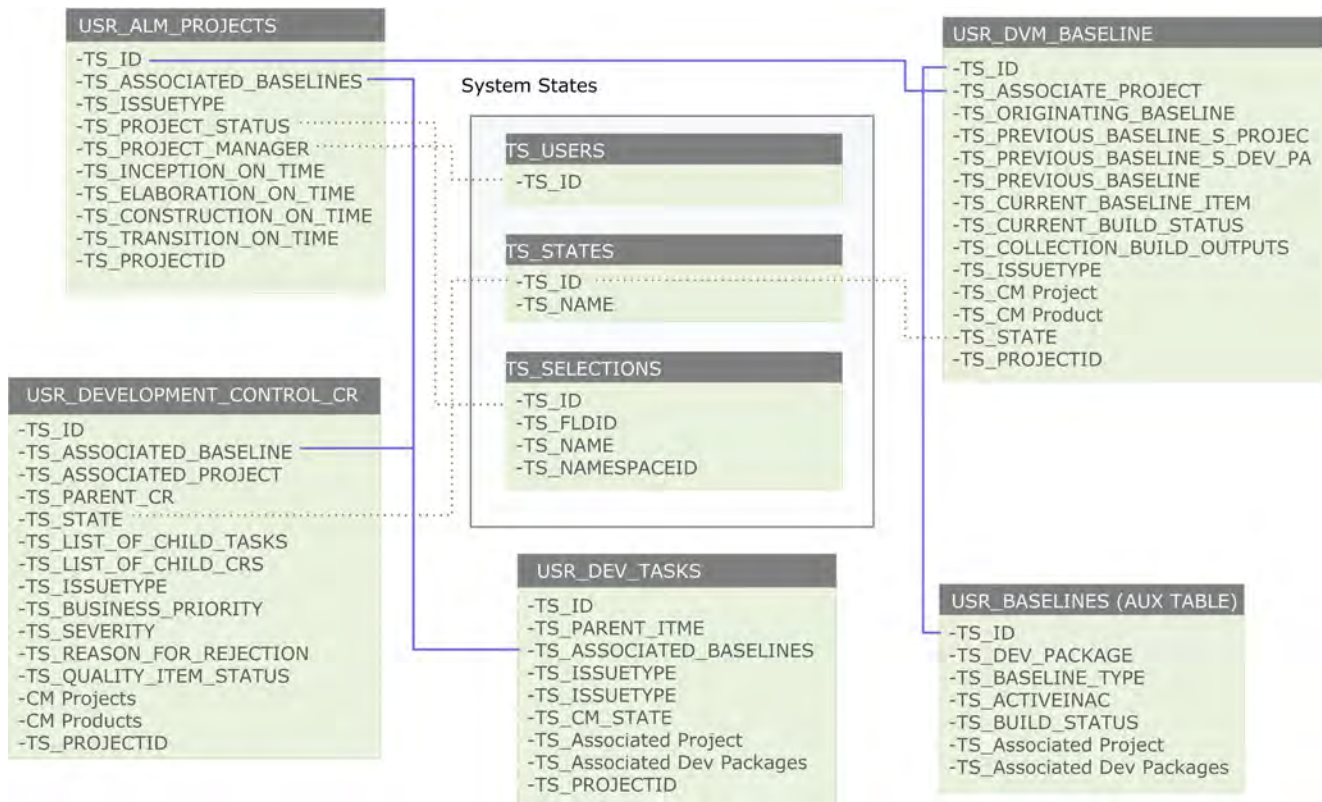
This data is aggregated into tables within several synonyms in WebFOCUS Developer Studio that the metrics can draw from as needed. These synonyms are collections of tables that represent data as it is stored in the database tables in Business Manager, Dimensions CM, and other data sources. All of the 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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_CRIS
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	<ul style="list-style-type: none">■ 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_REVISION_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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none">■ TC_TESTCYCLE_ID Test cycle ID.■ TC_CYCLE_ID■ TC_TEST_ID Tests included in the test cycle.

