Tzunami
Migration Masters

Tzunami Deployer
User Guide

Learn how to successfully migrate ECM contents to Microsoft SharePoint using Tzunami Deployer.

Version 2.8

Table of Content

PREFACE

ABOUT THIS GUIDE

This guide helps you to use the Tzunami Deployer and migrate contents from legacy ECM systems to Microsoft SharePoint.

This preface contains the following topics.

- Intended Audience
- Structure
- Related Documentation
- Conventions
- Technical Support
- Comments and Suggestions

INTENDED AUDIENCE

Tzunami Deployer Administrators' Guide is intended for:

- System Administrators who are responsible for setting migration environment using Tzunami Deployer.
- Project Managers and IT Managers who create and regulate usage of Tzunami Deployer.

STRUCTURE

This Tzunami Deployer User Guide is organized as follows:

- **Preface** contains the overview of this manual.
- **Chapter 1 'Tzunami Deployer for SharePoint Migration'** provides the overview of Tzunami Deployer.
- **Chapter 2 'Getting Started with Tzunami Deployer'** explicates how to create a Deployer project and save a project for future migration.
- **Chapter 3 'Connecting and Loading servers'** illustrates how you can load a Source ECM contents and target SharePoint in the Deployer Project.
- **Chapter 4 'Modeling, Deploying and Committing Deployer Project'** explains how you can model the target SharePoint and deploy Source content. It also explains ways you can commit a Deployer project.
- **Chapter 5 'Configuring Tzunami Deployer Advance Feature'** describes you how to configure Tzunami Deployer settings.

RELATED DOCUMENTATION

For more information, see these Tzunami Deployer resources.

Table 1: Tzunami Products Documentation and Resources

Products	Resource	Brief Description
Tzunami Deployer	Tzunami Deployer Installation Guide	Describes how to run the setup program and complete the installation and configuration of Tzunami Deployer and Tzunami Deployer Service Components.
	Tzunami Deployer User's Guide	Elaborates the steps required to create, Load, model, deploy and commit a Deployer project.
Tzunami Deployer Licensing Service	Licensing Service Guide	Explains step by step instruction for Tzunami Deployer licensing service.
Exporters		
Tzunami AquaLogic Exporter	AquaLogic Exporter Guide	Supports migration of BEA AquaLogic User Interaction portal contents to Microsoft SharePoint.
Tzunami Documentum Exporter	Documentum Exporter Guide	Supports migration of Documentum repositories and content management services to Microsoft SharePoint.
Tzunami DocuShare Exporter	DocuShare Exporter Guide	Facilitates migration of Xerox DocuShare web contents to Microsoft SharePoint.
Tzunami eRoom Exporter	Documentum eRoom Exporter Guide	Supports extraction of all rooms on the server and guides migration to Microsoft SharePoint.
Tzunami Exchange Exporter	Exchange Exporter Guide	Guides migrating Exchange contents to Microsoft SharePoint.
Tzunami Hummingbird DM5 Exporter	Hummingbird DM5 Exporter Guide	Supports migration of Hummingbird DM enterprise contents repositories to Microsoft SharePoint.
Tzunami Livelink Exporter	Livelink Exporter Guide	Supports migration of LiveLink contents to Microsoft SharePoint.
Tzunami Lotus Notes Exporter	Lotus Note Exporter Guide	Supports migration of Notes contents to Microsoft SharePoint.
Tzunami Confluence Exporter	Confluence Exporter Guide	Support migration of Confluence Enterprise wiki contents to Microsoft SharePoint.
Tzunami Oracle WCI Exporter	Oracle WebCenter Interaction Exporter Guide	Support migration of Oracle WebCenter Interaction components to Microsoft SharePoint.
Tzunami Google Exporter	Google Exporter Guide	Support migration of Google Drive contents to Microsoft Sharepoint.
Tzunami SharePoint 2001 Exporter	SharePoint 2001 Exporter Guide	Provides user interface and basic functionalities of Tzunami SharePoint 2001 Exporter.

CONVENTIONS

The following text conventions are used in this document:

- Commands and keywords are given in **boldface**
- Terminal sessions, console screens, or system file names are displayed in `fixed width fonts`

Caution indicates that the described action might result in program malfunction or data loss.

Notes contain helpful suggestions about or references to materials not contained in this manual.

Tips provide information that might help you solve a problem.

TECHNICAL SUPPORT

Before contacting Tzunami Deployer Support team, ensure that you are referencing the latest copy of this user guide from:

http://download.tzunami.com/go.aspx?UserGuide=Download

If you have searched our reference materials and the issue still persists, contact Tzunami Deployer Support Team at support@tzunami.com

COMMENTS AND SUGGESTIONS

Your feedback is important to us and will help us to provide the most accurate and high quality information possible in our documentation. Send us comments or suggestions by email to support@tzunami.com. Be sure to include as much of the following as possible:

- The document title.
- The location that the document was accessed from (either downloaded from Tzunami web site or the Tzunami Deployer User Guide available in Tzunami Deployer).
- The section or chapter number and the original text found in the document.

When you send information to Tzunami Deployer, you grant Tzunami a non-exclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

1 TZUNAMI DEPLOYER FOR SHAREPOINT MIGRATION

This chapter describes the features of Tzunami Deployer for SharePoint that are documented in this guide and provides pointers to additional information. It contains the following topics:

- Tzunami Deployer Overview
- Tzunami Deployer Workflow
- Licensing Information

TZUNAMI DEPLOYER OVERVIEW

Tzunami Deployer is the leading tool for rapid migration and consolidation of content from multiple sources into Microsoft SharePoint Products and Technologies.

Tzunami Deployer enables organizations that wish to start using or upgrading their SharePoint to dramatically reduce migration costs. Using Tzunami Deployer, the time required for a SharePoint content migration project is significantly reduced compared to the traditional labor-intensive processes.

Tzunami Deployer enables you to prepare modeling and migration plans offline and even off-site. Any changes performed in Tzunami Deployer do not actually affect the SharePoint server until you choose to commit them. For more information about Microsoft SharePoint Products and Technologies, refer to: http://www.microsoft.com/sharepoint/default.mspx.

Supported Source Systems

- SharePoint Portal Server 2001
- SharePoint Portal Server (SPS) 2003
- Microsoft Office SharePoint Server (MOSS) 2007
- SharePoint Server 2010(SPS2010) and SharePoint Foundation 2010 (SPF2010)
- Microsoft Office 365
- SharePoint Server 2013 (SPS2013) and SharePoint Foundation 2013 (SPF2013)
- Local File System and Remote File Servers
- Exchange Server
- Lotus Notes and Domino Server Databases
- BEA AquaLogic 5.x, 6.x and 6.5
- EMC Documentum
- Xerox Docushare
- EMC Documentum eRoom
- OpenText LiveLink
- Hummingbird DM5
- Atlassian Confluence
- Oracle WebCenter Interaction
- HyperWave
- Google Drive
- Custom Repositories

Supported Target Systems

- Windows SharePoint Services (WSS) 3.0
- Microsoft Office SharePoint Server (MOSS) 2007
- SharePoint Server 2010(SPS2010) and SharePoint Foundation 2010 (SPF2010)
- Microsoft Office 365
- SharePoint Server 2013 (SPS2013) and SharePoint Foundation 2013 (SPF2013)

TZUNAMI DEPLOYER WORKFLOW

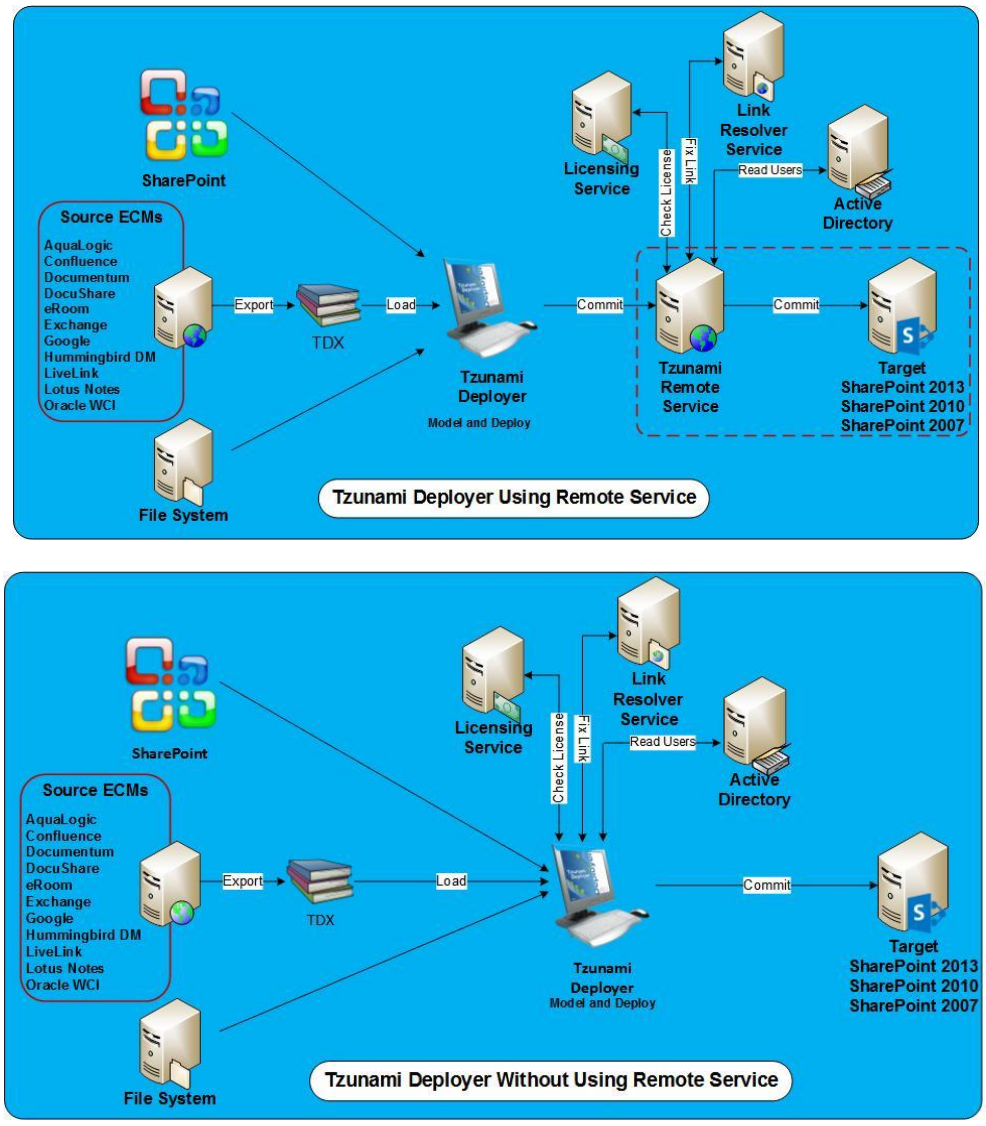


Figure 1: Tzunami Deployer Content Migration Workflow

Key Features

- **Easy to use**– Similar to the windows file explorer, Tzunami Deployer has a familiar, tree-based, drag and drop user interface.
- **Migrates all List Types**– Custom Lists, Document Libraries, Folders, Issues, Task, Contacts, Announcements, Discussions, Web Part, Home Page, Quick Launch, Wiki Site, Content Type etc. can all be migrated while preserving views, metadata, and user-edit information.
- **Copying contents within SharePoint servers**– Tzunami Deployer supports the copying of content between and within SPS2013/SPF2013, Office 365, SPS2010/SPF2010, MOSS/WSS3.0 and SPS2003/WSS2.0 servers, sites and lists.
- **Modeling and deploying tool**– Leading tool for modeling, customizing, and designing SharePoint sites, lists, libraries, and folders etc. as well as managing security settings.
- **Metadata editing and mapping**– Tzunami Deployer's metadata editing and mapping features provides a central point for metadata administration for all SharePoint sites.
- **Retain your valuable data**– When deploying content to SharePoint, Tzunami Deployer maps metadata properties of source items to target columns in SharePoint libraries and lists. If no appropriate columns exist in the target to host your source properties, you can create them on the spot.
- **Migrate permission**– When migrating content into SharePoint, Tzunami Deployer analyzes security permissions in the content sources and allows mapping of source users, roles and permissions to corresponding SharePoint users, groups, roles and permissions in order to best match the existing settings.
- **Offline simulation environment**– Tzunami Deployer loads all source and target information into a Tzunami Deployer project. This enables Tzunami Deployer to be used to make modifications and deployment plans even when it is not connected to either the source or the target machines.

  All modification and deployment actions performed in Tzunami Deployer are not executed immediately. Rather, these changes are recorded in a Tzunami Deployer project. You can duplicate a Tzunami Deployer project to create several modeling and deployment scenarios, and choose the one best suited for your needs.

  Tzunami Deployer only applies the changes to the target location and uploads the content from the source locations when you perform the committing stage.

All changes performed by Tzunami Deployer are done through the supported SharePoint API's. Tzunami Deployer does not perform any unsupported direct writes to the SharePoint databases.

LICENSING INFORMATION

There are currently two types of licenses.

- **Evaluation License**: Each Tzunami Deployer and Exporters are installed with a default evaluation license which limits the number of items that can be migrated from each container. Refer to ***Tzunami Deployer Licensing Service Guide*** for more Details.
- **Full License**: This type of license determines the amount of data that can be migrated from the source system to the target SharePoint. When committing content to the target SharePoint, Tzunami Deployer Remote Service communicates with Tzunami Licensing Service to check the availability of license.

  Tzunami Deployer Licensing Service provides project managers with the centralized point of management for the Tzunami Deployer licenses. For more information, see **Licensing Service Guide**.

If you do have a valid license installed, or the license that you have installed is expired, you will be prompted to install a new license when you run Tzunami Deployer for SharePoint Migration. To purchase a new license, contact Tzunami Sales Team at sales@tzunami.com.

If an error message appears, contact the Tzunami Support Team at support@tzunami.com.

To evaluate Tzunami Deployer you do not need Tzunami Licensing Service. If you need Tzunami Deployer evaluation license, please contact Tzunami Support.

2 GETTING STARTED WITH TZUNAMI DEPLOYER

This chapter describes how to create a project in Tzunami Deployer and save Deployer project for future use. This chapter contains the following topics:

- Creating a New Migration Project
- Save a Project

CREATING A NEW MIGRATION PROJECT

Tzunami Deployer stores all the information related to a particular project in a Tzunami Deployer project. The project consists of a file system folder, which contains the Tzunami Deployer project file (information describing the SharePoint structure and changes that will be executed on the target).

Begin using Tzunami Deployer by creating a new project.

To create a project:

1. Launch Tzunami Deployer and select **File > New**. The New Project window appears.

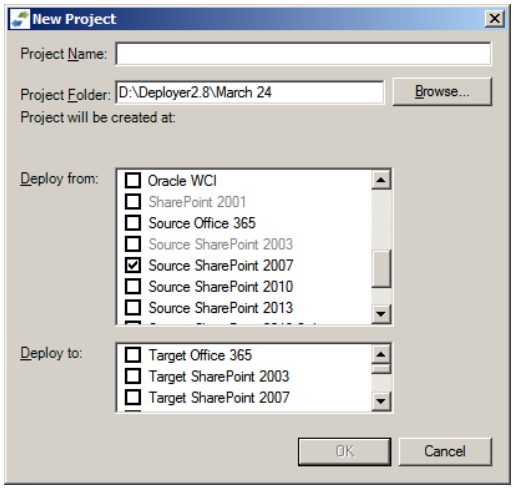


Figure 2: New Project Window

2. Enter a name for the project in the Project name field.
3. In the Project folder field, enter the location where you want Tzunami Deployer to create the new project folder.

The project folder contains all the definitions that you create in Tzunami Deployer, automatic backups of the project, as well as logs and reports of the activities that are performed in and by Tzunami Deployer.

Tzunami Deployer (x64) does not support SharePoint 2001.

4. Select one or more types of source systems to be migrated in this project

   One of Tzunami Deployer's advantages is its ability to consolidate several source systems into a single target SharePoint server. The source options that are available for selection are determined by the license that you installed, as described in the previous section. Options that are not permitted by your license are not available for selection. For e.g. SharePoint 2003 is not available in the window above. For more information about the Tzunami Deployer license, and for support of systems that are not listed, contact the Tzunami Support Team.

5. Select a target system for the migration in this project.

6. Click **OK**. Tzunami Deployer creates the new project folder and initializes the project files in it. The Project window appears. Initially, both parts of the Project window are empty.

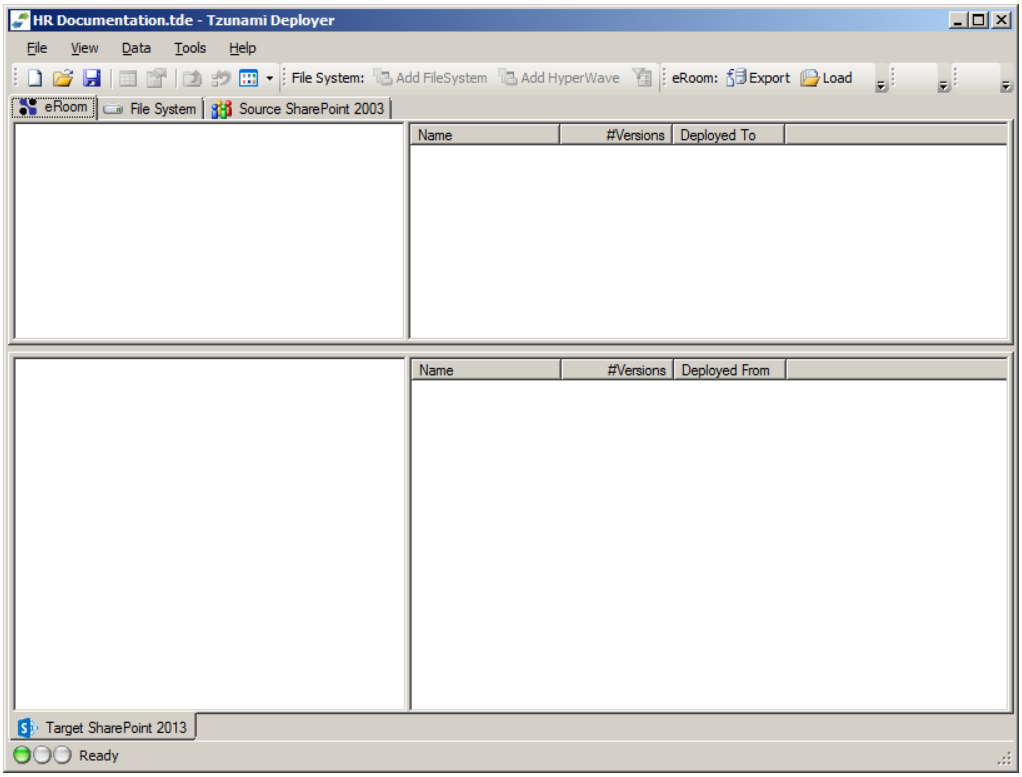


Figure 3: Project Window

The top half of the Project window uses a Windows Explorer style folder tree and details list to display the structure and content that has been loaded from the source systems. The bottom half of the Project window uses a similar approach to display the structure and content of the target SharePoint. The details list in the top and bottom parts of the Project window show columns of metadata properties and other information for the children items.

The status bar indicates various types of information, such as the currently listed and selected items and the status and progress of Tzunami Deployer processes. An indicator on the left of the status bar displays red when Tzunami Deployer is busy or when a dialog is open and Tzunami Deployer is waiting for user input. This indicator blinks yellow when Tzunami Deployer is performing a background operation. During a background operation, the current stage of the operation is also displayed, as well as a progress bar and the estimated time remaining for the operation to be completed. The indicator is green at all other times.

SAVE A PROJECT

When you save a project, you can save it to a folder on your hard disk drive, a network location, disk, the desktop, or another storage location. To do this, select a desired drive/folder from the Save As window. The Saving process is the same, regardless of what location you choose.

You should save the project frequently while you are working on it to avoid losing data because of an unexpected power failure or other problem.

To save a project:

1. Click 

   Or

   Select **File > Save**

   Or

   Press **Ctrl + S**

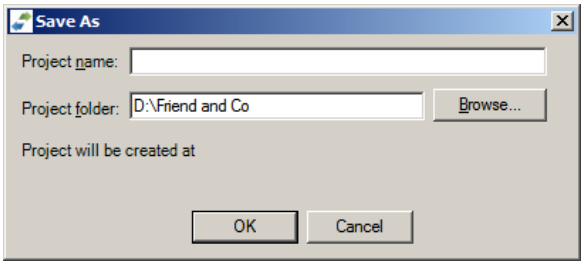


Figure 4: Save As window

2. Enter Project name and Click **Ok**.

3 CONNECTING AND LOADING SERVERS

This chapter explains how to connect and load sources content and target SharePoint in Deployer project. This chapter contains the following topics:

- Connecting and Loading Source Server
- Connecting and Loading Target Server
- Best Practice

CONNECTING AND LOADING SOURCE SERVER

After creating a Tzunami Deployer project, you can load the information that describes the source system's hierarchy structure and the metadata properties associated with each item. A tab appears in the Project window (**Figure 3**) for each source system type that you selected in the New Project window (**Figure 2**). For more information about creating a project, see ***Creating a New Migration Project*** on page **2-7**.

The loaded information is only read from the source system and no modifications are made to the actual source at any time during the migration process.

You can load information into Tzunami Deployer from one or more of the following source stores:

- **File System** – Tzunami Deployer can load information directly from your file system. For more information, see ***Loading from File System*** on page **3-11**.
- **SharePoint Web Front-End server**– Tzunami Deployer can load directly from a source SharePoint 2003/2007/2010/2013 store. For more information, see ***Connecting and Loading from Source SharePoint*** on page **3-14**.
- **Microsoft Office 365** – Tzunami Deployer can load directly from a source Microsoft Office 365. For more information, see ***Connecting Microsoft Office 365*** on page **3-16**.
- **Tzunami Deployer Export (TDX) File** – For certain source (such as AquaLogic, Documentum, DocuShare, Exchange, LiveLink, and so on), Tzunami Deployer first extracts structure and metadata information into a TDX file using Exporter modules, and then copies the files into a separate directory on your file system (depending on your export mode). For more information about exporting source data, see ***Tzunami Exporter Guide***. You can then load this TDX file into your project. For more information, see ***Loading from TDX File*** on page **3-14**.

Information loaded from a source system captures the contents of that store at the time it is loaded (or exported, in the case of TDX files). If the source system is modified after being loaded, these modifications are not reflected in your Tzunami Deployer project. To access the up-to-date content of the source system, you must reload that system (or recreate the TDX file, where necessary).

After loading, two numbers appear to the right of each folder name in the source tree, for example 

. The second number is the total number of items in that particular folder and all its subfolders. The first number is the number of items that were deployed to the target.

All source items are read-only and their icons are displayed with a blue lock () overlay.

Loading from File System

Tzunami Deployer can load directly from a file system into one or more root folders that you can define in the source tree.

You can load HyperWave directly from a File System by using HMI files generated by HyperWave. HMI files are text files. It contains properties, their values and security permission for a specific file folder.

In order for a .HMI file to relate to a file/folder, the HMI file should:

Be named after the related file/folder.
For Example – The HMI file **sample1.doc.hmi** relates to **sample1.doc** and contains its properties and security permissions.

Have the correct value for the property 'Type'
For Example – If the property Type is populated with the value 'Link', the file has to be html (or similar) file.

HMI files must start with the following line:
"HyperWave Meta Information/1.1"
Followed by an empty line

To load a source file system:

1. Click 

   Or

   Right-click in the **File System** tab and select **Add File System Root** or **Add HyperWave Root**.

You can add as many roots as you want.

The Add File System Root window appears.

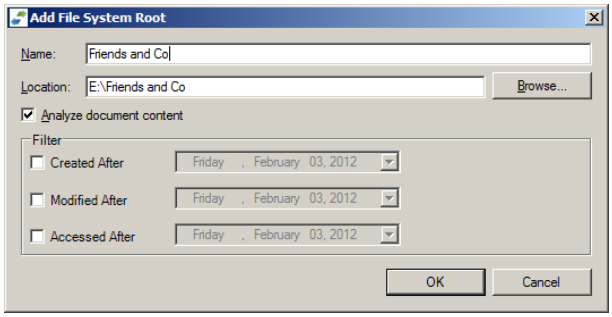


Figure 5: Add File System Root window

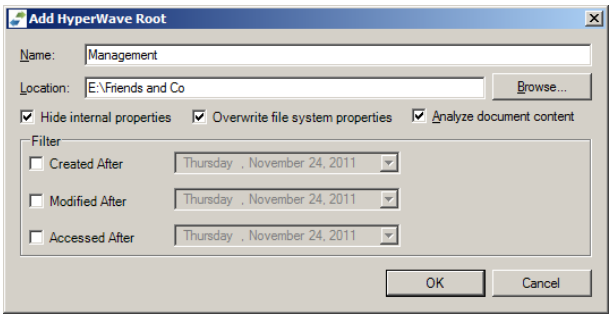


Figure 6: Add HyperWave Root window

2. Enter a name for the file system root and specify the location of the source file system folder to be loaded.

3. Select **Created After, Modified After**, and **Accessed After** to filter out the files that will be loaded from the file system.

The **Analyze document content** checkbox is selected by default and instructs Tzunami Deployer to scan each file for embedded metadata properties, such as title, author, and so on. Metadata is retrieved based on IFilters installed on the computer running Tzunami Deployer.

If the number of source documents in your file system is very large or each file's internal metadata does not need to be migrated, deselect this checkbox. When the **Analyze document content** checkbox is deselected, the loading process is faster.

4. Click **OK**. The source begins to load. When the process is complete, the folder and files loaded by Tzunami Deployer appear at the top of the Project window and the status bar displays **Ready**.

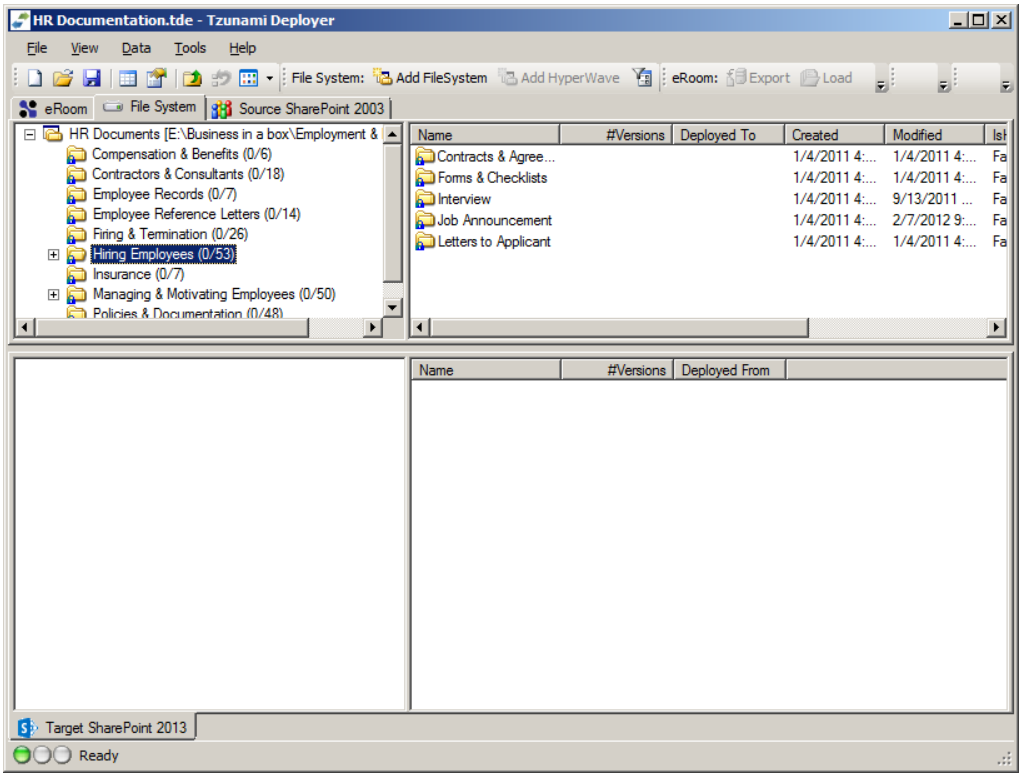


Figure 7: Tzunami Deployer Window - Loaded File System

If certain files fail to load, a warning window appears, listing those files. You can save the information in this window in order to keep track of the migration. This may occur for a variety of reasons, such as failure to access a file because of a technical problem. For more information, see ***Folder and File Naming Considerations*** on page **I**.

Connecting and Loading from Source SharePoint

If you are migrating contents between SharePoint servers, upgrading from SharePoint 2003 to SharePoint 2007/SharePoint 2010/SharePoint 2013/Office 365 or simply copying your SharePoint content, Tzunami Deployer is an easy to use, leading tool to migrate your SharePoint data.

To do so, you must first connect and load the source SharePoint as a source in the Tzunami Deployer project. This process is identical to the process of loading the target SharePoint information, except that you right-click in the source store area and then select the ***Connect to SharePoint*** option.

To connect and load source SharePoint:

- Click 

  Or

  Right-click in the **Source SharePoint** (**For example** SharePoint 2013) tab and select **Connect to SharePoint**.

  The Connection Wizard window appears. For more information about connecting to SharePoint, see ***Connecting and Loading Target Server*** on page **3-15**.

Loading from TDX File

If you have purchased a Tzunami Exporter, you can migrate content from additional sources, such as SharePoint 2001, LiveLink, and various other systems. This is done with a Tzunami Deployer Export (TDX) file that can then be loaded as a source in Tzunami Deployer. If you want to migrate from a content source that is not currently supported, contact the Tzunami Support Team for more information, including the specifications for the TDX file format, which can then be used in the same manner as the sources listed in ***Connecting and Loading Source Server*** on page **3-11**.

When running Tzunami Deployer on several machines, you can run an export on one machine, and load the exported data on another machine. While copying exported data to another machine, verify that you copy all the exported data, including both the TDX file and the extracted files directory (typically named FileStore).

When loading TDX file, Exporters have two modes of operations: Full Export and Lite Export. When performing a Full Export, documents that are exported are saved to the file system and uploaded from the file system during the commit stage. When performing a Lite Export only the structure, metadata, and security information are exported, without the documents. During the commit stage, Tzunami Deployer accesses the source system and downloads the documents that are to be uploaded. For Lite Export, the Tzunami Exporters must be installed on the Deployer machine.

To load a TDX file:

1. Right-click in the source area, and select **Load *<System Name>* TDX**. The **Load <System Name> exported information** window appears.

If you have just completed an export, the Load `<System Name>` exported information window is already displayed and the Location field already contains the location of the exported data.

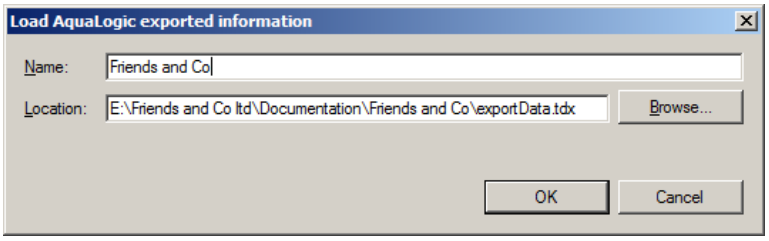


Figure 8: Load <System Name> exported information window

2. Enter a name for the content to be loaded and specify the location of the TDX file.
3. Click **OK**. The source content begins to load. When the process is complete, the folder and files loaded by Tzunami Deployer appear in the top window and the status bar displays **Ready**.

CONNECTING AND LOADING TARGET SERVER

In this step, you load the structure information describing the content of the target SharePoint (2003, 2007, 2010, 2013 or Office 365). Tzunami Deployer loads the SharePoint structure information, including portal areas, sites, lists, libraries, folders, documents, items, wiki page, etc. as well as security and metadata information. This information is displayed at the bottom of the Project window in the Target SharePoint tab.

The target SharePoint is not modified until the committing step. For more information about committing, see ***Committing the Migration*** on page **4-84.**

You first connect to the SharePoint server and then specify what information you want to load into your Tzunami Deployer project. When you load a SharePoint target, you can choose to load only some of the items and then load additional items at a later stage.

You can also remove the SharePoint information from the Tzunami Deployer project and load SharePoint again. This is especially useful for loading a different SharePoint server into the current Tzunami Deployer project, or for reloading SharePoint content.

Information loaded from SharePoint captures the SharePoint content at the time it is loaded. If SharePoint is modified after being loaded, these modifications are not reflected in your Tzunami Deployer project. Tzunami recommends that you do not modify the SharePoint content that is currently being processed by Tzunami Deployer. To access the up-to-date content of the SharePoint store, you can either remove the SharePoint from your Tzunami Deployer project or refresh a particular location by reloading it. For more information, see ***Removing SharePoint*** on page **3-32** and ***Reloading SharePoint Items*** on page **3-32**, respectively.

Load the SharePoint target smartly – plan the migration destination and nature to make it easier for you to choose which sites and lists you want to load in the target SharePoint. Loading the entire farm into a single project may be a redundant and time consuming operation. A template project(s) should contain only the destination top site collection loaded with no lists or sub-sites (un-loaded lists or sub-sites appear grayed-out in Tzunami Deployer project and you can reload them later).

