



StarTeam 16.1

Datamart User Guide

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Contents

Contacting Support	5
Introduction	6
Datamart Extractor	7
Extraction Files	7
Creating an Extraction File	7
Editing an Extraction File	8
Removing an Extraction File	9
Running an Extraction	9
Stopping an Extraction	9
Purging an Extraction	9
Datamart Extractor Command Line Parameters	9
Datamart Synchronizer	11
Viewing the Web Samples Reports	12
Adding a New Report to Web Reporting	13
Using Crystal Reports to View Reports	14
Datamart Reports	15
Business Objects Reports	15
Crystal Reports	15
Datamart Schema	17
ST_AUDITS	17
ST_CHANGEPACKAGECHANGES	18
ST_CHANGEPACKAGEHISTORY	18
ST_CHANGEPACKAGES	19
ST_CRHISTORY	21
ST_CRS	22
ST_ENUMVALUES	24
ST_FILEHISTORY	25
ST_FILES	26
ST_FOLDERHISTORY	28
ST_FOLDERS	28
ST_GROUPS	30
ST_GROUPUSERS	30
ST_ITEMLABELS	31
ST_ITEMLINKS	31
ST_LABELS	32
ST_LINKS	33
ST_OBJECTACLS	34
ST_PERMISSIONS	35
ST_PROJECTS	36
ST_PROMOTIONS	38
ST_PROPERTIES	38
ST_REQHISTORY	40
ST_REQS	41
ST_SERVER	42
ST_SPRINTHISTORY	43
ST_SPRINTS	44
ST_STORIES	45
ST_STORYHISTORY	47
ST_TASKHISTORY	48

ST_TASKS 50
ST_TOPICHISTORY 52
ST_TOPICS 53
ST_TRACEHISTORY 54
ST_TRACES 55
ST_TYPES 56
ST_USERS 57
ST_VIEWMEMBER 58
ST_VIEWMEMBERHISTORY 59
ST_VIEWS 60
ST_WORKRECORDHISTORY 61
ST_WORKRECORDS 62

Contacting Support

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For more information about support services, visit the Micro Focus SupportLine web site at <http://supportline.microfocus.com> where registered users can find product upgrades as well as previous versions of a product. Additionally, users can find the Knowledge Base, Product Documentation, Community Forums, and support resources.

When contacting support, be prepared to provide complete information about your environment, the product version, and a detailed description of the problem, including steps to reproduce the problem.

For support on third-party tools or documentation, contact the vendor of the tool.

Introduction

Datamart is a complementary product to StarTeam Server. Datamart uses the StarTeam Server SDK to communicate with StarTeam Server to create a reporting database that you can use with popular third party reporting applications such as Crystal Reports and Business Objects (reporting applications are not included with Datamart). Datamart connects directly to the database to create a reporting database.

Datamart can extract information from every project, every view in each project, every folder in each view, and every item in each folder, as well as labels, links, and history for each item. You can restrict the extracting to a particular project and view, and also restrict to extract only for certain tables.



Note: For Microsoft SQL Server only, any text property in StarTeam Server longer than 256 characters will be a text field in the database. This prevents Datamart from creating tables by using the text data type for all strings greater than 256 characters.

A sample Business Objects universe and sample reports in both Business Objects and Crystal Reports formats are included. These samples can be used as a basis for creating custom user-defined reports.

Usage Overview

In general, you will perform the following actions when working with Datamart:

- Create a database to store the information extracted by Datamart. You can use one database for multiple server configurations.
- Create extraction properties file(s) in Datamart Extractor. This program extracts the data from StarTeam Server and puts the data into a relational database. The data is stored in meaningful text instead of IDs. For StarTeam Server administrator use. You can be quite specific when creating these properties files. You can specify a single project or all projects for a server configuration and when specifying a single project, you can specify a single view or all views in that project.
- Run the Datamart Extractor to populate the designated database with information from the project(s) and view(s) specified in your extraction properties files.
- If using Business Objects 6.5 or above, run Datamart Synchronizer to synchronize the Business Objects universe. For StarTeam Server Administrator use. If using Crystal Reports 10 or above, there is no need to synchronize anything. You can run Crystal Reports to view your reports.

Using a Task Scheduler

The most common way to extract data using Datamart is to schedule it using a task scheduler (like a Microsoft Windows task scheduler). Most users schedule the Datamart task to be run on a nightly basis. Users who prefer frequent updates need to schedule the tasks more frequently like every hour. Although this suffices most user's requirements, it still does not provide real-time reporting.

Continuous Mode

The *continuous* data extraction mode provides near real-time data reporting. This feature requires an MPX-enabled StarTeam Server for optimal performance. With this option, Datamart will run as a continuous process listening to events on the views/projects that have been selected for extraction and only queries the database when there is an update of interest on the server.

Continuous mode is a checkbox option on the **Database** tab. The option is not enabled by default. If enabled, the default interval scheduled for refresh is 5 minutes and is configurable as `scheduledRefreshInterval` in the `.stextract` file.

Datamart Extractor

Datamart Extractor reads an extraction file to initialize. The file details the connection and login parameters for the database and StarTeam Server . It also has the list of tables to extract, the project and view to extract, and an update option.



Note: Refer to the StarTeam Server *Release Notes* for information on supported databases and system requirements.

You can place information from multiple servers into one database by defining multiple extraction properties files. You do not need to create a new database for each properties file.

With Microsoft SQL Server, Datamart creates additional tables when Microsoft SQL Server is in danger of exceeding the row size limit (8060 bytes), because of the number and size of custom fields and item types. The additional tables contain the same primary key as the main table and any additional fields. Reports will require you to join the tables before performing other operations on them.

When a table is created, it includes all existing custom fields for that type. However, if a custom field is created after the utility is running in update mode, the new custom field is skipped.

If you requested specific access rights within a type, and want to extract the container access rights for a particular item type, you must request that item type as well.

It is recommended that a StarTeam Server user with full access rights to all StarTeam Server items run Datamart Extractor. If there are access rights limitations, the data extracted reflects only what the user has access to.

When launched, the Datamart Extractor displays a dialog box that enables you to run, to edit, or to remove a property file, to purge the database contents for the selected property file, and to refresh the list of files displayed.

Datamart Extractor also has an update mode. In this mode, the data from previous extractions is not refreshed. The tool compares what is in the existing database with what is in StarTeam Server and makes changes only when there are differences. If the extraction is stopped before reaching the end, the next time you run the extraction file, it will resume from where it stopped.



Note: When in update mode, Datamart Extractor adds a column to the correct tables after a custom field is added in StarTeam Server . It does not delete a column when a custom field is deactivated. Datamart Synchronizer adds the new column to the universe and uses the same display name that is used in StarTeam Server.

Extraction Files

You create the extraction properties files using Datamart Extractor. You can specify a subset of projects to extract from StarTeam Server and if extracting a single project, you can specify a subset of views to extract from the project.

Creating an Extraction File

Datamart extracts content data directly from the vault, so it is required that the Datamart process has direct access to the server's repository and vault. The server repository path needs to be provided by the user. This can be entered in the user interface or by editing the `serverRepositoryPath` option in the `.stextract` file. Content extraction is optional and can be disabled by clearing the `serverRepositoryPath` value.

1. Click **Start > Programs > StarTeam > Datamart > Datamart Extractor**. The **Repository Extractor** window displays.
2. Click **New**. The **Edit Property File** dialog box is displayed.
3. Click the **StarTeam** tab.
 - a) Enter a **File Name** for the extraction.
 - b) Enter the **IP address** (or host name) of the StarTeam Server that contains the data you want to extract, and the **Endpoint** for that machine.
 - c) Enter your StarTeam Server **User Name** and **Password**.
 - d) The **All Projects** check box is selected by default. Click the **Browse** button to select a subset of projects from which to extract the data.
 - e) If only one project is selected, the Views section of the **Edit Property File** dialog box will be enabled and the **All Views** check box selected by default. Click the **Browse** button to select a subset of views from which to extract the data.
 - f) If the option to **Extract content property data** is selected, a valid server repository path needs to be entered.

This option is provided to extract content data for content properties. If the option is not selected, Datamart will extract only the metadata information as it always does.

4. Select the **StarTeam Database** tab.
 - a) Select the **Database Type**.
 - b) Enter the **Server** name or IP address.
 - c) Enter the **Database** name.
 - d) Enter your **User Name** and **Password** for the database.
5. Select the **Database** tab.
 - a) Select the **Database Type**.
 - b) Enter the **Server** name or IP address.
 - c) Enter the **Database** name.
 - d) Enter your **User Name** and **Password** for the database.
 - e) Check the **Update** option to set the Extractor to **update mode**. Update mode only updates the data for any changes since the last extract. The alternative is full extract mode, in which all tables are removed, recreated and filled. Update mode is much faster.
 - f) Check the **Continuous** option to set the default refresh interval to the default of five minutes. This value can be modified as `scheduledRefreshInterval` in the `.stxtract` file.

The continuous data extraction mode provides near real-time data reporting. This feature requires an MPX-enabled server for optimal performance. With this option, Datamart will run as a continuous process listening to events on the views/projects that have been selected for extraction and only queries the database when there is an update of interest on the server.

6. Select the **Tables** tab.
 - a) Select the tables you want to include in the extraction file. You can select them individually, use the Shift key to select a range of groups, or the Ctrl key to select additional groups. Some tables are contingent upon others.



Note: Labels and links take the most time to extract.

- b) Click the **Add** button, or click the **Add All** to add all of the tables.
- c) Click **OK**. The data is stored in a file at `C:/Program Files/Micro Focus/Datamart` (or wherever you installed Datamart) with the extension `.stxtract` that contains the extraction information.


Editing an Extraction File

1. In the **StarTeam Repository** window, select the file you want to edit and click **Edit**. The **Edit Property File** dialog box appears.

2. Make any necessary changes and click **OK**.


Removing an Extraction File

1. In the **StarTeam Repository** window, select the file you want to delete and click **Remove**. The **Edit Property File** dialog box appears, asking if you are sure you want to delete the file.
2. Click **Yes** to delete it, or **No** to keep it.

 **Note:** You cannot recover a deleted file.

Running an Extraction

Use the following procedure to run an extraction.

 **Note:** Labels and links take the most time to extract.

1. Click **Start > Programs > StarTeam > Datamart > Datamart Extractor**. The **Repository Extractor** window displays.
2. Select a file and click **Run**. A status box displays indicating when the extraction is complete.

Stopping an Extraction

Use the steps below to stop an extraction. You can halt an extraction and restart it at a later time.

1. Click the **Stop Extract** button to stop the extraction. The extraction is interrupted and closes the database connection, the StarTeam Server connection, and completes the log including metrics, any exceptions, and other notes. If the status box is closed, the extract stops immediately without completing the log.

If, at a later time, you select the file and click **Run**, the extraction resumes where it left off. If you simply close the window, it will also pick up where it left off, but the log file may not include the summary information.

2. Click **Close**. An HTML log file is created at `C:/Program Files/Micro Focus/Datamart` (or wherever you installed Datamart) that contains the extraction details.