CYCLE

Source	SBM schema.
Fields	<ul style="list-style-type: none">■ 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	40
Synonym Overview	41
Requirement Approvals	41
System Data	43
Approval Ballots	44
Projects	46

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

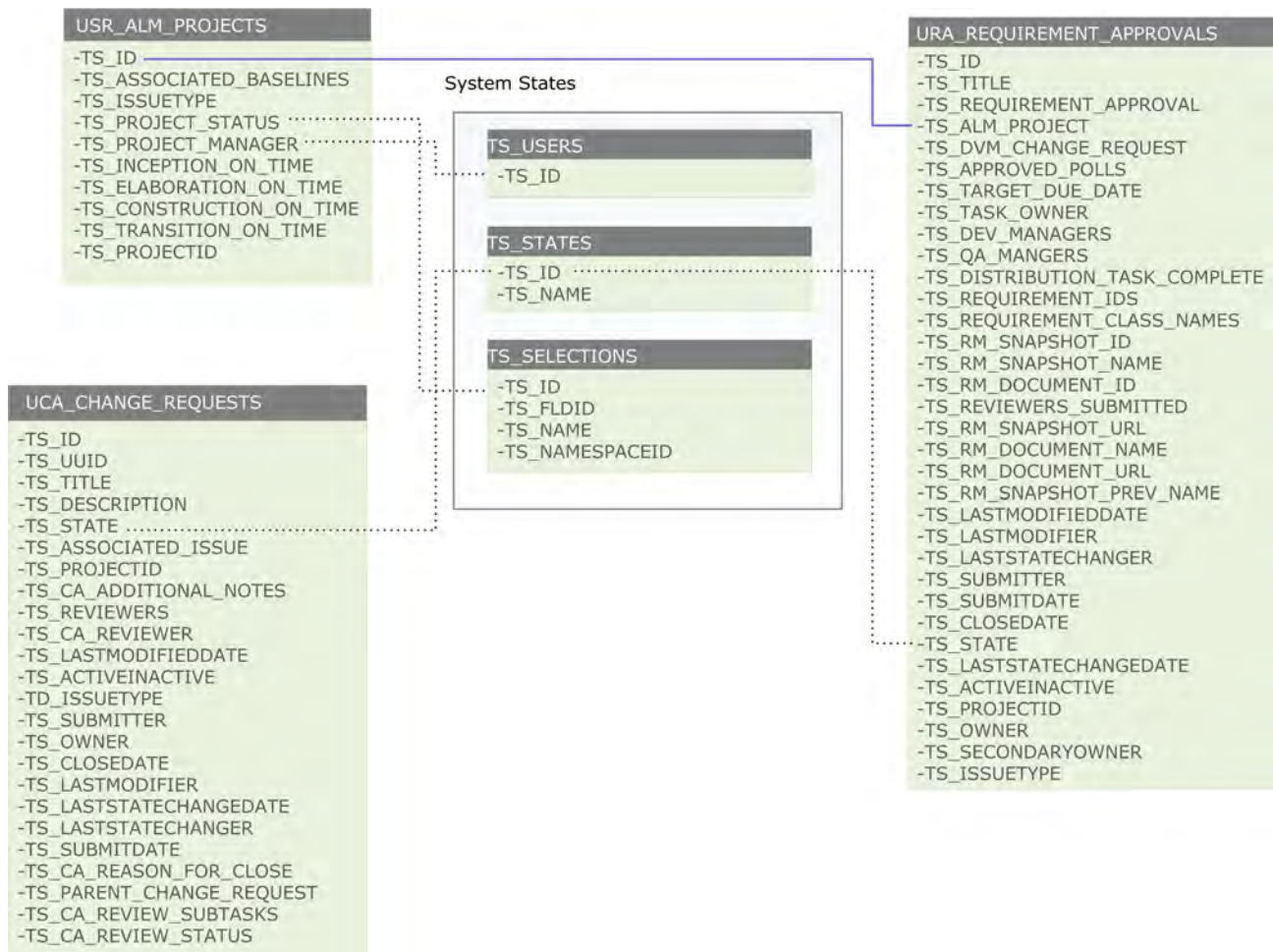
This data is aggregated into tables within several synonyms in WebFOCUS Developer Studio that the metrics can draw from as needed. These synonyms are collections of tables that represent data as it is stored in the database tables in Business Manager, Dimensions RM, and other data sources. All of the 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 *Average 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
Requirement approval 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	<ul style="list-style-type: none"> ■ 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 USR_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	50
Table Overview	51
List of All ZMF Objects	51
ZMF Servers	52
ZMF Dates	52
ZMF Subsystems	53
ZMF Apps	53
ZMF Packages	54

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 ChangeMan ZMF 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](#).