Connecting Microsoft Office 365

Microsoft Office 365 can be connected and loaded either as a source or target in Tzunami Deployer. In order to load Microsoft Office 365 as a target, you must first connect to an Office 365 for which you need a user account with the following permissions:

- The user must be a member of SharePoint Online Service Administrator, global administrator or top-level administrator for your organization.
- The user must be a Site Owner or Site Collection Administrator of SharePoint Site Collection.

To connect and load Office 365

1. Click 

   Or

   Click **Data > Target SharePoint 2013 Online> Connect to SharePoint**.

   Or

   Right-click in the **Target SharePoint 2013 Online** tab and select **Connect to SharePoint**. The Office 365 Connection Wizard appears.

2. Click **Next**. The Connection Wizard progresses to the Access SharePoint Server screen.

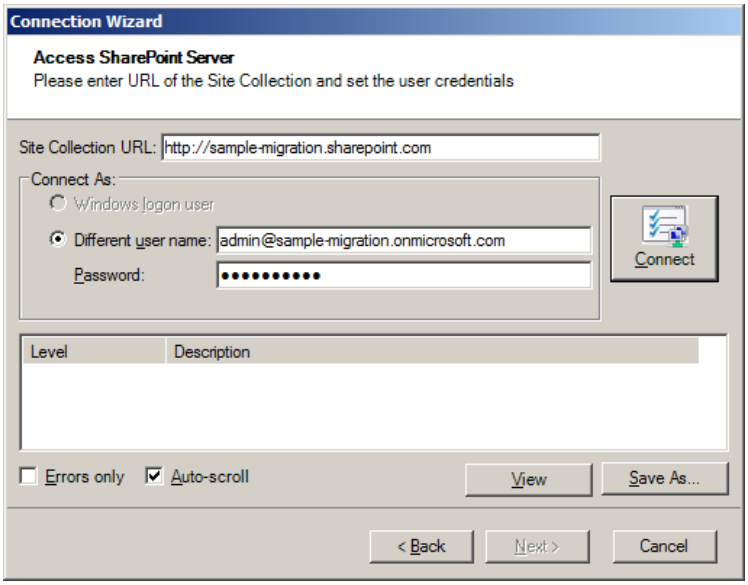


Figure 9: Office 365/SP Remote Connection Wizard – Access SharePoint Server Screen

3. In the Site Collection URL field, enter the URL of the Site Collection. For example: http://sample-migration.sharepoint.com.

Tzunami Deployer automatically uploads and activates Tzunami Sandbox Solution in the Office 365 to provide Tzunami Deployer access to various operations in Site Collection not available otherwise. For more information on Tzunami Sandbox Solution see **Tzunami Deployer Installation Guide**.

4. Specify a **Different user name** and enter a password in the **Password** field.

If Tzunami Deployer fails to connect to SharePoint, refer to ***Frequently Asked Questions*** on page **X**. Verify that you provided all the required permissions to the user, as specified in the Tzunami Deployer Installation Guide.

Clicking Errors only filters the displayed progress messages to show error messages only.

Clicking Auto-scroll scrolls down to display the latest progress messages, as they appear.

5. Click **Next**. The Connection Wizard progresses to the Web Applications screen.

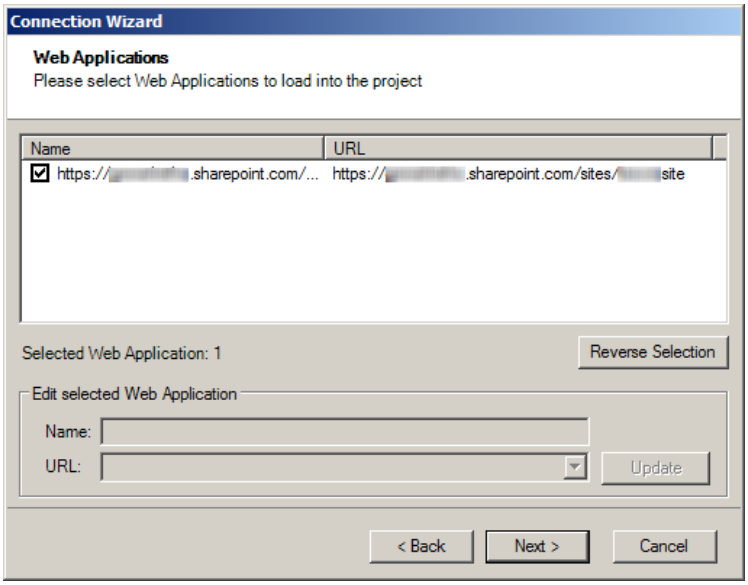


Figure 10: SharePoint Connection Wizard – Web Applications Screen

6. Select one or more Web Applications to load and click **Next**. The SharePoint Structure appears with two tabs: Sites and Content.

   Sites Tab

   The **Sites** tab allows you to select site collections to load into the Deployer Project.

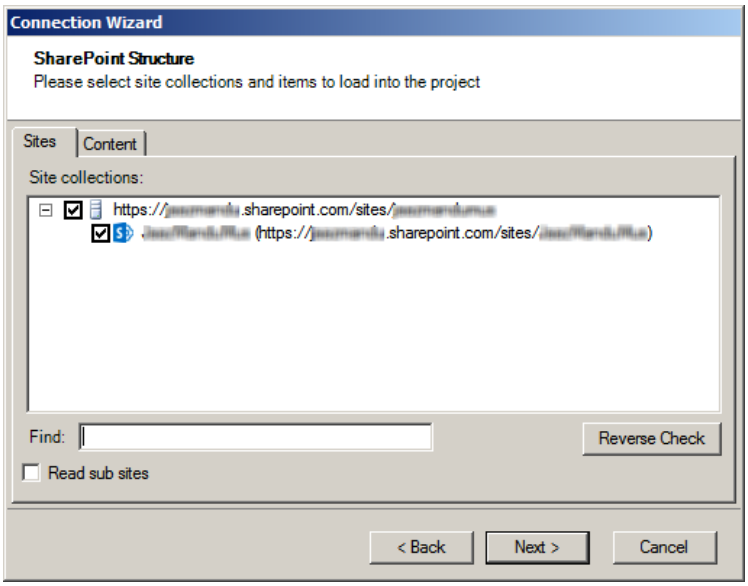


Figure 11: SharePoint Connection Wizard – SharePoint Structure - Sites Tab

Loading of SharePoint content may be a lengthy process, depending on the amount of content, the type of network, and the workload of the Microsoft SharePoint 2013 Online.

When connecting to Microsoft Office 365, it is not necessary to select site collection and item to load into the project. Tzunami recommends that you only load the site collections and portal sites that are the targets for your current project.

Site collections and Items that are not loaded at this stage appear grayed out in the Project window. Such items can be reloaded at a later time. For more information about reloading items, see ***Reloading SharePoint Items*** on page **3-32**.

7. Click **Sites Tab** to load the SharePoint site collections and portal sites.

Table 2: SharePoint Structure – Sites Tab

Field	Description
Find	Enables you to Find the site collection containing the text in the site collection by typing in the text box.
Read sub sites	Reads sub sites of all selected site collections. Clicking **Reverse Check** reverses your selection in the site tree: All deselected branches are checked and all selected branches are unchecked.

Content Tab

The **Content** tab allows you to select List Types content to load into the Tzunami Deployer and whether to load items and their versions.

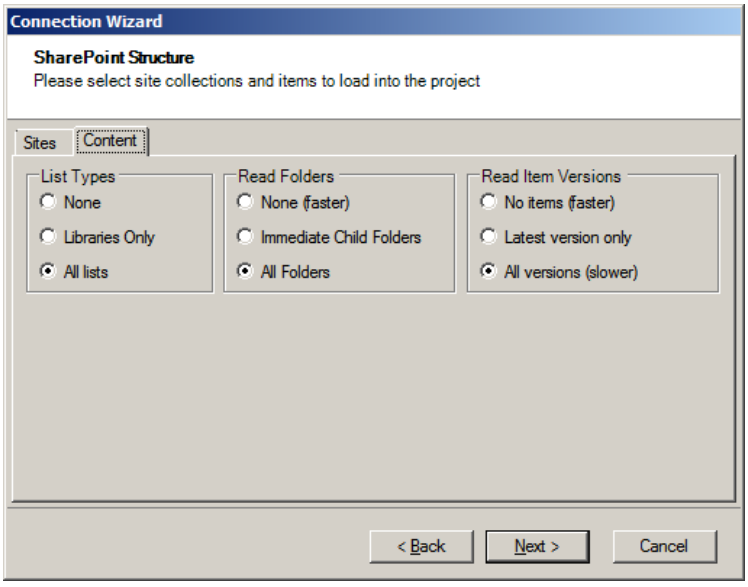


Figure 12: SharePoint Connection Wizard – SharePoint Structure - Content Tab

When connecting to target, it is not necessary to load versions of documents.

8. Click **Content Tab** to load the Site contents.

Table 3: SharePoint Structure – Content Tab

Field	Description
List Types	
None	No lists are loaded.
Libraries Only	Only libraries are loaded.
All Lists	All types of lists are loaded.
Read Folders	
None (faster)	No folders of lists and libraries are loaded.
Immediate Child Folders	Only immediate folders are loaded.
All Folders	All folders are loaded.
Read Items Versions	
No items (faster)	No item versions are loaded.
Latest version only	Only the latest item versions are loaded.
All versions (slower)	All item versions are loaded.

9. Click **Next**. The Thank you for using the Connection Wizard screen appears.
10. Click **Done**. Tzunami Deployer begins scanning the Office 365 and loads information about the selected site collections, including sub-sites, lists, folders, files and list items.
    A Results window appears, displaying the load progress.

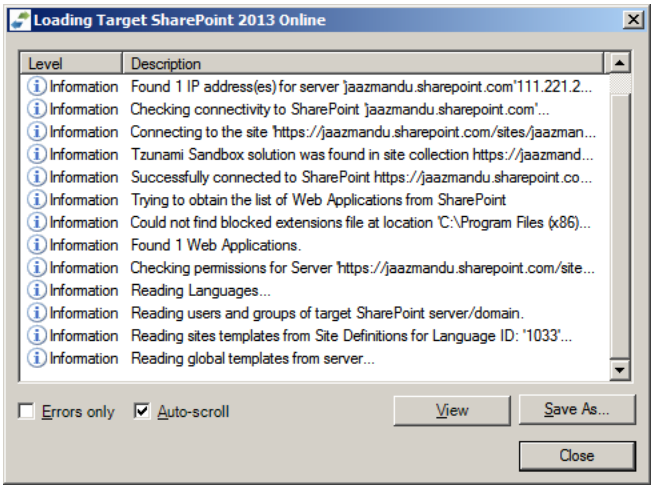


Figure 13: Loading Target Office 365 – Results Window

You can stop the loading process at any time by closing the Results window, right-clicking in the SharePoint area, and selecting **Stop Loading SharePoint**.

When the loading process is complete, you can browse the Office 365 structure in the Project window. **For example**:

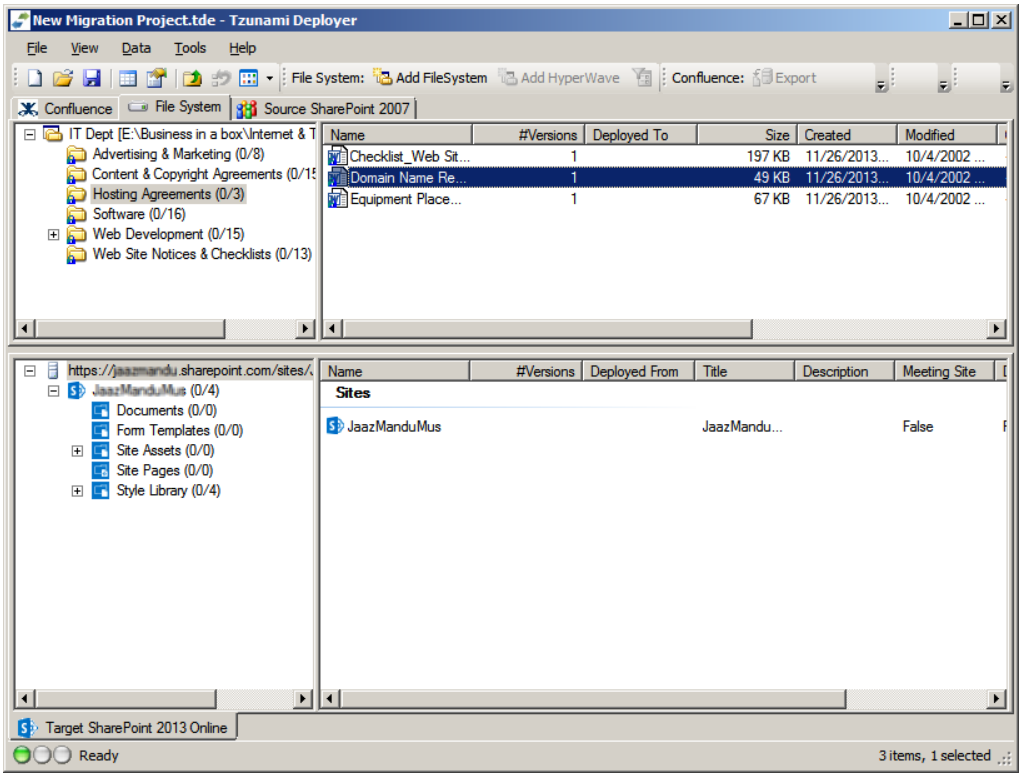


Figure 14: Loaded Target Office 365

The following table displays the various icons used by Office 365 to represent various types of items.

Table 4: SharePoint Office 365 Icons

Icon	Description
	Web Application
	SharePoint Site
	List
	Document Library
	Picture Library
	Folder

Each item in the structure tree is followed by two numbers. The first number is the number of documents and list items deployed, but not yet committed to the target SharePoint. The second number is the total number of documents and list items in that particular location and all its nested hierarchy.

Clicking a location in the tree displays the list of items in that location. The name of the item appears in the first column. Metadata property values and other information appear in the adjacent columns.

To activate the various actions in Tzunami Deployer, select an item and choose a menu option or right-click an item to display a context-sensitive menu. All the actions in the context-sensitive menus are also available in the Data menu. When you select an item, only the options that are relevant to the selected item are made available for activation. All other options are deactivated.

You can right-click an item and select Open to view it. In lists that support document versioning, you can view the versions of an item by right-clicking the item and selecting Versions.

Connecting and Loading SharePoint WFE Server

You can connect and load SharePoint WFE (SPS2013/SPF2013, SPS2010/SPF2010 and MOSS/WSS 3.0) servers as a source or target in Tzunami Deployer. To load SharePoint Server, you must first connect to a SharePoint server from Tzunami Deployer for which you need a user account with the following permissions:

- The user running Tzunami Deployer needs to be a Local Administrator (to get Registry and File System access).
- The user provided in Deployer must have permission to connect to the machine where Tzunami Deployer Remote Service is installed (unless the source Remote Service has problems downloading files from the source which results in the Deployer-provided credentials being used).

To connect and load SharePoint target:

1. Click Connect.

   Or

   Click **Data > Target SharePoint 2013 > Connect to SharePoint**.

   Or

   Right-click in the **Target SharePoint 2013** tab and select **Connect to SharePoint**. The SharePoint 2013 Connection Wizard appears.

2. Click **Next**. The Connection Wizard progresses to the Access SharePoint Server screen.

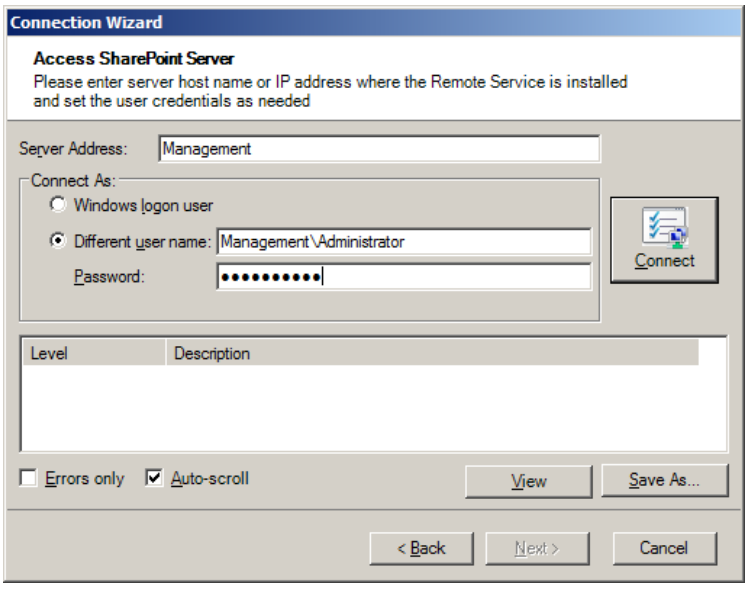


Figure 15: SharePoint Connection Wizard – Access SharePoint Server Screen

3. Enter the name or Fully Qualified Name (FQN) of the SharePoint front-end server in the Server Address field. Use the name or IP Address of the front-end server running the Tzunami Deployer Remote Service.

The Tzunami Deployer evaluation version only allows you to connect to the local server. The local machine name is automatically selected. The fully licensed version of Tzunami Deployer does not have this restriction and allows you to connect remotely to any SharePoint server.

4. Specify the user account to be used by Tzunami Deployer to login and access the SharePoint server. You can choose between two options:

   - **Windows logon user** – Use the currently logged on user.
   - **Different user name** – Specify a different user and enter a password in the Password field. When specifying a user, use the following formats: `DOMAIN\user` or `COMPUTERNAME\User` or `user@DOMAIN` or `user@COMPUTERNAME`.

If Tzunami Deployer fails to connect to SharePoint, refer to ***Frequently Asked Questions*** on page **X**. Verify that you provided all the required permissions to the user, as specified in the Tzunami Deployer Installation Guide.

Clicking Errors only filters the displayed progress messages to show error messages only.

Clicking Auto-scroll scrolls down to display the latest progress messages, as they appear.

5. Click **Next**. The Connection Wizard progresses to the Web Applications screen.

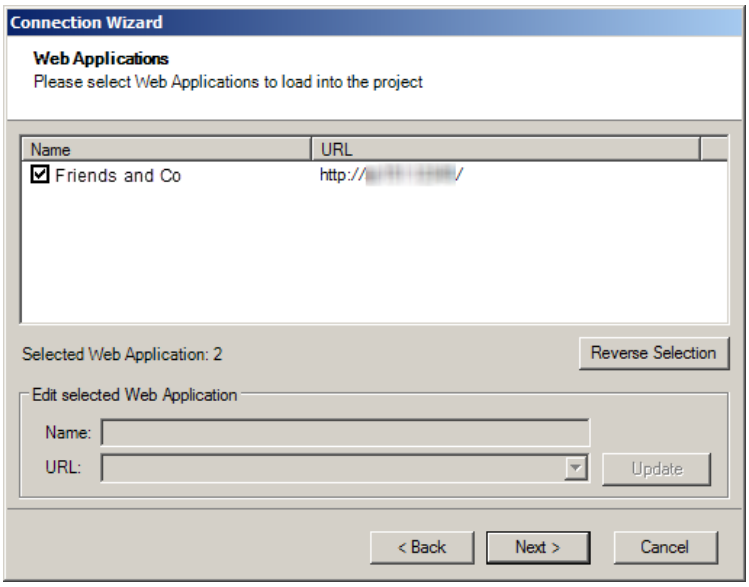


Figure 16: SharePoint Connection Wizard – Web Applications Screen

If a URL of the virtual server displayed in the screen is not the same as it is in IIS or in SharePoint, you can change it from the list of alternative URLs, or configure it manually in the URL field. Click Update to use the selected URL.

When connecting to SharePoint as target, it is not necessary to load versions of documents.

6. Select one or more Web Applications to load and click **Next**. The SharePoint Structure appears with three tabs: Sites, Content and Active Directory.

Sites Tab

The **Site** tab allows you to select site collections to load into the Deployer Project.

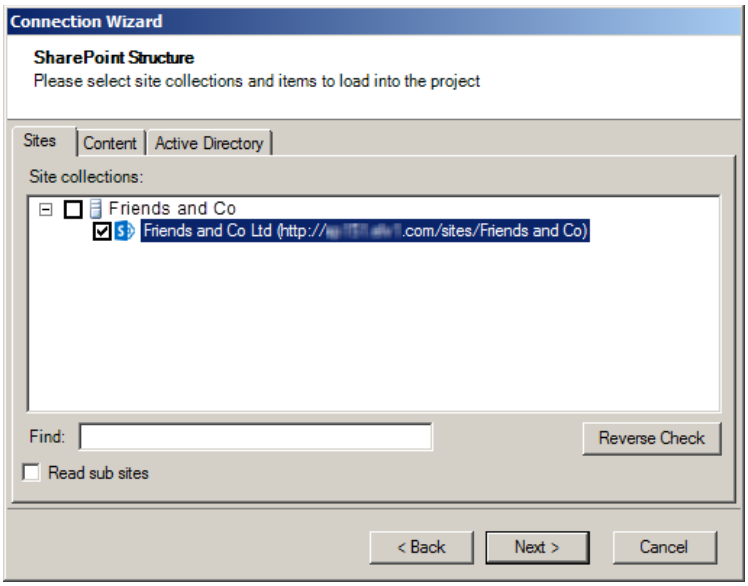


Figure 17: SharePoint Connection Wizard – SharePoint Structure - Sites Tab

Loading of SharePoint content may be a lengthy process, depending on the amount of content, the type of network, and the workload of the SharePoint server.

When connecting to SharePoint, it is not necessary to select site collection and item to load into the project. Tzunami recommends that you only load the site collections and portal sites that are the targets for your current project.

Site collections and Items that are not loaded at this stage appear grayed out in the Project window. Such items can be reloaded at a later time. For more information about reloading items, see ***Reloading SharePoint Items*** on page **3-32**.

7. Click **Sites Tab** to load the SharePoint site collections and portal sites.

Table 2: SharePoint Structure – Sites Tab

Field	Description
Find	Enables you to Find the site collection containing the text in the site collection by typing in the text box.

Field	Description
Read sub sites	Reads sub sites of all selected site collections. Clicking **Reverse Check** reverses your selection in the site tree: All deselected branches are checked and all selected branches are unchecked.

Content Tab

The **Content** tab allows you to select List Types content to load into the Tzunami Deployer and whether to load items and their versions.

When connecting to SharePoint 2013 as a target, it is not necessary to load versions of documents.

8. Click **Content Tab** to load the Site contents.

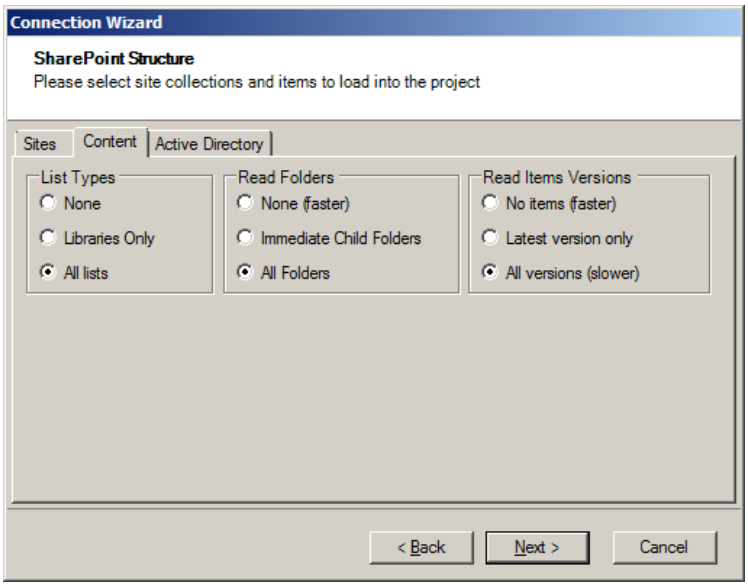


Figure 18: SharePoint Connection Wizard – SharePoint Structure - Content Tab

Table 3: SharePoint Structure – Content Tab

Field	Description
List Types	
None	No lists are loaded.
Libraries Only	Only libraries are loaded.
All Lists	All types of lists are loaded.
Read Folders	
None (faster)	No folders of lists and libraries are loaded.
Immediate Child Folders	Only immediate folders are loaded.
All Folders	All folders are loaded.
Read Items Versions	
No items (faster)	No item versions are loaded.
Latest version only	Only the latest item versions are loaded.

Field	Description
All versions (slower)	All item versions are loaded.

Active Directory Tab

The **Active Directory** tab allows you to load user and groups from Active Directory domains.

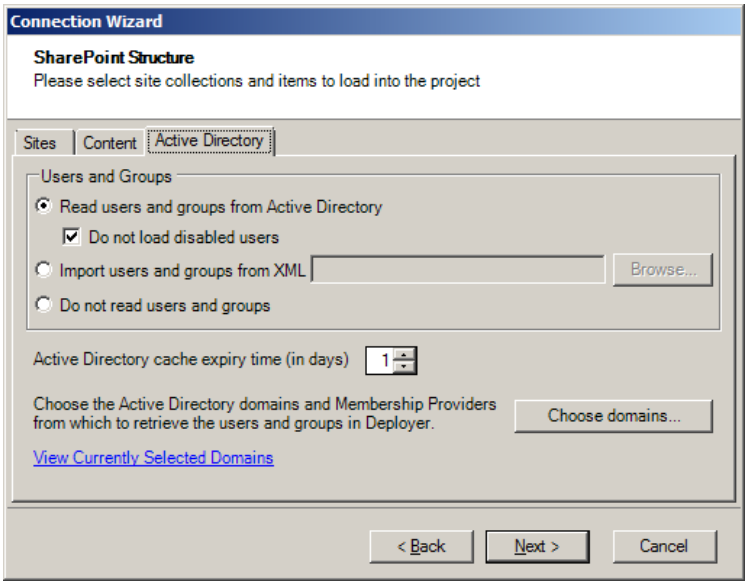


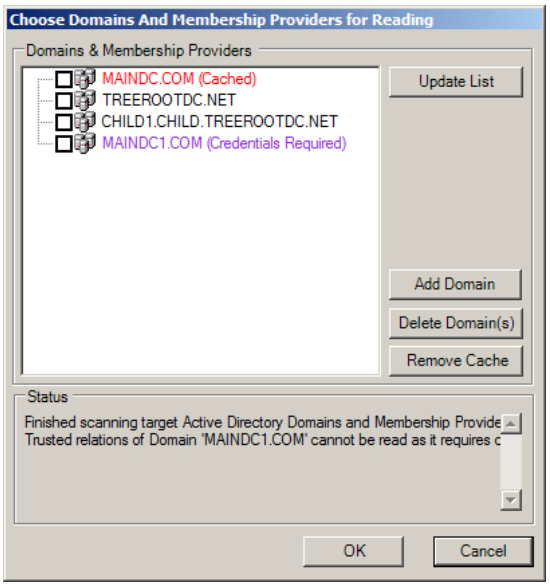
Figure 19: SharePoint Connection Wizard – SharePoint Structure - Active Directory Tab

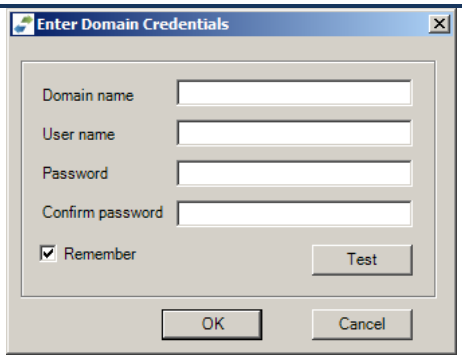
9. Click **Active Directory Tab** to select Active Directory Domain.

Active Directory tab is only available when connecting to the Target SharePoint Structure.

Table 5: SharePoint Structure – Active Directory Tab

Field	Description
Users and Groups	Specify how to load users and groups from Active Directory domains.
Read users and groups from Active Directory	Allows you to read users and groups from Active Directory. • **Do not load disabled users from Active Directory –** Select this option to skip disable users and groups when reading Active Directory.
Import users and groups from XML	Allows you to import users and groups from a XML file.
Do not read users and group	Allows you to skip loading users and groups from Active Directory.
Active Directory cache expiry time (in days)	Allows you to specify expire time for remove Active Directory cache files.

Field	Description
Choose domains…	Opens the Choose Domains for Reading window, which displays the domain to which the SharePoint machine belongs and any sub-domains and additional domains with a trusted relationship to that domain. Click **Update List** to display domains. The **Domain** that is part of SharePoint server, any **Sub-Domains** and **Additional Domains** with trusted relationship with main domain appears in **BLACK COLOR**. Cached Domains have their user information stored in a local cache files, and will be read without probing the domain controllers for information. The **Cached Domains** are displayed in **RED COLOR**. Any domains with incoming trust relationship are displayed in **PURPLE COLOR**. You must enter domain credentials to read users from incoming trusted relationship domains.  If you select an Active Directory domain, Tzunami Deployer retrieves all the users and groups from that domain. Click **Add Domain** to add custom domains that do not appear in the Domains tree. Enter Domain Credentials window appears.

Field	Description
	 Specify the **Domain name** and enter **User name**, **Password** and **Confirm password** in their respective fields. Click **Test** to verify domain credentials to connect with the custom domains. Click **Delete Domain(s)** to delete selected domains from the list. Tzunami Deployer caches the results from previous connections to SharePoint. You can delete the cached information by selecting a domain and clicking **Remove Cache**.

10. Click **Next**. The Thank you for using the Connection Wizard screen appears.
11. Click **Done**. Tzunami Deployer begins scanning the SharePoint server and loads information about the selected site collections, including sub-sites, lists, folders, files and list items.

    A Results window appears, displaying the load progress.

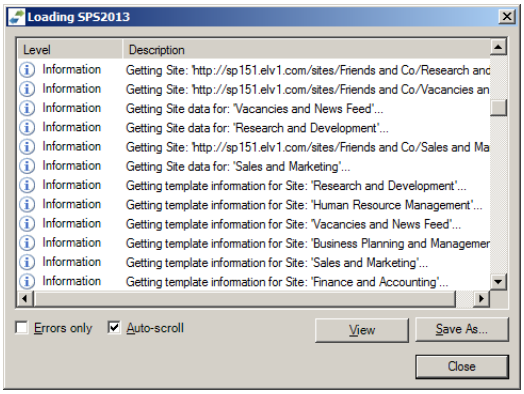


Figure 20: Loading SharePoint 2013 – Results Window

You can stop the loading process at any time by closing the Results window, right-clicking in the SharePoint area, and selecting **Stop Loading SharePoint**.

When the loading process is complete, you can browse the SharePoint structure in the Project window. **For example**:

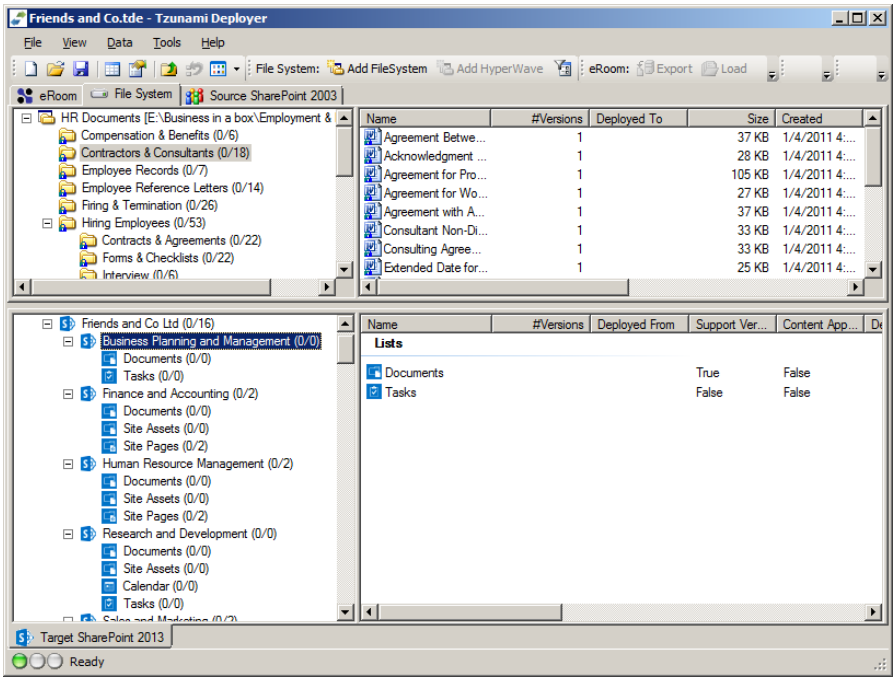


Figure 21: Loaded Target SharePoint 2013

The following table displays the various icons used by SharePoint 2013 to represent various types of items.

Table 6: SharePoint 2013 Icons

Icon	Description
	Web Application
	SharePoint Site
	List
	Document Library
	Picture Library
	Folder

Each item in the structure tree is followed by two numbers. The first number is the number of documents and list items deployed, but not yet committed to the target SharePoint. The second number is the total number of documents and list items in that particular location and all its nested hierarchy.

Clicking a location in the tree displays the list of items in that location. The name of the item appears in the first column. Metadata property values and other information appear in the adjacent columns.