Purging an Extraction

Datamart Extractor enables you to purge data from the database from the tables that you specified in a properties file. If you want to only purge a subset of the data specified in the properties file, you need to create one or more additional properties files to correctly identify the subset.

1. Select the desired properties file from the list.
2. Click **Purge**. Datamart Extractor deletes the data in the tables defined in the selected the properties file.

Datamart Extractor Command Line Parameters

Each time an extraction file is edited, a `.stjava` file with the same name prefixed with `StarTeamDatamart_` is created. Within this file, the name of the extraction file is used as a parameter, so executing this file immediately runs the extraction file.

For the command line, the parameter is added into the `.stjava` file. For example:


```
[StJava]
class=com.starbase.extractor.Main "Local.stextract" -nostatus
starteam=13.0
```

```
test=0
[Java VM]
name=Sun1.6.0_29
classpath=stextract.jar;C:\Program Files\Microsoft SQL Server 2008 JDBC Driver
\sqljdbc_1.1\enu\sqljdbc.jar;c:\app\Administrator\product\11.1.0\db_1\jdbc\lib
\ojdbc6.jar;lib\xercesimpl.jar
options=-Xmx256m
```

There are additional parameters that you can include:

- detail** More detailed messages are shown within the status box and the log file.
- debug** Debug messages are included in the log file.
- monitor** A log file called `monitor.log` logs server commands to StarTeam Server.
- nostatus** The status box is not displayed.

You can run the `.stjava` file as a Scheduled Task. This is best performed during off-peak hours, or at night, to obtain the most up-to-date information.

 **Important:** If you plan to reuse `*.stjava` files from a previous release, be sure to update the files to use the latest StarTeam Server SDK.

For example:

```
[StJava]
class=com.starbase.extractor.Main
starteam=13.0
```

Datamart Synchronizer

Datamart Synchronizer opens the universe file and synchronizes the data to reflect any field changes, ensuring that you always have the most up-to-date information. You only need to run Datamart Synchronizer after an extraction when custom fields have been modified or added in StarTeam Server.



Note: The Datamart Synchronizer only works if Business Objects 6.5 or above is installed on the same machine.

You must set the **Connection** parameter in the **Universe Parameters** dialog box so your Business Objects Universe is connected to your database before you run the Datamart Synchronizer.

1. Click **Start > Programs > StarTeam > Datamart > Datamart Synchronizer**. The Datamart Synchronizer opens.
2. Enter the name of the universe you want to synchronize, or click **Browse** to locate the universe.
3. Click the **Synchronize** button. The **Login** screen displays.
4. Enter your **User Name** and **Password** for the universe and click **OK**. Datamart Synchronizer begins processing and synchronizing the universe data and displays the **Status**.
5. When complete, click **Close**.

Viewing the Web Samples Reports

Datamart now contains a set of sample web reports designed using BIRT (<http://eclipse.org/birt>), an open source technology for data reporting. These reports can be viewed against any database configuration by using the Tomcat web server installed with StarTeam Server.

1. Copy `datamart.war` to `C:\Program Files\<StarTeam install>\apache-tomcat-<version>\webapps\datamart.war`.
2. Ensure the service Apache Tomcat for Micro Focus applications is started/restarted.
3. Copy the `.stxtract` file used for extraction and rename it to `Datamart.stxtract`.
4. Configure the Datamart database connection for the reports in the `Datamart.stxtract` file.
5. Once the Tomcat web server is started, the `Datamart.stxtract` file needs to run be copied to `C:\Program Files\<StarTeam install>\apache-tomcat-<version>\webapps\datamart\scriptlib\Datamart.stxtract`.
6. Navigate to `http://localhost:8080/datamart/index.jsp` to view the reports.

The samples include a *Story cumulative flow with must have combined* report which provides insight into the delivery of the *Must Have* payload for the release. This report uses the *MoSCoW Must Have* tags which can be created and applied in StarTeam Agile using the below steps:

1. Open the StarTeam Agile **Backlog** view.
2. Click the **Tags** panel.
3. Add the following hierarchical server tag:

```
MoSCoW (using the 'add parent tag' button)
  ->Must Have (using the 'add child tag ' button)
  ->Should Have(using the 'add child tag ' button)
  ->Could Have(using the 'add child tag ' button)
```



Once the tags are created, the stories in the backlog need to be tagged appropriately as *Must Haves*, *Could Haves* and *Should Haves*.

Adding a New Report to Web Reporting

To add a new report to web reporting, edit `index.jsp` found in the `webapps\datamart` folder.

```
<summary><big><b>ChangeRequest<b></big></summary>
<p>
<a href="/datamart/run?__report=ChangeRequestByPriorityReport<%=db
%>.rptdesign">

</a>
<a href="/datamart/run?__report=CRStatusReport.rptdesign">

</a>
<!-- To add a new Change Request report created using BIRT: -->
<a href="/datamart/run?__report=CRResponsibilityReport.rptdesign"> <!-- (Name
of the BIRT report file.) -->

</a>
</p>
```

Using Crystal Reports to View Reports

To use Crystal Reports 10 or above to view a Datamart sample report:

1. Open Crystal Reports.
2. Open the Datamart report that you wish to view. The reports are located under the `Datamart\Reports\Crystal Reports` folder.
3. Update the database location to point to the database holding the Datamart extracted information.
4. Click **Refresh** to review the data.

There are also reports for use with Business Objects 6.5 or above. For more information about available sample reports, see “Business Objects Reports” and “Crystal Reports”.

You can also view Datamart reports with the Crystal Reports Viewer. Refer to the links below for more information:

- For an evaluation copy of the Crystal Reports Viewer: <http://www.businessobjects.com/products/reporting/crystalreports/eval.asp>.
- Crystal Reports for Microsoft Visual Studio .NET: <http://www.businessobjects.com/products/reporting/crystalreports/net/vsnet.asp>.

Datamart Reports

Datamart has a series of pre-defined report templates that are included when you install the product. These report templates are intended for use as the starting point for developing more complete and detailed reports. The standard queries are defined below. These reports are located at `C:\Program Files\Micro Focus\StarTeam\Datamart\Reports` (or wherever you installed Datamart).

Some of the reports require some additional database scripts that you need to run. You can find these scripts at `C:\Program Files\Micro Focus\Datamart\Reports\DBScripts` (or wherever you installed Datamart).

Business Objects Reports

CR Dashboard.rep	Displays Change Requests across the server in graphs versus various properties.
CRs by Project.rep	Displays Change Requests by project and type.
File Dashboard.rep	Displays Files across the server in graphs versus various properties.
File History.rep	Displays all File revisions between two dates by folder, view and project.
Files X Projects.rep	Displays all Files and the project, view, and folder where they exist.
Groups.rep	Displays all groups and the users in each group.
Requirement Dashboard.rep	Displays Requirements across the server in graphs versus various properties.
StarTeam Admin Report.rep	Displays all users with information about each user and the groups of which the user is a member.
Task Dashboard.rep	Displays Tasks across the server in graphs versus various properties.
Topic Dashboard.rep	Displays Topics across the server in graphs versus various properties.

Crystal Reports

ACLHierarchy.rpt	Lists all access rights in the server by server, project, view, folder, and item.
BuildReport.rpt	Lists all changes between two build labels.
CRs.rpt	Displays Change Requests across the server in graphs versus various properties.
FileRevisions.rpt	Displays all File revisions between two dates by folder, view and project.
Files X Project.rpt	Displays all Files and the project, view, and folder where they exist.
FolderHierarchy.rpt	Displays a complete hierarchy of items across the server by project, view, and folder.
Groups.rpt	Displays all groups and the users in each group.
SwampReport.rpt	Displays by month the number of new CRs, the number of closed CRs and the number still open.
UserACL.rpt	Lists all access rights in the server by group or user.

Users.rpt

Displays all users with information about each user and the groups of which the user is a member.

Datamart Schema

The following tables comprise the schema that can be used with Datamart.

ST_AUDITS

This table describes the list of audits.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Audit ID
3	ParentFolderID	int	4	N	ItemID of parent folder
4	ViewID	int	4	N	ID of view
5	ProjectID	int	4	N	ID of project
6	EventID	varchar	254	N	Event
7	CreatedTime	datetime	8	N	Time for audit
8	UserID	varchar	254	N	User
9	ClassID	int	4	N	
10	ClassName	varchar	254	N	Class name of audited item
11	ObjectID	int	4	N	Object ID of audited item
12	Info	varchar	254	N	
13	RevisionTime	datetime	8	N	
14	ClassID2	int	4	N	
15	Class_Name_2	text	16	N	
16	ObjectID2	int	4	N	
17	Info2	varchar	254	N	
18	RevisionTime2	datetime	8	N	
19	ClassID3	int	4	N	
20	Class_Name_3	text	16	N	
21	ObjectID3	int	4	N	
22	Info3	varchar	254	N	
23	RevisionTime3	datetime	8	N	

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_VIEWMEMBER	ServerID	ST_AUDITS	ServerID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
2	STVIEWMEMBER	ItemID	ST_AUDITS	ParentFolderID

ST_CHANGEPACKAGECHANGES

This table lists the changes for a change package.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Object ID
3	ViewID	int	4	N	View ID
4	ChangePackageID	int	4	N	Change Package ID
5	ChangeType	varchar	254	N	Type of Change
6	Action	varchar	254	N	Action
7	ItemType	varchar	254	N	Type of Item
8	SourceID	int	4	N	Object ID of source item
9	Source	varchar	254	N	Descriptor of source
10	SourceVersion	varchar	254	N	Revision of source
11	TargetID	int	4	N	Object ID of target
12	Target	varchar	254	N	Descriptor of target
13	TargetVersion	varchar	254	N	Revision of target

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CHANGEPACKAGES	ServerID	ST_CHANGEPACKAGECHANGES	ServerID
2	STCHANGEPACKAGES	ID	ST_CHANGEPACKAGECHANGES	

ST_CHANGEPACKAGEHISTORY

This table lists the change package history - one record for every revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Object ID
3	RevisionNumber	int	4	Y	Revision Number
4	CreatedTime	datetime	8	N	Created Time
5	CreatedUserID	varchar	254	N	Created User

Column	Field	Type	Length	Primary	Description
6	ModifiedTime	datetime	8	N	Modified Time
7	ModifiedUserID	varchar	254	N	Modified User
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	Name	varchar	762	N	Name
11	Description	text	16	N	Description
12	SessionType	varchar	254	N	Type of Session
13	Responsibility	varchar	254	N	Responsible User
14	SourceViewID	int	4	N	View of Source
15	TargetViewID	int	4	N	View of Target
16	State	varchar	254	N	State of Change Package
17	CommitTime	datetime	8	N	Commit Time for Change Package
18	CommitUserID	varchar	254	N	Commit user
19	TransactionID	int	4	N	Transaction ID
20	CommittedInBuild	varchar	254	N	Committed Build
21	PreCommitViewLabel	varchar	254	N	Pre commit view label
22	PreCommitRevisionLabel	varchar	254	N	Pre commit revision label
23	PostCommitViewLabel	varchar	254	N	Post commit view label
24	PostCommitRevisionLabel	varchar	254	N	Post commit revision label
25	AttachmentCount	int	4	N	Attachment Count
26	AttachmentNames	text	16	N	Attachment Names