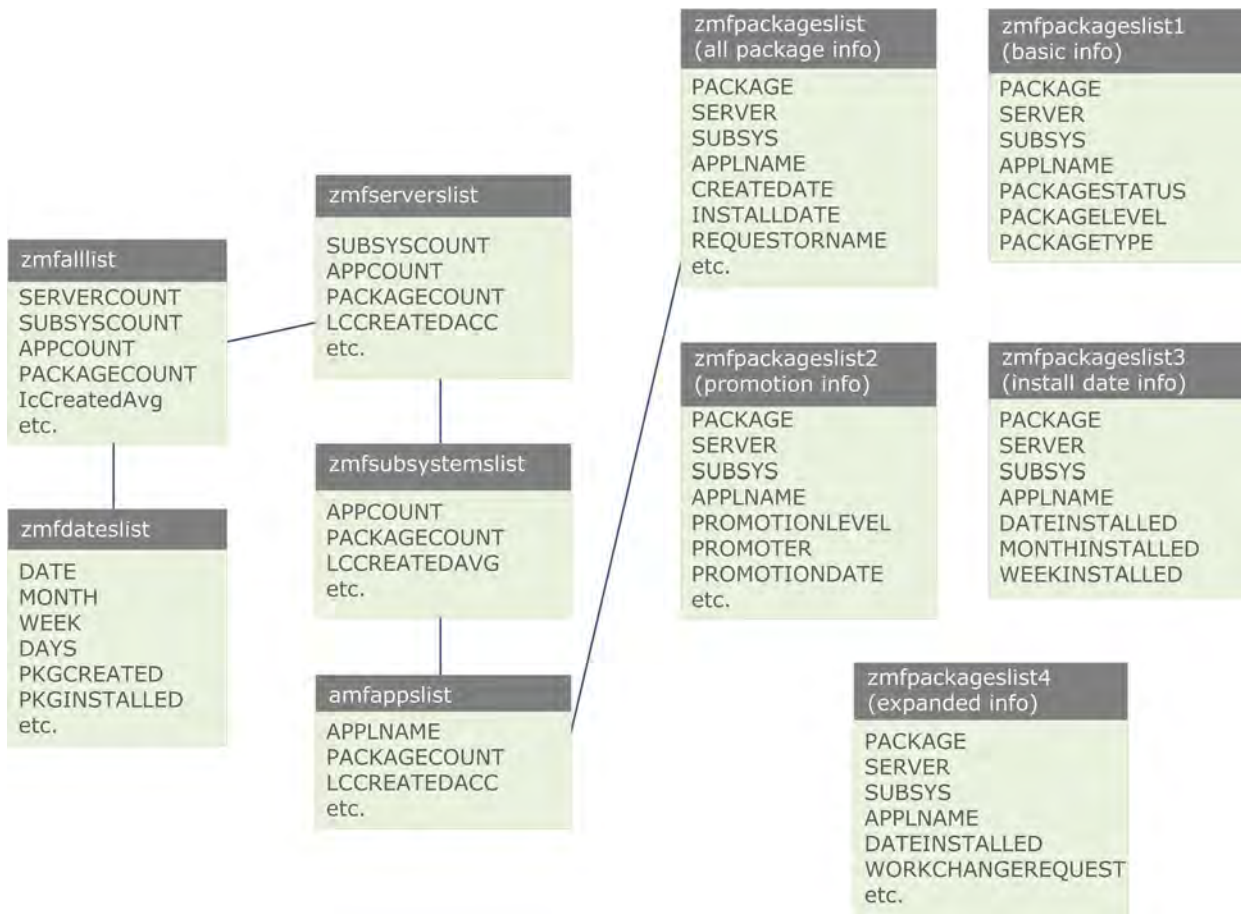
Uniquely to the ChangeMan ZMF metrics within Serena Dashboard, all of the data is stored in local XML files that are mapped, one to one, to the synonyms in WebFocus. These XML files can be refreshed as needed with new data from ChangeMan ZMF. In this way, the ZMF data is essentially cached in local files; 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 ChangeMan ZMF 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 ChangeMan ZMF 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 **zmfserverlist** synonym.

Object Reference

Description The **zmfserverlist** 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	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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 stores 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.

- PACKGESTATUS

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.