To activate the various actions in Tzunami Deployer, select an item and choose a menu option or right-click an item to display a context-sensitive menu. All the actions in the context-sensitive menus are also available in the Data menu. When you select an item, only the options that are relevant to the selected item are made available for activation. All other options are deactivated.

You can right-click an item and select Open to view it. In lists that support document versioning, you can view the versions of an item by right-clicking the item and selecting Versions.

Connecting and Loading SharePoint Server (without using Remote Service)

SharePoint (2010 and 2013) Server can be loaded as either a source or target in Tzunami Deployer without Remote Service. In order to load SharePoint Server as a target, you must first connect to a SharePoint server for which you need a user account with permissions. For more information of SharePoint Server 2010/2013 Site Collection Permission, see ***Connecting Microsoft Office 365*** on page **3-16**.

To connect and load a SharePoint Server 2013 target without Remote Service:

1. Click Connect.

   Or

   Click **Data > Target SharePoint 2013 Remote > Connect to SharePoint**.

   Or

   Right-click in the **Target SharePoint 2013 Remote** tab and select **Connect to SharePoint**. The SharePoint 2013 Connection Wizard appears.

2. Click **Next**. The Connection Wizard progresses to the Access SharePoint Server screen.

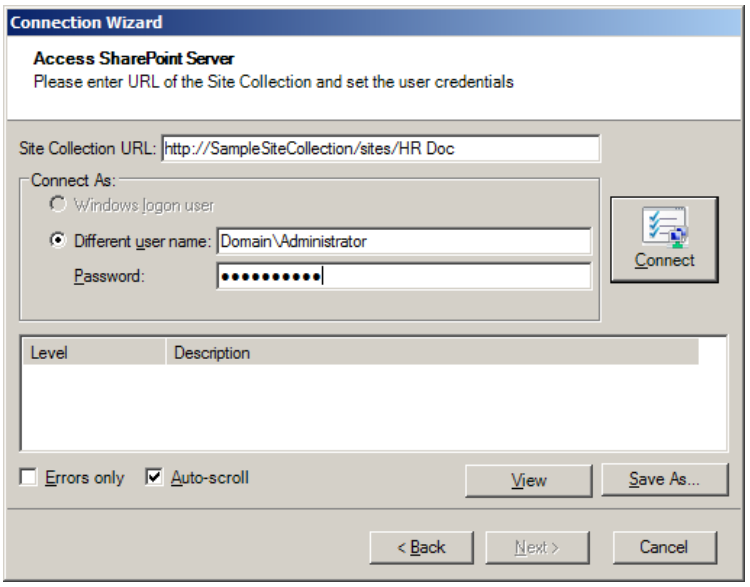


Figure 22: SharePoint Connection Wizard – Access SharePoint Server Screen

3. In the Site Collection URL field, enter the URL of the Site Collection. For example: http://sample-migration.com/Sites/HumanResource

Tzunami Deployer automatically uploads and activates Tzunami Sandbox Solution in the SharePoint Site Collection to provide Tzunami Deployer access to various operations in SharePoint Server 2010/2013 Site Collection. For more information on Tzunami Sandbox Solution see **Tzunami Deployer Installation Guide**.

4. Specify a different user name and enter a password in the Password field. When specifying a user, use the following formats: `DOMAIN\user` or `COMPUTERNAME\User`.

5. Continue following the wizard. For more information, see ***Connecting and Loading SharePoint WFE Server*** on Page **3-22**.

Connecting and Loading SharePoint 2003

SharePoint 2003 can be connected and loaded as either a source or a target in Tzunami Deployer. In order to load a SharePoint 2003 target, you must first connect to a SharePoint 2003 server, for which you need a user account with the following permissions:

- Administrative permissions on the SharePoint front end server (member of the local Administrators group).
- Administrative permissions on the SharePoint sites.
- Read permissions on the SQL Server Configuration Database of both source and target SharePoint.
- Read permissions on the SQL Server Content Databases of source SharePoint sites.
- Read/Write permissions on the SQL Server Content Databases of target SharePoint sites.
- Read rights on the related Active Directory forest (recommended).
- Execute permissions for the SQL Server stored procedure (in case of SQL Server 2005 only).
- Administrative share "\\<SharePoint machine>\c$\Program Files\Common Files\Microsoft Shared\web server extensions" and all subfolders (if not granted to the Administrators group).
- Remote registry access to "Local Machine\SOFTWARE\Microsoft\Shared Tools\Web Server Extensions\" and all sub keys (if not granted to the Administrators group).

Tzunami Deployer cannot remotely access SPS2003/WSS2.0 servers when the backend database of SharePoint is built on the WMSDE edition of SQL Server. In this case Tzunami Deployer must be installed locally on the SharePoint machine.

Missing DNS settings may hinder Tzunami Deployer's ability to access SharePoint front end servers, SQL servers, or domain servers. In such case, copy the DNS servers' definitions from the SharePoint servers. For more information about connecting to SharePoint, see ***Connecting and Loading Target Server*** on page **3-15.**

Reloading SharePoint Items

If you choose not to read all the sites or lists in the SharePoint Structure screen of the SharePoint Connection Wizard (**Figure 17**), they appear in the SharePoint tree, grayed out and unavailable. Similarly, if changes are made to SharePoint after it is loaded into Tzunami Deployer, those changes are not reflected in your Tzunami Deployer project. In both cases, you can refresh the SharePoint information in the Tzunami Deployer project by reloading selected items.

This option is disabled if modifications are made to the SharePoint location.

To reload SharePoint items:

1. In the Target SharePoint tab, right-click the desired item and select Reload Item. The Load SharePoint Items window appears.

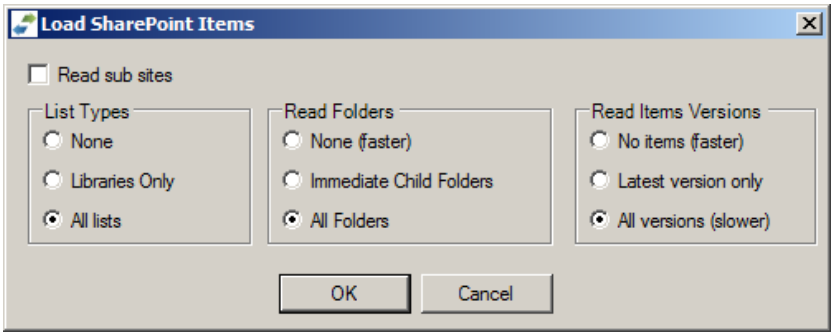


Figure 23: Load SharePoint Items Window

2. Select which items you wish to reload and whether to load all document versions, according to the information in **Table 3**.

3. Click **OK**. A Results window appears, displaying the load progress. The items are reloaded into your project window.

Removing SharePoint Project

You can load a different SharePoint server into the current Tzunami Deployer project or you can reload SharePoint content in all the virtual servers by removing the SharePoint information from the Tzunami Deployer project and loading a new SharePoint target.

To remove a SharePoint target:

- Right-click in the **Target SharePoint** tab and select **Remove SharePoint from Project**. All target SharePoint information is removed from the project.

The project is automatically saved after the SharePoint is removed.

BEST PRACTICE

- **Use a template project**: Create one project as a template, preferably with the SharePoint target loaded. Clone this project (using the Save As option) multiple times – in accordance to the data exported in the export phase.
- **Be organized**: Verify that your project files are saved under a well-organized file system hierarchy.
- **Prepare a project for Deploying**:
    - Open one of the projects you have created.
    - Load the source data into that project. Load the structure and then reload desired content within it.
    - Reload the target destination site/sub-site/list which may not be fully loaded (if you loaded it only partially). If there are many documents in a target list, for example, it may be unnecessary to load all the existing documents when reloading that list. However, choosing not to load this could prevent Tzunami Deployer from identifying duplicate file names.
    - Document versions for target need not be loaded.
    - Work on multiple projects in parallel. You can run 3 instances of Deployer on one front end server (assuming 4GB RAM, 2 GHz Xeon processor server configuration). However it is recommended that the instances be increased or decreased based on server load.

4 MODELING, DEPLOYING AND COMMITTING DEPLOYER PROJECT

This chapter explains how to model target SharePoint and deploy the source content. This chapter contains the following topics:

- Modeling SharePoint Target
- Deploying Source Data for Migration
- Committing the Migration

MODELING SHAREPOINT TARGETS

Tzunami Deployer enables you to model your target SharePoint, into which the source content will eventually be migrated. You can model:

- **Structure** – Create or modify site collections, sites, portal areas (SPS2003 only), libraries, lists and folders. For more information, see ***Modeling SharePoint Structure*** on page **4-35**.
- **Metadata** – Design the property sets and properties that comprise the columns of the target SharePoint lists. For more information, see ***Modeling SharePoint Metadata Service*** on page **4-41**.
- **Security and Permissions** – Create or modify groups and permissions levels, add users and assign permissions. For more information, see ***Viewing Security Information*** on page **4-47**.

If you are satisfied with your existing target SharePoint structure and do not wish to make any modifications to it, you can skip this section and proceed to the deploying step. For more information about deploying, see ***Deploying Source Data for Migration*** on page **4-59**.

After loading a target SharePoint, you can model your target SharePoint.

Modeling a SharePoint target does not actually modify your server. All changes are made in your Tzunami Deployer project and are only applied to the target SharePoint when you commit them. For more information about committing, see ***Committing the Migration*** on page **4-84**.

Modeling SharePoint Structure

Tzunami Deployer enables you to use its simple and intuitive interface to create, delete, or modify items in the target SharePoint structure. SharePoint 2007/2010/2013 or Office 365 supports creating folders under lists. SharePoint 2003 only supports creating folders under libraries. Tzunami Deployer also enables you to edit the properties of existing SharePoint items. For more information, see ***Editing Properties of SharePoint Item*** on page **4-38**. You can right-click the following items and select an action from the context sensitive menu:

- Sites
- Portal Areas
- Lists
- Folders
- Items

You can also rename an item by selecting it and pressing F2. SharePoint imposes some character and length limitations on item names. For more information, see ***Folder and File Naming Considerations*** on page **I** or refer to your SharePoint documentation. Tzunami Deployer may rename folders or documents by replacing invalid characters with an underscore (_).

These procedures are similar to the procedures used in the native SharePoint environment. Any SharePoint item can be deleted, except for virtual servers and some built-in lists.

The icons of newly created items in Tzunami Deployer are displayed with a star ( ) overlay. Similarly, the icons of modified items in Tzunami Deployer are displayed with a pencil ( ) overlay. The overlays signify that the particular item exists or is modified in the Tzunami Deployer project only, and not in SharePoint. **For example**:

– Existing unmodified document library.

– Existing modified document library.

– New document library.

The overlays are removed after the changes are committed.

Creating a New Site

Tzunami Deployer allows you to create new sites on the target SharePoint Structure. New site can be added as a site collection, if created under the virtual server or a web application, or as a sub-site, if created under another site, from the templates (like Blogs, My Sites, Team Sites, Meeting Workspaces etc.) and according to the location you selected in the target SharePoint.

To create a SharePoint site in Tzunami Deployer:

1. Right-click the location in the target SharePoint in which to create the new site and select **New > Site**. The New WSS Site window appears.

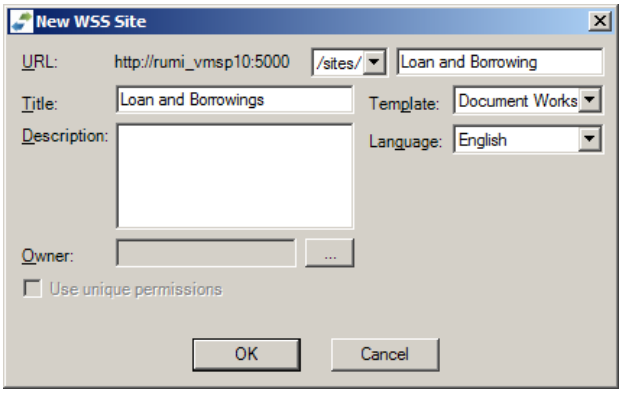


Figure 24: New WSS Site Window

When you create a site collection, the Owner field is enabled (since only site collections have owners) and the Use unique permissions checkbox is disabled (since site collections always have unique permissions – they cannot inherit permissions

from their parent, for they do not have a parent). When you create a sub-site, the opposite is true.

2. Enter **information** describing the URL. A SharePoint site URL is comprised of the following:
    - **Server address** – The server URL, such as http://moss.tzunami.net. This value can also be an IP address.
    - **Managed path** – Typically `sites/` or `personal/`. Additional managed paths can be configured in SharePoint.
    - **Hierarchy of site group and parent sites** – Relevant for sub-sites only.
    - **Site name** – For a site collection, enter a site name and select the managed path from the drop-down list. For any other site, enter the site name.
3. Enter a **Title** and **Description** to be used for the new SharePoint site.
4. Select the Site Template to be used. When you select a template, a short description is displayed below it.

For a site collection, enter the owner account.

For sub-sites, select whether the site should use unique permissions. If you do not select Use unique permissions, the site inherits the permissions of its parent site.

5. Click **OK**.

   The new SharePoint site is added to the target SharePoint tree. The configuration of the new site is determined by the SharePoint site template you selected.

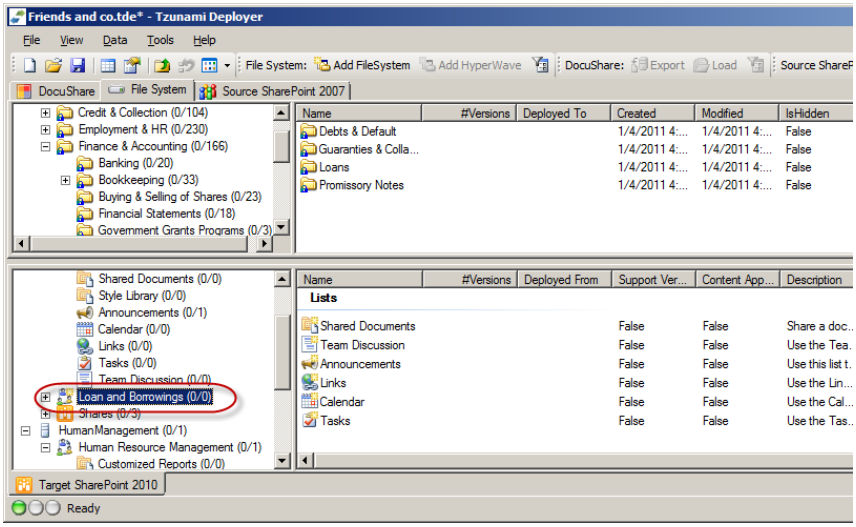


Figure 25: Tzunami Deployer Project Window – Target SharePoint Site

Creating a New List in a SharePoint Site

Tzunami Deployer allows you to create new lists on the target SharePoint Structure. New list can be created in a site or portal area from the templates in the target SharePoint.

To create a new list in a SharePoint site:

1. Right-click a site or portal area and select **New** > **List**. The New SharePoint List window appears.

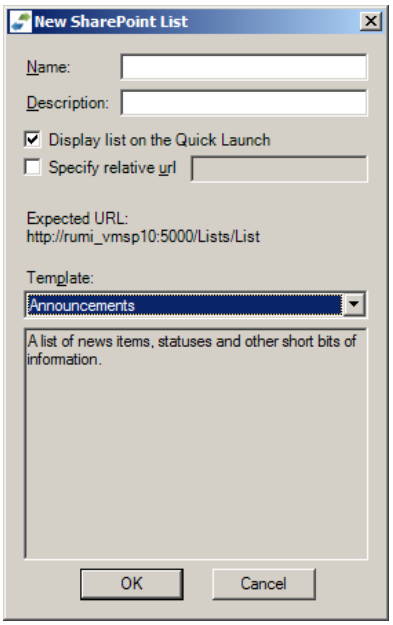


Figure 26: New WSS List Window

2. From the Template drop-down list, select the list template you want to use (**For e.g.** Document Library).
3. Enter a name and description for the new library and click **OK**.
   The new library is created.

You can select **Display list on the Quick Launch** for quick launch display. You can also select Specify relative URL, and specify the URL of the list. This is not a SharePoint option.

Editing Properties of SharePoint Item

Different types of items have different properties and settings that can be edited, as follows:

- Sites that are created in Tzunami Deployer and have not yet been committed to the target SharePoint can be edited using the Edit Site option. Properties of all sites can be viewed using the Properties window. The URL, language, and template of the site cannot be edited.
- Lists, folders, files, and list items can be edited using the Properties window.

The Properties window can remain open while you work in the Project window. It reflects the properties of the currently selected item.

Several items can be simultaneously edited using the Properties window. For more information about the Properties window, see *Viewing Item Properties* on page **4-56**.

You can edit the properties of new sites till they are committed to the target SharePoint. However, you cannot edit the properties of sites that already exist in SharePoint. Such existing sites can only be viewed in the Properties window.

To edit properties of a new site:

1. Right-click a new site in the target SharePoint tree and select **Edit Site**. The New WSS Site window appears (**Figure 24**) with the non-editable fields disabled.
2. Modify all the enabled properties and click **OK**.

   The site's properties are edited.

Find and Replace File Names

The Find and Replace window is used to make naming corrections to files and folders within Document Libraries.

To correct file and folder names within Document Libraries:

1. Right-click a Document Library in the target SharePoint tree and select **Find & Replace**.

   The Find and Replace window is displayed.

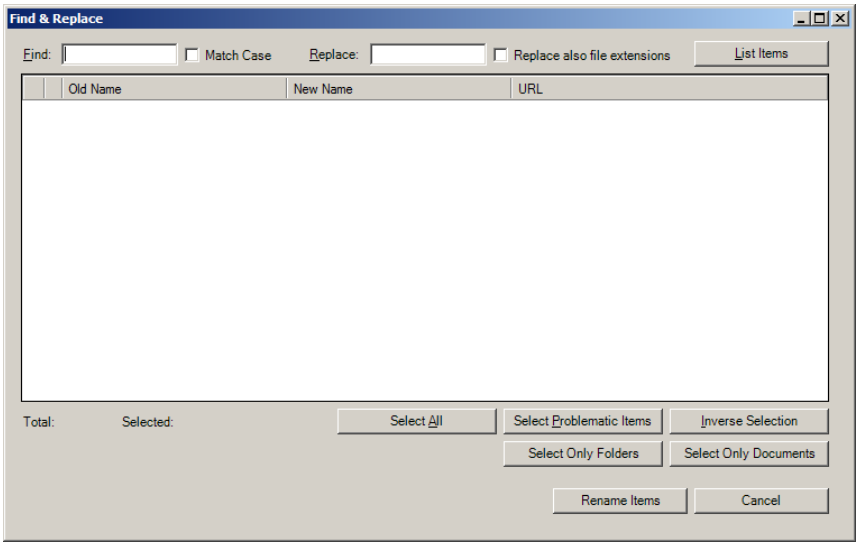


Figure 27: Find and Replace Window

2. Type the text you want to find in the **Find** field.
3. Select the **Match Case** checkbox for case-sensitive searches.
4. Type the replacing text in the **Replace** field.
5. Optionally, select the **Replace also file extension** checkbox to enable Tzunami Deployer to modify file extensions.
6. Click **List Items**.

   A list of files and folders containing the text you entered in the Find field, along with their expected name, and their URL (for reference purposes) appears.

7. Select the files or folders you want to change by selecting their corresponding checkboxes.

   Or

   Click **Select All**.

   Or

   Click **Inverse Selection**.

   Or

   Click **Select Problematic Items** to select items that contain text prohibited by SharePoint in their names (see ***Checking Deployed Items*** on page **4-79**).

8. Click **Rename Items**.

   The names are corrected.

You can leave the **Replace** field empty in order to remove the searched value from all names.

The Select Problematic Items is very useful if you have just deployed content but have yet to commit it, and would like to prevent illegal naming, blocked extensions and long URLs in SharePoint. For example, replacing “Business Intelligence” with “BI” is a good solution for handling long URLs.

Modeling SharePoint Metadata Service

Documents and data items are associated with metadata properties (also referred to as fields or attributes) such as creation date, author, title, keywords, status, and so on.

In SharePoint, the metadata is managed via lists and libraries. Each list or library has its own property set – the collection of properties that is specific to the container.

The Metadata Editor provides you with a centralized authoring environment in which to define the columns of all lists and libraries in the entire target store. Using the Metadata Editor you can create new property sets, duplicate property sets, create new properties, and copy them from one property set to another.

To view the Metadata Editor:

1. Select **View > Metadata Editor**.

   Or

   Click 

   Or

   Press **F9**.

   The Metadata Editor window appears. The top half of the window displays the property sets of the selected source system. The bottom half displays the property sets of the target SharePoint store.

   The Metadata Editor window displays the property sets on the left and the properties of the currently selected property set on the right.

While the cursor hovers over a property set, a hint appears displaying the number of containers that are using the property set.

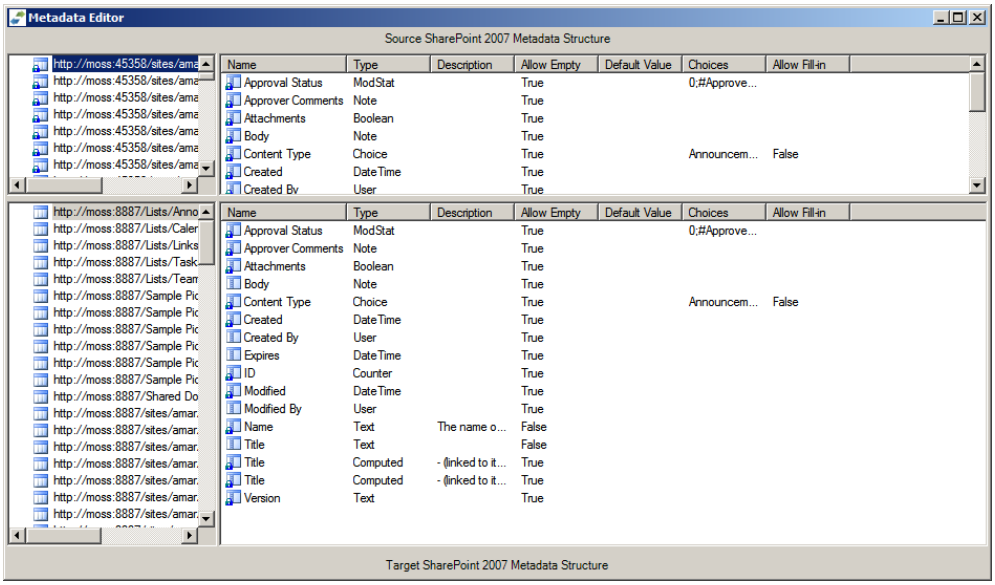


Figure 28: Metadata Editor Window

The Metadata Editor only displays one source system's metadata information at a time. As you navigate between the source systems tabs in the Project window, the displayed metadata changes accordingly.

All source metadata is read-only as well as some of the properties in the target. The icons of these items are displayed with a blue lock (🔒) overlay.

2. If you right-click a property set in the left half of the screen and select **Show usage**, the File Property set window appears, displaying the containers that use the selected property set.

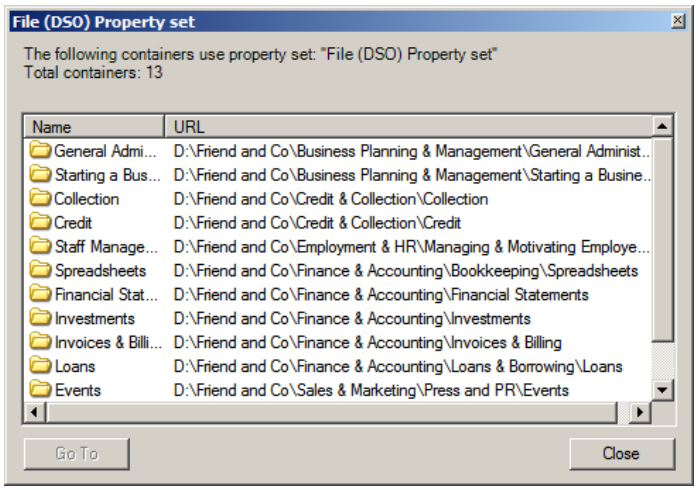


Figure 29: File Property Set Window

3. Select an item and click **Go To**. Tzunami Deployer displays the selected item in the Project window.

Creating Property Sets

New property sets can be created to define the target SharePoint metadata.

To create a property set:

1. In the Metadata Editor window (**Figure 28**), right-click a property set (or an empty area in the properties list on the right) and select **New > Document Library Property Set** or **New > Picture Library Property Set**.

   A new property set is added in rename mode.

2. Type a logical name for the property set and presses **Enter**.

   You can define new properties for this property set. For more information, see ***Creating and Editing Properties*** on page **4-43**.

In order to create property sets for other types of lists (e.g. Contacts, Tasks, and so on), you can duplicate an existing property set.

Creating and Editing Properties

You can create a new property or edit the existing properties for the property set.

To create a property:

1. In the Metadata Editor window (**Figure 28**), right-click a property set.
2. Select **New > Property**. The Add Property window appears.

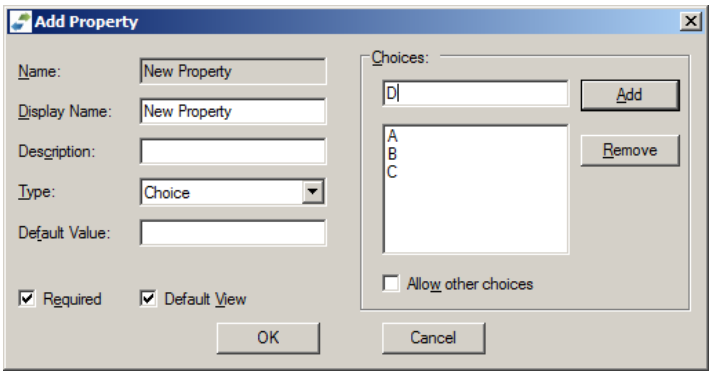


Figure 30: Add Property Window

3. Fill in the fields according to the information in the following table and click **OK**.
   The property is added as a new column in the list using this property set.

Table 7: Add Property Window Fields

Field/Item	Description
Name	This is an internal technical name that is not shown in SharePoint. This field is read-only.
Display Name	The name that appears in the list and in SharePoint

Field/Item	Description
Description	A textual description of the property
Type	Select a standard data type: • Boolean • Date Time • Hyperlink • Choice • Multiple Choices • User • User Multi • Text • Note • Lookup • Lookup Multi • Number • Currency • Outcome Choices
Default Value	Specify a default value for this property. The default value must be a legal value, based on the type of the property. **For e.g.**, if the property type is set to Date Time, the default value must be a valid date.
Required	Select this check box to specify that a value must be entered for this property.
Choices	Specify the values that appear as choices for this property. You can add a value by entering it in the Choices field and clicking **Add**. This option only applies to properties of type Choice and Multiple Choice.
Allow other choices	Select this check box to specify whether values for this property are limited to the supplied list of choices or whether it is permitted to specify other values for the property. This option only applies to the following property types: Choice and Multiple Choice.
Currency Format	Select the currency to use for this property. The selected currency format must be a legal format on the target SharePoint. This option only applies to the following property type: Currency.

To edit a property:

1. In the Metadata Editor window (**Figure 28**), right-click a custom property set.
2. Select **Edit Property**. The Edit Property window appears.

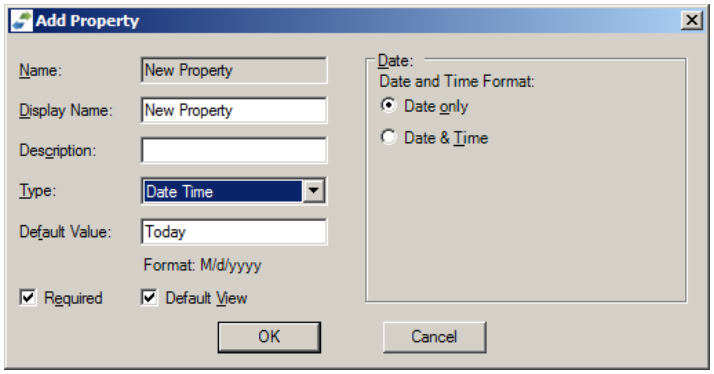


Figure 31: Edit Property Window

Assigning Property Sets

Property sets have underlying types that must match the list to which you assign them, so that a document library property set can only be assigned to a document library and not to a different library (**For e.g.** an image library) or to a different type of list. A property set cannot be used on more than one list or library. This section is relevant to property sets that are not in use (new or duplicated).

To assign a property set to a list:

1. Drag and drop a property set from the Metadata Editor onto a library or list in the Project window.

   Or

   Right-click the property set and select '**Assign To...**'. The Target Items window appears.

While you drag a property set to a valid location, the cursor changes to a link. If the target location is not valid, either because it is already assigned with the same property set, or because it is of a different type than the property set underlying type, the cursor changes to a 'not allowed' symbol (⃠).

Created property set can be assigned to list or library. For more information about ***Creating Property Sets*** on page **4-43** and ***Creating and Editing Properties*** on page **4-43**.

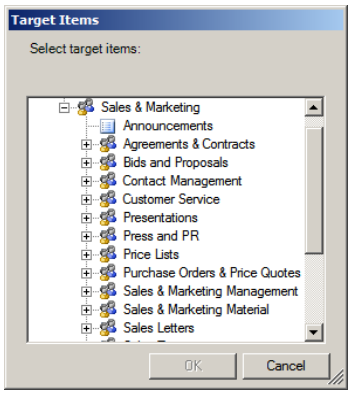


Figure 32: Target Item Window

2. Select a target list to which to assign this property set and click **OK**.

   A confirmation window appears indicating which property set will be assigned to which list.

3. Click **Yes**.

   The Assign Property Set window appears, displaying property mapping information.

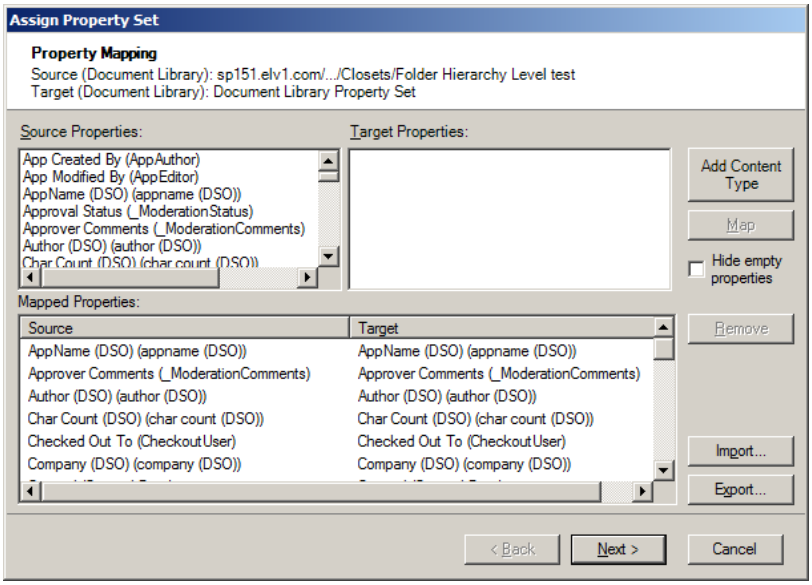


Figure 33: Assign Property Set Window – Property Mapping

4. Select a source property (top left) and a corresponding target property set (top right) and click **Map**. Repeat this step for each property you want to map. For more information about mapping properties, see ***Mapping Properties*** on page **4-67**.
5. Click **Next**. The Assign Property Set window displays value mapping information based on the property mapping performed in the previous set.

This step may appear multiple times, based on the property mapping. This step will appear for each Choice / Multi Choice type target property that was mapped and once for all the User type properties. Based on the source values and the general options of Tzunami Deployer, this step may not be displayed.

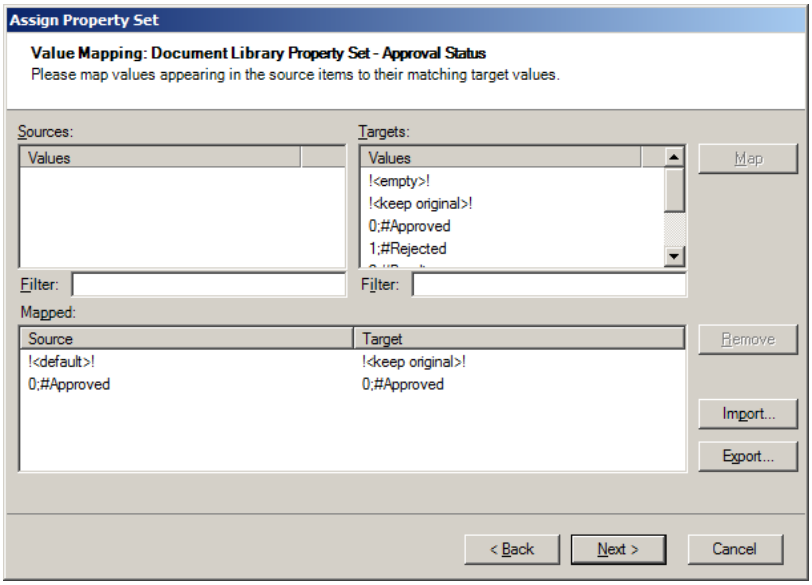


Figure 34: Assign Property Set Window – Value Mapping

6. Select a source property value (top left) and a corresponding target value (top right) and click **Map**. Repeat this step for each property value you want to map. For more information about mapping property values, see ***Mapping Property Values*** on page **4-72**. Check **Add all unmapped values as legal target property values** for adding unmapped value to target. Similarly Check **Remove unmapped target values** for removing the unmapped target values.
7. Click **Next**.