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CHANGEPACKAGES	ServerID	ST_CHANGEPACKAGEHISTORY	ServerID
2	ST_CHANGEPACKAGES	ID	ST_CHANGEPACKAGEHISTORY	ID
1	ST_CHANGEPACKAGEHIST	ServerID	ST_VIEWMEMBER	ServerID
2	ST_CHANGEPACKAGEHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_CHANGEPACKAGEHIST	RevisionNumber	ST_VIEWMEMBER	RevisionNumber

ST_CHANGEPACKAGES

This table provides the list of change packages.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Object ID
3	CreatedTime	datetime	8	N	Created Time
4	CreatedUserID	varchar	254	N	Created User
5	ModifiedTime	datetime	8	N	Modified Time
6	ModifiedUserID	varchar	254	N	Modified User
7	RevisionNumber	int	4	N	Revision Number
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	Name	varchar	762	N	Name
11	Description	text	16	N	Description
12	SessionType	varchar	254	N	Type of Session
13	Responsibility	varchar	254	N	Responsible User
14	SourceViewID	int	4	N	View of Source
15	TargetViewID	int	4	N	View of Target
16	State	varchar	254	N	State of Change Package
17	CommitTime	datetime	8	N	Commit Time for Change Package
18	CommitUserID	varchar	254	N	Commit user
19	TransactionID	int	4	N	Transaction ID
20	CommittedInBuild	varchar	254	N	Committed Build
21	PreCommitViewLabel	varchar	254	N	Pre commit view label
22	PreCommitRevisionLabel	varchar	254	N	Pre commit revision label
23	PostCommitViewLabel	varchar	254	N	Post commit view label
24	PostCommitRevisionLabel	varchar	254	N	Post commit revision label
25	AttachmentCount	int	4	N	Attachment Count
26	AttachmentNames	text	16	N	Attachment Names

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CHANGEPACKAGES	ServerID	ST_CHANGEPACKAGECHANGES	ServerID
2	ST_CHANGEPACKAGES	ID	ST_CHANGEPACKAGECHANGES	
1	ST_CHANGEPACKAGES	ServerID	ST_CHANGEPACKAGEHISTORY	ServerID
2	ST_CHANGEPACKAGES	ID	ST_CHANGEPACKAGEHISTORY	ID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CHANGEPACKAGES	ServerID	ST_OBJECTACLS	ServerID
2	STCHANGEPACKAGES	ID	STOBJECTACLS	ObjectID

ST_CRHISTORY

This table provides the change request history - one record for every revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions since branching
4	CreatedTime	datetime	8	N	Creation time
5	CreatedUserID	varchar	254	N	Creation user
6	ModifiedTime	datetime	8	N	Time last modified
7	ModifiedUserID	varchar	254	N	User who last modified
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	ObjectID of the root object
11	ParentObjectID	int	4	N	Object ID of item from which this item is branched from
12	ParentRevision	int	4	N	
13	PathRevision	int	4	N	Revision of branching (0 means no branching)
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation
16	ChangeNumber	int	4	N	Change Request Number
17	Synopsis	text	16	N	Synopsis
18	Type	varchar	254	N	Type
19	Status	varchar	254	N	Status
20	Severity	varchar	254	N	Severity
21	Platform	varchar	254	N	Platform
22	Category	varchar	192	N	Category
23	Component	varchar	192	N	Component
24	ExternalReference	varchar	192	N	External Reference
25	AddressedIn	varchar	254	N	Addressed In

Column	Field	Type	Length	Primary	Description
26	AddressedBy	varchar	254	N	Addressed By
27	LastBuildTested	varchar	254	N	Last Build Tested
28	Responsibility	varchar	254	N	Responsibility
29	Priority	varchar	254	N	Priority
30	Description	text	16	N	Description
31	TestCommand	varchar	762	N	
32	WorkAround	text	16	N	Work Around
33	Fix	text	16	N	Fix
34	ClosedOn	datetime	8	N	Time closed
35	AttachmentCount	int	4	N	Attachment Count
36	AttachmentNames	text	16	N	Names of all attachments
37	ResolvedOn	datetime	8	N	Time resolved
38	VerifiedOn	datetime	8	N	Time verified
39	AddressedInView	int	4	N	
40	EnteredOn	datetime	8	N	Time when CR entered
41	EnteredBy	varchar	254	N	User who entered CR
42	Usr_StarFlowStatus	varchar	254	N	

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CRCS	ServerID	ST_CRHISTORY	ServerID
2	ST_CRCS	ID	ST_CRHISTORY	ID
1	ST_CRHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_CRHISTORY	ID	ST_VIEWMEMBER	ID
3	STCRHISTORY	RevisionNumber	STVIEWMEMBER	RevisionNumber

ST_CRCS

This table provides the list of change requests.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	CreatedTime	datetime	8	N	Creation time
4	CreatedUserID	varchar	254	N	Creation user

Column	Field	Type	Length	Primary	Description
5	ModifiedTime	datetime	8	N	Time last modified
6	ModifiedUserID	varchar	254	N	User who last modified
7	RevisionNumber	int	4	N	Number of revisions since branching
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	ObjectID of the root object
11	ParentObjectID	int	4	N	Object ID of item from which this item is branched from
12	ParentRevision	int	4	N	
13	PathRevision	int	4	N	Revision of branching (0 means no branching)
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation
16	ChangeNumber	int	4	N	Change Request Number
17	Synopsis	text	16	N	Synopsis
18	Type	varchar	254	N	Type
19	Status	varchar	254	N	Status
20	Severity	varchar	254	N	Severity
21	Platform	varchar	254	N	Platform
22	Category	varchar	192	N	Category
23	Component	varchar	192	N	Component
24	ExternalReference	varchar	192	N	External Reference
25	AddressedIn	varchar	254	N	Addressed In
26	AddressedBy	varchar	254	N	Addressed By
27	LastBuildTested	varchar	254	N	Last Build Tested
28	Responsibility	varchar	254	N	Responsibility
29	Priority	varchar	254	N	Priority
30	Description	text	16	N	Description
31	TestCommand	varchar	762	N	
32	WorkAround	text	16	N	Work Around
33	Fix	text	16	N	Fix
34	ClosedOn	datetime	8	N	Time closed
35	AttachmentCount	int	4	N	Attachment Count
36	AttachmentNames	text	16	N	Names of all attachments

Column	Field	Type	Length	Primary	Description
37	ResolvedOn	datetime	8	N	Time resolved
38	VerifiedOn	datetime	8	N	Time verified
39	AddressedInView	int	4	N	
40	EnteredOn	datetime	8	N	Time when CR entered
41	EnteredBy	varchar	254	N	User who entered CR
42	Usr_StarFlowStatus	varchar	254	N	

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CRS	ServerID	ST_CRHISTORY	ServerID
2	ST_CRS	ID	ST_CRHISTORY	ID
1	ST_CRS	ServerID	ST_LINKS	ServerID
2	ST_CRS	ID	ST_LINKS	ParentObjectID
1	ST_CRS	ServerID	ST_LINKS	ServerID
2	ST_CRS	ID	ST_LINKS	ChildObjectID
1	ST_CRS	ServerID	ST_OBJECTACLS	ServerID
2	ST_CRS	ID	ST_OBJECTACLS	ObjectID

ST_ENUMVALUES

This table provides the list of enumerated values.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	TypeID	int	4	Y	Type ID
3	PropertyID	int	4	Y	Property ID
4	Code	int	4	Y	Enumerated Value
5	DisplayValue	varchar	254	N	Display Value for Enumerated Value
6	Enabled	int	4	N	Whether Enum value is enabled

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_PROPERTIES	ServerID	ST_ENUMVALUES	ServerID
2	ST_PROPERTIES	TypeID	ST_ENUMVALUES	TypeID
3	ST_PROPERTIES	ID	ST_ENUMVALUES	PropertyID

ST_FILEHISTORY

This table provides the file history changes - one record for every revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions since branching
4	CreatedTime	datetime	8	N	Creation time
5	CreatedUserID	varchar	254	N	Creation user
6	ModifiedTime	datetime	8	N	Time last modified
7	ModifiedUserID	varchar	254	N	User who last modified
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	ObjectID of the root object
11	ParentObjectID	int	4	N	Object ID of item from which this item is branched from
12	ParentRevision	int	4	N	
13	PathRevision	int	4	N	Revision of branching (0 means no branching)
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation
16	Name	varchar	762	N	File name
17	Description	varchar	762	N	Description
18	VaultVersion	int	4	N	Vault Branch Version
19	ContentVersion	int	4	N	Content Revision
20	Modified	datetime	8	N	Time stamp of file
21	FileSize	int	4	N	File size
22	EOL	int	4	N	EOL character
23	Type	varchar	254	N	
24	ArchivePath	varchar	762	N	
25	ProjectID	int	4	N	
26	PVCSRev	varchar	192	N	
27	Charset	varchar	254	N	File Type (Binary, ASCII, or Unicode)

Column	Field	Type	Length	Primary	Description
28	StorageType	varchar	254	N	Storage Type (Full Versions or Delta)
29	Compression	varchar	254	N	Compression Level
30	Executable	int	4	N	
31	HiveID	int	4	N	
32	ArchiveFormat	varchar	254	N	
33	KeywordFlag	varchar	254	N	
34	Extension	varchar	254	N	Extension of the file

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_FILES	ServerID	ST_FILEHISTORY	ServerID
2	ST_FILES	ID	ST_FILEHISTORY	ID
1	ST_FILEHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_FILEHISTORY	ID	ST_VIEWMEMBER	ID
3	STFILEHISTORY	RevisionNumber	STVIEWMEMBER	RevisionNumber

ST_FILES

This table provides the list of files.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	CreatedTime	datetime	8	N	Creation time
4	CreatedUserID	varchar	254	N	Creation user
5	ModifiedTime	datetime	8	N	Time last modified
6	ModifiedUserID	varchar	254	N	User who last modified
7	RevisionNumber	int	4	N	Number of revisions since branching
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	ObjectID of the root object
11	ParentObjectID	int	4	N	Object ID of item from which this item is branched from
12	ParentRevision	int	4	N	

Column	Field	Type	Length	Primary	Description
13	PathRevision	int	4	N	Revision of branching (0 means no branching)
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation
16	Name	varchar	762	N	File name
17	Description	varchar	762	N	Description
18	VaultVersion	int	4	N	Vault Branch Version
19	ContentVersion	int	4	N	Content Revision
20	Modified	datetime	8	N	Time stamp of file at checkin
21	FileSize	int	4	N	File size
22	EOL	int	4	N	EOL character
23	Type	varchar	254	N	
24	ArchivePath	varchar	762	N	
25	ProjectID	int	4	N	
26	PVCSRev	varchar	192	N	
27	Charset	varchar	254	N	File Type (Binary, ASCII, or Unicode)
28	StorageType	varchar	254	N	Storage Type (Full Versions or Delta)
29	Compression	varchar	254	N	Compression Level
30	Executable	int	4	N	Executable flag of the file
31	HiveID	int	4	N	
32	ArchiveFormat	varchar	254	N	
33	KeywordFlag	varchar	254	N	
34	Extension	varchar	254 4	N	Extension of the file