   The property set is assigned. Since modifying the property set modifies the columns of the target list and pencil overlay appears on the target location icon (for example).

The property set in use by a SharePoint list is displayed in the Properties window. You can navigate directly to the property set by right-clicking the SharePoint item and selecting Edit Property Set.

Viewing Security Information

Security information is part of the content loaded into Tzunami Deployer projects. Several views and reports are available to assist you during the migration process.

View Permissions

Viewing permissions enables you see an item's users and groups (on the top pane) and the security permissions assigned to each user/group (on the bottom pane).

To view permissions:

- Right-click an item and select **Security** > **View Permissions**.

  The View Permissions window is displayed.

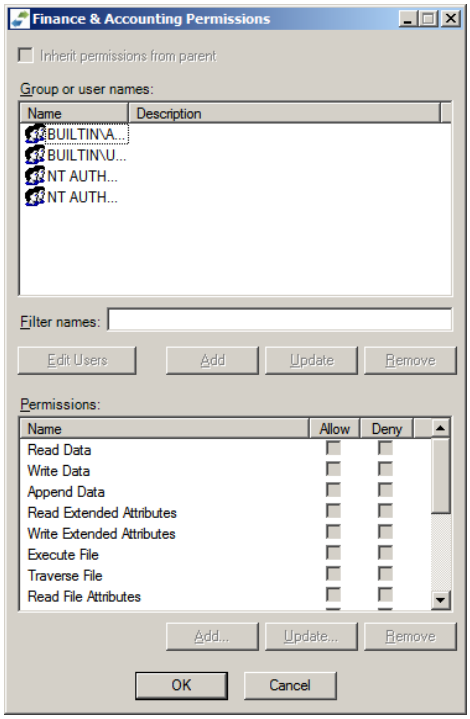


Figure 35: View Permissions Window

Edit Roles

Editing roles allows you to add, remove, or edit roles and assign specific permissions to each role. Roles are used during the migration of security settings.

To edit roles:

- Right-click an item and select **Security** > **Edit Roles**.

  The Edit Roles window is displayed.

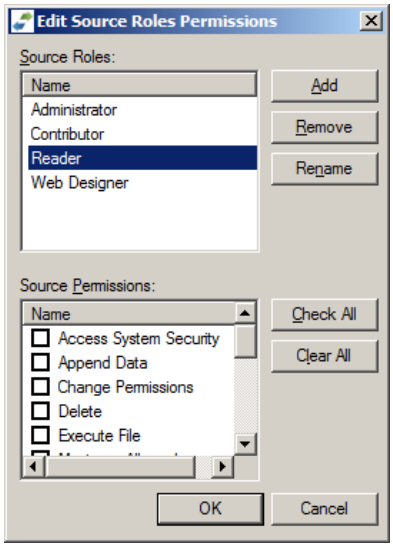


Figure 36: Edit Source Roles Permissions window

If the source system uses the concept of roles, those roles are read from the system and cannot be modified. For systems that do not use roles, Tzunami Deployer generates a default set of roles to facilitate the migration process.

View Users Roles

View User Roles displays users roles report for each item, the security entities that have permissions on the item and their matching role.

To view the Users Roles report:

- Right-click an item and select **Security** > **View Users Roles**.

  The Users Roles report is displayed.


Security Users to Roles Report

Report Time:8/17/2010 3:13:27 PM

Item	Users	Roles
Finance & Accounting	BUILTIN\Administrators NT AUTHORITY\Authenticated Users BUILTIN\Users NT AUTHORITY\SYSTEM	Admini Contrib Contrib Admini
SBS Directory - Discover more solutions, products and services.url	BUILTIN\Administrators NT AUTHORITY\Authenticated Users BUILTIN\Users NT AUTHORITY\SYSTEM	Admini Contrib Contrib Admini

Figure 37: Users to Roles Report

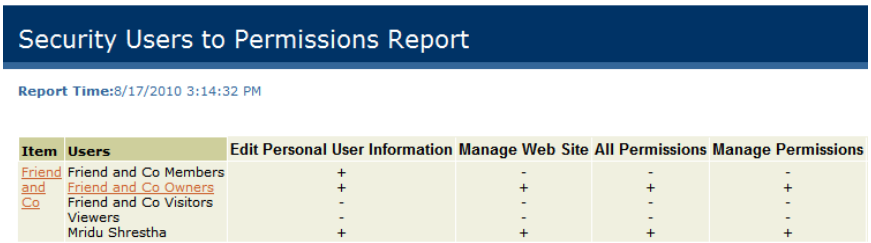
View Users Permissions

View Users Permissions displays users permissions report, for each item, the security entities and their permissions.

To view the Users Permissions report:

- Right-click an item and select **Security** > **View Users Permissions**.

  The Users Permissions report is displayed.


Security Users to Permissions Report

Report Time:8/17/2010 3:14:32 PM

Item	Users	Edit Personal User Information	Manage Web Site	All Permissions	Manage Permissions
Friend and Co	Friend and Co Members	+	-	-	-
	Friend and Co Owners	+	+	+	+
	Friend and Co Visitors	-	-	-	-
	Viewers	-	-	-	-
	Mridu Shrestha	+	+	+	+

Figure 38: Users to Permissions Report

Import/Export Role Definitions

Since roles can be modified, it is often useful to have the ability to export and import the roles definitions to a file. The roles can then be imported for use in a different project.

To Import/Export role definitions:

- Right-click an item and select **Security** > **Import/Export role definitions**.

  The Import/Export Role Definitions window is displayed.

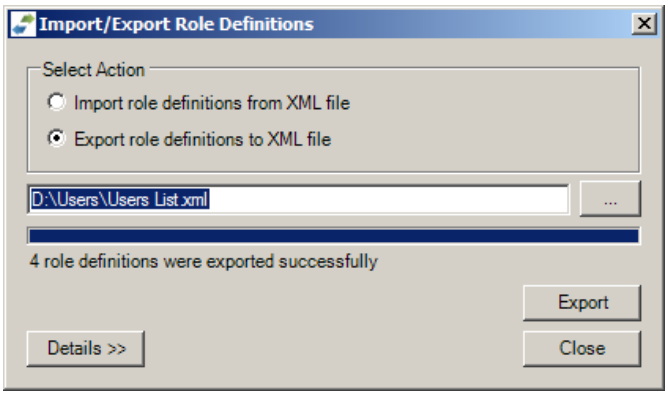


Figure 39: Import/Export Role Definitions Window

Modeling SharePoint Security and Permissions

SharePoint 2007, SharePoint 2010, SharePoint 2013 and Office 365 Security

Each site collection in SharePoint 2007, SharePoint 2010, SharePoint 2013 and Office 365 has its own list of users and groups. Once you grant certain user permissions on content or sub content of the site collection, the user is added to the site user list. Also, new groups that are created are added as site collection groups.

In SharePoint 2007, SharePoint 2010, SharePoint 2013 and Office 365 content can be secured at all hierarchy levels: site, list, library, folder, or item. Each user is granted permission for the specific content, either directly or by being a member of a site group which has permissions for that content.

Once you create sub content, the default security settings to this sub-content are inherited from the parent content. Using the SharePoint user interface, you can change these default settings and assign unique permissions to the sub-content.

SharePoint 2007, SharePoint 2010, SharePoint 2013 and Office 365 have used the concept of permission-levels, which are permission sets. Each user or group can be assigned with one or more permission-levels. Permission-levels are managed in sites and can be inherited from a parent site.

SharePoint 2003 Security

In SharePoint 2003, site group is used as a role. This means that if you wish to grant a user certain permissions, you add that user as a member of a site group that has those permissions. Each site that breaks inheritance has its own set of groups.

In SharePoint 2003, content can be secured only at the site, list, or library level. A user could be granted site permissions only by being a member of one of the site groups. Also, a user can get explicit permissions on a list or library.

Active Directory groups are represented as SharePoint users.

A SharePoint group cannot contain another SharePoint group. Each group represents a collection of SharePoint users.

Tzunami Deployer enables you to perform the following security and permissions customizations:

- **Create groups**
- **Assign permissions to users**
- **Modify or delete groups**
- **Modify permissions**
- **Edit Permission Levels (MOSS only)**
- **View the Users Permissions report**
- **Import/Export users**

Creating Groups

In order to assign permissions to an Active Directory user or group, you must first add the user or group to the site, either directly or as part of a SharePoint group.

To create a group:

1. Right-click a SharePoint site and select **Security > Edit Users & Groups**. The Manage Security window appears, listing all SharePoint groups ( ) and all Site Collection users ( ).

Figure 40: Manage Security Window

2. Click **Create** and select **Group**.

In SharePoint 2003, select User, Site Group, or Cross Site Group.

The Create Group window appears.

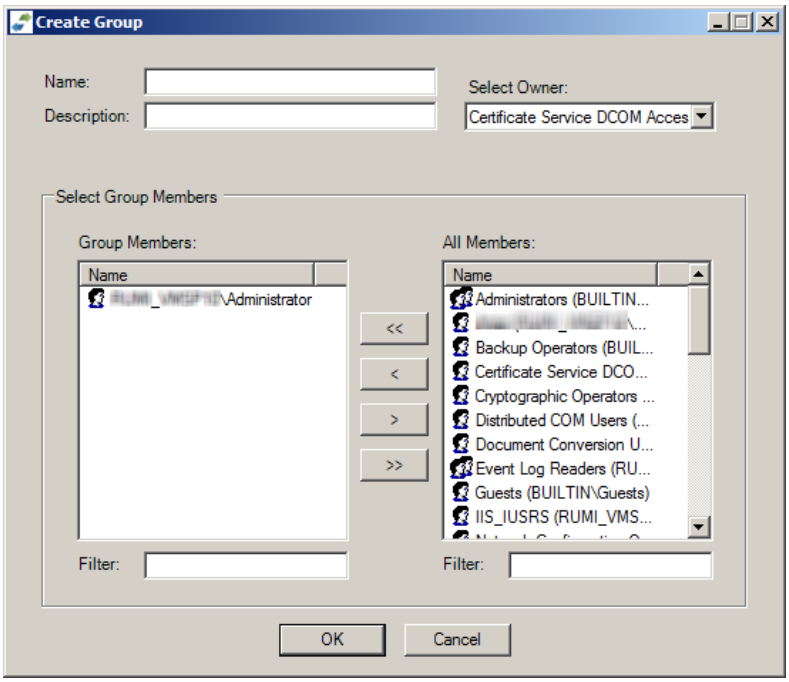


Figure 41: Create Group Window

3. Enter a name and description for the group and select a user to be the group owner.
4. Add members to your group and click **OK**.

In SharePoint 2003, setting a group owner is available only for Cross-site groups.

The new group is added to the Manage Security window.

Assigning Permissions to Users and Groups

In order to assign user permissions, you must add users to a group or Cross-site group.

To assign user and group permissions:

1. Right-click a SharePoint item and select **Security > Edit Permissions**. The <Item Name> Permissions window appears.

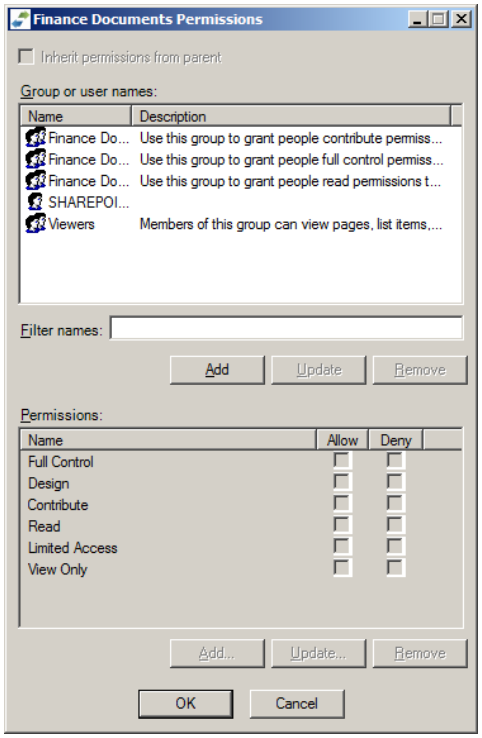


Figure 42: <Item Name> Permissions Window

2. Click **Add**. The Users / Groups window appears displaying all the available users and groups.

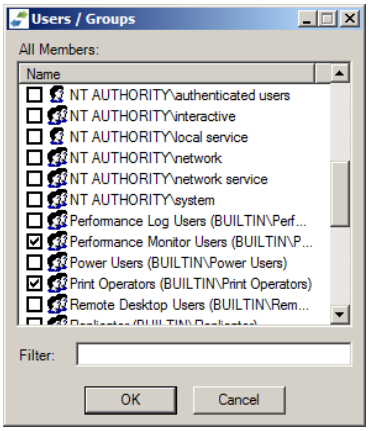


Figure 43: Add User Window

3. Select the relevant users and/or groups and click **OK**. The selected users/groups appear in the <Item Name> Permissions window (**Figure 42**).
4. Select a user/group and assign the various permission / permission-levels in the Permissions area.
5. Click **OK**. The user/group permissions are assigned.

Modifying Groups

To modify a group:

1. Right-click a SharePoint site and select **Security > Edit Users & Groups**. The Manage Security window appears (**Figure 40**).
2. Select the group to be modified and click **Update**. The Update Group window appears (**Figure 41**).
3. Modify the information as necessary and click **OK**.

   The groups are modified.

Modifying Permission Levels

This option is available only for MOSS/WSS3.0, SPS2010/SPF2010, SPS2013/SPF2013 and Office 365.

You can modify any of the permission levels, except for Full Control and Limited Access. The permissions are inter-dependent. Selecting certain permissions might select other permissions that are required in permission levels.

To modify a permission level:

1. Right-click a SharePoint site and select **Security > Edit Permission Levels**. The Permissions Levels window appears.

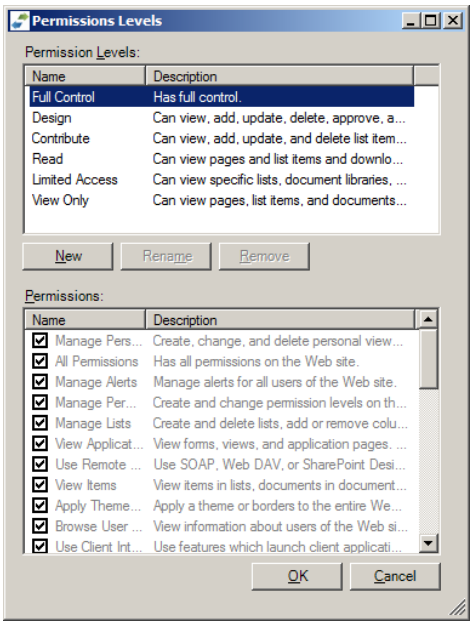


Figure 44: Permissions Levels Window

2. Select a permission level and select which permissions to assign to the permission level.
3. Click **OK**.

   The permission level is modified.

Importing and Exporting Users

Tzunami Deployer enables you to export or import Active Directory users and groups to an XML file. For organizations with a large Active Directory, you can connect and read the entire Active Directory domain users and groups once and then export it. Future projects can then import the XML file instead of rereading the Active Directory domain.

To export users:

1. Right-click an item and select **Security > Import/Export users**. The Import/Export Users window appears.

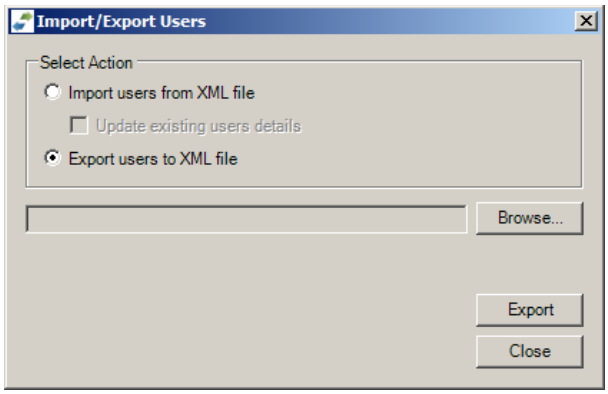
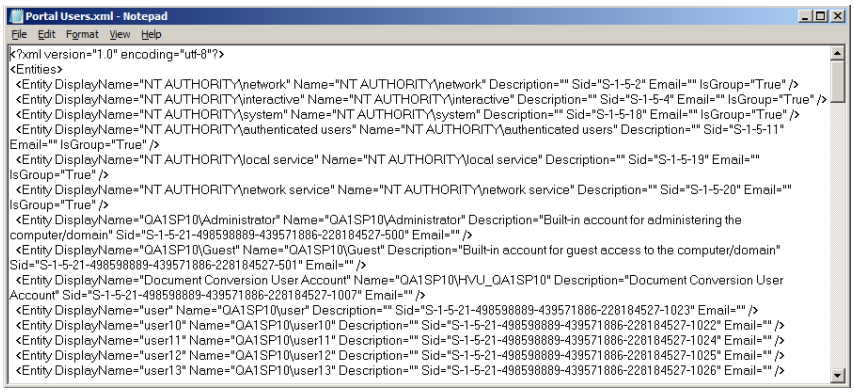


Figure 45: Import/Export Users Window

2. Select **Export users to XML file** and click **Browse…**
3. In the **File Name** list, type or select a name for the file.
4. Click **Export**. The users are exported to the XML file.

You can manually create your own users based XML file or edit existing ones, and add other users (using Excel or any other tool that generates XML files) and import it.



To import users:

1. Right-click an item and select **Security > Import/Export users**. The Import/Export Users window appears.

2. Select **Import users from XML file** and Click **Browse…**
3. Select the XML file containing users and Click **Import**.

   The users will be available in Deployer project target as normal AD users.

Find and View Items

Viewing Item Properties

You can view the metadata properties or other attributes of various objects in Tzunami Deployer. The Properties window displays the properties of the currently selected item. If more than one item is selected, a property whose value is not the same for all items appears empty. Editing such a property affects all the selected items. Read-only properties are grayed out in the Properties window. The Properties window can remain open while you work in the Project window.

To view an object's properties:

- Right-click an item and select **Properties**.

  Or

  Click  .

  Or

  Press **F4**.

  The Properties window appears.

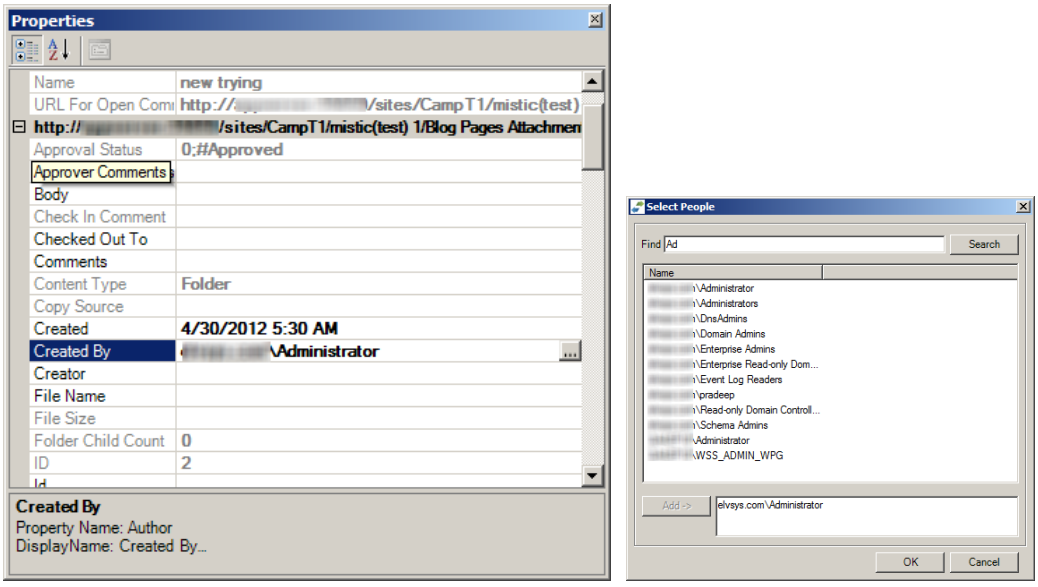


Figure 46: Properties Window

Only items that appear in **Bold** can be edited.

You can modify user or multi user type properties (**For e.g.** Created By, Modified By) from Select People window.

To modify user type properties

1. Select the user type property and click ... button in Properties window. The Search People window will appears.
2. Click Search and select users that you want to add and then click Add->.
3. Click OK.

Finding Item Versions

You can view the versions of various items in Tzunami Deployer. The Versions window displays the properties of each version of the item.

To view an item's versions:

- Right-click an item and select **Versions**.

  The Versions window appears.

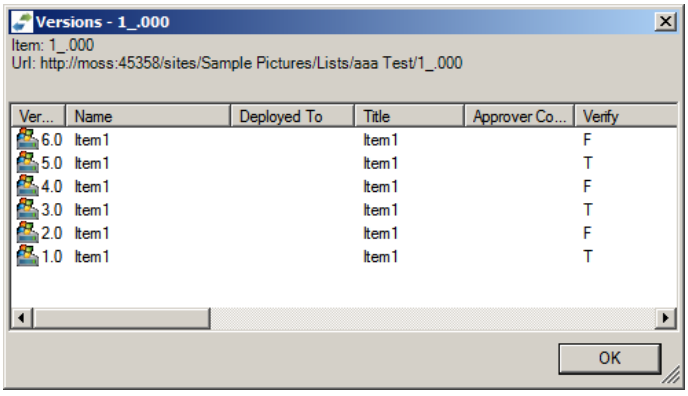


Figure 47: Versions Window

Finding Items

You can find one or more items in a project. The Find window enables you to find items based on different criteria and properties.

To find items:

- Select **View > Find > Find** or **Find All**.
  The Find window appears.

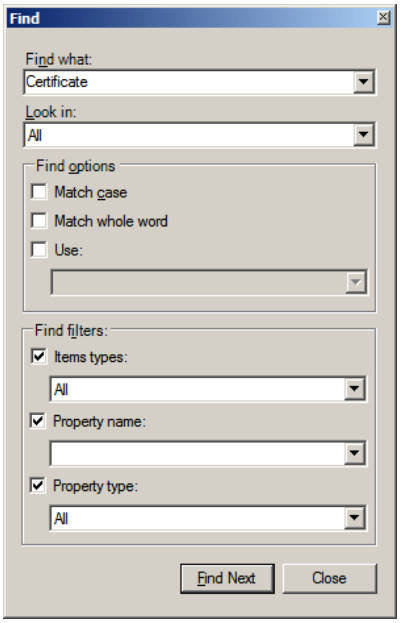


Figure 48: Find Window

Table 8: Find window Fields

Field	Description
Find what	The text to search
Look in	Select a search scope from this list: • All • Sources Only • Currently Selected Source • Target Only
Find options	
Match case	Only find instances of the Find what texts that are matched both by content and by case. For example, searching for "MyObject" with Match case selected finds "MyObject" and not "myobject" or "MYOBJECT."
Match whole word	Only displays instances of the Find what text that are matched in complete words. For example, searching for "MyObject" returns "MyObject" and not "CMyObject" or "MyObjectC".
Use	Indicates how to interpret special characters entered in the **Find what** text box. The options include: • **Wildcards** – Special characters such as asterisks (*) and question marks (?) represent one or more characters. • **Regular expressions** – Special notations define patterns of text to match.
Find filters	
Items types	Select a results scope from this list: • **All** • **Items only** – Results include only items and documents. • **Containers** – Results include only containers, such as folders, lists, and sites.

Field	Description
Property name	The Find what text is searched only in a specific property.
Property type	Indicates that only properties of a certain type are searched. • All • Boolean • Choice • Currency • Date Time • GUID • Multiple Choice • Number • Text • User

DEPLOYING SOURCE DATA FOR MIGRATION

The deployment stage specifies which source folders, files, and items are to be migrated to which SharePoint site collections, sites, lists, and folders on the target SharePoint server. Similar to the modeling stage, Tzunami Deployer does not immediately migrate the source items to the SharePoint server during deployment, but only stores the migration instructions in the current Tzunami Deployer project. The Tzunami Deployer content migration changes are only applied to the target SharePoint server in the committing stage. For more information about committing, see ***Committing the Migration*** on page **4-84**.

In the modeling stage, you can define the SharePoint structure into which you can deploy the source folders and files. If you wish, you can design and define the entire model of the SharePoint structure and only then deploy your first folders and files. Alternatively, you can iteratively design parts of the SharePoint structure, deploy the items into those parts and then go back and repeat this process as many times as required.

In some cases, not all source items are to be migrated. For example, executable files such as EXE and DLL are usually not stored in SharePoint. In other cases, the target location for items is determined by their metadata properties. For example, you may want items created in the year 2001 to be placed in a corresponding folder in SharePoint. In both cases, you can filter the source so that only relevant items will be affected by the current deployment operation. For more information, see ***Filtering Source Items*** on page **4-81**.

After completing the deployment stage, the target items appear with an upload overlay (). To remove the item assignment, find the location in which the item is deployed (in the target SharePoint) and delete it. For information about finding deployment locations, see ***Managing the Deployment Process*** on page **4-80**.

The following steps describe how to deploy source items to a target SharePoint:

- Select the actual items to be deployed from the source to the target SharePoint. For more information, see ***Deploying Selected Source Items to a Target SharePoint Locations*** on page **4-60**.
- Specify the various deployment options, related to structure, files, and security, using the Deploy Wizard. For more information, see ***Defining Deployment Options*** on page **4-61**.
- Keep track of the deployment process to ensure that you have deployed all the items that are required. For more information, see ***Managing the Deployment Process*** on page **4-80**.

SharePoint imposes some character and length limitations on item names. For more information, see ***Folder and File Naming Considerations*** on page **I** or refer to your SharePoint documentation. Tzunami Deployer may rename folders or documents by replacing invalid characters with an underscore (_).

Deploying Selected Source Items to a Target SharePoint Locations

When you select to deploy a source item to a target SharePoint item, some items may not be deployed for the following reasons:

- The file extension appears in the blocked extensions list, as defined by the SharePoint administrator (For Example: `.exe`, `.bat`, `.mdb`, and so on). You can ignore this warning and deploy the items. However, the commit will fail unless the items are renamed or the SharePoint server is modified to accept the files.
- The item has already been deployed into SharePoint. Tzunami Deployer does not allow the same item to be deployed more than once into SharePoint.

To select the source items and target locations:

1. In the top half of the Project window, select the source files or folders to be deployed.
2. Drag the selected items to the target location in the SharePoint, in the bottom half of the Project window.

   Or

   Right-click the selected items in the source store and select **Deploy to**. The Target items window appears displaying the target SharePoint store.

3. Select the target location and click **OK**.

   The Deploy Wizard appears (**Figure 49**).

Tzunami recommends that you to drag and drop selected items. By this stage, you should already know exactly what you are dragging, where you are dragging to, as what (site, list, or document), and which properties you want to add.

Tzunami Deployer may inform you that some items will not be deployed. You can display these items by clicking **Yes**.

Defining Deployment Options

After selecting the source items and target location for deployment, the next step is to define the behavior of the deployment. This is done using the Deploy wizard, which guides you through the following:

- Specify how Tzunami Deployer handles item versions, duplicate names, and lists. For more information, see ***Defining Global Settings*** on page **4-63**.
- Specify whether source folders are created in the target SharePoint as sites, lists, or folders, and how subfolders and content items be handled. For more information, see ***Defining the Deployment Structure*** on page **4-65**.
- Map source users and groups to the appropriate corresponding users and groups used in the target SharePoint. For more information, see ***Mapping Security Information*** on page **4-75**.
- Map source security permissions and roles to the appropriate SharePoint roles / permission-levels. For more information, see ***Mapping Security Information*** on page **4-75**.
- Map source metadata properties to the appropriate columns in the target SharePoint. For more information, see ***Mapping Properties*** on page **4-67**.
- Map source item property values to the appropriate property values in the target SharePoint. For more information, see ***Mapping Property Values*** on page **4-72**.
- Complete the deployment process. For more information, see ***Completing the Deployment Process*** on page **4-73**.

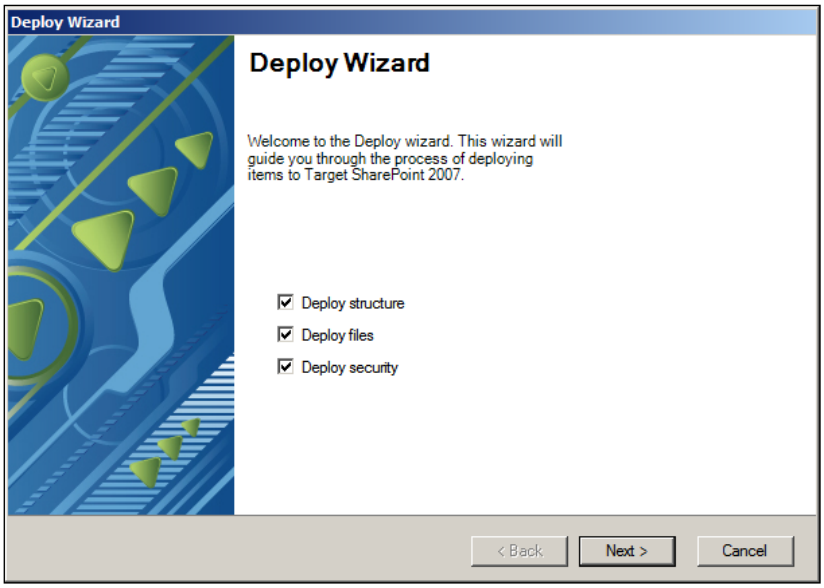


Figure 49: Deploy Wizard

To define the deployment behavior:

1. Select one or more of the following deployment options:
    - **Deploy structure** – Copies the source content folder hierarchy to the target SharePoint. If no folders are selected for deployment, this option is disabled. If the target location cannot directly contain files, for example a SharePoint site, this option is selected and cannot be modified.
    - **Deploy files** – Copies the source files and items to the target SharePoint. If only files and items are selected for deployment, this option is selected and cannot be modified.
    - **Deploy security** – Copies source content security settings to the target SharePoint.
2. Click **Next**. The Deploy wizard displays the Global Settings screen (**Figure 50**).

Defining Global Settings

You can define the global setting of items, lists and advanced folder hierarchy in the Global Setting Screen.

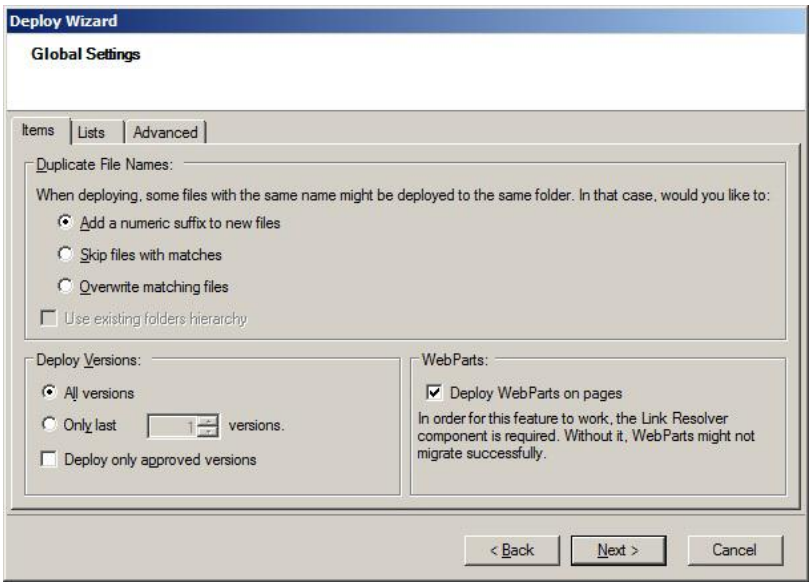


Figure 50: Deploy Wizard - Global Settings Items

This screen adds a numeric suffix to new item, skips item with matches or overwrite matching items when deploying some files with the same name that might be deployed to the same folder.

To define the Global Setting Items:

3. Select the various global setting items from **Items Tab** and according to the information in the following table.

Table 9: Deploy Wizard –Global Settings Items

Field	Description
Duplicate File Names	Specify how Tzunami Deployer handles multiple items with the same name in a target location. You can: • Add a numeric suffix to new items. • Skip items with matches. • Overwrite matching items. When the **Use existing folders hierarchy** option is checked, Tzunami Deployer will ignore the duplicate items handling for folders, and use the existing folders structure. This option is only available when the target of the deployment is a list or a folder.

Field	Description
Deploy Versions	Specify the item versions to copy when the deployment is committed. The item versions you specified to deploy are selected by default. You can deploy: • All versions • Only last <#> versions You can also deploy only the approved (non-draft) versions.
WebParts	Select whether to deploy WebParts on Pages.

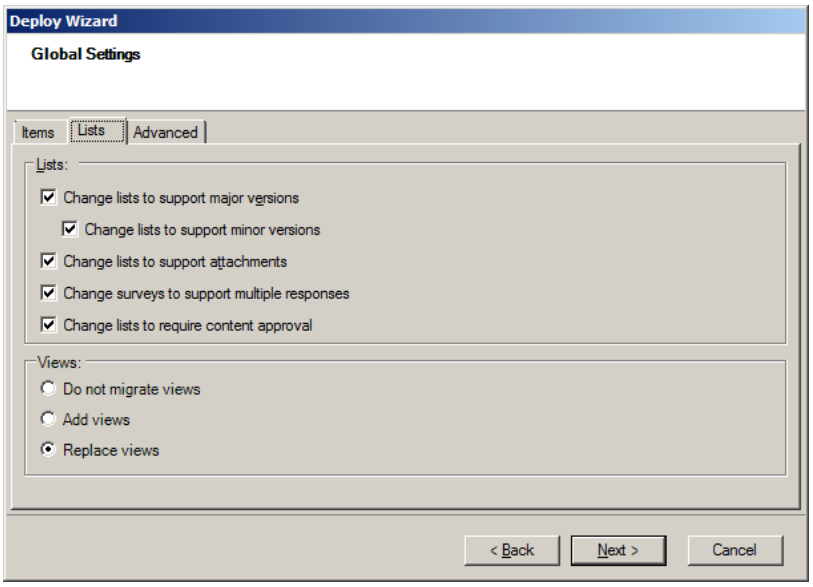


Figure 51: Deploy Wizard - Global Setting Lists

To define the Global Setting Lists:

4. Select the various global setting lists from **Lists Tab** and according to the information in the following table.

Table 10: Deploy Wizard - Global Setting Lists

Field	Description
Lists	Select whether to automatically update lists so that they support the deployed source items. You can: • Change list to support major versions • Change list to support minor versions • Change lists to support attachments • Change surveys to support multiple responses • Changes list to require content approvals

Field	Description
Views	Select how to migrate views in the target. You can: • Do not migrate views • Add views • Replace views

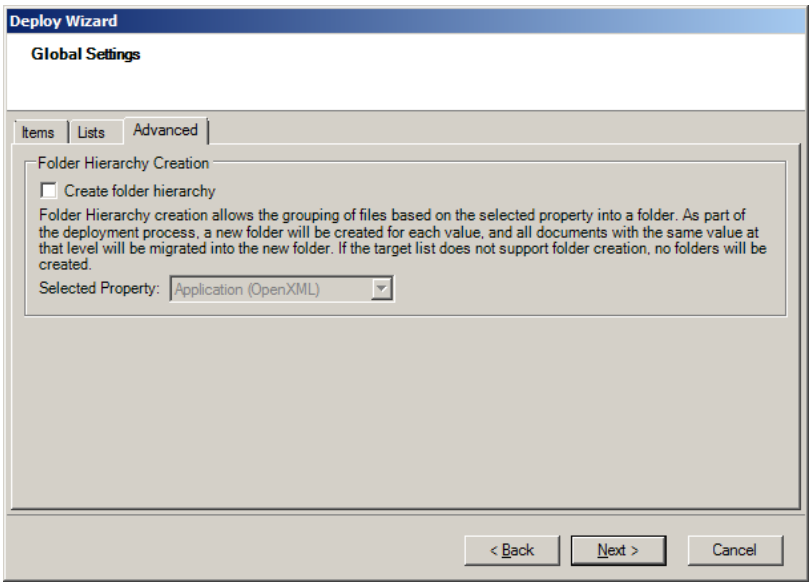


Figure 52: Deploy Wizard - Global Setting Lists

This screen enables you to create folder hierarchy by grouping the files based on the selected property into a folder. **For e.g.** if an organizations have documents in a folder are separated by the 'Document Type' property according to the departments (Marketing, Sales, HR, Account, Finance, etc.). When deploying, a new folder will be created for each 'Document Type' property and all documents the same property at that level will be migration into the new folders (Marketing, Sales, HR, Account, Finance etc.).

To define the Advance Global Settings

5. Select Folder Hierarchy Creation to select property of folder.
6. Select Folder Property and Click **Next**. The Deploy wizard displays the Define deployment structure screen (**Figure 53**).

Defining the Deployment Structure

You can define the deployment behavior of folders and container hierarchies in the Define deployment structure screen. The options in this screen differ according to the type of SharePoint target location into which you are deploying. In addition, the type of item you select in the tree determines the options in the Set selected item parameters area.

For example:

- When deploying into a folder or a list, you can only create sub-folders.
- When deploying into a site, you can create sub-sites or lists.

The configuration that you set for any item overrides the configuration of its sub-items. **For e.g.** when deploying into a site, if you deploy a folder as a library, you can deploy its sub-folders only as sub-folders of the library, and not as sub-sites.

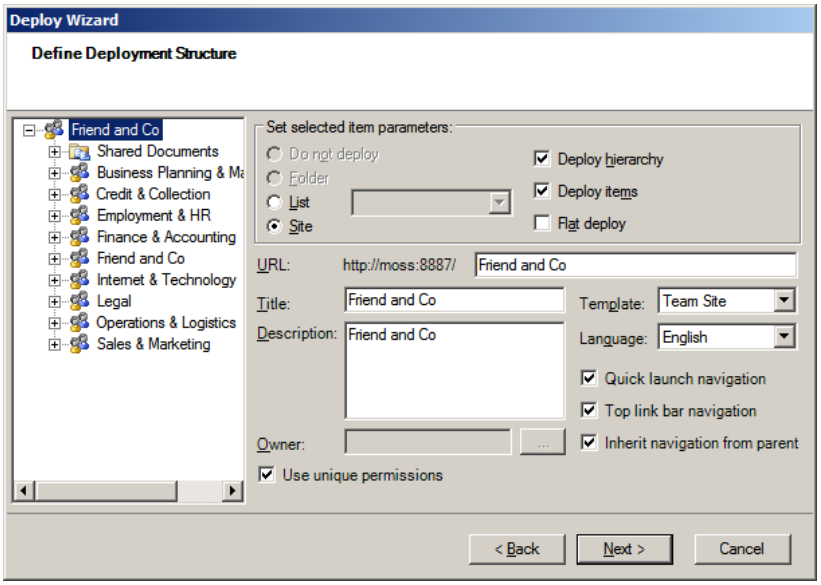


Figure 53: Define Deployment Structure Screen

This screen enables you to specify which type of items will be created in SharePoint and to set various deployment parameters. You can select and configure each branch of the deployment structure tree. **For e.g.** you can specify that a folder from the source file system is deployed as a new site, and that its sub-folders are deployed either as sub-sites of the new site, as lists of that site, or as sub folders of the new site's default document library.

To define the deployment structure:

1. Define the deployment structure options according to the information in the following table.

Table 11: Deploy Wizard – Items Handling Window Fields

Field	Description
Deployment structure tree	Select the item for which to define deployment configuration.

Field	Description
Set selected item parameters	Select the type of item to create in SharePoint: • Folder • List • Site • Portal area. (Available only in SPS2003, and only when the target location is a descendant of the Home Area.) When deploying as a list you must select the appropriate list template from the available templates in the site. When deploying as a site, you must enter the site properties, as explained in ***Creating a New Site*** on page **4-36**.
Deploy hierarchy	Select this option to deploy all sub-folders. If you do not select this option, only the folder whose options are currently edited and its content will be deployed. No sub-folders (and no items in the sub-folders) are deployed.
Deploy items	Select this option to deploy the files and items in each source folder. Selecting this option affects only the selected folder, not its sub-folders. If you do not select this option, only the sub-folder hierarchy is created and no documents are deployed to the target location. When selected, a Documents branch ( ) appears under the folder in the deployment structure tree.
Flat deploy	Select this option to ignore the source folder hierarchy and create a flat structure in which all documents in the source folder and its sub-folders are deployed to the same target location. This option is only available if **Deploy hierarchy** is selected. When selected, an All Documents branch ( ) appears under the folder in the deployment structure tree and all sub-folders are hidden.

2. Click **Next**. If Security is deployed, the Deploy wizard displays the Map source users and groups screen (**Figure 59**). If Security is not deployed, the Deploy wizard displays the Property Mapping screen (**Figure 54**). For more information, see ***Mapping Properties*** on page **4-67**.

Mapping Properties

Items are associated with metadata properties (sometimes referred to as fields or attributes), such as creation date, last modification date, author, title, keywords, status, and so on.

When the source property set (sometimes referred to as category or profile) does not match the target SharePoint property set (the columns in the target list or folder), Tzunami Deployer requests information regarding the mapping of source properties to target properties. The Property Mapping screen appears, as shown

below. Properties with the same name and matching types are automatically matched and appear in the Mapped Properties area, as well as previously mapped properties.

Tzunami Deployer has an ability to add Content Types (that already exists on the Target Site Collection) to the lists/libraries during deployment. For more information, see ***Adding Content Type*** on page **4-69**.

If any source properties cannot be matched to any target property, a yellow notification bar at the top of the screen indicates that the target has fewer properties than the source. This may indicate that you might lose data, since source information is not deployed to target SharePoint columns. You can click the link in the notification bar to automatically add properties to your target SharePoint list. For more information, see ***Automatically Adding Properties*** on page **4-71**. Alternatively, you can manually add the missing columns before starting the deployment process. For more information, see ***Modeling SharePoint Metadata Service*** on page **4-41**.

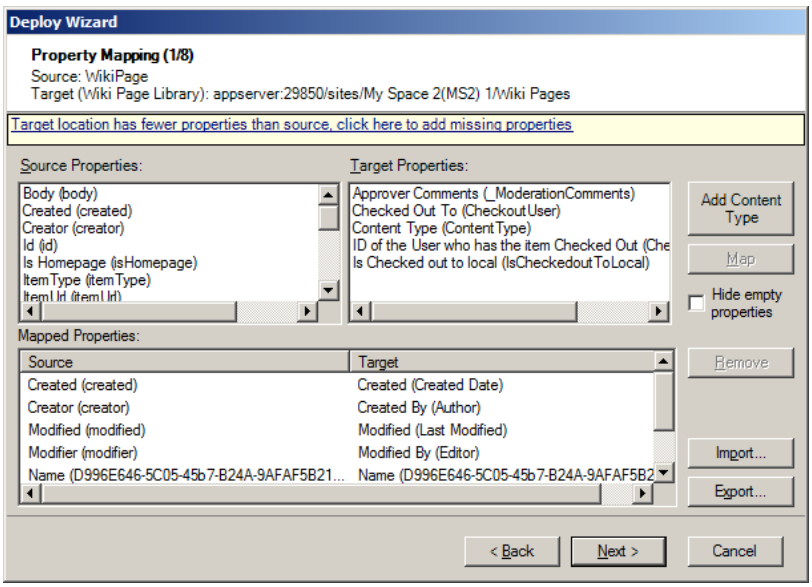


Figure 54: Property Mapping Screen

To map properties:

1. Click **Add Content Type** and select the Content Type from the list. Repeat this step for each property you wish to add Content Type.

2. Select a source property and its corresponding target property and click **Map**. Repeat this step for each property you wish to map. The mapping is displayed in the bottom of the screen.

If the source items use several different property sets, **For e.g.** documents with different profiles, or when deploying to several targets with different property sets or lists of different types, this step is repeated for each pair of source and target property sets.

Clicking **Import/Export** enables you to create a property mapping XML file, according to your current mappings, or load a different property mapping XML file. You can generate your own mappings (using Excel, or any other tool that generates XML files) and import the XML file. For more information about property mapping XML files, see *Sample Property Mapping XML File* on page **5-116**.

3. Click **Next**. The Deploy wizard displays the Value Mapping screen (**Figure 57**).

If you map properties of different types to each other (**For e.g.** a text property to a numeric property), a warning message is displayed. Clicking **Yes** instructs Tzunami Deployer to convert the values. If Tzunami Deployer fails, it assigns an empty value to the target property. Clicking **No** returns you to the Property Mapping screen, in which you must change the mapping.

For user-type properties, such as Created By or Modified By, or for choice properties, the Map Property Values screens appear. In these screens you can map the values of choice type properties, if required. For more information, see ***Mapping Property Values*** on page **4-72**.

Adding Content Type

Tzunami Deployer enables you to add Content Type to target during deployment. The **Adding Content Type to Target** window shows the list of Content Type from the Target Site collection, which allows you to select one or more Content Type from the lists that you want to add in lists\libraries during deployment. The added Content Types that you selected in this window will be available in the Content Type Value Mapping screen.

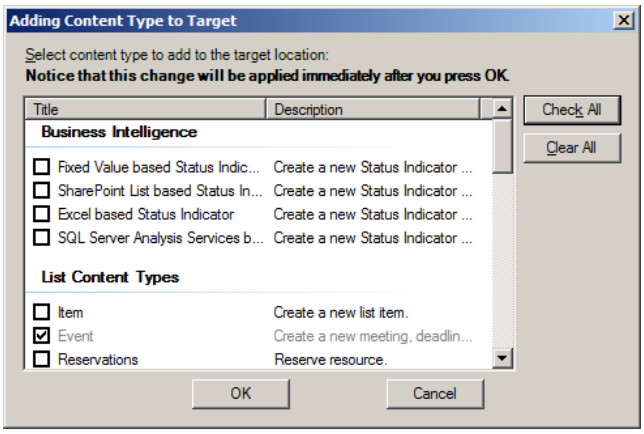


Figure 55: Adding Content Type To Target Window

To add content type

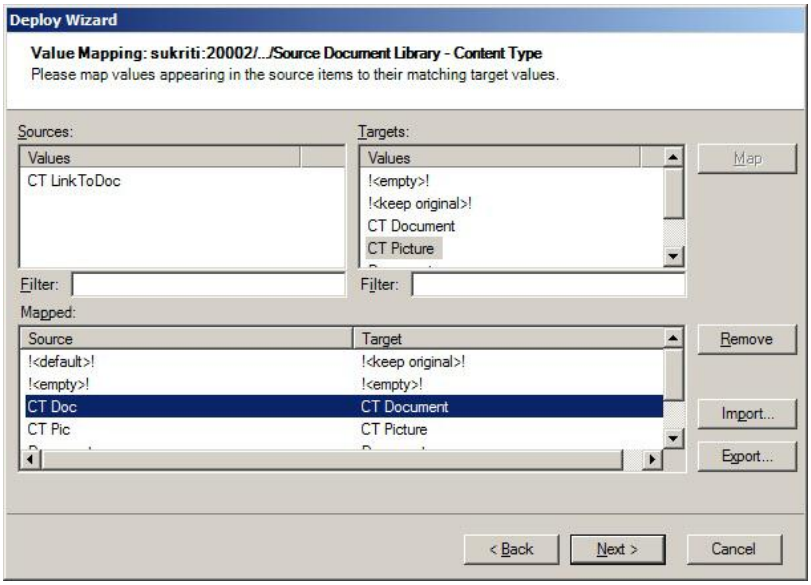
1. Select the various options according to the information in the following table.

Table 12: Adding Content Type to Target Window Fields

Field / Item	Description
Select content type to add to the target location	Select Content Type from the list of Content Type to add to the target lists\libraries. You can click **Check All** or **Clear All** to select or deselect all the Content Type, respectively.

2. Click **OK**.
   The added content type properties are displayed in the Property Mapping Screen (**Figure 54**).

Just like other property values, You can map Source and Target Content Type values from the **Content Type Value Mapping screen**. For more information on Value Mapping, see ***Mapping Property Values*** on page **4-72**.



If a source content type is mapped to target, then the mapped source Content Type will not be added i.e. mapped target Content Type values will be added to the target lists\libraries.

If there are any unmapped source Content Type values, then it will be added to the target lists\libraries with its related fields.

If there are any unmapped target Content Type values, then it will be added to the target lists\libraries with its related fields.

Automatically Adding Properties

Tzunami Deployer enables you to automatically create the missing columns in your target SharePoint list if it has fewer properties than your source. The Missing Properties in Target window lists the properties that were not mapped and offers to create respective columns in the target. All the source properties that you select in this window are automatically mapped to their corresponding newly created SharePoint columns.

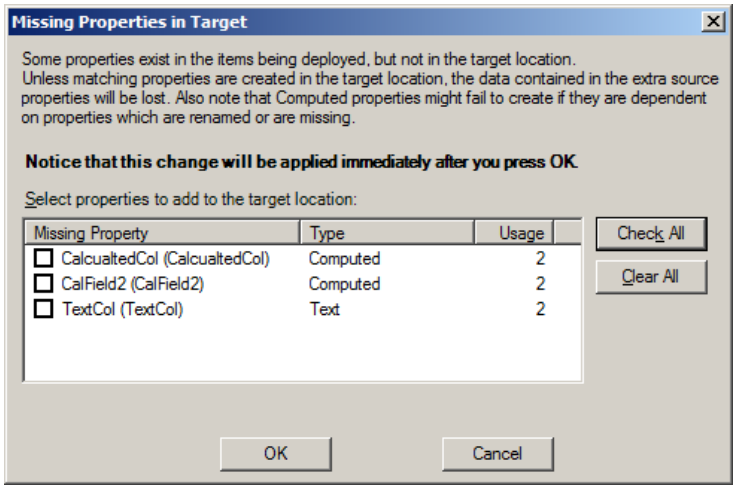


Figure 56: Missing Properties in Target Window

To automatically create and map properties:

1. Select the various options according to the information in the following table.

Table 13: Missing Properties in Target Window Fields

Field / Item	Description
Select properties to add to the target location	Select properties from the list of source properties that do not currently exist in the target location to automatically create a property in the appropriate target SharePoint list. You can click **Check All** or **Clear All** to select or deselect all the properties, respectively.

2. Click **OK**.

   The added target properties are automatically mapped with the respective source properties and are displayed in the Property Mapping screen (**Figure 54**).

If you add missing properties, the target location is modified (columns are added to it). As is the case with other modifications, a pencil overlay appears on the target location. For example, .

All property and value mappings that you perform are stored in the Tzunami

Deployer project so that the next time you map from the same source property set to the same target property set or the same values appear in the source items, Tzunami Deployer automatically maps them.

If all properties and values are successfully mapped by Tzunami Deployer, the Value Mapping steps may not be displayed. You can determine if these steps are displayed in the Options window. For more information about the Options window, see ***Defining Deployment Options*** on page **4-61**.

Mapping Property Values

In order to assign values to choice properties (properties that offer a list of specific possible values, For e.g. Status) and user properties (such as Created By and Modified By), Tzunami Deployer enables you to map values from the source items to specific target choice values.

After you map properties, as described in the previous section, the Value Mapping screen appears, once for users and once for each choice (and multi-choice) property in the target locations.

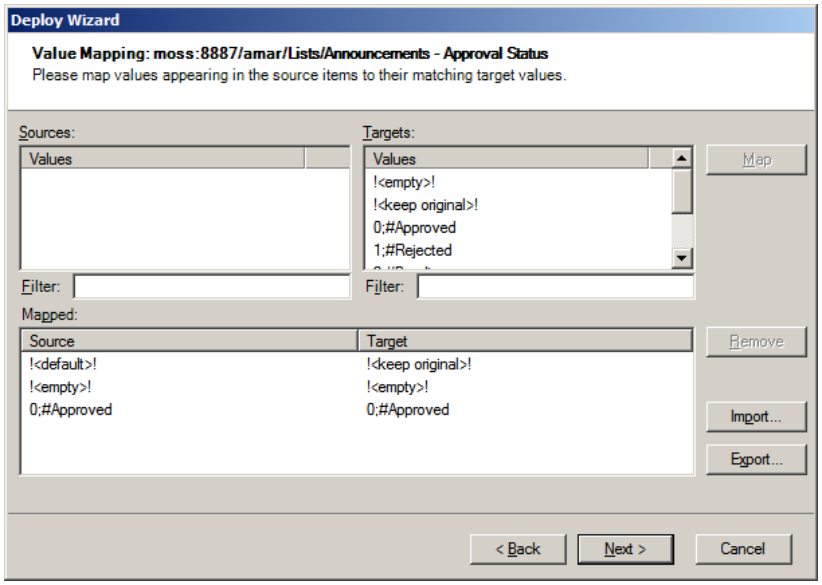


Figure 57: Value Mapping Screen

This screen displays the source property and valid target property values, as well as any existing mappings.

The Properties window can remain open while you work in the Project window. It reflects the properties of the currently selected item or items.

If the `!<default>!` value is mapped, you can leave source values unmapped. When deploying an item whose property value is unmapped, the corresponding deployed item property will be assigned with the same value as the `!<default>!`. If the `!<default>!` value is not mapped to a target value, all source values must be mapped.

Properties that are not marked as required can be assigned an empty value by

mapping the source value to `!<empty>!`. To instruct Tzunami Deployer to assign an empty value in all cases, map `!<default>!` to `!<empty>!`.

Another special target value is `!<Keep Original>!`, which appears only if the target property allows fill-in values. Fill-in values enable you to add a value even if it is not included in the list of values).

After the new deployed items are created in the target SharePoint, you can override the values assigned to them in the Value Mapping step by using the Properties window. For more information, see ***Viewing Item Properties*** on page **4-56** and ***Editing Properties of SharePoint Item*** on page **4-38**.

To map source property values to target property values:

1. Select a source property value and a corresponding target property value and click **Map**. Repeat this step for all the property values you wish to map. The mapping is displayed in the bottom of the screen.

When handling long lists of values, you can enter a sub-string in the Filter fields. All values that do not contain this sub-string will be filtered from the corresponding list.

2. Click **Next**.

   This Value Mapping screen will reappear for each mapped target choice (and multi-choice) property, as well as once for User type properties. When all source property values are mapped, the Deploy wizard displays the Ready to deploy screen.

If you selected to add unmapped values as legal target property values, the unmapped source values will be added to the legal values list of the property.

Clicking Import/Export enables you to create a property mapping XML file, according to your current mappings, or load a different property mapping XML file. You can generate your own mappings (using Excel, or any other tool that generates XML files) and import the XML file. For more information about property mapping XML files, see *Sample Property Mapping XML File* on page **5-116**.

Completing the Deployment Process

Tzunami Deployer is now ready to deploy the source items into the target SharePoint.

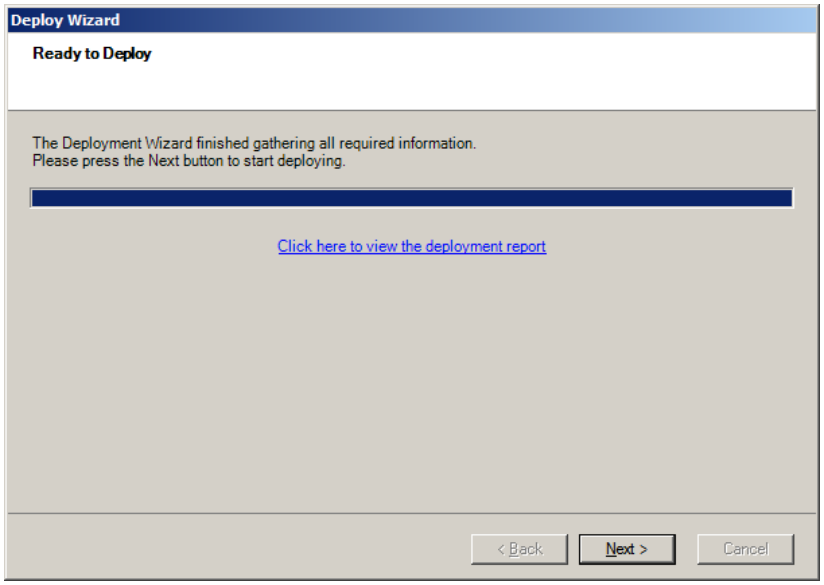


Figure 58: Ready To Deploy Screen

If Tzunami Deployer encounters errors or deployment failures, these errors are displayed in the deployment report and are announced in the next step of the wizard.

To complete the deployment process:

1. Click **Next**. Tzunami Deployer begins deploying your source items into your target SharePoint.

   When the structure is created and the documents are added, the Ready to deploy screen displays a link to view the deployment report. If any warnings or errors were generated as part of the deployment process, icons with the relevant number of errors/warnings appear.

Tzunami recommends that you review this report carefully and search for any warnings.

2. Click **Next**. The Deploy wizard displays the Deploy security screen.
3. Click **Next**. The security deployment process begins.

The Properties window can remain open while you work in the Project window. It reflects the properties of the currently selected item or items.

You can skip the security deployment and manage the security at another time unchecking the Deploy security checkbox (Available only when migrating to SharePoint 2003) in the Deploy Wizard (**Figure 49**).

The Security Deployment report is stored in the following directory: `<Project Folder>\Reports\Security Deploy Report.<Date>.<Time>.xml`.

This report exists only when migrating to SPS2003, in which case a link to the report is displayed.

When Tzunami Deployer finishes deploying all items and settings, the Deploy wizard displays the Thank you screen.

4. Click **Done**. The new items are displayed in the bottom half of the Project window.

Mapping Security Information

The first page of the Deploy Wizard contains the **Deploy Security** checkbox. Selecting this checkbox enables you to also deploy the source security settings for your deployed containers and items.

If you select the **Deploy Security** checkbox, the following screens are added to the wizard:

- **Groups mapping** – Mapping of source groups to target groups as containers of users.
- **Entities mapping** – The concrete user mapping.
- **Roles Mapping** – Mapping of source roles (permissions sets) to target roles.

In the following example we review a deployment from LiveLink to MOSS.

Assuming we would like to deploy the following hierarchy as a Document Library into MOSS:

	David's permissions	Ron's permissions	Test Group's permissions
Documents	See, modify, add	See, modify, delete, add	See, modify, add
File A	See, modify	See, modify, delete	See
File B	See, modify	See, modify, delete	See
Sub Folder	See, modify, delete, add, modify permissions	See, modify, delete, add	See
File 1	See, modify, delete, modify permissions	See, modify, delete	See

Tzunami Deployer uses the concept of security roles, each representing a set of permissions. If the source system supports this concept, the roles are read from the system. Otherwise, Tzunami Deployer generates its own roles. You can add, remove and modify the roles used.

David's set of permissions qualify him the role of Contributor on the Documents folder and its content, but qualifies as an Administrator on Sub Folder and its child item. Ron's role is Web Designer on all the hierarchy and Test Group has the role of Reader on all content except for Documents, in which he is a Contributor.

Groups Mapping

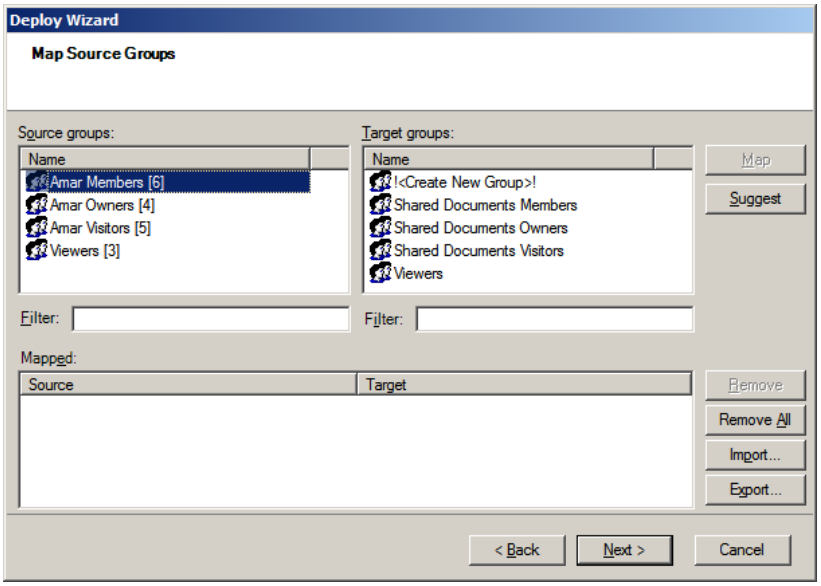


Figure 59: Group Mapping screen

The screen consists of three lists:

- **Source groups** – The source groups that are relevant to the items deployed.
- **Target groups** – The target groups that are relevant to the site into which we deploy.
- **Mapped** – Pairs consist of source groups and target groups that are already mapped.

In this step you can map a source group either to an existing site group, or to create a new site group bearing the same name.

In our example, we have only one source group (Test Group), and in the target we have the three default site groups (Members, Owners, and Visitors) and one user-created group named Target Group. We will map Test Group to Target Group. **This means the members of Test Group will be added as members of the Target Group.**

If the source is File System, this step is absent, since File System groups are treated as Active Directory groups, which can be mapped to SharePoint users (see ***Entities Mapping*** on page **4-77**).

Entities Mapping

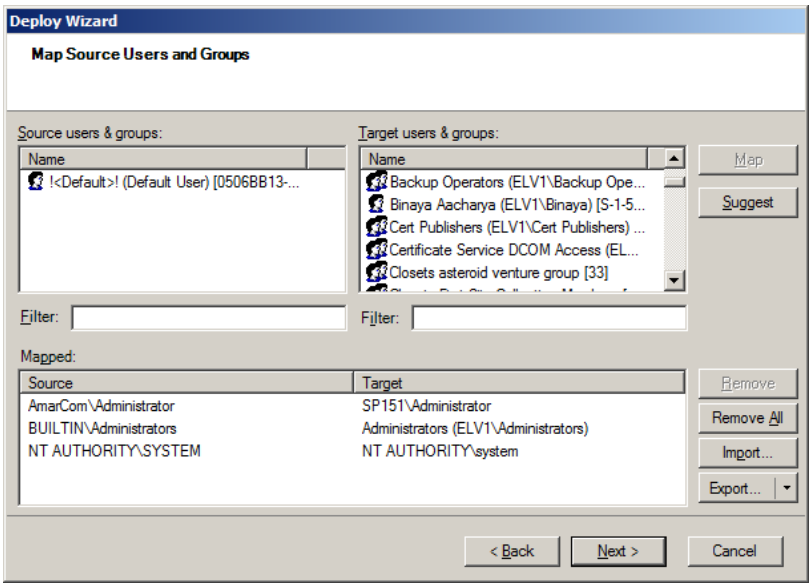


Figure 60: Entities Mapping screen

This screen also consists of three lists:

- **Source users & groups** – The source users and groups that are relevant to the specific items deployed. Included are users belonging to the groups.
- **Target users & groups** – All the local and domain users in the target. This means that also users that are not relevant to the target site are included (if you map to these users, they will be added to the target site).
- **Mapped** – Pairs consist of source user or group and target user or group each, that were already mapped.

In this step you can map each source user or group to a target user or group.

Mapping a source entity to a target entity means that the target entity will receive the same permissions that the source entity has. These permissions will be assigned based on the role mapping step (see ***Role Mapping*** on page **4-77**). Also, when Tzunami Deployer performs the group mapping, group membership is migrated based on the entities mapping.

You can use the Filter field in order to drill down to a specific name.

Tzunami Deployer suggests some of the mappings based on the user names. Also Tzunami Deployer suggests the mapping of groups based on our mapping on the previous screen.

Role Mapping

After mapping the default user and the other users you wished to map, click **Next** to get to the third security screen: Role Mapping:

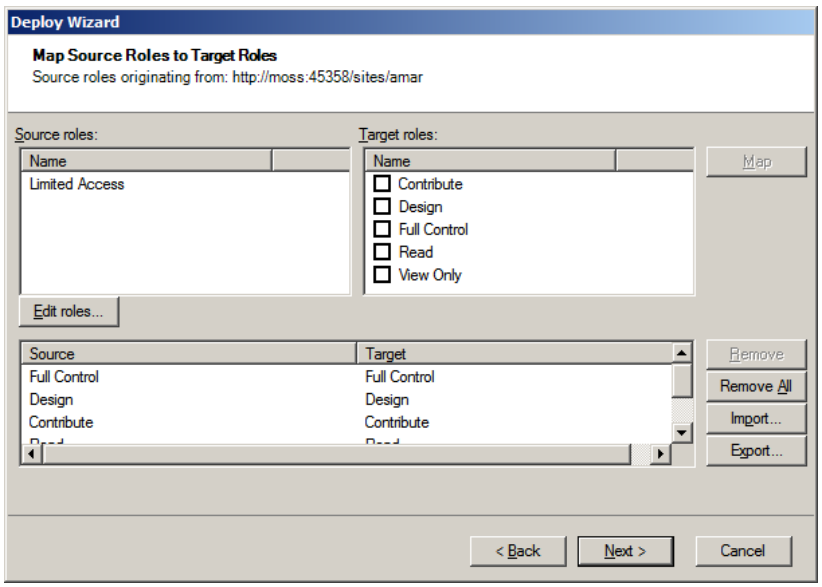


Figure 61: Role Mapping screen

This screen contains three lists:

- **Source roles** – The source roles (each role is a permissions set).
- **Target users & groups** – Target roles. You can select more than one target role.
- **Mapped** – Pairs consist of a source role and its mapped target role(s).

Roles, as mentioned earlier, are sets of permissions. In this step you map a source role to a target role. This means that target entities that were mapped to a source entity with a certain role will be assigned with the corresponding role that will be mapped in this screen.

A sensible mapping would be: **Administrator > Full Control, Contributor > Contribute, Reader > Read, Web Designer > Design**.

You can check more than one target role.