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_FILES	ServerID	ST_FILEHISTORY	ServerID
2	ST_FILES	ID	ST_FILEHISTORY	ID
1	ST_FILES	ServerID	ST_LINKS	ServerID
2	ST_FILES	ID	ST_LINKS	ParentObjectID
1	ST_FILES	ServerID	ST_LINKS	ServerID
2	ST_FILES	ID	ST_LINKS	ChildObjectID
1	ST_FILES	ServerID	ST_OBJECTACLS	ServerID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
2	STFILES	ID	STOBJECTACLS	ObjectID

ST_FOLDERHISTORY

This table provides the folder history - one record for every revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions since branching
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Creation user
7	ModifiedUserID	varchar	254	N	Time last modified
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	ObjectID of the root object
11	ParentObjectID	int	4	N	Object ID of item from which this item is branched from
12	ParentRevision	int	4	N	
13	PathRevision	int	4	N	Revision of branching (0 means no branching)
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation
16	Name	varchar	762	N	Folder name
17	Description	varchar	762	N	Description
18	WorkingFolder	varchar	762	N	Working Folder
19	ExcludeFlags	varchar	254	N	Files to be Excluded
20	ExcludeSpec	varchar	762	N	Exclude Spec
21	CreateProjectID	int	4	N	

ST_FOLDERS

This table provides the folders.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID

Column	Field	Type	Length	Primary	Description
2	ID	int	4	Y	ObjectID
3	CreatedTime	datetime	8	N	ObjectID of the root object
4	CreatedUserID	varchar	254	N	Creation time
5	ModifiedTime	datetime	8	N	Creation user
6	ModifiedUserID	varchar	254	N	Time last modified
7	RevisionNumber	int	4	N	Number of revisions since branching
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	ObjectID of the root object
11	ParentObjectID	int	4	N	Object ID of item from which this item is branched from
12	ParentRevision	int	4	N	
13	PathRevision	int	4	N	Revision of branching (0 means no branching)
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation
16	Name	varchar	762	N	Folder name
17	Description	varchar	762	N	Description
18	WorkingFolder	varchar	762	N	Working Folder
19	ExcludeFlags	varchar	254	N	Files to be Excluded
20	ExcludeSpec	varchar	762	N	Exclude Spec
21	CreateProjectID	int	4	N	

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_FOLDERS	ServerID	ST_FOLDERHISTORY	ServerID
2	ST_FOLDERS	ID	ST_FOLDERHISTORY	ID
1	ST_FOLDERS	ServerID	ST_LINKS	ServerID
2	ST_FOLDERS	ID	ST_LINKS	ParentObjectID
1	ST_FOLDERS	ServerID	ST_LINKS	ServerID
2	ST_FOLDERS	ID	ST_LINKS	ChildObjectID
1	ST_FOLDERS	ServerID	ST_OBJECTACLS	ServerID
2	ST_FOLDERS	ID	ST_OBJECTACLS	ObjectID

ST_GROUPS

This table provides the list of groups.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Group ID
3	Name	varchar	254	N	Group Name
4	Description	varchar	762	N	Description
5	Parent	varchar	254	N	Name of Parent group
6	IsBuiltIn	int	4	N	Whether this is a built in group
7	IsRoot	int	4	N	Whether this is the root group
8	IsDeleted	int	4	N	Whether this is deleted
9	SubGroups	text	16	N	List of all subgroups
10	Users	text	16	N	List of all user names in this group

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_SERVER	ServerID	ST_GROUPS	ServerID
1	ST_GROUPS	ServerID	ST_GROUPUSERS	ServerID
2	ST_GROUPS	ID	ST_GROUPUSERS	GroupID
1	ST_GROUPS	ServerID	ST_OBJECTACLS	ServerID
2	ST_GROUPS	ID	ST_OBJECTACLS	ID

ST_GROUPUSERS

This table provides the list of user groups relationships.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	GroupID	int	4	Y	Group ID
3	UserID	int	4	Y	User ID

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_GROUPS	ServerID	ST_GROUPUSERS	ServerID
2	ST_GROUPS	ID	ST_GROUPUSERS	GroupID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_USERS	ServerID	ST_GROUPUSERS	ServerID
2	STUSERS	ID	STGROUPUSERS	UserID

ST_ITEMLABELS

This table provides the list of item and label relationships.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Label ID
3	ItemID	int	4	Y	Item ID
4	ClassID	int	4	N	Class ID of item type
5	ObjectID	int	4	N	Object ID of item
6	ViewID	int	4	N	View ID
7	RevisionTime	datetime	8	N	Time of the revision label is attached to
8	RevisionNumber	int	4	N	Revision Number of item
9	ViewVersion	int	4	N	View Version of item
10	ProjectID	int	4	N	ProjectID

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_LABELS	ServerID	ST_ITEMLABELS	ServerID
2	ST_LABELS	ID	ST_ITEMLABELS	ID
1	ST_VIEWMEMBER	ServerID	ST_ITEMLABELS	ServerID
2	STVIEWMEMBER	ItemID	STITEMLABELS	ItemID

ST_ITEMLINKS

This table lists the list of links with the pinned revision and with respect to itemID.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Link ID
3	ItemID	int	4	Y	
4	LinkEnd	int	4	N	
5	ObjectID	int	4	N	Object ID

Column	Field	Type	Length	Primary	Description
6	RevisionNumber	int	4	N	Revision Number
7	IsPinned	int	4	N	Whether link is pinned

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_LINKS	ServerID	ST_ITEMLINKS	ServerID
2	ST_LINKS	ID	ST_ITEMLINKS	ID
1	ST_VIEWMEMBER	ServerID	ST_ITEMLINKS	ServerID
2	STVIEWMEMBER	ItemID	STITEMLINKS	ItemID

ST_LABELS

This table provides the list of labels.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Label ID
3	ViewID	int	4	N	View ID
4	Name	varchar	762	N	Label Name
5	LabelTime	datetime	8	N	Configuration Time for label
6	IsViewLabel	int	4	N	Whether this is a view label or revision label
7	IsBuildLabel	int	4	N	Whether this is a build label
8	IsLocked	int	4	N	Whether this is frozen
9	IsDeleted	int	4	N	Whether this is deleted
10	Description	varchar	762	N	Description
11	ProjectID	int	4	N	ProjectID

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_LABELS	ServerID	ST_ITEMLABELS	ServerID
2	ST_LABELS	ID	ST_ITEMLABELS	ID
1	ST_VIEWS	ServerID	ST_LABELS	ServerID
2	STVIEWS	ID	STLABELS	ViewID

ST_LINKS

This table provides the list of links.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Link ID
3	ParentObjectID	int	4	N	Object ID of Parent Item
4	ParentClassID	int	4	N	ClassID of Type of Parent Item
5	ParentType	varchar	254	N	Type of Parent Item
6	ChildObjectID	int	4	N	ObjectID of Child Item
7	ChildClassID	int	4	N	ClassID of Type of Child Item
8	ChildType	varchar	254	N	Type of Child Item
9	CreatedOn	datetime	8	N	Time Link was created
10	CreatedBy	varchar	254	N	User who created Link
11	StComment	varchar	762	N	Comment

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_LINKS	ServerID	ST_ITEMLINKS	ServerID
2	ST_LINKS	ID	ST_ITEMLINKS	ID
1	ST_CRIS	ServerID	ST_LINKS	ServerID
2	ST_CRIS	ID	ST_LINKS	ParentObjectID
1	ST_CRIS	ServerID	ST_LINKS	ServerID
2	ST_CRIS	ID	ST_LINKS	ChildObjectID
1	ST_FILES	ServerID	ST_LINKS	ServerID
2	ST_FILES	ID	ST_LINKS	ParentObjectID
1	ST_FILES	ServerID	ST_LINKS	ServerID
2	ST_FILES	ID	ST_LINKS	ChildObjectID
1	ST_FOLDERS	ServerID	ST_LINKS	ServerID
2	ST_FOLDERS	ID	ST_LINKS	ParentObjectID
1	ST_FOLDERS	ServerID	ST_LINKS	ServerID
2	ST_FOLDERS	ID	ST_LINKS	ChildObjectID
1	ST_REQS	ServerID	ST_LINKS	ServerID
2	ST_REQS	ID	ST_LINKS	ParentObjectID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_REQS	ServerID	ST_LINKS	ServerID
2	ST_REQS	ID	ST_LINKS	ChildObjectID
1	ST_TASKS	ServerID	ST_LINKS	ServerID
2	ST_TASKS	ID	ST_LINKS	ParentObjectID
1	ST_TASKS	ServerID	ST_LINKS	ServerID
2	ST_TASKS	ID	ST_LINKS	ChildObjectID
1	ST_TOPICS	ServerID	ST_LINKS	ServerID
2	ST_TOPICS	ID	ST_LINKS	ParentObjectID
1	ST_TOPICS	ServerID	ST_LINKS	ServerID
2	STTOPICS	ID	STLINKS	ChildObjectID

ST_OBJECTACLS

This table lists the access control lists for all objects.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ACLID	int	4	Y	ACL ID
3	ObjectID	int	4	N	ID of object for which ACLs are for
4	ClassID	int	4	N	Class ID of object for which ACLs are for
5	ContainerClassID	int	4	N	Class ID for the container type
6	Container	int	4	N	1 if container, 0 if not
7	Sequence	int	4	N	Order for the group or user
8	PermissionCode	int	4	Y	Permission Code
9	TypeName	varchar	32	N	Type Name of object for which ACLs are for
10	ContainerTypeName	varchar	32	N	Type Name for the container type
11	ID	int	4	N	ID of user or group
12	UserGroup	varchar	32	N	Whether user or group
13	GrantDeny	varchar	32	N	Whether grant or deny