When migrating from WSS2.0/SPS2003, Site groups are handled as both groups (containers of users), and roles (sets of permissions). This means that Site groups will appear in both the Groups mapping and the Roles mapping steps.

Following our example, the outcome of our security mapping will be:

	David's role	Ron's role	Test Group's role
Documents	Contribute	Design	Contribute
File A	Contribute	Design	Read
File B	Contribute	Design	Read
Sub Folder	Full Control	Design	Read
File 1	Full Control	Design	Read

Checking Deployed Items

Once you have finished the deployment, you can scan the hierarchy of items and search for problematic items.

To find problematic items:

- Select **View** > **Find** > **Find Problems**.

  Tzunami Deployer scans the hierarchy in the target system for problematic items. If there are no problematic items, a message is shown. If Tzunami Deployer encounters problematic items, the Problematic Items window appears (**Figure 62**).

The window updates itself as you modify items to handle their problems.

You can double-click (or click **Go To**) on an item to navigate to it directly.

Click Copy to clipboard and Export to retrieve the list of problematic items.

The following problems are checked:

- Name `contains` invalid character.
- Name and `URL` are too long
- `Blocked extensions`
- `Files` are too large
- `Properties` values are legal (Hyperlinks start with a protocol schema, required properties have values, required properties do not have a default value).

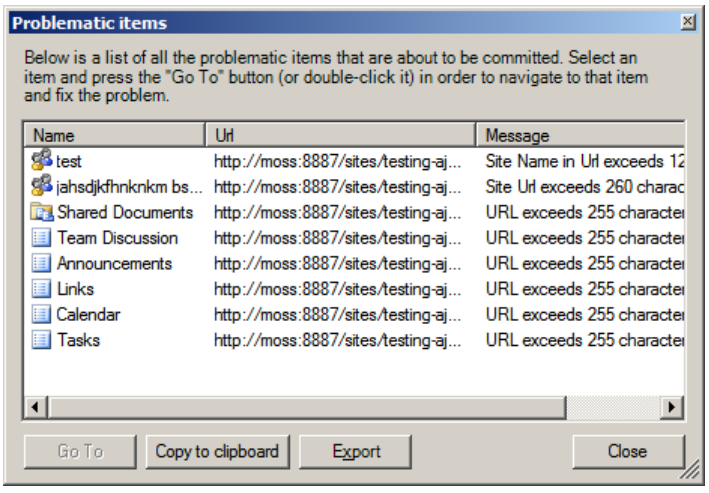


Figure 62: Problematic items window

Managing the Deployment Process

This section describes a variety of options that enable you to keep track of the deployment process. **For e.g.**, you can determine which source items are deployed to which target locations:

- **Item Counters** – Items in the container versus the number of items deployed. For example, the following shows that only one item of the 25 in this hierarchy is deployed:

  The first number is the number of files and items deployed, but not yet committed to the target SharePoint. The second number is the total number of files and items in that particular location and all its nested hierarchy. In the source system, this enables you to verify that all files intended for migration were indeed deployed. In the target SharePoint system, this indicates how many items currently in the specific location were deployed but were not yet committed to SharePoint.

- **Icon Overlays** – Each item or folder can only be deployed once. After deployment, the icons of both source and target items appear with an upload overlay (). **For e.g.**  .

  If you try to redeploy an item that is already deployed, a message is displayed. You can remove a deployed item by finding the location to which the item is deployed (in the target SharePoint) and delete it.

- **Find Source/Target Tool** – You can find the correlation between items in the source and their new location in the target:
  - Select a source item and click **Find Source/Target** to find the deployed target item.
  - Select a target item and click **Find Source/Target** to find the deployed source item.

- **Deployed To / Deployed From Column** – The source includes a Deployed To column that specifies the address of new item in the target SharePoint. The target SharePoint includes a Deployed From column that specifies the address of the source item that was deployed.

- **Find Problems** – You can instruct Tzunami Deployer to search for known problems (such as long URLs, which is a SharePoint limitation, blocked extensions, and so on) by selecting **View > Find > Find Problems**. This option can only be performed *before* the committing stage, on uncommitted items.

- **Deployment Report** – Before committing your changes, you can view a report of the deployed items. Tzunami recommends that you review the Deployment Report carefully and search for any warnings. The Deployment Report is stored in the following directory: `<Project Folder>\Reports\DeployReport.<Date>.<Time>.xml`.
- **Filtering Source Items** – Tzunami Deployer enables you to filter the items that appear in the source system. For more information, see ***Filtering Source Items*** on page **4-81**.

Filtering Source Items

When you apply a filter to a folder, the filter is automatically applied to all sub-folders. You can set a different filter for a sub-folder or disable filtering for it altogether by editing the sub-folder's filter settings.

To filter the source store list:

1. Click  .

   Or

   Right-click a source folder you wish to filter and select **Filter**.

   The Edit Filter window appears.

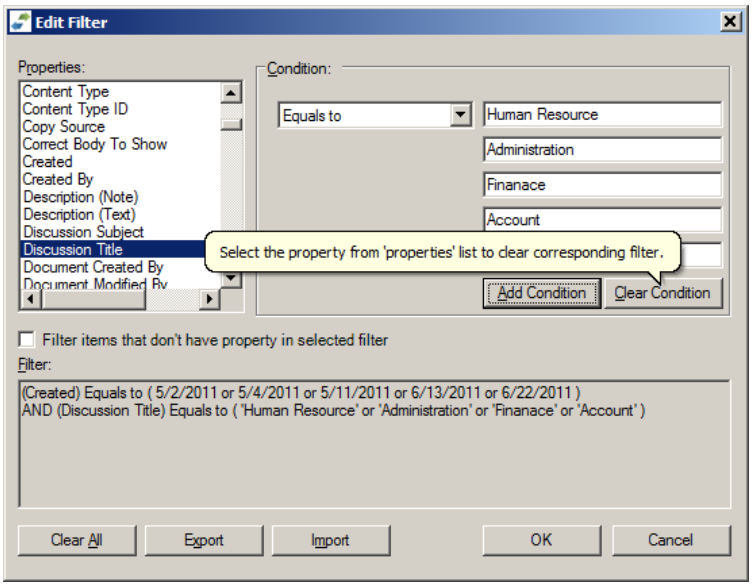


Figure 63: Edit Filter Window

2. Select a property from the list of Properties.
3. In the Condition area, select one of the following conditions from the drop-down list and enter a value in the corresponding field(s):
    - Equals to
    - Different than
    - Greater than
    - Smaller than
    - Between
    - Matches
    - Doesn't match
    - Empty Value
    - Non Empty Value

Some conditions have single values and others have multiple values, for example the Equals to condition can contain up to five values.

4. Click **Add Condition**. The condition is added to the Filter area, displaying the full filter expression.

You can only add one condition per property.

You can edit a condition for a property by selecting the property and modifying the condition type or it's currently assigned values and clicking **Add Condition**.

You can remove a condition from a property or all the conditions from all the properties by clicking **Clear Condition** or **Clear All**, respectively.

5. Click **Import/Export Button**. Export button can be pressed to dump added filter condition as an XML file. Likewise, Import button can be pressed to import the saved filter conditions accordingly.
6. Click **OK**.

    The **filter** is applied to the source hierarchy and the icon at the filtered location, including all its sub-folders, includes a filter overlay (⧩), as well as an additional counter specifying the number of files and items that passed the filtering.

Best Practice for deploying source

- **Drag and drop:** Deploy selected items from the source to a pre-determined location in the target. At this stage of the Deployment, you should already be aware of what you're dragging (site, list, etc.) and which properties you want to add accordingly.

- **Mass Deploy:** Repeat the "Drag and Drop" phase for as many projects as you like. Keep in mind that using more than one person to conduct the migration can help you move through the different phases simultaneously and thereby at a quicker pace.

  Make sure not to deploy the same site collection using two different projects that are destined to run simultaneously, as this could cause inconsistency issues.

- **Review the Deploy Reports for any warnings**

- **Check for problems before commit:** Before committing your project to SharePoint, use the "find problems" option from the Deployer menu (Ctrl +P) in order to identify any issues that may occur as a result of SharePoint limitations, such as long URLs, or blocked extensions.

- **SharePoint Limitations:** Keep in mind SharePoint column limitations while adding missing properties.

- **Multiple Deployment:** Simulate multiple deployments for a source type till you find the one that suits your needs best. Use the same deployment pattern for that item type in future.

COMMITTING THE MIGRATION

The committing stage executes your target SharePoint customizations and migrates your source items to your target SharePoint. You can perform the committing stage immediately after deployment or you can schedule it for a later date. For more information, see ***Schedule Commit*** on page **4-86** and ***Batch Mode Commit*** on page **4-88**.

The committing process first applies the model that was designed in ***Modeling SharePoint Targets*** on page **4-35**. This ensures that the sites, libraries, lists, and folders are created in the target SharePoint and that their metadata is set, so that they are ready for the migration of items into them, according to the deployment scheme you built in ***Deploying Source Data for Migration*** on page **4-59**.

The actual content migration physically copies the source items (**For e.g.** Microsoft Office documents) to the target library, list, or folder on the SharePoint site, while updating their metadata properties according to the Tzunami Deployer project definitions.

You can estimate how much time the committing stage requires with the following calculation:

$$\frac{(X \times Y)}{(N \times Z)}$$ = anticipated committing time.

Where:

X – The total number of documents to commit.

Y – The average committing rate for one Tzunami Deployer instance. This rate can be determined by committing a project and dividing the number of documents by the amount of hours taken to complete committing.

Z – The number of servers (that meet the required specifications) available on which to run Tzunami Deployer.

N – The number of Tzunami Deployer instances planned to run on each server.

While your projects are in the committing stage, create and work on additional projects to save time. When one project finishes the committing stage, you can immediately begin committing another.

You can run multiple Tzunami Deployer projects on a single server. Keep in mind that the number of Tzunami Deployer projects running simultaneously on one machine and the total number of running projects depends on your hardware, network connections, and the SharePoint environment maintenance and response time. This maintenance and response time depends on the amount of free memory on the machines running Tzunami Deployer, hardware, available CPU, network connectivity to SharePoint, DB indices on the SharePoint SQL server, and so on.

Avoid making additional changes directly to your target SharePoint during the committing stage.

After the committing stage is complete, the numbers on the left of the item counters in both the source and target trees are set to zero and the New, Modified, and Deployed overlays are removed from all icons.

Committing Now

To commit the changes to the SharePoint server:

1. Select **Data > Target SharePoint 2003/2007/2010/2013/SP Remote/Office 365 > Commit to SharePoint**.

   Or

   Click 

   Or

   Right-click in the target SharePoint store area and select **Commit to SharePoint**.

If the Tzunami Deployer project was modified since it was last saved, Tzunami Deployer informs you that the current project data will be saved.

   Tzunami Deployer prompts you to verify that you wish to commit your changes to SharePoint.

2. Click **Yes**. Tzunami Deployer begins committing your changes and displays a progress window indicating the number of modifications being made to the SharePoint server, as well as the progress and time estimation.

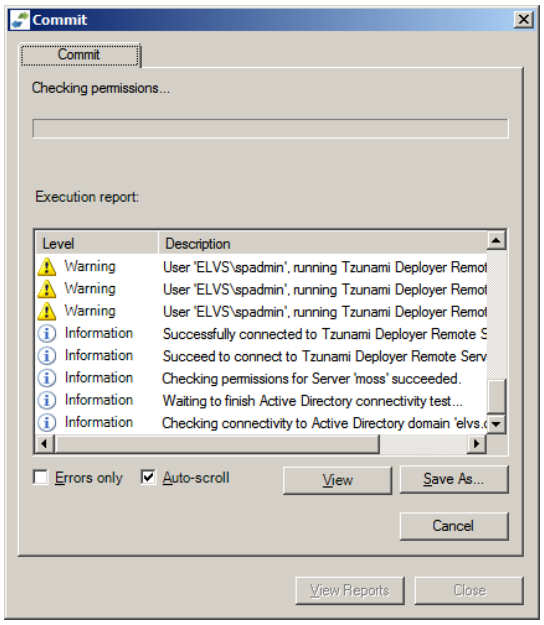


Figure 64: Commit Progress Window

Clicking **Errors only** filters the displayed progress messages to show error messages only.

After Tzunami Deployer finishes committing your changes, you can right-click the new SharePoint site or document library and select **Open** to view the site or document library using your Internet browser.

If the committing process completes successfully without errors, you have finished migrating your content.

If errors or failures are displayed in the Commit Progress window (**Figure 64**), a new tab is added to the window, indicating which items were not committed and what problems caused the failure.

3. Click the **Commands** tab. The Commands tab appears listing the actions that failed to be committed to SharePoint and the reason for the failure. All actions are selected by default.

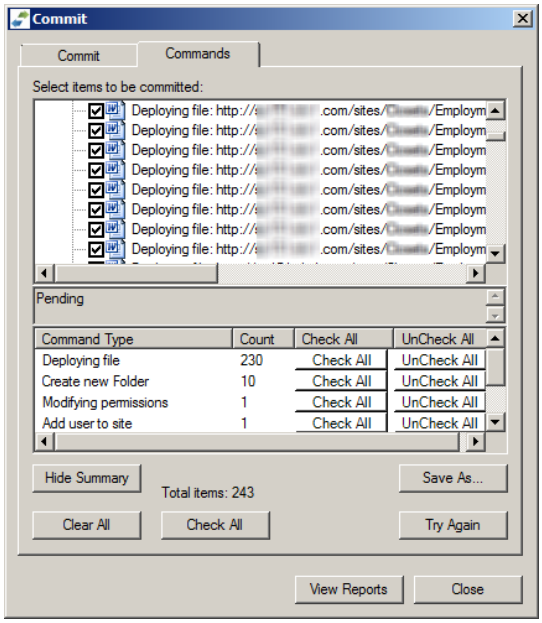


Figure 65: Commit Window – Commands Tab

4. Select the actions that you want to retry committing to SharePoint and click **Try Again**.

If you close the window without resolving the failed commands, you can resolve them later by right-clicking in the SharePoint store and selecting **View pending commands**. You can then retry committing the items.

Schedule Commit

You can schedule Tzunami Deployer to commit a project at a time that is most convenient for you.

To schedule Deployer project:

Once you have successfully deployed contents to the target, save the Deployer project.

1. Select **Data > Target SharePoint 2013> Schedule Commit to SharePoint 2013**.

   Or

   Click Schedule Commit

   Or

   Right-click in the target SharePoint store area and select **Schedule Commit to SharePoint 2013/SP Remote/Office 365**.Check this

   The Schedule Commit window appears.

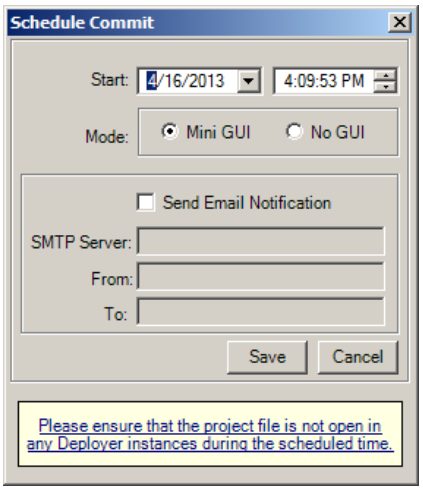
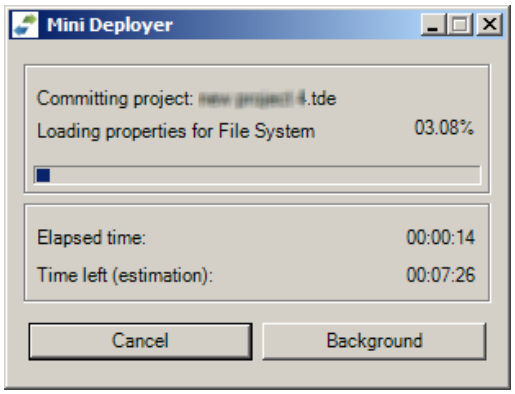


Figure 66: Schedule Commit window

Table 14: Schedule Commit

Parameters	Descriptions
Start	Set the start date and time for schedule commit. The start date and time should be greater than current date and time.
Mode	Enables you to specify how Deployer runs the schedule commit process. • **Mini GUI** - Runs Deployer and starts to commit a project opening the Mini Deployer interface. It shows commit progress, Elapsed time and Time left (estimation) in Mini Deployer window.



- **No GUI** - Runs Deployer and starts to commit without opening the user interface of Deployer.

Send Email Notification	Enables you to send email notifications after commit is completed.
SMTP Server	Enter the outgoing (SMTP) e-mail server.
From	Enter the sender's email address in the **From** box.
To	Enter the recipient's email address in the **To** box. Enter multiple addresses by separating them with a comma.

2. Click **Save**.

Please ensure that the Project File is not opened in any Deployer instances during the scheduled time.

Batch Mode Commit

With Task Scheduler, you can schedule Tzunami Deployer to commit a project at a time that is most convenient for you.

To set a time for committing a project:

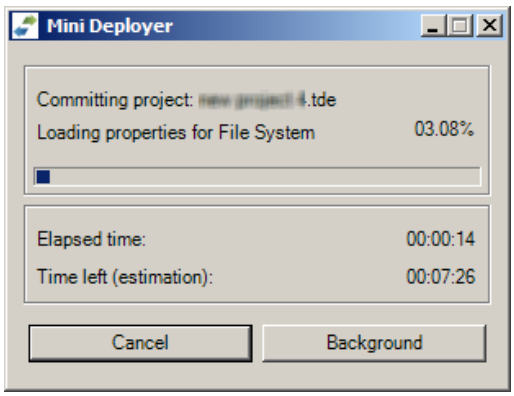
Once you have successfully deployed contents to the target, save and close the Deployer project.

1. Create a batch file with commit command in the following format.

```
Deployer.exe <DeployerProjectFile> [/commit [/nogui] [/minigui]] [/SMTP <mail.domain.com>] [/From <name@domain.com>][/To <name@domain.com>] [/PORT <SMTP port>]
```

Usage

Parameters	Descriptions
/commit	Opens the provided Deployer Project File and

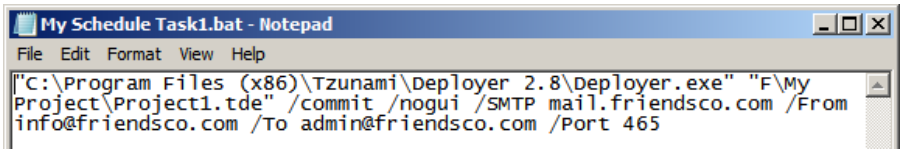
	immediately starts to commit to SharePoint. If a project is not provided, or if there are no commands to commit, Deployer opens regularly.
[/nogui]	This flag is used with the "/commit" option, in order to run Deployer and start to commit without opening the user interface of Deployer.
[/minigui]	This flag is used with the "/commit" option, in order to run Deployer and start to commit a project opening the Mini Deployer interface. It shows commit progress, Elapsed time and Time left (estimation) in Mini Deployer window. 
<DeployerProjectFile>	Specifies the location of Deployer Project File which you want to commit.
[/SMTP <mail.domain.com>]	[Optional] Outgoing (SMTP) e-mail server.
[/From <name@domain.com>]	[Optional] sender's e-mail server.
[/To <name@domain.com>]	[Optional] recipient's email address.
[/Port <SMTP port>]	[Optional] Outgoing server SMTP port number.

For example:

```
C:\> "C:\Program Files (x86)\Tzunami\Deployer 2.8\Deployer.exe"
"F:\My Project\Project1.tde" /commit

C:\Program Files (x86)\Tzunami\Deployer 2.8> Deployer.exe
"F:\My Project\Project1.tde" /commit /nogui

C:\Program Files (x86)\Tzunami\Deployer 2.8> Deployer.exe
"F:\My Project\Project1.tde" /commit /minigui

C:\> "C:\Program Files (x86)\Tzunami\Deployer 2.8\Deployer.exe"
"F:\My Project\Project1.tde" /commit /nogui /SMTP
mail.friendsco.com /From info@friendsco.com /To
admin@friendsco.com /Port 465
```

For better performance and less intrusions on the machine, you can use the /nogui flag, which does not display the Tzunami Deployer user interface.

The first parameter is the path to Deployer executable file.



Save the file.

2. Run the batch file in the task scheduler. For more information about task scheduler, refer to:

   http://technet.microsoft.com/en-us/library/cc748993.aspx.

Best Practice for Committing a Deployer Project

- **Check for problems before commit**

- **Start committing the projects:** While these projects are committing, begin creating as many new Deployer projects as you can.

- **Run several Deployer instances on one server:** The number of Deployer projects running simultaneously on one machine and the total number of projects which can run simultaneously depend on your hardware, network connection and SharePoint environment maintenance and response time (free memory on the machines running Deployer, HD availability, CPU, network connectivity to the SharePoint farm, DB indices on the SharePoint SQL server, etc.).

- **Don't waste time:** You can immediately commit another project as soon as the previous project finishes committing. You also have the option to schedule a commit in the future through the use of the Microsoft Windows Task Scheduler combined with Deployer's command line capabilities. Keep in mind SharePoint column limitations while adding missing properties.

- **Avoid performing changes to the SharePoint outside of Deployer during the commit phase.**

- **In order to produce a rough estimation on the duration of the Commit Phase, verify the following environment-dependent variables:**
  - X: Total number of documents to commit
  - Y: Average commit rate for one Deployer instance. Test this once with one project committing M documents for H hours and just do a simple calculation of M/H.
  - Z: Number of servers available to run Deployer

- N: Number of Deployer instances designated to run on each server.

It is not recommended to run more than 3 Deployer instances on a single server.

Rough time estimation for the duration of the commit process can be calculating using these parameters: $\frac{(X \times Y)}{(N \times Z)}$

- **Schedule Commit:** With Scheduled Commit, you can schedule Tzunami Deployer to commit a project at a time that is most convenient for you.
- **Identify Issues:** During commit, or any other phase of the migration project, identify any problems that may arise. Save the export/deploy/commit reports and logs which contain any warnings or errors. Notify the Tzunami Support Team about these issues.

5 CONFIGURING TZUNAMI DEPLOYER ADVANCE FEATURES

This chapter describes how to configure Tzunami Deployer settings and covers the following topics:

- Rule Engine
- Tzunami Deployer Options

RULE ENGINE

Deployer Rule Engine is a powerful Deployer component that enables you to automate large parts of the deployment process by creating flowcharts of If-Then statements in a rules editor.

A Rule consists of a set of conditions (logical IFs) and Actions (logical THENs). If all conditions are fully met, then the Actions are executed. A Rule Set is a set of rules that define deployment options for a specific Enterprise Content Management (ECM) system.

The Deployer Rule Engine is intended for power users, System Integrators, and Tzunami Deployer specialists. It provides you with a high degree of freedom in regard to the business logic you can create.

The order of the Rules in a Rule Set is important. The Rule Engine processes each container item in the deployed item, evaluating the Rules one after the other against each item. If even one Condition is not met, the Rule is ignored, and the Rule Engine proceeds to the next Rule. If all Conditions are met, the Actions are performed, and the Rule Engine continues handling the next item. No other rule is evaluated for that item. As a result, even if two Rules are valid for a certain item, only the first Rule is evaluated and performed.

The Rule Sets Editor contains several built-in default Rule Sets that define some common deployment logic schemas. You can customize these default Rule Sets to suit your specific deployment needs.

Configuring Rule Engine

You can choose whether to involve the Rule Engine in the deployment process. Tzunami recommends that you start working with Tzunami Deployer without the Rule Engine. After you are familiar with Tzunami Deployer's behavior and features, you can create a new Rule Set and enable the Rule Engine to generate suggestions.

To set the Rule Engine interaction level

1. Select **Tools > Options**. The Options window appears.
2. Click **Rule Engine**.
3. Select one of the following levels of interaction from Rule Engine Settings:
    - **Don't use Rule Engine –** The Rule Engine does not take part in the deployment process.
    - **Rule Engine provides options** – The Rule Engine generates suggestions for the deployment process. The deployment wizard is displayed to the user to validate and acknowledge the options.
4. Click **OK**.

    The Rule Engine interaction level is set.

Opening the Rule Sets

To open the Rule Sets Editor:

- Select **Tools > Deployment Rules**.

  Or

  Press **F8**.

  The Rule Sets Editor appears.

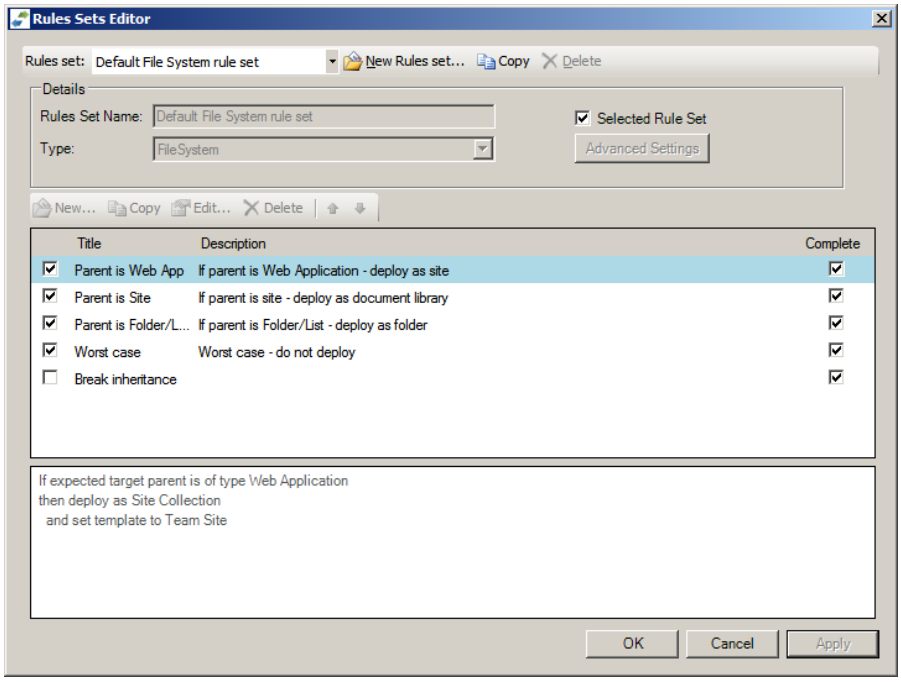


Figure 67: Rule Sets Editor

Specifying Rule Set Location

Rule Sets are saved on the file system. The location of each Rule Set must be specified in the Rule Engine.

To specify the locations of Rule Sets:

1. Select **Tools > Options**. The Options window appears.
2. Click **Rule Engine**.

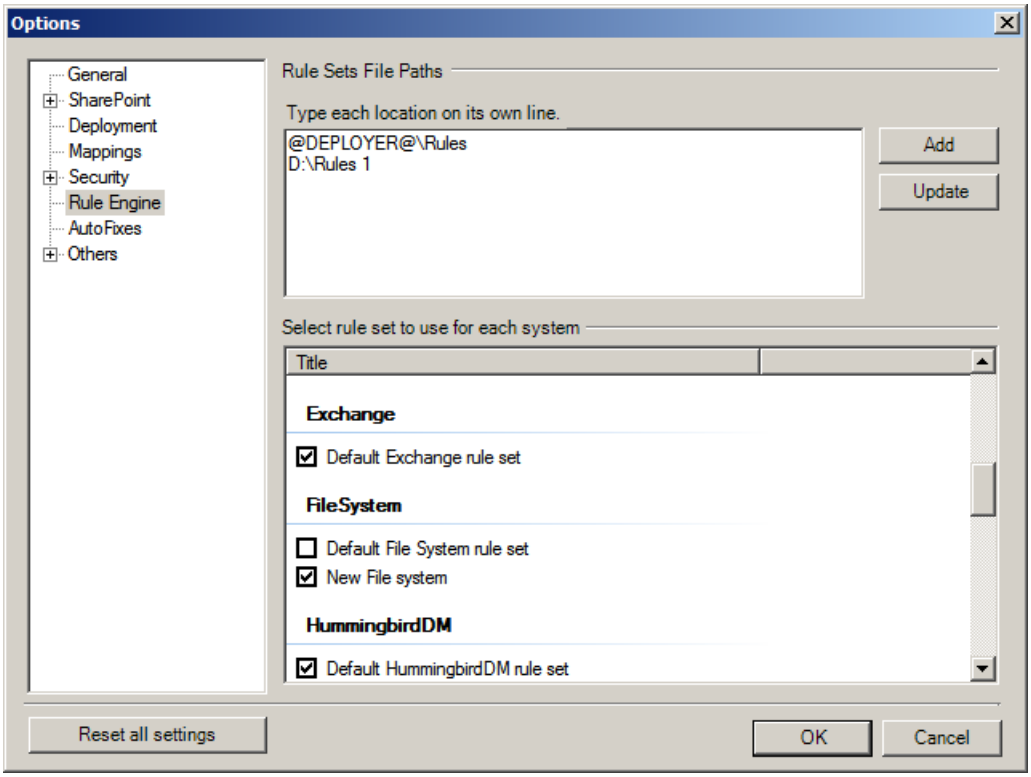


Figure 68: Options Window

3. Click **Add** and browse to the location of the Rule Set.

   Or

   Enter the location in a new line in the Locations area.

4. Select Rule Set and click **OK**.

You can use two special variables in the definition of the location:

`@DEPLOYER@` – denotes the Tzunami Deployer installation folder.

`@PROJECT@` – denotes the currently open Tzunami Deployer project.

You can delete a location by highlighting the relevant text in the Location area, and deleting it.

You can specify that the location of a new Rule Set be automatically added to the list of locations, by clicking **Add location to list of rules set locations** when you define a new Rule Set (**Figure 69**).

Rule Sets Editor

You can create multiple Rule Sets for each ECM system. However, at any given time, only one Rule Set can be used during the deployment process. For more information about "Rule Set" see ***Rule Engine*** on page **5-133**.

To set which Rule Set to use during the deployment process:

1. Select **Tools > Options** in the menu. The Options window appears, displaying the existing Rule Sets in the bottom half of the screen (**Figure 69**).
2. Select the Rule Set for the ECM to use during the deployment.

Creating a New Rule Set

To create a Rule Set:

- In the Rule Sets Editor (**Figure 67**), click **New Rules set**. The New Deployment Rules Set Form appears.

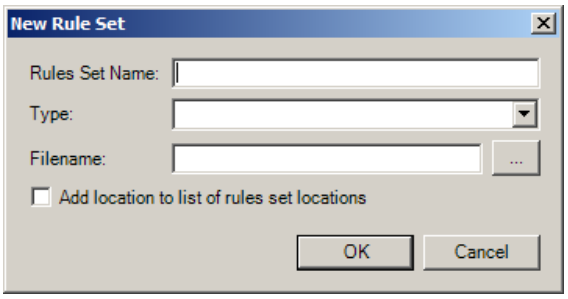


Figure 69: New Deployment Rules Set Form

- Enter the following information for the new Rule Set and click **OK**.

Table 15: New Deployment Rule Set Form Fields

Field	Description
Rules Set Name	Specify a name for the Rule Set.
Type	Select the type of source ECM the Rule Set applies to from the drop-down list.
Filename	Specify where to save the Rule set file.
Add location to list of rules set locations	Select this option if you wish to display the file location in the Locations pane in the Options window (**Figure 68**).

If the Rule Set you are creating is very similar to an existing Rule Set, you can duplicate the existing Rule Set and edit its rules. For more information, see ***Copying a Rule Set*** on page **5-96**.

Copying a Rule Set

To copy a Rule Set:

When you duplicate a Rule Set, it appears with the same name as the original Rule Set, followed by - Copy.

1. Select **Tools > Deployment Rules**. The Rule Sets Editor appears.
2. In the Rule Set Editor toolbar, click **Copy**.

Creating a Rule in a Rule Set

To create a rule in a Rule Set:

1. Click **New** in the Rules toolbar. The Rule Editor window appears.

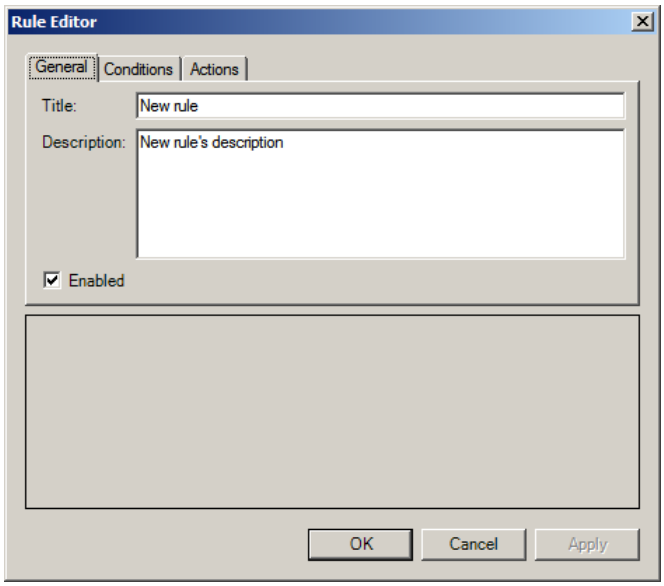


Figure 70: Rule Editor Window – General Tab

2. In the General tab enter the following information:

Table 16: Rule Editor, General tab – Description of Fields

Field	Description
Title	Enter a name for the rule.
Description	Enter a description for the rule.
Enabled	Select if you want this rule to be processed as part of the Rule Set.

3. Click the **Conditions** tab and define the condition(s):
    a. Click **New**. The Conditions Selector window appears, listing all available conditions.

These conditions may differ depending on the type of ECM system you specified in the Type field of the Rule Set.

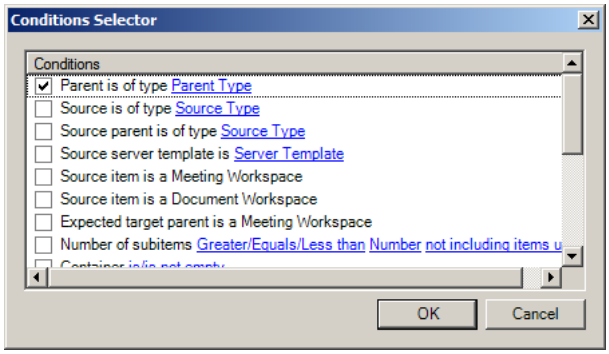


Figure 71: Conditions Selector Window

b. Select the Condition(s) you wish to add and click **OK**. Each Condition is displayed both in the top pane and the bottom pane. The Condition's variables are marked in blue and underlined.

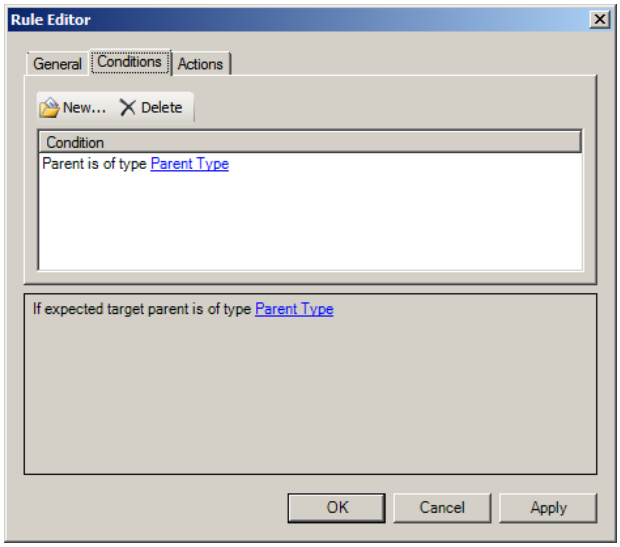


Figure 72: Rule Editor Window – Conditions Tab

c. In the bottom pane, select a value for each variable by clicking the variable, and entering or selecting a value. For information about the values to enter or select, see ***Defining Conditions*** on page **5-100**.

If you do not select a value, the rule is considered incomplete, and will not be processed.

4. Click the **Actions** tab and define the action(s):

   a. Click **New**. The Actions Selector window appears, listing all available actions. Note that these conditions may differ depending on the type of ECM system you specified in the Type field of the Rule Set.

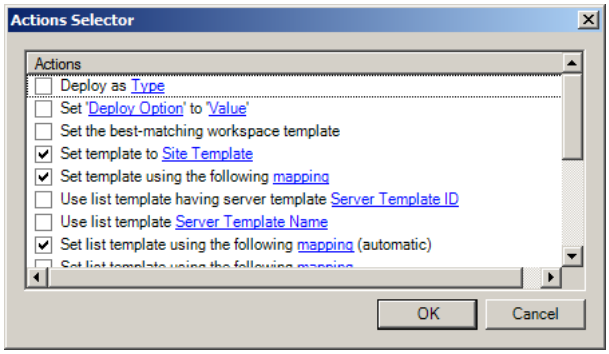


Figure 73: Actions Selector Window

b. Select the Actions you wish to add and click **OK**. Each Action is displayed both in the top pane and the bottom pane. The Action's variables are marked in blue and underlined.

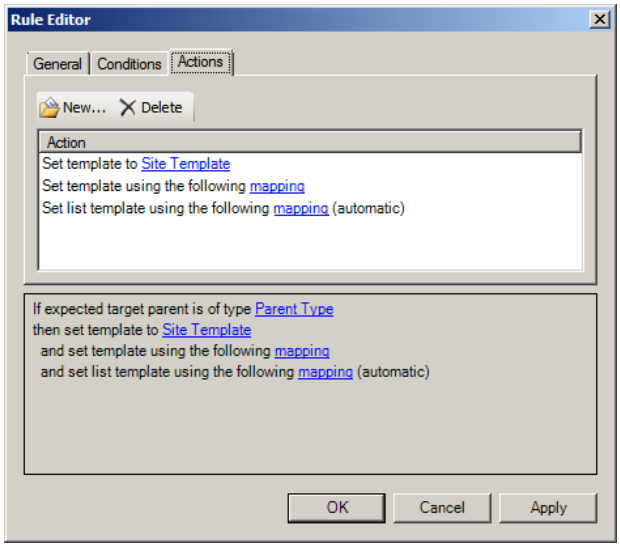


Figure 74: Rule Editor Window – Actions Tab

c. In the bottom pane, select a value for each variable by clicking the variable, and entering or selecting a value. For information about the values to enter or select, see ***Defining Actions*** on page **5-109**.

If you do not select a value, the rule is considered incomplete, and will not be processed.

Copying and modifying a Rule in a Rule Set

This option is useful if you wish to create a rule that is similar to an existing one. Instead of creating a new rule from scratch, you can first copy the existing rule, and then edit it.

To copy a rule in a Rule Set:

1. Select the rule you wish to duplicate.
2. Click **Copy** in the Rule toolbar. The Rule Editor window appears, displaying the new rule.

   You can now edit the information in the General, Conditions, and Actions tabs of the rule, as described in ***Creating a Rule in a Rule Set*** on page **5-97**.

To edit a rule in a Rule Set:

1. Select the rule you wish to edit.
2. Click **Edit** in the Rule toolbar.

   Or

   Double-click the rule.

   The Rule Editor window appears, displaying the selected rule.

   You can now edit the information in the General, Conditions, and Actions tabs of the rule, as described in ***Creating a Rule in a Rule Set*** on page **5-97**.

Defining Conditions

This section provides descriptions of the various Conditions you can define. Each description includes the relevant variables, as well as general remarks, if applicable.

If you specify multiple Conditions in a rule, Tzunami Deployer arranges them in the order in which they will be evaluated. You cannot change this order.

If you define contradicting Conditions in a Rule, the Rule will never be executed, because there will never be a case when all Conditions are met.

You can define a Rule with no conditions. This rule will apply to all items. However, note that only this rule will be executed. This rule is useful with the *Execute the following Rules <Rules>* action. For more information, see *Execute the following Rules <Rules>* on page **5-120**.

Parent is of type <Parent Type>

Check if the designated (new) parent of the item is of a certain type.

Variables

Variable	Description
<Parent Type>	The type of the designated parent. The type can be one of the following values: • Web Application • Site Collection • Sub Site • Area – The Portal Area used in a SharePoint 2003 Server • Site – Automatically adjust between Root site, WSS, or Area • Document Library • Image Library • List – A list of any type, including Document Library and Image Library • Folder/List. Note that lists are also recognized as folders • Area Listing – The List used in a SharePoint 2003 Server

Items is at level <Level> of parent <Parent Type>

Check if the Items hierarchy is at same level of designated parent type items.

Variables

Variable	Description
<Level>	The value (or values) to search for in the item.
<Parent Type>	The type of the designated parent. The type can be one of the following values: • Web Application. • Site Collection. • Sub Site. • Area – The Portal Area used in a SharePoint 2003 Server. • Site – Automatically adjust between Root site, WSS, or Area. • Document Library. • Image Library. • List – A list of any type, including Document Library and Image Library • Folder/List. Note that lists are also recognized as folders • Area Listing – The List used in a SharePoint 2003 Server

Source Parent is of type <Source Type>

Checks the source type of the parent of current item

Variables

Variable	Description
<Source Type>	The type of the designated parent. The type can be one of the following values: • Web Application • Site Collection • Sub Site • Area – The Portal Area used in a SharePoint 2003 Server • Site – Automatically adjust between Root site, WSS, or Area • Document Library • Image Library • List – A list of any type, including Document Library and Image Library • Folder/List. Note that lists are also recognized as folders • Area Listing – The List used in a SharePoint 2003 Server

Remarks

This condition is only available if you specified SharePoint 2003, SharePoint 2007, SharePoint 2010 and SharePoint 2013 in the Type field of the Rule Set.

Source is of type <Source Type>

Checks the source type of the current item

Variables

Variable	Description
<Source Type>	The type of source. The type can be one of the following values: • Web Application • Site Collection • Sub Site • Area – The Portal Area used in a SharePoint 2003 Server • Site – Automatically adjust between Root site, WSS, or Area • Document Library • Image Library • List – A list of any type, including Document Library and Image Library • Folder/List. Note that lists are also recognized as folders • Area Listing – The List used in a SharePoint 2003 Server

Remarks

This condition is only available if you specified SharePoint 2003, SharePoint 2007, SharePoint 2010 or SharePoint 2013 in the Type field of the Rule Set.

Source Server Template is <Server Template>

Check if the source list is based on a specific list definition type (server template).

Variables

Variable	Description
<Server Template>	Server template ID of the source list. In MOSS/WSS3.0 it is also referred to as Base Template. This can be one or several of the values in **Table 17**, or any custom Server Template ID.

Table 17: Standard Template IDs

ID	Template Name	ID	Template Name
0	No List Template	202	Meeting Attendees List
100	Generic List	204	Decision
101	Document Library	204	Meeting Decisions List
102	Survey	207	Meeting Objective
103	Links	207	Meeting Objectives List
104	Announcements	210	Text Box
105	Contacts	210	Meeting Text Box
106	Events	211	Things To Bring
107	Tasks	211	Meeting Things To Bring List
108	Discussion Board	212	Home Page Library
109	Picture Library	212	Meeting Workspace Pages List
110	Data Sources	300	Portal Sites List
111	Web Template Catalog	301	Posts
112	User Information	302	Comments
113	Web Part Catalog	303	Categories
114	List Template Catalog	402	Facility
115	XML Form	403	Whereabouts
116	Master Page Catalog	404	Call Track
117	No Code Workflows	405	Circulation
118	Workflow Process	420	Timecard
119	Web Page Library	421	Holidays
120	Custom Grid	499	IMEDic
121	Solution Catalog	600	External List
122	No Code Public	850	Publishing Page Library
130	Data Connection Library	1100	Issue Tracking
140	Workflow History	1200	Admin Tasks
150	Gantt Tasks	1220	Health Rule
200	Meetings	1221	Health Reports
200	Meeting Series List	1301	Translation Lists
200	Area Document Library	2002	Personal Document Library
201	Agenda	2003	Private Document Library

ID	Template Name	ID	Template Name
201	Meeting Agenda List	-1	Invalid Type
202	Meeting User		

Remarks

- You can enter any custom Server Template ID in order to support customized lists.
- This condition is only available if you specified SharePoint 2003, SharePoint 2007, SharePoint 2010 or SharePoint 2013 in the Type field of the Rule Set.

Source Item is a Document Workspace

Check if the source item is a document workspace

Expected target parent is a Meeting Workspace

Check if the expected target parent is a Meeting Workspace.

Source item is a Meeting Workspace

Check if the source item is a meeting workspace

Source parent item's <'Property Name'> property equals <Values>

Checks if the value of the current item's source parent item property equal certain value.

Variables

Variable	Description
<Property Name>	The display name of the property (case sensitive).
<Value>	The value (or values) to search for in the item.

Remarks

If property name is entered in <Property Name>, then the Condition is true only if the value matches the current items source parent property name.

Number of subitems <Great/Equals/Less than> <Number> <not including items under sub-containers> and <count sub-containers as items>

Check if the number of sub items of item is greater than/equals to/ less than the total number of sub-containers as items excluding item under sub-container.

Variables

Variable	Description
<Great/Equals/Less than >	The type of the Operators. The type can be one of the following values: • Greater Than • Equal • Less Than
< Number>	The value (or values) to search for in the item.
<not including items under sub-containers>	• **Including items under sub-containers (recursively)** – Select number of sub-items under sub-containers (recursively) • **Not including items under sub-containers** – Do not select the number of sub-items under sub-containers
<count sub-containers as items>	• **Count sub-containers as items** – Count number of sub-items in sub-containers as items • **Do not count sub-containers as items**– Do not Count number of sub-items in sub-containers.

Source Item's <Property Name> property equals <Value>

Checks the value of the source item's property

Variables

Variable	Description
<Property Name>	The display name of the property (case sensitive).
<Value>	The value (or values) to search for in the item.

Remarks

If property name is entered in <Property Name>, then the Condition is true only if the value matches the current items property name.

Container <is/is not empty>

Check if the container is empty or not.

Variables

Variable	Description
is	A keyword indicating that the container does not have items
Is not empty	A keyword indicating that the container has items

Source item's <'Property Name'> property contain <'Value'>

Check if the source item's property name contains a value.

Variables

Variable	Description
<Property Name>	The display name of the property (case sensitive).
<Value>	The value (or values) to search for in the item.

Source item's children have <all> of the properties <Values>

Check if the children of the current item have certain property value.

Variables

Variable	Description
<all>	The display all or any value of the property
<Values>	The value (or values) to search for in the item.

Parent Deployment option <Property Name> equals <Value>

Check if the deployment option of the current item's parent property has a certain value.

Variables

Variable	Description
<Property Name>	The deployment option property to check. This can be one of the following values, described in ***Defining the Deployment Structure*** on page **4-65** : • Invalid • Description • Language Id • Language Name • List Template Name • List Template Server template • List Template Base type • URL • Owner login name • Owner display name • Site Template name • Title • Deploy Files • Deploy Hierarchy • Flat Deploy
<Value>	The value to search for in the deployment options of the item.

Deployment option <Property Name> equals <Value>

Check if the deployment option of the current item property has a certain value.

Variables

Variable	Description
<Property Name>	The deployment option property to check. This can be one of the following values, described in ***Defining the Deployment Structure*** on page **4-65**: • Invalid • Description • Language Id • Language Name • List Template Name • List Template Server template • List Template Base type • URL • Owner login name • Owner display name • Site Template name • Title • Deploy Files • Deploy Hierarchy • Flat Deploy
Value	The value to search for in the deployment options of the item.

Source Item {Does | Does not have} unique permissions

Checks if a source item has unique permissions or it inherited/has the same permissions as the parent.

Parameters

Parameter	Description
Does	A keyword indicating that the source item has unique permissions.
Does not have	A keyword indicating that the source item does not have unique permissions.

Any of the subitems' <'Property Name'> property equal <Values> (Do not look recursively in sub-containers)

Check if property of sub-item of item has certain property values but don't look recursively in sub-containers of item

Parameter

Parameter	Description
All	The display any or all properties
Value	The value to search for in the deployment options of the item.
(Do not look recursively in sub-containers)	• Look recursively in sub-containers • Do not look recursively in sub-containers

All sub-items' <Property Name> property equals <Value> (using <flags>)

Check if the property of all sub-items of item has certain value using the provided flag.

Variables

Variable	Description
<Property Name>	The display name of the property (case sensitive).
<Value>	The value (or values) to search for in the item.
<flags>	• **Consider folders –** Selecting this flag will consider subfolder of folder containing subfolders and items. • **Look recursive –** Selecting this flag will recursively look for items or folders in containers. • **Accept empty containers** – Selecting this flag will accept empty containers • **Ignore already deployed items** – Selecting this flag will help to ignore which is already deployed.

Remarks

- If a property name of each sub-items of item is entered in <Property Name>, then the Condition is true only if the values of all sub-items of item include value defined in the Condition using the flag.
- This Condition will also check the items and files of the currently checked container.

Defining Actions

This section provides descriptions of the various Actions you can define. Each description includes the relevant variables, as well as general remarks if applicable.

If you specify multiple Actions in a rule, Tzunami Deployer arranges them in the order in which they will be evaluated. You cannot change this order.

If you define illogical combinations of Actions; the Actions are performed in the order determined by Tzunami Deployer, and invalid Actions are ignored.

Deploy as <Type>

Sets the deployment options to deploy as a certain type

Variables

Variable	Description
<Type>	The type to deploy as. This can be one of the following values: • Web Application • Site Collection • Sub Site • Area – The Portal Area used in a SharePoint 2003 Server • Site – Automatically adjust between Root site, WSS, or Area • Document Library • Image Library • List – A list of any type, including Document Library and Image Library • Folder/List. Note that lists are also recognized as folders • Do not Deploy – Using during the deployment process • Area Listing - The List used in a SharePoint 2003 Server

Set <Deploy Option> to <Value>

Sets a deploy option to a certain value.

Variables

Variable	Description
<Deploy Option>	The name of the deployment option. This can be one of the following values, described in ***Defining the Deployment Structure*** on page **4-65**. • Invalid • Description • Language Id • Language Name • Title • Deploy Files • Deploy Hierarchy • Flat Deploy • Enable Quick Launch • Inherit Navigation • On Top Navigation bar
Value	The value to set for the deployment option.

Set the best-matching workspace template

When an item is deployed as a site, this action matches the template of the deployed site to best matching available site templates.

Set Template to <Site Template>

When an item is deployed as a site, this action sets the site template to a certain template.

Variables

Variable	Description
<Site Template>	The name of the site template. For example: Team Site, Blank Site, and so on.

Remarks

This Action is valid only when an item is deployed as a site.

Set Template using the following <mapping>

When an item is deployed as a site, this action sets the site template according to the specified site mapping.

Variables

Variable	Description
<Mapping>	A mapping of source templates to target templates. See **Table 18** and **Table 19** for a list of standard source template IDs and standard target template Name#IDs.

Table 18: Standard source values (Template base type IDs)

ID	Template Name	Description
1	STS	Template for Team Site, Blank site and Document workspace
2	MPS	Meeting Workspaces Template
3	CENTRALADMIN	Central Admin Site
4	WIKI	Wiki Site
9	BLOG	Blog
20	SPS	SharePoint Portal Server Site (Obsolete)
21	SPSPERS	SharePoint Portal Server Personal Space
22	SPSMSITE	Personalization Site
30	SPSTOC	Contents area Template (Obsolete)
31	SPSTOPIC	Topic area template (Obsolete)
32	SPSNEWS	News Site Template (Obsolete)
33	SPSNHOME	News Site Template
34	SPSSITES	Site Directory
36	SPSCOMMU	Community area template
38	SPSREPORTCENTER	Report Center
39	CMSPUBLISHING	Publishing Site
47	SPSPORTAL	Collaboration Portal
50	SRCHCEN	Search Center with Tabs
51	PROFILES	Profiles
52	BLANKINTERNETCONTAINER	Publishing Portal
53	BLANKINTERNET	Publishing site Template
54	SPSMSITEHOST	My Site Host

Table 19: Standard target values (Template name#Configuration ID)

Template Name#ConfigurationID	Title
STS#0	Team Site
STS#1	Blank Site
STS#2	Document Workspace
MPS#0	Basic Meeting Workspace

Template Name#ConfigurationID	Title
MPS#1	Blank Meeting Workspace
MPS#2	Decision Meeting Workspace
MPS#3	Social Meeting Workspace
MPS#4	Multipage Meeting Workspace
CENTRALADMIN#0	Central Admin Site
WIKI#0	Wiki Site
BLOG#0	Blog
SPS#0	SharePoint Portal Server Site (this template is obsolete)
SPSPERS#0	SharePoint Portal Server Personal Space
SPSMSITE#0	Personalization Site
SPSTOC#0	Contents area Template (this template is obsolete)
SPSTOPIC#0	Topic area template (this template is obsolete)
SPSNEWS#0	News Site (this template is obsolete)
SPSNHOME#0	News Site
SPSSITES#0	Site Directory
SPSCOMMU#0	Community area template (this template is obsolete)
SPSREPORTCENTER#0	Report Center
CMSPUBLISHING#0	Publishing Site
SPSPORTAL#0	Collaboration Portal
SRCHCEN#0	Search Center with Tabs
PROFILES#0	Profiles
BLANKINTERNETCONTAINER#0	Publishing Portal
BLANKINTERNET#0	Publishing Site
BLANKINTERNET#1	Press Releases Site
BLANKINTERNET#2	Publishing Site with Workflow
SPSMSITEHOST#0	My Site Host

Remarks

- This Action is valid only when an item is deployed as a site.
- This Action is available only if you specified SharePoint 2003, SharePoint 2007, SharePoint 2010 or SharePoint 2013 in the Type field of the Rule Set.

- In the Rule Sets Editor, the following window appears for defining the mapping:

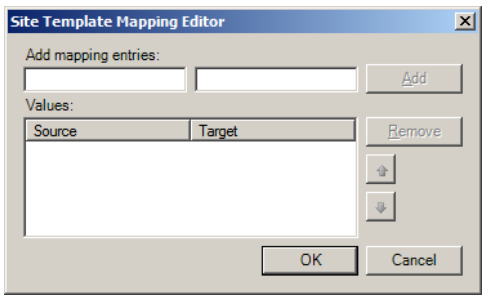


Figure 75: Site Template Mapping Editor Window

  - Enter a source template ID in the left hand field under **Add mapping entries**, and enter a target template Name#ID in the right hand field under **Add mapping entries**. Click **Add** to add this entry to the list of source and target values.
  - The source value "%OTHER%" can be used as a placeholder, signifying "any other template". This can be used as a default mapping, instead of defining mappings for all source options.

Use List Template having server template <Server Template>ID

When an item is deployed as a list, this action sets the List Template based on a Server Template ID.

Variables

Variable	Description
<Server Template>	The server template ID. You can enter a standard template ID (see **Table 17** for a list of standard template IDs), or any custom Server Template ID.

Remarks

- You can enter any supported Server Template ID, in order to support lists and libraries.
- This Action is valid only when item is deployed as a list.
- This Action is based on the SharePoint recommendation, in which each list template has a unique Server Template ID.

Use List Template <Server Template Name>

When an item is deployed as a list, this action sets the List Template based on the list template's Name.

Variables

Variable	Description
<Server Template Name>	The server template Name. You can enter a standard template name (such as Document Library, Contacts, and so on, see **Table 17** for a list of standard template IDs) or any custom Server Template name.

Remarks

You can enter any supported Server Template Name, in order to support lists or libraries.

Set List Template using the following <mapping>

While an item is deployed as a list, this action maps template ID number from source to target according to the specified list template mapping.

Variables

Variable	Description
<mapping>	A mapping of source template IDs to target template IDs. You can enter standard source and target template IDs (see **Table 17** for a list of standard source and target template IDs), or any custom Server Template ID.

Remarks

- This Action is available only if you specified SharePoint 2003, SharePoint 2007, SharePoint 2010 or SharePoint 2013 in the Type field of the Rule Set.
- In the Rule Sets Editor, the following window appears for defining a mapping:

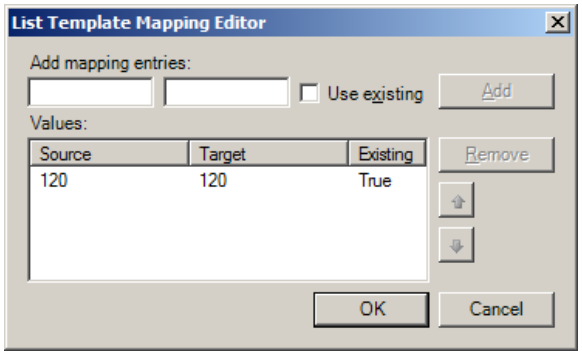


Figure 76: List Template Mapping Editor Window

  - Enter a source list template ID in the left hand field under Add mapping entries, and a target list template ID in the right hand field under Add mapping entries.
  - Click Use Existing to specify that if the site template includes this list type, it will be used and set true to existing column.
  - Click Add to add this entry to the list of source and target values.

Set List Template using the following <mapping> (automatic)

While an item is deployed as a list, this action automatically maps template ID number from source to target according to the specified list template mapping.

Variables

Variable	Description
<mapping>	A mapping of source template IDs to target template IDs. You can enter standard source and target template IDs (see **Table 17** for a list of standard source and target template IDs), or any custom Server Template ID.

Remarks

- This Action is available only if you specified SharePoint 2003, SharePoint 2007 SharePoint 2010 or SharePoint 2013 in the Type field of the Rule Set.
- In the Rule Sets Editor, the following window appears for defining a mapping:

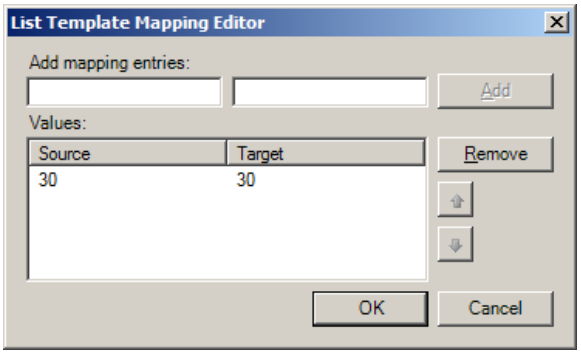


Figure 77: List Template Mapping Editor Window

  - Enter a source list template ID in the left hand field under Add mapping entries, and a target list template ID in the right hand field under Add mapping entries.
  - Click Add to add this entry to the list of source and target values.

Use <property mapping file> and <add required target properties>

Sets an XML document as the property mapping to be used for the item, and specifies whether to add required target properties.

Variables

Variable	Description
<mapping>	The path to on XML file that defines the property mapping. See *Sample Property Mapping XML File* on page **5-116**.
Add required target properties| Don't add required target properties	Required target properties are the properties that are required in the target item but are not present in property mapping XML file. Use these keywords to specify whether to add missing properties to the target.

Sample Property Mapping XML File

```
<PropertyMapping SourceSet="Tasks Column Set" TargetSet="Tasks
Column Set 2">
  <Pair>
    <Source DisplayName="Created" Name="Created"
            PropertyType="DateTime" />
    <Target DisplayName="Created" Name="Created Date"
            PropertyType="DateTime" />
  </Pair>
  <Pair>
    <Source DisplayName="Approval Status"
Name="_ModerationStatus"
            PropertyType="ModStat" />
    <Target DisplayName="Approval Status"
Name="_ModerationStatus"
            PropertyType="ModStat" />
  </Pair>
  <Pair>
    <Source DisplayName="Name" Name="D996E646-5C05-45b7-B24A-
9AFAF5B21503"
            PropertyType="Text" />
    <Target DisplayName="Name" Name="D996E646-5C05-45b7-B24A-
9AFAF5B21503"
            PropertyType="Text" />
  </Pair>
  <Pair>
    <Source DisplayName="Modified By" Name="Editor"
PropertyType="User" />
    <Target DisplayName="Modified By" Name="Editor"
PropertyType="User" />
  </Pair>
  <Pair>
    <Source DisplayName="Created By" Name="Author"
PropertyType="User" />
    <Target DisplayName="Created By" Name="Author"
PropertyType="User" />
  </Pair>
  <Pair>
    <Source DisplayName="Start Date" Name="StartDate"
            PropertyType="DateTime" />
    <Target DisplayName="Start Date" Name="StartDate"
            PropertyType="DateTime" />
  </Pair>
  <Pair>
    <Source DisplayName="Due Date" Name="DueDate"
PropertyType="DateTime" />
    <Target DisplayName="Due Date" Name="DueDate"
PropertyType="DateTime" />
  </Pair>
  <Pair ValueMapping="@DEPLOYER@\Rules\Mappings\Value Mapping -
Tasks - Priority.xml">
```

```
    <Source DisplayName="Priority" Name="Priority"
PropertyType="Choice" />
    <Target DisplayName="Priority" Name="Priority"
PropertyType="Choice" />
  </Pair>
  <Pair>
    <Source DisplayName="% Complete" Name="PercentComplete"
            PropertyType="Number" />
    <Target DisplayName="% Complete" Name="PercentComplete"
            PropertyType="Number" />
  </Pair>
  <Pair>
    <Source DisplayName="Modified" Name="Modified"
PropertyType="DateTime" />
    <Target DisplayName="Modified" Name="Modified"
PropertyType="DateTime" />
  </Pair>
  <Pair>
    <Source DisplayName="Created" Name="Created"
PropertyType="DateTime" />
    <Target DisplayName="Created" Name="Created"
PropertyType="DateTime" />
  </Pair>
  <Pair>
    <Source DisplayName="Assigned To" Name="AssignedTo"
PropertyType="User" />
    <Target DisplayName="Assigned To" Name="AssignedTo"
PropertyType="User" />
  </Pair>
  <Pair>
    <Source DisplayName="Description" Name="Body"
PropertyType="Note" />
    <Target DisplayName="Description" Name="Body"
PropertyType="Note" />
  </Pair>
  <Pair>
    <Source DisplayName="Title" Name="Title"
PropertyType="Text" />
    <Target DisplayName="Title" Name="Title"
PropertyType="Text" />
  </Pair>
  <Pair ValueMapping="@DEPLOYER@\Rules\Mappings\Value Mapping -
Tasks - Status.xml">
    <Source DisplayName="Status" Name="Status"
PropertyType="Choice" />
    <Target DisplayName="Status" Name="Status"
PropertyType="Choice" />
  </Pair>
  <Pair>
    <Source DisplayName="Modified" Name="Modified"
            PropertyType="DateTime" />
    <Target DisplayName="Modified" Name="Last Modified"
            PropertyType="DateTime" />
```

```
  </Pair>
</PropertyMapping>
```

Where;

`DisplayName` is the Properties Display name.

`Name` is the SharePoint internal name.

`PropertyType` can be one of the following: `DateTime`, `ModStat`, `User`, `Choice`, and `Text`.

Sample Value Mapping XML File

Note that the sample mapping file includes references to two external XML files that contain value mappings (highlighted in the sample): Status and Priority. The Status value mapping file for this example is:

```
<ValueMapping>
  <Pair Source="Issue" Target="Waiting on someone else" />
  <Pair Source="Completed" Target="Completed" />
  <Pair Source="{D3A98B62-323C-4130-AA18-2CA791C9E57D}"
Target="Not Started" />
  <Pair Source="{D3A98B62-323C-4130-AA18-2CA791C9E57C}"
Target="{D3A98B62-323C-4130-AA18-2CA791C9E57A}" />
</ValueMapping>
```

Where value mapping provides a few "placeholder" values:

`{D3A98B62-323C-4130-AA18-2CA791C9E57C}` – Empty Source.

`{D3A98B62-323C-4130-AA18-2CA791C9E57D}` – Default Source.

`{D3A98B62-323C-4130-AA18-2CA791C9E57A}` – Target Map to Empty.

`{D3A98B62-323C-4130-AA18-2CA791C9E57B}` – Target Map to Keep Original.

These values match the values available to users in the Value Mapping step of the deployment wizard.

Remarks

You can create the mapping file manually, but it is recommended to export a property mapping during a regular deployment, and use the exported mapping. For more information, see ***Importing and Exporting Users* on page 4-55**.

Set Title to <Title>

Sets the title of the new item to the selected value

Variables

Variable	Description
<Title>	The title of the item.

Use unique permissions

When an item is deployed as a site, this action sets the site to use unique permissions.

Remarks

This Action is valid only when an item is deployed as a site.

Set owner to <user>

When an item is deployed as a site, this action sets the owner to a certain value.

Variables

Variable	Description
<User>	The username of the user who is being assigned as owner. The username is case sensitive. It should be the full user logon name (pre-Windows 2000: DOMAIN\user).

Remarks

This Action is valid only when an item is deployed as a root site (site collection).

Set Description to <Description>

Sets the description of the new item to the selected value

Variables

Variable	Description
<Description>	The description of the item.

Add the missing properties [except]

Adds the missing properties of the item except selected property

Variables

Variable	Description
<except>	The description of the item value.

Add the missing properties [except of type]

Adds the missing properties of the item except selected property type

Variables

Variable	Description
<Description>	The description of the item type value.

Execute the following Rules <Rules>

Executes selected rules of the current Rule Set

Variables

Variable	Description
<rules>	The rules to execute.

Remarks

- It is considered good practice to disable Rules that are meant to be executed as part of this Action.

Usually, Rules that are executed by this Action are small, zero, or one condition Rules. These are often created as Rules only to prevent duplication of their logic in multiple Rules.