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CHANGEPACKAGES	ServerID	ST_OBJECTACLS	ServerID
2	ST_CHANGEPACKAGES	ID	ST_OBJECTACLS	ObjectID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_CRS	ServerID	ST_OBJECTACLS	ServerID
2	ST_CRS	ID	ST_OBJECTACLS	ObjectID
1	ST_FILES	ServerID	ST_OBJECTACLS	ServerID
2	ST_FILES	ID	ST_OBJECTACLS	ObjectID
1	ST_FOLDERS	ServerID	ST_OBJECTACLS	ServerID
2	ST_FOLDERS	ID	ST_OBJECTACLS	ObjectID
1	ST_GROUPS	ServerID	ST_OBJECTACLS	ServerID
2	ST_GROUPS	ID	ST_OBJECTACLS	ID
1	ST_PERMISSIONS	ServerID	ST_OBJECTACLS	ServerID
2	ST_PERMISSIONS	ContainerClassID	ST_OBJECTACLS	ContainerClassID
3	ST_PERMISSIONS	PermissionCode	ST_OBJECTACLS	PermissionCode
1	ST_PROJECTS	ServerID	ST_OBJECTACLS	ServerID
2	ST_PROJECTS	ID	ST_OBJECTACLS	ObjectID
1	ST_REQS	ServerID	ST_OBJECTACLS	ServerID
2	ST_REQS	ID	ST_OBJECTACLS	ObjectID
1	ST_SERVER	ServerID	ST_OBJECTACLS	ServerID
1	ST_TASKS	ServerID	ST_OBJECTACLS	ServerID
2	ST_TASKS	ID	ST_OBJECTACLS	ObjectID
1	ST_TOPICS	ServerID	ST_OBJECTACLS	ServerID
2	ST_TOPICS	ID	ST_OBJECTACLS	ObjectID
1	ST_TRACES	ServerID	ST_OBJECTACLS	ServerID
2	ST_TRACES	ID	ST_OBJECTACLS	ObjectID
1	ST_USERS	ServerID	ST_OBJECTACLS	ServerID
2	ST_USERS	ID	ST_OBJECTACLS	ObjectID
1	ST_VIEWS	ServerID	ST_OBJECTACLS	ServerID
2	STVIEWS	ID	STOBJECTACLS	ObjectID

ST_PERMISSIONS

This table provides the list of permission codes and text for use with OBJECTACLS.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID

Column	Field	Type	Length	Primary	Description
2	ContainerClassID	int	4	Y	Class ID for the container type
3	PermissionCode	int	4	Y	Permission Code
4	Permission	varchar	254	N	Text for the permission

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_PERMISSIONS	ServerID	ST_OBJECTACLS	ServerID
2	ST_PERMISSIONS	ContainerClassID	ST_OBJECTACLS	ContainerClassID
3	ST_PERMISSIONS	PermissionCode	ST_OBJECTACLS	PermissionCode
1	STSERVER	ServerID	STPERMISSIONS	ServerID

ST_PROJECTS

This table provides the list of projects.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Project ID
3	CreatedTime	datetime	8	N	Creation time
4	CreatedUserID	varchar	254	N	Creation user
5	Name	varchar	762	N	Name
6	Description	varchar	762	N	Description
7	Compaction	int	4	N	
8	Encryption	varchar	254	N	
9	Mail	int	4	N	
10	DefaultViewID	int	4	N	Default view ID
11	ProjectType	varchar	254	N	Project Type
12	ConfigSource1	varchar	762	N	
13	ConfigSource2	varchar	762	N	
14	KWFileExt	varchar	254	N	Keywords File Extensions
15	UseKeywords	int	4	N	Use Keywords
16	ForceCheckinReason	int	4	N	Force Checkin Reason
17	RequireLockForCheckin	int	4	N	Require Lock For Checkin
18	MarkUnlockedFilesReadOnly	int	4	N	Mark Unlocked Files Read Only
19	ProcessRequired	int	4	N	Process Required

Column	Field	Type	Length	Primary	Description
20	ProcessSelectCR	int	4	N	Permit selection of Change Request as Process Item
21	ProcessShowCROpen	int	4	N	Restict Change Request status to Open for Process Item
22	ProcessShowCRInProgress	int	4	N	Restict Change Request status to In Progress for Process Item
23	ProcessSelectTask	int	4	N	Permit selection of Task as Process Item
24	ProcessShowTaskReady	int	4	N	Restict Task status to Ready for Process Item
25	ProcessShowTaskInProgress	int	4	N	Restict Task status to In Progress for Process Item
26	DisplayAltCREditor	int	4	N	Use alternate property editor for Change Requests
27	AltCREditorPath	varchar	762	N	Alternate property editor for Change Requests
28	DisplayAltFileEditor	int	4	N	Use alternate property editor for Files
29	AltFileEditorPath	varchar	762	N	Alternate property editor for Files
30	DisplayAltReqEditor	int	4	N	Use alternate property editor for Requirements
31	AltReqEditorPath	varchar	762	N	Alternate property editor for Requirements
32	DisplayAltTaskEditor	int	4	N	Use alternate property editor for Tasks
33	AltTaskEditorPath	varchar	762	N	Alternate property editor for Tasks
34	DisplayAltTopicEditor	int	4	N	Use alternate property editor for Topics
35	AltTopicEditorPath	varchar	762	N	Alternate property editor for Topics
36	ProcessSelectRequirement	int	4	N	Permit selection of Requirement as Process Item
37	ProcessShowReqApproved	int	4	N	Restrict Requirement status to Approved for Process Item
38	ProcessLinks	varchar	254	N	Process Links info
39	DefaultTypes	text	16	N	Default types for project
40	GUID	varchar	192	N	
41	State	Varchar	254	N	Project status
42	UseCheckinCP	int	4	N	

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_PROJECTS	ServerID	ST_OBJECTACLS	ServerID
2	ST_PROJECTS	ID	ST_OBJECTACLS	ObjectID
1	ST_SERVER	ServerID	ST_PROJECTS	ServerID
1	ST_PROJECTS	ServerID	ST_VIEWS	ServerID
2	ST_PROJECTS	ID	ST_VIEWS	ProjectID

ST_PROMOTIONS

This table provides the list of promotion states.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ViewID	int	4	Y	View ID
3	ID	int	4	Y	Promotion state ID
4	Name	varchar	254	N	Name
5	CreatedTime	datetime	8	N	Creation time
6	CreatedUserID	varchar	254	N	Creation user
7	LabelID	varchar	254	N	Linked label
8	Description	varchar	254	N	Description

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_VIEWS	ServerID	ST_PROMOTIONS	ServerID
2	STVIEWS	ID	STPROMOTIONS	ViewID

ST_PROPERTIES

This table lists all properties.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	TypeID	int	4	Y	Class ID of type
3	ID	int	4	Y	ID
4	TypeName	varchar	254	N	Name of type that the property is for
5	TypeCode	varchar	254	N	Property type

Column	Field	Type	Length	Primary	Description
6	ClassName	varchar	254	N	Class Name when the field type is an object
7	PropertyName	varchar	254	N	Property Name
8	DisplayName	varchar	254	N	Display Name
9	DefaultValue	varchar	254	N	Default Value
10	Enumerations	text	16	N	List of all Enumerations
11	MaxLength	int	4	N	Max Length
12	IsAdvanced	int	4	N	Whether Advanced property
13	IsCalculated	int	4	N	Whether Calculated
14	IsClientCalculated	int	4	N	Whether Calculated at the client
15	IsDescriptor	int	4	N	Whether Descriptor
16	IsGenericCalculated	int	4	N	Whether Generic Calculated
17	IsHeader	int	4	N	Whether Header
18	IsPrimaryDescriptor	int	4	N	Whether Primary Descriptor
19	IsRequired	int	4	N	Whether Required when editing item
20	IsRestricted	int	4	N	Whether field has restrictions
21	IsServerCalculated	int	4	N	Whether Calculated at the server
22	IsStored	int	4	N	Whether Stored in database
23	IsSystemDefined	int	4	N	Whether System Defined
24	IsTimeTruncated	int	4	N	Whether Time Truncated for date time fields
25	IsUserCustomized	int	4	N	Whether this is a custom field
26	IsUserDefined	int	4	N	Whether User Defined
27	IsUserModifiable	int	4	N	Whether User can Modify
28	Enabled	varchar	4	N	Whether property is enabled

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_PROPERTIES	ServerID	ST_ENUMVALUES	ServerID
2	ST_PROPERTIES	TypeID	ST_ENUMVALUES	TypeID
3	ST_PROPERTIES	ID	ST_ENUMVALUES	PropertyID
1	ST_TYPES	ServerID	ST_PROPERTIES	ServerID
2	STTYPES	ClassID	STPROPERTIES	TypeID

ST_REQHISTORY

This table lists the requirement history - one record for each revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Creation user
7	ModifiedUserID	varchar	254	N	Time last modified
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	ParentRequirementID	int	4	N	ObjectID of Prenet Requirement
11	Name	varchar	254	N	Requirement
12	Description	text	16	N	Description
13	AttachmentCount	int	4	N	Attachment Count
14	AttachmentNames	text	16	N	Names of all attachments
15	Status	varchar	254	N	Status
16	Priority	varchar	254	N	Priority
17	RequirementNumber	int	4	N	Requirement Number
18	ResponsibleCount	int	4	N	Number of Responsible users
19	ResponsibleNames	text	16	N	
20	Disabled	int	4	N	
21	ExternalReference	varchar	762	N	External Reference
22	Type	varchar	254	N	Type
23	Owner	varchar	254	N	Owner
24	RevisedDescription	text	16	N	Revised Description
25	AmbiguitiesFound	int	4	N	Ambiguities Found
26	Comments	text	16	N	
27	HighEffort	int	4	N	High Effort
28	ExpectedEffort	int	4	N	Expected Effort
29	LowEffort	int	4	N	Low Effort
30	Notes	text	16	N	Notes

Column	Field	Type	Length	Primary	Description
31	ReviewedByNames	text	16	N	
32	DotNotation	varchar	254	N	Dot Notation

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_REQS	ServerID	ST_REQHISTORY	ServerID
2	ST_REQS	ID	ST_REQHISTORY	ID
1	ST_REQHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_REQHISTORY	ID	ST_VIEWMEMBER	ID
3	STREQHISTORY	RevisionNumber	STVIEWMEMBER	RevisionNumber

ST_REQS

This table provides the list of requirements.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	CreatedTime	datetime	8	N	ObjectID of the root object
4	CreatedUserID	varchar	254	N	Creation time
5	ModifiedTime	datetime	8	N	Creation user
6	ModifiedUserID	varchar	254	N	Time last modified
7	RevisionNumber	int	4	N	Number of revisions
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	ParentRequirementID	int	4	N	ObjectID of Parent Requirement
11	Name	varchar	254	N	Requirement
12	Description	text	16	N	Description
13	AttachmentCount	int	4	N	Attachment Count
14	AttachmentNames	text	16	N	Names of all attachments
15	Status	varchar	254	N	Status
16	Priority	varchar	254	N	Priority
17	RequirementNumber	int	4	N	Requirement Number
18	ResponsibleCount	int	4	N	Number of Responsible users
19	ResponsibleNames	text	16	N	

Column	Field	Type	Length	Primary	Description
20	Disabled	int	4	N	
21	ExternalReference	varchar	762	N	External Reference
22	Type	varchar	254	N	Type
23	Owner	varchar	254	N	Owner
24	RevisedDescription	text	16	N	Revised Description
25	AmbiguitiesFound	int	4	N	Ambiguities Found
26	Comments	text	16	N	
27	HighEffort	int	4	N	High Effort
28	ExpectedEffort	int	4	N	Expected Effort
29	LowEffort	int	4	N	Low Effort
30	Notes	text	16	N	Notes
31	ReviewedByNames	text	16	N	
32	DotNotation	varchar	254	N	Dot Notation

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_REQS	ServerID	ST_LINKS	ServerID
2	ST_REQS	ID	ST_LINKS	ParentObjectID
1	ST_REQS	ServerID	ST_LINKS	ServerID
2	ST_REQS	ID	ST_LINKS	ChildObjectID
1	ST_REQS	ServerID	ST_OBJECTACLS	ServerID
2	ST_REQS	ID	ST_OBJECTACLS	ObjectID
1	ST_REQS	ServerID	ST_REQHISTORY	ServerID
2	ST_REQS	ID	ST_REQHISTORY	ID

ST_SERVER

This table lists all servers.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ServerGuid	varchar	254	N	Server GUID
3	Address	varchar	254	N	Server Address
4	Port	int	4	N	Server port number
5	EncryptionLevel	varchar	254	N	Server encryption

Column	Field	Type	Length	Primary	Description
6	Build	varchar	254	N	Server build number

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_SERVER	ServerID	ST_GROUPS	ServerID
1	ST_SERVER	ServerID	ST_OBJECTACLS	ServerID
1	ST_SERVER	ServerID	ST_PERMISSIONS	ServerID
1	ST_SERVER	ServerID	ST_PROJECTS	ServerID
1	ST_SERVER	ServerID	ST_TYPES	ServerID
1	ST_SERVER	ServerID	ST_USERS	ServerID

ST_SPRINTHISTORY

This table contains the sprint history records - one for each revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	Int	4	Y	Server ID
2	ID	Int	4	Y	ObjectID
3	RevisionNumber	Int	4	Y	Number of revisions
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Creation user
7	ModifiedUserID	varchar	254	N	Time last modified
8	RevisionFlags	Int	4	N	Revision Flags
9	StComment	Text	16	N	Comment
10	RootObjectID	Int	4	N	Root object ID
11	ParentObjectID	Int	4	N	Parent object ID
12	ParentRevision	Int	4	N	Revision number of Parent
13	PathRevision	Int	4	N	Path revision
14	ViewID	Int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation of Sprint object
16	SprintID	Int	4	N	ID of the Sprint
17	AttachmentCount	Int	4	N	Count of attachments to the Sprint
18	AttachmentNames	Int	4	N	Names of attachments
19	NotificationCount	Text	16	N	Count of notifications

Column	Field	Type	Length	Primary	Description
20	NotificationNames	varchar	254	N	Names of notifications
21	Name	Text	16	N	Name of the Sprint
22	Description	Text	254	N	Description
23	Owner	varchar	254	N	Owner of the sprint
24	StartDate	datetime	8	N	Start Date
25	EndDate	datetime	8	N	End Date

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_SPRINTS	ServerID	ST_SPRINTHISTORY	ServerID
2	ST_SPRINTS	ID	ST_SPRINTHISTORY	ID
1	ST_SPRINTHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_SPRINTHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_SPRINTHISTORY	RevisionNumber	STVIEWMEMBER	RevisionNumber

ST_SPRINTS

This table lists all of the sprints.

Column	Field	Type	Length	Primary	Description
1	ServerID	Int	4	Y	Server ID
2	ID	Int	4	Y	ObjectID
3	RevisionNumber	Int	4	Y	Number of revisions
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Creation user
7	ModifiedUserID	varchar	254	N	Time last modified
8	RevisionFlags	Int	4	N	Revision Flags
9	StComment	Text	16	N	Comment
10	RootObjectID	Int	4	N	Root object ID
11	ParentObjectID	Int	4	N	Parent object ID
12	ParentRevision	Int	4	N	Revision number of Parent
13	PathRevision	Int	4	N	Path revision
14	ViewID	Int	4	N	View ID
15	DotNotation	varchar	254	N	Dot notation of Sprint object

Column	Field	Type	Length	Primary	Description
16	SprintID	Int	4	N	ID of the Sprint
17	AttachmentCount	Int	4	N	Count of attachments to the Sprint
18	AttachmentNames	Int	4	N	Names of attachments
19	NotificationCount	Text	16	N	Count of notifications
20	NotificationNames	varchar	254	N	Names of notifications
21	Name	Text	16	N	Name of the Sprint
22	Description	Text	254	N	Description
23	Owner	varchar	254	N	Owner
24	StartDate	datetime	8	N	Start Date
25	EndDate	datetime	8	N	End Date

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_SPRINTS	ServerID	ST_LINKS	ServerID
2	ST_SPRINTS	ID	ST_LINKS	ParentObjectID
1	ST_SPRINTS	ServerID	ST_LINKS	ServerID
2	ST_SPRINTS	ID	ST_LINKS	ChildObjectID
1	ST_SPRINTS	ServerID	ST_OBJECTACLS	ServerID
2	ST_SPRINTS	ID	ST_OBJECTACLS	ObjectID
1	ST_SPRINTS	ServerID	ST_SPRINTHISTORY	ServerID
2	ST_SPRINTS	ID	ST_SPRINTHISTORY	ID

ST_STORIES

This table contains all of the stories.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Creation user
7	ModifiedUserID	varchar	254	N	Time last modified
8	RevisionFlags	int	4	N	Revision Flags

Column	Field	Type	Length	Primary	Description
9	StComment	text	16	N	Comment
10	StoryID	int	4	N	Story ID
11	AttachmentCount	int	4	N	Count of attachments to the Sprint
12	AttachmentNames	int	4	N	Names of attachments
13	NotificationCount	text	16	N	Count of notifications
14	NotificationNames	varchar	254	N	Names of notifications
15	ParentID	int	4	N	ParentID of the Story
16	Name	varchar	254	N	Name of the Story
17	StoryType	varchar	254	N	Type of the Story
18	Risk	varchar	254	N	Risk of the Story
19	StoryValue	varchar	254	N	StoryValue
20	EstimatedPoints	Varchar	254	N	Estimated points for the Story
21	Rank	Float	8	N	Rank of the Story
22	StoryOrder	Float	8	N	Order of the Story
23	AcceptanceCriteria	Text	16	N	Acceptance criteria of the Story
24	Notes	Text	16	N	Notes of the Story
25	Sponsor	varchar	254	N	Sponsor for the Story
26	Description	Text	16	N	Description of the Story
27	Tag	varchar	254	N	Tag for the Story
28	StreamState	varchar	254	N	StreamState for the Story
29	RichDescription	Text	16	N	Rich Description for the Story
30	StoryStatus	varchar	254	N	Status of the Story
31	IncomingStream	varchar	254	N	Incoming Stream for the Story
32	TargetReleases	Text	16	N	Target Releases for the Story
33	DotNotation	varchar	254	N	Dotnotation for the Story

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_STORIES	ServerID	ST_LINKS	ServerID
2	ST_STORIES	ID	ST_LINKS	ParentObjectID
1	ST_STORIES	ServerID	ST_LINKS	ServerID
2	ST_STORIES	ID	ST_LINKS	ChildObjectID
1	ST_STORIES	ServerID	ST_OBJECTACLS	ServerID
2	ST_STORIES	ID	ST_OBJECTACLS	ObjectID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_STORIES	ServerID	ST_STORYHISTORY	ServerID
2	ST_STORIES	ID	STSTORYHISTORY	ID

ST_STORYHISTORY

This table lists the story history - one record for each revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Time last modified
7	ModifiedUserID	varchar	254	N	Creation user
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	StoryID	int	4	N	Story ID
11	AttachmentCount	int	4	N	Count of attachments to the Sprint
12	AttachmentNames	int	4	N	Names of attachments
13	NotificationCount	text	16	N	Count of notifications
14	NotificationNames	varchar	254	N	Names of notifications
15	ParentID	int	4	N	ParentID of the Story
16	Name	varchar	254	N	Name of the Story
17	StoryType	varchar	254	N	Type of the Story
18	Risk	varchar	254	N	Risk of the Story
19	StoryValue	varchar	254	N	StoryValue
20	EstimatedPoints	Varchar	254	N	Estimated points for the Story
21	Rank	Float	8	N	Rank of the Story
22	StoryOrder	Float	8	N	Order of the Story
23	AcceptanceCriteria	Text	16	N	Acceptance criteria of the Story
24	Notes	Text	16	N	Notes of the Story
25	Sponsor	varchar	254	N	Sponsor for the Story
26	Description	Text	16	N	Description of the Story

Column	Field	Type	Length	Primary	Description
25	Tag	varchar	254	N	Tag for the Story
26	StreamState	varchar	254	N	StreamState for the Story
27	RichDescription	Text	16	N	Rich Description for the Story
28	StoryStatus	varchar	254	N	Status of the Story
29	IncomingStream	varchar	254	N	Incoming Stream for the Story
30	TargetReleases	Text	16	N	Target Releases for the Story
31	DotNotation	varchar	254	N	Dotnotation for the Story

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_STORIES	ServerID	ST_LINKS	ServerID
2	ST_STORIES	ID	ST_LINKS	ParentObjectID
1	ST_STORIES	ServerID	ST_LINKS	ServerID
2	ST_STORIES	ID	ST_LINKS	ChildObjectID
1	ST_STORIES	ServerID	ST_OBJECTACLS	ServerID
2	ST_STORIES	ID	ST_OBJECTACLS	ObjectID
1	ST_STORIES	ServerID	ST_STORYHISTORY	ServerID
2	ST_STORIES	ID	STSTORYHISTORY	ID

ST_TASKHISTORY

This table contains the task history - one record for each revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Creation user
7	ModifiedUserID	varchar	254	N	Time last modified
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	StTaskParentID	int	4	N	Object ID of Parent Task

Column	Field	Type	Length	Primary	Description
11	StTaskNumber	int	4	N	Task Number
12	StTaskName	varchar	254	N	Task Name
13	StTaskNotes	text	16	N	Notes
14	StTaskPercentComplete	int	4	N	Percent Complete
15	StTaskMilestone	varchar	254	N	Milestone
16	StTaskPriority	varchar	254	N	Priority
17	StTaskStatus	varchar	254	N	Status
18	StTaskResponsibility	varchar	254	N	Responsibility
19	StTaskEstimatedHours	float	8	N	Estimated Hours
20	StTaskEstimatedStart	datetime	8	N	Estimated Start
21	StTaskEstimatedFinish	datetime	8	N	Estimated Finish
22	StTaskActualHours	float	8	N	Actual Hours
23	StTaskActualStart	datetime	8	N	Actual Start
24	StTaskActualFinish	datetime	8	N	Actual Finish
25	StTaskDuration	float	8	N	Duration
26	StTaskNeedsAttention	varchar	254	N	Needs Attention
27	StTaskAttentionNotes	text	16	N	Attention Notes
28	AttachmentCount	int	4	N	Attachment Count
29	AttachmentNames	text	16	N	Names of all attachments
30	StTaskType	varchar	254	N	Type
31	StTaskConstraintType	varchar	254	N	Constraint Type
32	StTaskConstraintDate	datetime	8	N	Constraint Date
33	StTaskGUID	varchar	111	N	
34	StTaskUniqueID	int	4	N	
35	StTaskWBSCode	varchar	64	N	WBSCode
36	StTaskMSProjectFileName	varchar	762	N	
37	StTaskMSProjectLastUpdate	datetime	8	N	MSProject Last Update
38	StWorkDependencyLastUpdate	datetime	8	N	Work Dependency Last Update
39	StTaskResourceCount	int	4	N	Resource Count
40	StTaskResourceNames	text	16	N	List of Resource Users
41	StTaskProcessUsage	varchar	254	N	
42	StTaskEstimatedStartVariance	int	4	N	Estimated Start Variance
43	StTaskEstimatedFinishVariance	int	4	N	Estimated Finish Variance

Column	Field	Type	Length	Primary	Description
44	StTaskEstimatedHoursVariance	float	8	N	Estimated Hours Variance
45	StTaskOrigin	varchar	254	N	Origin
46	WorkRecordCount	int	4	N	Number of work records
47	DotNotation	varchar	254	N	Dot Notation
48	StTaskDescription	text	16	N	Description
49	StTaskOrder	float	8	N	Task Order
50	StTaskLifecycleType	varchar	254	N	Task lifecycle Type
51	StTaskBlocked	int	8	N	Is Task Blocked

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TASKS	ServerID	ST_TASKHISTORY	ServerID
2	ST_TASKS	ID	ST_TASKHISTORY	ID
1	ST_TASKHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_TASKHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_TASKHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_TASKHISTORY	ServerID	ST_WORKRECORDHISTORY	ServerID
2	ST_TASKHISTORY	ID	ST_WORKRECORDHISTORY	StWorkTaskID
3	ST_TASKHISTORY	RevisionNumber	STWORKRECORDHISTORY	RevisionNumber

ST_TASKS

This table contains the list of tasks.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	CreatedTime	datetime	8	N	ObjectID of the root object
4	CreatedUserID	varchar	254	N	Creation time
5	ModifiedTime	datetime	8	N	Creation user
6	ModifiedUserID	varchar	254	N	Time last modified
7	RevisionNumber	int	4	N	Number of revisions
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	StTaskParentID	int	4	N	Object ID of Parent Task

Column	Field	Type	Length	Primary	Description
11	StTaskNumber	int	4	N	Task Number
12	StTaskName	varchar	254	N	Task Name
13	StTaskNotes	text	16	N	Notes
14	StTaskPercentComplete	int	4	N	Percent Complete
15	StTaskMilestone	varchar	254	N	Milestone
16	StTaskPriority	varchar	254	N	Priority
17	StTaskStatus	varchar	254	N	Status
18	StTaskResponsibility	varchar	254	N	Responsibility
19	StTaskEstimatedHours	float	8	N	Estimated Hours
20	StTaskEstimatedStart	datetime	8	N	Estimated Start
21	StTaskEstimatedFinish	datetime	8	N	Estimated Finish
22	StTaskActualHours	float	8	N	Actual Hours
23	StTaskActualStart	datetime	8	N	Actual Start
24	StTaskActualFinish	datetime	8	N	Actual Finish
25	StTaskDuration	float	8	N	Duration
26	StTaskNeedsAttention	varchar	254	N	Needs Attention
27	StTaskAttentionNotes	text	16	N	Attention Notes
28	AttachmentCount	int	4	N	Attachment Count
29	AttachmentNames	text	16	N	Names of all attachments
30	StTaskType	varchar	254	N	Type
31	StTaskConstraintType	varchar	254	N	Constraint Type
32	StTaskConstraintDate	datetime	8	N	Constraint Date
33	StTaskGUID	varchar	111	N	
34	StTaskUniqueID	int	4	N	
35	StTaskWBSCode	varchar	64	N	WBSCode
36	StTaskMSPProjectFileName	varchar	762	N	
37	StTaskMSPProjectLastUpdate	datetime	8	N	
38	StWorkDependencyLastUpdatdeatetime	datetime	8	N	Work Dependency Last Update
39	StTaskResourceCount	int	4	N	Resource count
40	StTaskResourceNames	text	16	N	List of Resource Users
41	StTaskProcessUsage	varchar	254	N	
42	StTaskEstimatedStartVariance	int	4	N	Estimated Start Variance
43	StTaskEstimatedFinishVariance	int	4	N	Estimated Finish Variance
44	StTaskEstimatedHoursVariance	float	8	N	Estimated Hours Variance

Column	Field	Type	Length	Primary	Description
45	StTaskOrigin	varchar	254	N	Origin
46	WorkRecordCount	int	4	N	Number of Work Records
47	DotNotation	varchar	254	N	Dot Notation
48	StTaskDescription	text	16	N	Description
49	StTaskOrder	float	8	N	Task Order
50	StTaskLifecycleType	varchar	254	N	Task lifecycle Type
51	StTaskBlocked	int	8	N	Is Task Blocked

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TASKS	ServerID	ST_LINKS	ServerID
2	ST_TASKS	ID	ST_LINKS	ParentObjectID
1	ST_TASKS	ServerID	ST_LINKS	ServerID
2	ST_TASKS	ID	ST_LINKS	ChildObjectID
1	ST_TASKS	ServerID	ST_OBJECTACLS	ServerID
2	ST_TASKS	ID	ST_OBJECTACLS	ObjectID
1	ST_TASKS	ServerID	ST_TASKHISTORY	ServerID
2	ST_TASKS	ID	ST_TASKHISTORY	ID
1	ST_TASKS	ServerID	ST_WORKRECORDS	ServerID
2	STTASKS	ID	STWORKRECORDS	StWorkTaskID

ST_TOPICHISTORY

This table lists the topic history - one record for each revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	RevisionNumber	int	4	Y	Number of revisions
4	CreatedTime	datetime	8	N	ObjectID of the root object
5	CreatedUserID	varchar	254	N	Creation time
6	ModifiedTime	datetime	8	N	Creation user
7	ModifiedUserID	varchar	254	N	Time last modified
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment

Column	Field	Type	Length	Primary	Description
10	ParentTopicID	int	4	N	ObjectID of Parent Topic
11	Title	varchar	254	N	Title
12	Description	text	16	N	Description
13	AttachmentCount	int	4	N	Attachment Count
14	AttachmentNames	text	16	N	Names of all attachments
15	Status	varchar	254	N	Status
16	Priority	varchar	254	N	Priority
17	TopicNumber	int	4	N	Topic Number
18	RecipientCount	int	4	N	Number of Recipients
19	RecipientNames	text	16	N	List of all Recipients
20	DotNotation	varchar	254	N	Dot Notation

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TOPICHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_TOPICHISTORY	ID	ST_VIEWMEMBER	ID
3	STTOPICHISTORY	RevisionNumber	STVIEWMEMBER	RevisionNumber

ST_TOPICS

This table contains the list of topics.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	ObjectID
3	CreatedTime	datetime	8	N	ObjectID of the root object
4	CreatedUserID	varchar	254	N	Creation time
5	ModifiedTime	datetime	8	N	Creation user
6	ModifiedUserID	varchar	254	N	Time last modified
7	RevisionNumber	int	4	N	Number of revisions
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	ParentTopicID	int	4	N	ObjectID of Parent Topic
11	Title	varchar	254	N	Title
12	Description	text	16	N	Description

Column	Field	Type	Length	Primary	Description
13	AttachmentCount	int	4	N	Attachment Count
14	AttachmentNames	text	16	N	Names of all attachments
15	Status	varchar	254	N	Status
16	Priority	varchar	254	N	Priority
17	TopicNumber	int	4	N	Topic Number
18	RecipientCount	int	4	N	Number of Recipients
19	RecipientNames	text	16	N	List of all Recipients
20	DotNotation	varchar	254	N	Dot Notation

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TOPICS	ServerID	ST_LINKS	ServerID
2	ST_TOPICS	ID	ST_LINKS	ServerID
1	ST_TOPICS	ServerID	ST_LINKS	ServerID
2	ST_TOPICS	ID	ST_LINKS	ChildObjectID
1	ST_TOPICS	ServerID	ST_OBJECTACLS	ServerID
2	ST_TOPICS	ID	ST_OBJECTACLS	ServerID

ST_TRACEHISTORY

This table contains the trace history - one record for each revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Object ID
3	RevisionNumber	int	4	Y	Revision Number
4	CreatedTime	datetime	8	N	Created Time
5	CreatedUserID	varchar	254	N	Created User
6	ModifiedTime	datetime	8	N	Modified Time
7	ModifiedUserID	varchar	254	N	Modified User
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	Root object ID
11	ParentObjectID	int	4	N	Parent object ID
12	ParentRevision	int	4	N	Parent revision

Column	Field	Type	Length	Primary	Description
13	PathRevision	int	4	N	Path Revision
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot Notation
16	Description	text	16	N	Description
17	Type	varchar	254	N	Type of Trace
18	AttachmentCount	int	4	N	Attachment Count
19	AttachmentNames	text	16	N	Attachment Names
20	SourceItemID	int	4	N	Item ID of source item
21	SourceItemType	varchar	254	N	Source type
22	SourceVersion	varchar	254	N	Source version
23	Source	varchar	254	N	Source descriptor
24	TargetExternalID	varchar	254	N	Target ID
25	TargetItemType	varchar	254	N	Target Type
26	TargetVersion	varchar	254	N	Target version
27	Target	varchar	254	N	Target descriptor

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TRACES	ServerID	ST_TRACEHISTORY	ServerID
2	ST_TRACES	ID	ST_TRACEHISTORY	ID
1	ST_TRACEHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_TRACEHISTORY	ID	ST_VIEWMEMBER	ID
3	STTRACEHISTORY	RevisionNumber	STVIEWMEMBER	RevisionNumber

ST_TRACES

This table contains the list of traces.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	Object ID
3	CreatedTime	datetime	8	N	Created Time
4	CreatedUserID	varchar	254	N	Created User
5	ModifiedTime	datetime	8	N	Modified Time
6	ModifiedUserID	varchar	254	N	Modified User

Column	Field	Type	Length	Primary	Description
7	RevisionNumber	int	4	N	Revision Number
8	RevisionFlags	int	4	N	Revision Flags
9	StComment	text	16	N	Comment
10	RootObjectID	int	4	N	Root object ID
11	ParentObjectID	int	4	N	Parent object ID
12	ParentRevision	int	4	N	Parent revision
13	PathRevision	int	4	N	Path Revision
14	ViewID	int	4	N	View ID
15	DotNotation	varchar	254	N	Dot Notation
16	Description	text	16	N	Description
17	Type	varchar	254	N	Type of Trace
18	AttachmentCount	int	4	N	Attachment Count
19	AttachmentNames	text	16	N	Attachment Names
20	SourceItemID	int	4	N	Item ID of source item
21	SourceItemType	varchar	254	N	Source type
22	SourceVersion	varchar	254	N	Source version
23	Source	varchar	254	N	Source descriptor
24	TargetExternalID	varchar	254	N	Target ID
25	TargetItemType	varchar	254	N	Target Type
26	TargetVersion	varchar	254	N	Target version
27	Target	varchar	254	N	Target descriptor

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TRACES	ServerID	ST_OBJECTACLS	ServerID
2	ST_TRACES	ID	ST_OBJECTACLS	ObjectID
1	ST_TRACES	ServerID	ST_TRACEHISTORY	ServerID
2	STTRACES	ID	STTRACEHISTORY	ID

ST_TYPES

This table contains the list of types.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID

Column	Field	Type	Length	Primary	Description
2	ClassID	int	4	Y	Class ID for type
3	TypeName	varchar	254	N	Type Name
4	DisplayName	varchar	254	N	Display Name
5	PropertyCount	int	4	N	Property Count
6	IsItem	int	4	N	Is an Item type
7	IsComponent	int	4	N	Is a component
8	IsMPXSupported	int	4	N	Is MPX enabled

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TYPES	ServerID	ST_PROPERTIES	ServerID
2	ST_TYPES	ClassID	ST_PROPERTIES	TypeID
1	ST_SERVER	ServerID	ST_TYPES	ServerID

ST_USERS

This table provides a list of all users.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	User ID
3	Full_Name	varchar	254	N	Full Name
4	Phone	varchar	254	N	Phone
5	VoiceMail	varchar	254	N	Voice Mail
6	Pager	varchar	254	N	Pager
7	Fax	varchar	254	N	Fax
8	Email_Address	varchar	254	N	Email Address
9	Address	varchar	254	N	Address
10	CreatedTime	datetime	254	N	CreatedTime
11	AccountStatus	varchar	254	N	Account Status
12	LogonName	varchar	254	N	Logon Name
13	HasFixedLicense	int	4	N	Has a fixed license

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_USERS	ServerID	ST_GROUPUSERS	ServerID
2	ST_USERS	ID	ST_GROUPUSERS	UserID
1	ST_USERS	ServerID	ST_OBJECTACLS	ServerID
2	ST_USERS	ID	ST_OBJECTACLS	ObjectID
1	STSERVER	ServerID	STUSERS	ServerID

ST_VIEWMEMBER

This table lists the folders that items are in.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ViewID	int	4	N	View ID
3	ItemID	int	4	Y	Item ID
4	ParentFolderID	int	4	N	Item ID of Parent Folder
5	ProjectID	int	4	N	Project ID
6	ClassID	int	4	N	Class ID of Item type
7	TypeName	varchar	254	N	Name of item type
8	ID	int	4	N	Object ID of item
9	ViewVersion	int	4	N	View Version of item
10	RevisionNumber	int	4	N	Revision Number of Item
11	FolderHierarchy	text	16	N	Folder Hierarchy for item

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_VIEWMEMBER	ServerID	ST_AUDITS	ServerID
2	ST_VIEWMEMBER	ItemID	ST_AUDITS	ParentFolderID
1	ST_VIEWMEMBER	ServerID	ST_ITEMLABELS	ServerID
2	ST_VIEWMEMBER	ItemID	ST_ITEMLABELS	ItemID
1	ST_VIEWMEMBER	ServerID	ST_ITEMLINKS	ServerID
2	ST_VIEWMEMBER	ItemID	ST_ITEMLINKS	ItemID
1	STCHANGEPACKAGEHIST	ServerID	STVIEWMEMBER	ServerID
2	ST_CHANGEPACKAGEHISTORY	ID	STVIEWMEMBER	ID

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
3	ST_CHANGEPACKAGEHIST	RevisionNumber	STVIEWMEMBER	RevisionNumber
1	ST_CRHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_CRHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_CRHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_FILEHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_FILEHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_FILEHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_FOLDERHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_FOLDERHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_FOLDERHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_REQHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_REQHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_REQHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_TASKHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_TASKHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_TASKHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_TOPICHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_TOPICHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_TOPICHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_TRACEHISTORY	ServerID	ST_VIEWMEMBER	ServerID
2	ST_TRACEHISTORY	ID	ST_VIEWMEMBER	ID
3	ST_TRACEHISTORY	RevisionNumber	ST_VIEWMEMBER	RevisionNumber
1	ST_VIEWS	ServerID	ST_VIEWMEMBER	ServerID
2	ST_VIEWS	ID	ST_VIEWMEMBER	ViewID
1	ST_VIEWMEMBER	ServerID	ST_VIEWMEMBERHISTORY	ServerID
2	ST_VIEWMEMBER	ItemID	ST_VIEWMEMBERHISTORY	ItemID

ST_VIEWMEMBERHISTORY

This table lists the view member history including deleted and moved items.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ViewID	int	4	N	View ID
3	ItemID	int	4	Y	Item ID
4	ItemRevisionNumber	int	4	Y	
5	CreatedTime	datetime	8	N	Created Time
6	CreatedUserID	varchar	254	N	Created User
7	ModifiedTime	datetime	8	N	Modified Time
8	ModifiedUserID	varchar	254	N	Modified User
9	DeletedTime	datetime	8	N	Deleted Time
10	DeletedUserID	varchar	254	N	Deleted User
11	EndModifiedTime	datetime	8	N	End time for revision
12	ParentFolderID	int	4	N	Item ID of Parent Folder
13	ProjectID	int	4	N	Project ID
14	ClassID	int	4	N	Class ID of Item type
15	TypeName	varchar	254	N	Name of item type
16	ID	int	4	N	Object ID
17	ConfigType	int	4	N	Configuration type
18	ConfigData	datetime	8	N	

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_VIEWMEMBER	ServerID	ST_VIEWMEMBERHISTORY	ServerID
2	STVIEWMEMBER	ItemID	STVIEWMEMBERHISTORY	ItemID

ST_VIEWS

This table provides the list of views.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID
2	ID	int	4	Y	View ID
3	CreatedTime	datetime	8	N	Creation time
4	CreatedUserID	varchar	254	N	Creation user
5	Name	varchar	254	N	Name
6	Description	varchar	254	N	Description

Column	Field	Type	Length	Primary	Description
7	ProjectID	int	4	N	Project ID
8	ParentViewID	int	4	N	View ID of Parent view
9	RootMemberID	int	4	N	
10	WorkingFolder	varchar	762	N	
11	BaseConfigType	int	4	N	Base configuration type from when view was created
12	BaseConfigData	datetime	8	N	Base configuration data from when view was created
13	Flags	int	4	N	
14	ShareFlags	int	4	N	
15	IsViewPurged	int	4	N	
16	IsBranchOnShare	int	4	N	Whether items are Branch on Share
17	IsReadOnly	int	4	N	Whether view is read only
18	ISReference	int	4	N	Whether view is reference
19	ViewHierarchy	text	16	N	View Hierarchy for view

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_VIEWS	ServerID	ST_LABELS	ServerID
2	ST_VIEWS	ID	ST_LABELS	ViewID
1	ST_VIEWS	ServerID	ST_OBJECTACLS	ServerID
2	ST_VIEWS	ID	ST_OBJECTACLS	ObjectID
1	ST_VIEWS	ServerID	ST_PROMOTIONS	ServerID
2	ST_VIEWS	ID	ST_PROMOTIONS	ViewID
1	ST_VIEWS	ServerID	ST_VIEWMEMBER	ServerID
2	ST_VIEWS	ID	ST_VIEWMEMBER	ViewID
1	ST_PROJECTS	ServerID	ST_VIEWS	ServerID
2	STPROJECTS	ID	STVIEWS	ProjectID

ST_WORKRECORDHISTORY

This table lists the work record history - work records for every task revision.

Column	Field	Type	Length	Primary	Description
1	ServerID	int	4	Y	Server ID

Column	Field	Type	Length	Primary	Description
2	ID	int	4	Y	Workrecord ID
3	StWorkTaskID	int	4	N	ObjectID of Task
4	RevisionNumber	int	4	Y	Revision number of task
5	StWorkDate	datetime	8	N	Date
6	StWorkHours	float	8	N	Hours
7	StWorkRemainingHours	float	8	N	Remaining Hours
8	StWorkUserID	varchar	254	N	User Name
9	StWorkComment	Text	16	N	Comment

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TASKHISTORY	ServerID	ST_WORKRECORDHISTOR Y	ServerID
2	ST_TASKHISTORY	ID	ST_WORKRECORDHISTOR Y	StWorkTaskID
3	ST_TASKHISTORY	RevisionNumber	STWORKRECORDHISTOR Y	RevisionNumber

ST_WORKRECORDS

This table lists work records for every task.

Column	Field	Type	Length	Primary	Description
1	ServerID	Int	4	Y	Server ID
2	ID	Int	4	Y	Workrecord ID
3	StWorkTaskID	Int	4	N	ObjectID of Task
4	StWorkDate	datetime	8	N	Date
5	StWorkHours	float	8	N	Hours
6	StWorkRemainingHours	float	8	N	Remaining Hours
7	StWorkUserID	varchar	254	N	User Name
8	StWorkComment	Text	16	N	Comment

Table Joins

Column	Primary Table	Primary Field	Foreign Table	Foreign Field
1	ST_TASKS	ServerID	ST_WORKRECORDS	ServerID
2	ST_TASKS	ID	ST_WORKRECORDS	StWorkTaskID

Index

A

adding a new web report 13

B

Business Objects reports 15

C

Crystal Reports 15

D

Datamart Extractor 7

Datamart Extractor command line parameters 9

Datamart Synchronizer 11

E

extraction file

 creating 7

 editing 8

 purging an extraction 9

 removing 9

 running 9

 stopping an extraction 9

extraction files 7

I

introduction 6

P

product support 5

purging an extraction 9

R

reports 15

running an extraction 9

S

schema 17

ST_AUDITS 17

ST_CHANGEPACKAGECHANGES 18

ST_CHANGEPACKAGEHISTORY 18

ST_CHANGEPACKAGES 19

ST_CRHISTORY 21

ST_CRIS 22

ST_ENUMVALUES 24

ST_FILEHISTORY 25

ST_FILES 26

ST_FOLDERHISTORY 28

ST_FOLDERS 28

ST_GROUPS 30

ST_GROUPUSERS 30

ST_ITEMLABELS 31

ST_ITEMLINKS 31

ST_LABELS 32

ST_LINKS 33

ST_OBJECTACLS 34

ST_PERMISSIONS 35

ST_PROJECTS 36

ST_PROMOTIONS 38

ST_PROPERTIES 38

ST_REQHISTORY 40

ST_REQS 41

ST_SERVER 42

ST_SPRINTHISTORY 43

ST_SPRINTS 44

ST_STORIES 45

ST_STORYHISTORY 47

ST_TASKHISTORY 48

ST_TASKS 50

ST_TOPICHISTORY 52

ST_TOPICS 53

ST_TRACEHISTORY 54

ST_TRACES 55

ST_TYPES 56

ST_USERS 57

ST_VIEWMEMBER 58

ST_VIEWMEMBERHISTORY 59

ST_VIEWS 60

ST_WORKRECORDHISTORY 61

ST_WORKRECORDS 62

stopping an extraction 9

SupportLine 5

U

using Crystal Reports to view reports 14

V

viewing sample reports 12