TZUNAMI DEPLOYER OPTIONS

Tzunami Deployer allows you to configure its behavior via the Options window

To define the Tzunami Deployer options:

1. Select **Tools > Options….** The Options window appears.

General

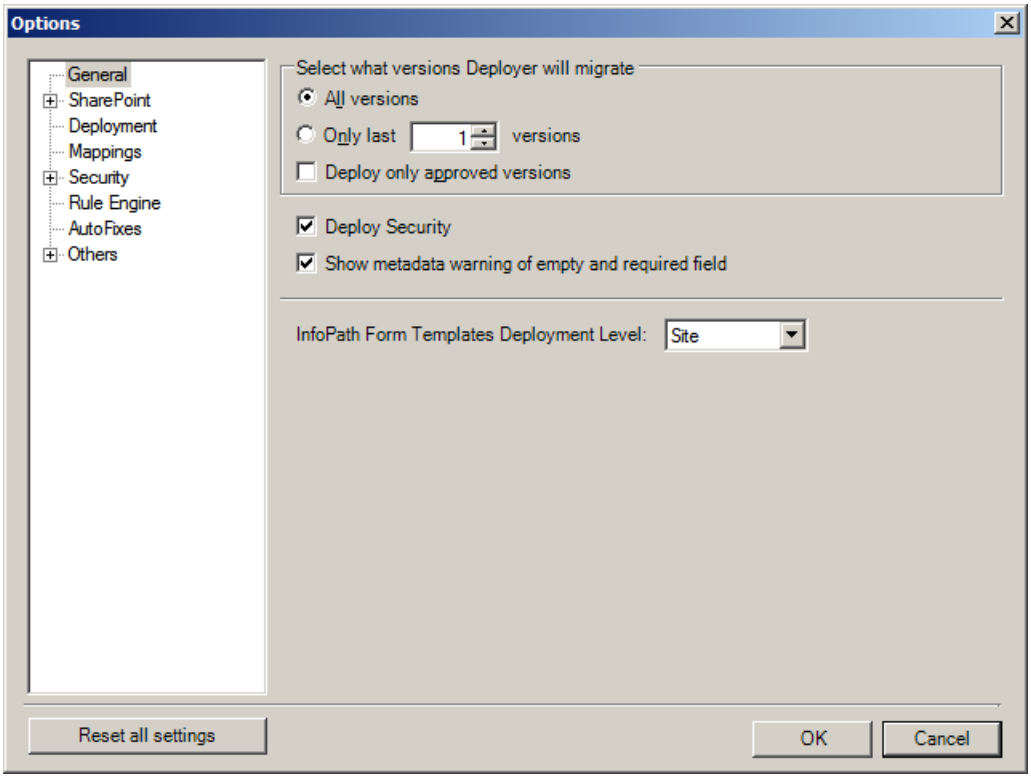


Figure 78: Options Window – General

Table 20: Deployer Options - General

Option	Description
Select what version Deployer will migrate	Enables you to specify which document versions are deployed into the target SharePoint: **All versions** – All document versions are deployed. **Only last <#> versions** – Only the specified number of previous versions is deployed. **Deploy only approved versions** – Only those versions marked as approved are deployed.
Deploy Security	Enables you to specify whether to deploy security (users, groups and roles).
Show metadata warning of empty and required field	Select this option to show metadata warning of empty and required fields.
InfoPath Form Template Deployment Level	Specify the location for deployment of InfoPath form template in the target SharePoint.

SharePoint Connectivity

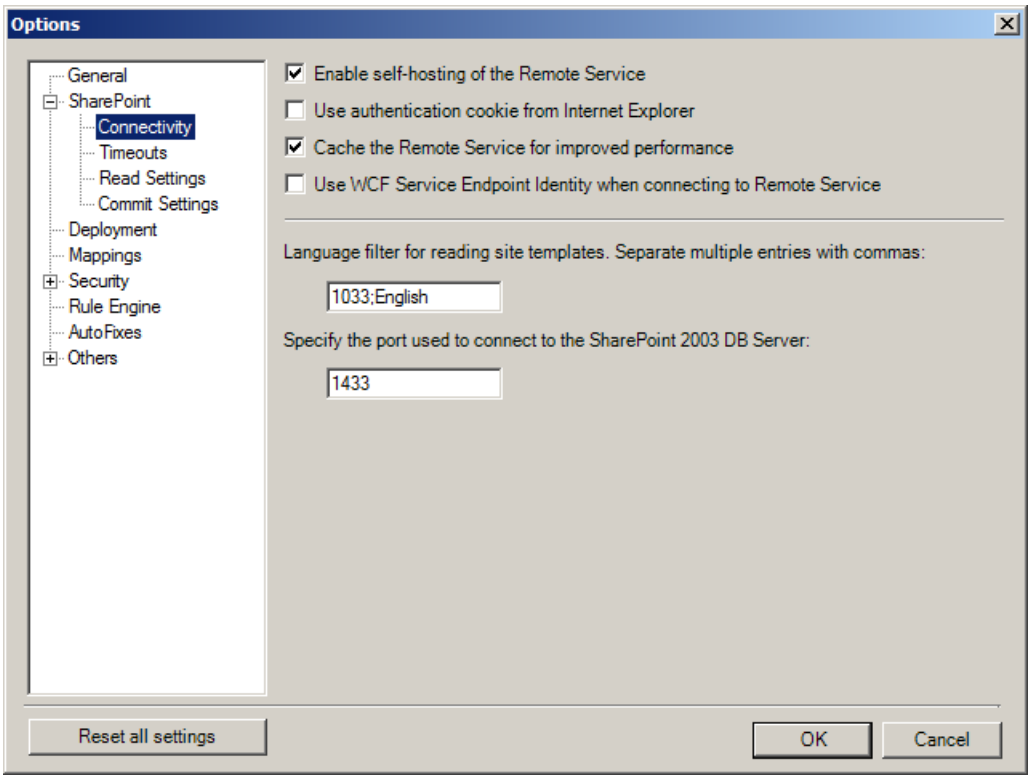


Figure 79: Options Window – SharePoint Connectivity

Table 21: Deployer Options - SharePoint Connectivity

Option	Description
Enable self-hosting of the Remote Service	Self-host Deployer Remote Service and force connecting to the Remote Service using TCP or HTTP.
Use authentication cookie from Internet Explorer	Enables you to use the authentication cookie from Internet Exporter cookie cache.
Cache the Remote Service for improved performance	Enable the proxy object to the Tzunami Deployer Remote Service is cached and not created from scratch for each request. It improves performance while working with MOSS 2007, SharePoint 2010 and SharePoint 2013 server.
Use WCF Service Endpoint Identity when connecting to Remote Service.	Specify the endpoint identity mode to use when connecting to the remote service using WCF.
Language filter for reading site templates. Separate multiple entries with commas	Specify filtering the reading of site template based language. For Example the value: '1033: English'. Multiple entries are allowed, separated with commas (,) such as '1033:English, 1049:Russian'.
Specify the port used to connect to the SharePoint 2003 DB Server	Controls the ports used to connect to the SharePoint 2003 DB Server.

SharePoint Timeouts

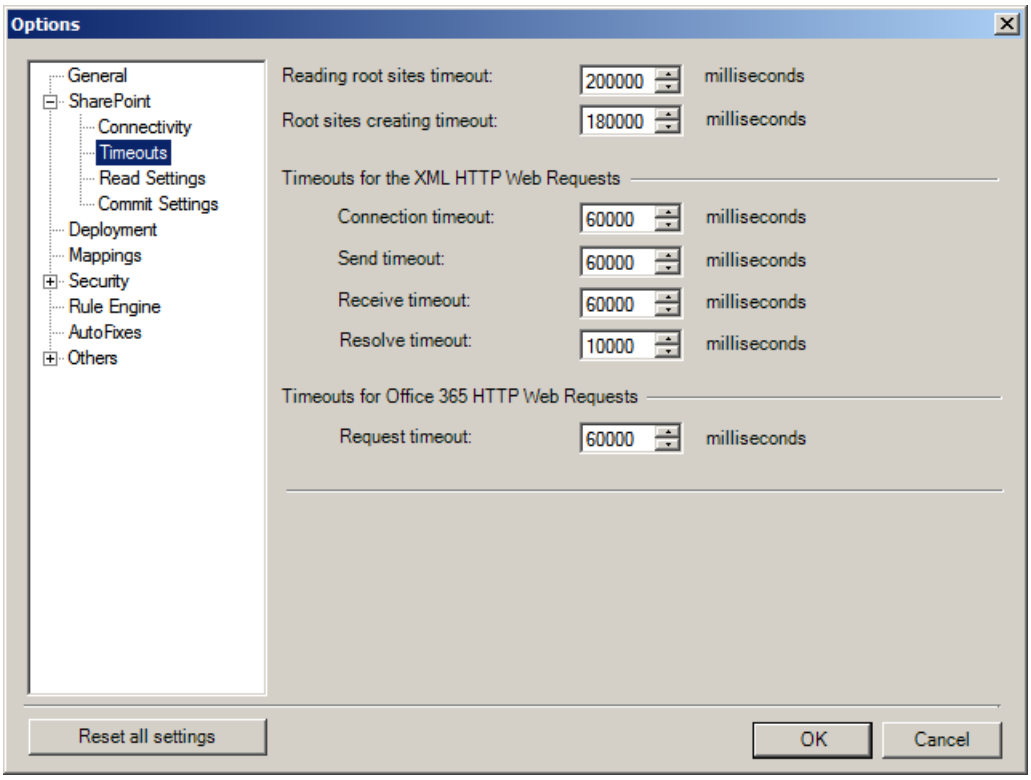


Figure 80: Options Window – SharePoint Timeouts

Table 22: Deployer Options – SharePoint Timeouts

Option	Description
Reading root site timeout	Specify the amount of time, in milliseconds, that Tzunami Deployer tries to connect to the specified Active Directory domains before it times out the connection.
Root sites creating timeout	Specify the root site creation timeout value in milliseconds
Timeouts for the XML HTTP Web Requests	
Connection timeout	Specify the connect timeout value in milliseconds
Send timeout	Specify the send timeout value in milliseconds
Receive timeout	Specify the receive timeout value in milliseconds
Resolve timeout	Specify the resolve timeout value in milliseconds
Timeouts for Office 365 HTTP Web Requests	
Request timeout	Specify the request timeout value in milliseconds

SharePoint Read Settings

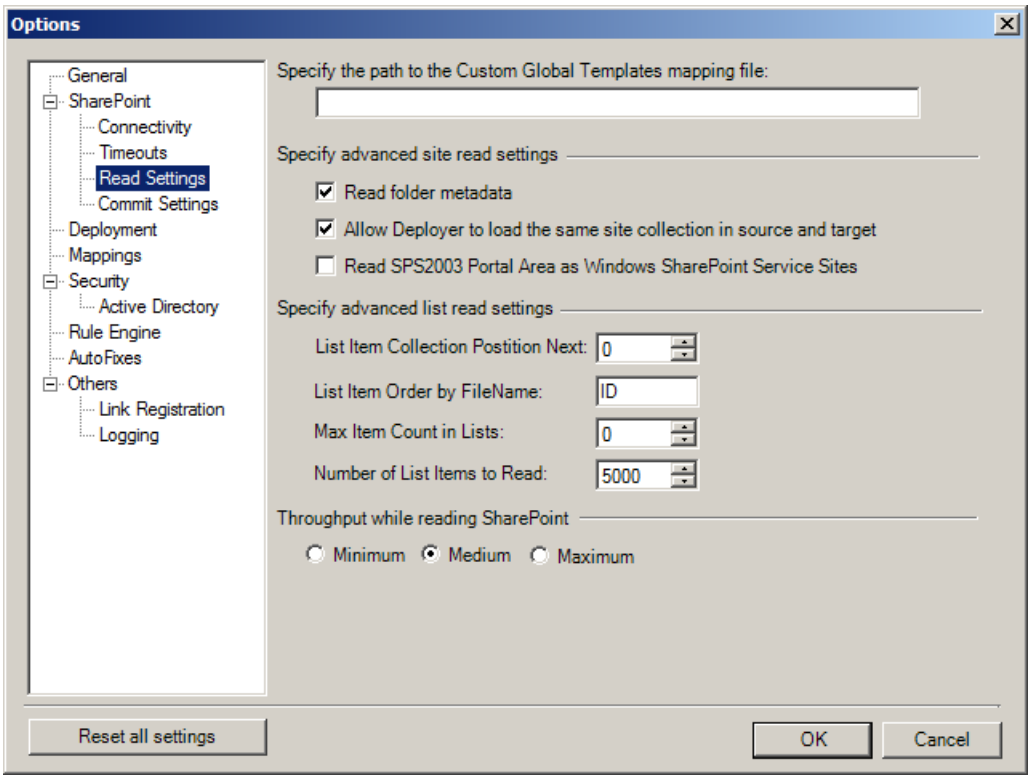


Figure 81: Options Window – SharePoint Read Settings

Table 23: Deployer Options– SharePoint Read Settings

Option	Description
Specify the path to the Custom Global Templates mapping file	Enables you to specify the path to the Custom Global Template mapping file.
Specify advanced site read settings	
Read folder metadata	Set this flag to 'True' to load metadata of folders while loading the target.
Allow Deployer to load the same site collection in source and target	Enables you to connect to the same SharePoint Site Collection in both as a source and target.
Read SPS2003 Portal Area as Windows SharePoint Service Sites	Allows Tzunami Deployer to read Areas as regular sites in order to get also non Area sub-sites under a parent Area.
Specify advanced list read settings	
List Item Collection Position Next	The index of an item in each list from which to read onwards.
List Item Order by Filename	The field name used to sort items while reading from SharePoint lists or folders.
Max Item Count in Lists	The maximum number of items to be read from each list or folder.
Number of List Items to Read	The number of list items to reach in each request to SharePoint.

Option	Description
Throughput while reading SharePoint	Enables you to specify how intensely Tzunami Deployer will interact with the SharePoint server during connection and reading from the server. When using a higher level of usage, SharePoint performances might be influenced.

SharePoint Commit Settings

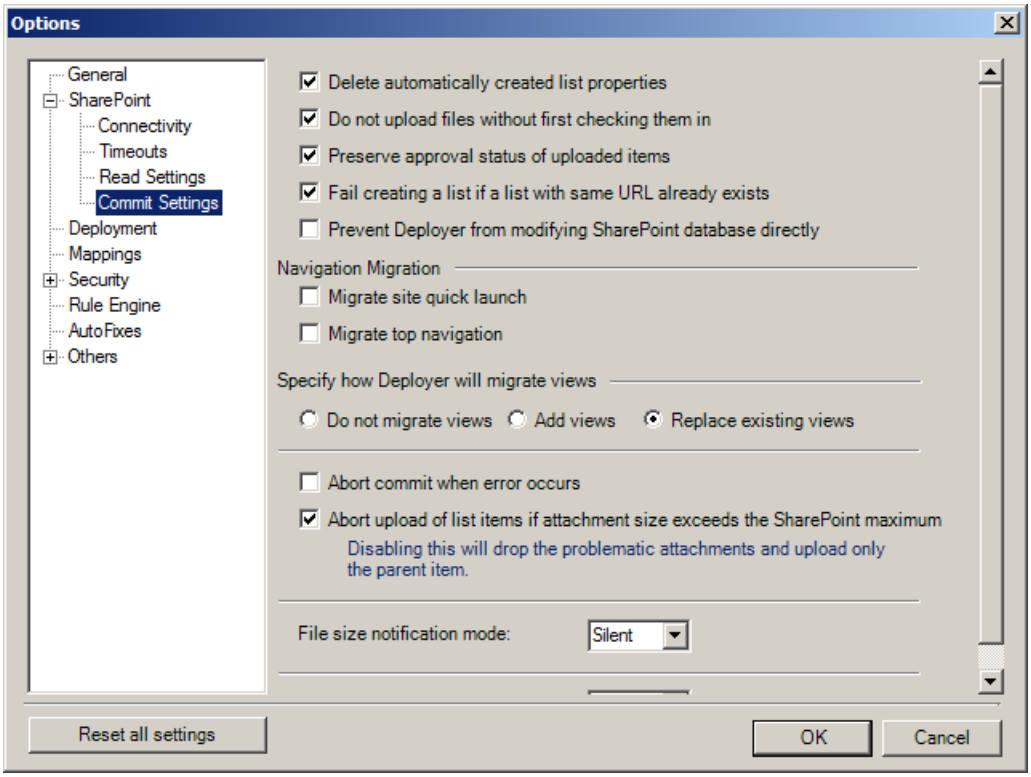


Figure 82: Options Window – SharePoint Commit Settings

Table 24: Deployer Options – SharePoint Commit Settings

Option	Description
Delete automatically created list properties	Enables you to delete auto created properties and content types from the target list.
Do not upload files without first checking them in	Enables you to prevent items from being uploaded as check-out. If this flag is enabled, items which fail to publish will not be uploaded to SharePoint. An error will be provided during the commit and items will be available for commit at a later time.
Preserve approval status of uploaded items	Enables you to preserve information about approval from the source.
Fail creating a list if a list with same URL already exists	Stops creating a list if a list with same URL already exist in the target.
Prevent Deployer from modifying SharePoint database directly	Prevents Tzunami Deployer to modify SharePoint Database directory.
Navigation Migration	
Migrate site quick launch	Enables you to update the Quick Lunch Bar of the target site.

Option	Description
Migrate top navigation	Enables you to update the Top Navigation bar of the target site.
Specify how Deployer will migrate view	Specify how to migrate the Source views into target SharePoint.
Abort commit when error occurs	Select this option to quit commit when error occurs during commit
Abort upload of list items if attachment size exceeds the SharePoint maximum	Enables you to abort uploading of list items if attachment size exceeds the SharePoint maximum limit.
File size notification mode	Set file size notification mode as Silent/Loud/None as required. This refers to whether you want to let the user/log know if a file size which was uploaded is different than the original file size.
Maximum file upload time	Specify the timeout used when uploading files to SharePoint. If you plan to migrate large files, it is recommended to increase this value.

Deployment

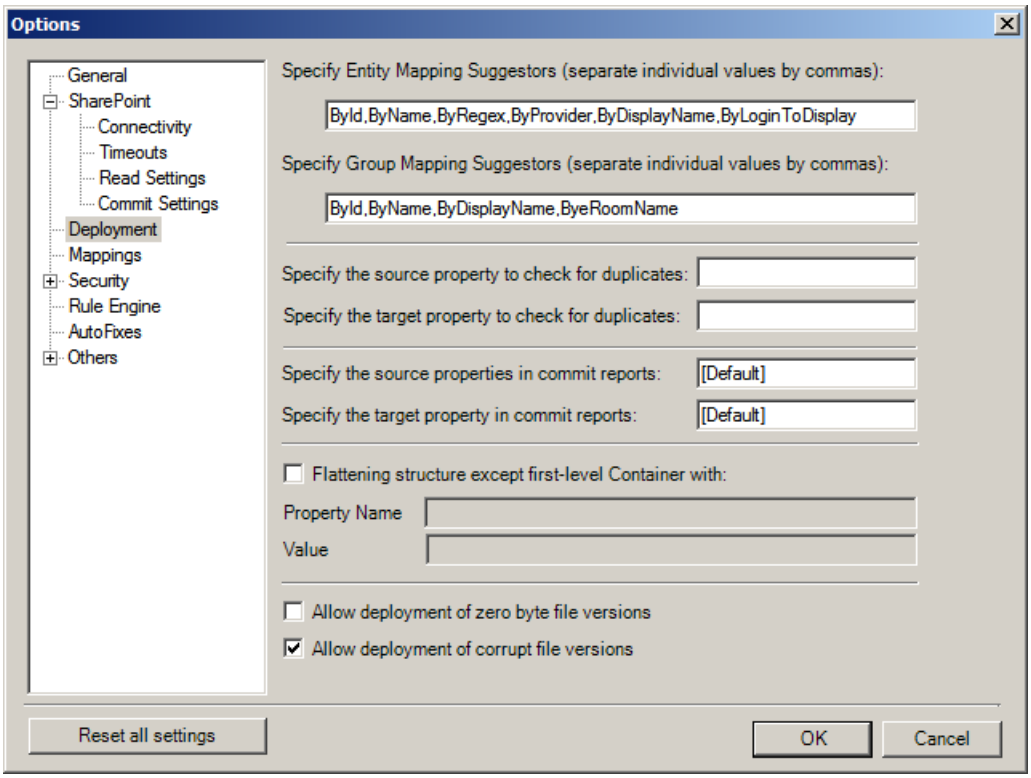


Figure 83: Options Window – Deployment

Table 25: Deployer Options – Deployment

Option	Description
Specify Entity Mapping Suggestors (separate individual values by commas)	Configure the Suggestors for entity mapping. These are used to suggest entity mappings. Following suggestors are provided: ById ➔Suggest by ID ByName➔ Suggest by Name ByRegex➔ Suggest by Regular Expression ByProvider ➔ Suggest by Membership Provider ByDisplayName ➔ Suggest by Display Name ByLoginToDisplay➔ Suggest by Login Name to Display Name
Specify Group Mapping Suggestor (separate individual value by commas)	Configure the Suggestors for group mappings. These are used to suggest group mappings: ById ➔ Suggest by ID ByName ➔Suggest by Name ByDisplayName ➔ Suggest by Display Name ByeRoomName ➔ Suggest by eRoom Name – useful when source is eRoom
Specify the source property to check for duplicates	Enter Unique Property Name of any Folder/Item/Documents of source property during the first migration, later Deployer identifies and uses these in a delta/incremental migration to find the matching existing Folder/Item/Documents based on that retained property.
Specify the target property to check for duplicates	Enter Unique Property Name of any Folder/Item/Documents of target property during the first migration, later Deployer identifies and uses these in a delta/incremental migration to find the matching existing Folder/Item/Documents based on that retained property
Specify the source properties in commit reports	List of source properties separated by ',' whose values would be written as 'Source URL' in commit report. If no value or [Default] is specified, usual values as returned by Deployer will be used.
Specify the target property in commit report	Target properties whose value would be written as 'Target URL' in commit report. If no value or [Default] is specified, usual values as returned by Deployer will be used.
Flattening structure except first-level Container with:	Select this flag to flatten the folder structure except the first level container having specified value in the property. • **Property Name** – Enter the property name. • **Value** – Enter the property value.
Allow deployment of zero byte file versions	Select this flag to enable deployment of file versions with zero byte length. Allowing deploying the zero byte versions of file would fail commit of the file as SharePoint does not allow zero byte file.
Allow deployment of corrupt file version	Select this flag to enable deployment of corrupt file version. Set this flag to false to prevent deploying corrupted or physically non existing file version.

Mappings

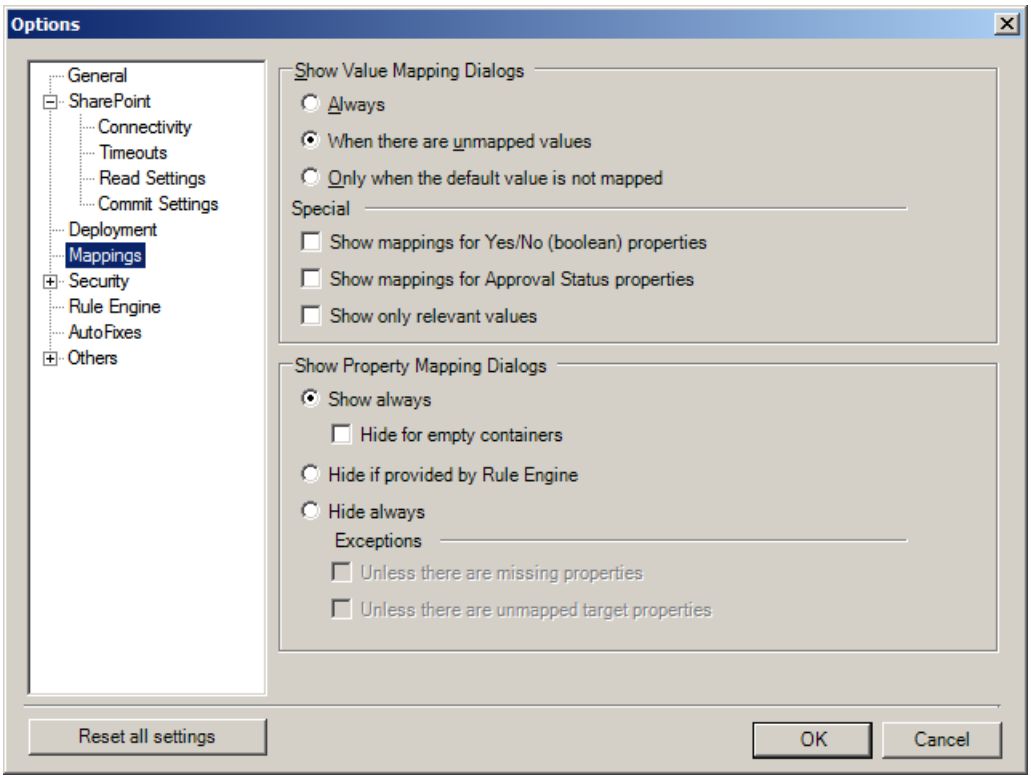


Figure 84: Options Window – Mappings

Table 26: Deployer Options – Mappings

Option	Description
Show Value Mapping Dialogs	Enables you to specify whether the deployment wizard will display (or skip) Value Mapping steps: • **Always** – Always display Value Mapping steps. • **When there are unmapped values** – Display Value Mapping steps only if some of the source values are not mapped. • **Only when default value is not mapped** – Display Value Mapping steps only if the default source value is not mapped.
Special	**Show mapping for Yes/No (Boolean) properties** – Select this option to display value mapping for Boolean properties. **Show mapping for Approval Status properties** – Select this option to display value mapping for Approval Status properties. **Show only relevant values** – Select this option to display value mapping for relevant values.

Option	Description

Property Mapping Dialogs	Enables you to specify whether the deployment wizard will display (or skip) Property Mapping steps:
	• **Show Always** – Always display Property Mapping steps.
	  • **Hide for empty container** – Check this option to skip Property Mapping steps for the empty container.
	• **Hide if provided by Rule Engine** – Skip Property Mapping steps that are filled using the Rule Engine.
	• **Hide Always** – Always skip Property Mapping steps.
	  • **Exceptions**:
	  • **Unless there are missing properties** – Do not skip Property Mapping steps if there are missing properties.
	  • **Unless there are unmapped target properties** – Do not skip Property Mapping steps if any of the target properties is unmapped.

Security

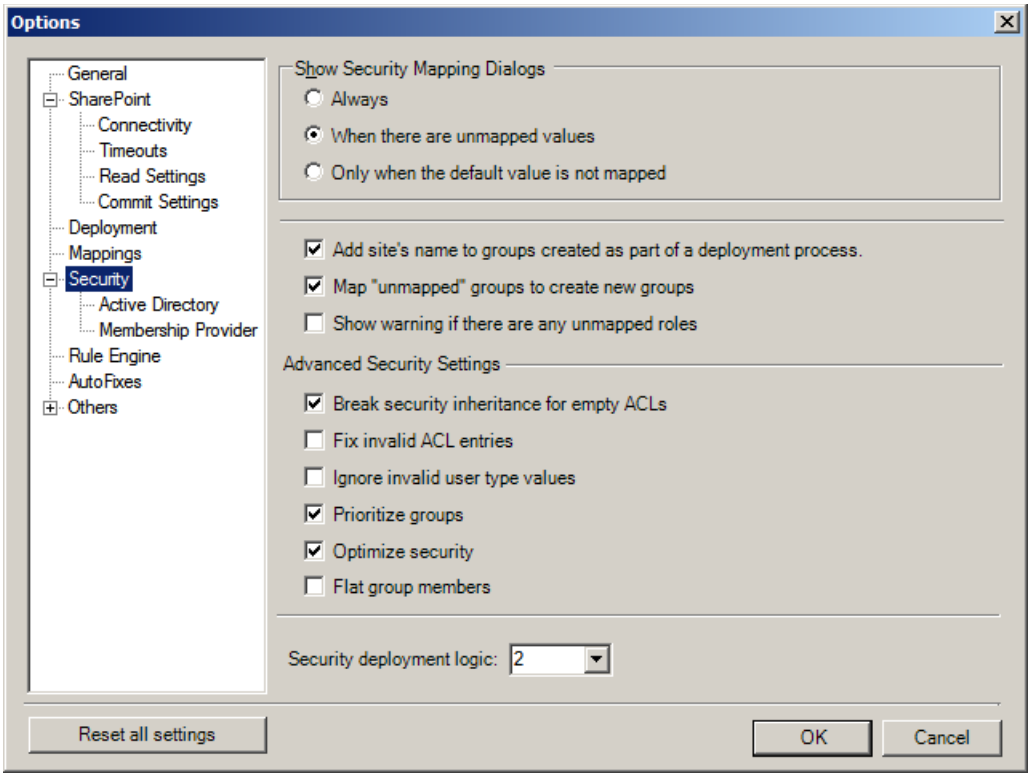


Figure 85: Options Window – Security

Table 27: Deployer Options – Security

Option	Description
Show Security Mapping Dialogs	Enables you to specify whether the deployment wizard will display (or skip) Security Mapping steps: • **Always** – Always display Security Mapping steps. • **When there are unmapped values** – Display Security Mapping steps only if some of the source values are not mapped. • **Only when default value is not mapped** – Display Security Mapping steps only if the default source value is not mapped.
Add Site's name to groups as a part of a deployment process	Select this option to add site's name to group as a part of a deployment process
Map "unmapped" group to Create New Groups	Select this option to map "unmapped" group to create new group.
Show warning if there are any unmapped roles	Select this option to display warnings if there are any unmapped roles.
Advanced Security Settings	
Break security inheritance for empty ACLs	Select this option to break inheritance even when created ACL is empty.
Fix invalid ACL entries	Select this option to automatically fix ACLs by removing entries of invalid entities.
Ignore invalid user type values	Select this option to upload item in case a user property value is of user which cannot be resolved. Empty value will be used instead resulting in the Deployer user value in SharePoint.
Prioritize Group	Select this option to specify not to assign permissions to an entity if it receives similar permission by being a member of a group that already has permission on that item.
Optimize Security	If this option is set, an item will inherit permission if its ACL is same as its parent's ACL when a TDX is loaded.
Flat group members	Select this option to specify not to assign permissions to an entity if it receives similar permission by being a member of a group that already has permission on that item.
Security deployment logic	Enables you to specify the security deployment. Set this value to 2 if break in security inheritance should result in items to have a copy of parent ACL, otherwise, a value of 1 will result in blank ACL.

Active Directory

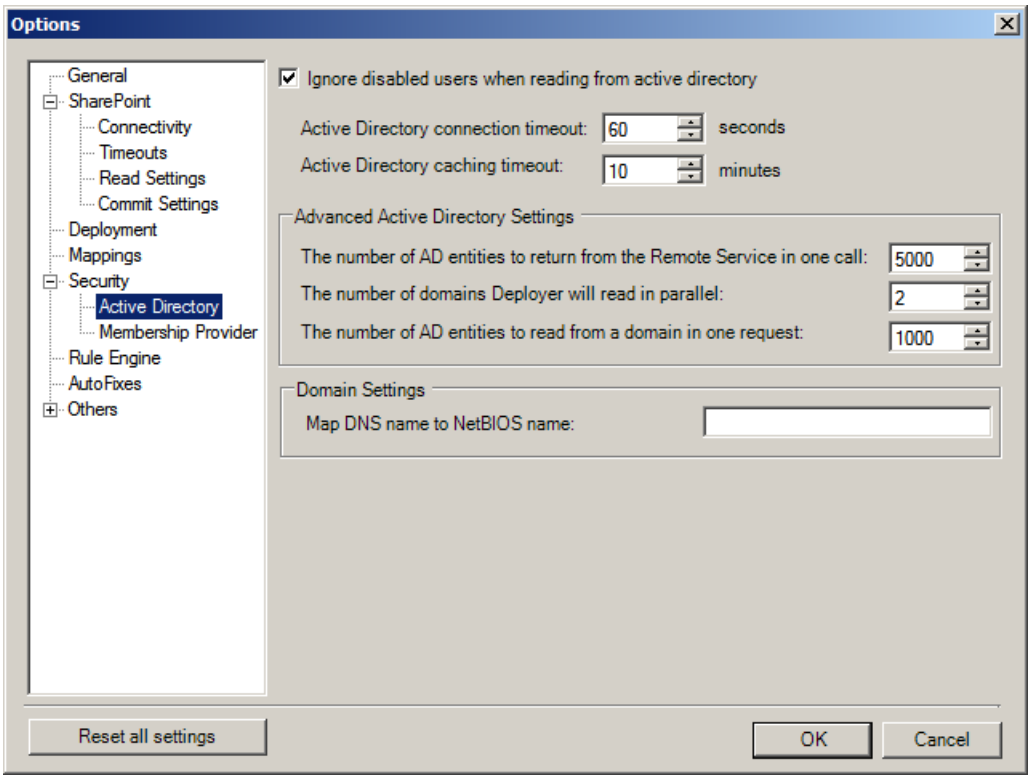


Figure 86: Options Window – Active Directory

Table 28: Deployer Options – Active Directory

Field	Description
Ignore disabled users when reading from active directory.	Select this option to ignore disabled users while reading users from active directory
Active Directory connectivity timeout	Specify the timeout used when checking Active Directory connectivity.
Active Directory connectivity timeout	Configure how long (in minutes) a thread should wait for another thread to complete reading and caching of AD. If the operation is not completed in this time, the thread will start reading the AD directory. Note that this time should be less than Remote Service Timeout.
Advanced Active Directory Settings	
The number of AD entities to return from the Remote Service in one call	Configure how may Active Directory entities to return from the Remote Service in one call. Large size might cause WCF buffer overflow.
The number of domains Deployer will read in parallel	Configure how many Domains to read in parallel based on resource availability on the Remote Server machine. This operation is memory intensive.
The number of AD entities to read from domain in one request.	Configure how many entities to read from an Active Directory domain at a time. Maximum allowed size is 100. Decrease in case AD overflow errors are seen while reading.

Field	Description
Domain Settings	Map DNS name with NetBIOS name, if DNS name is different than NetBIOS name. Enter the DNS name and NetBIOS name separated by colon (:). For Example 'Domain1:Domain2'. Multiple peers are allowed, separated with commas (,).

Membership Provider

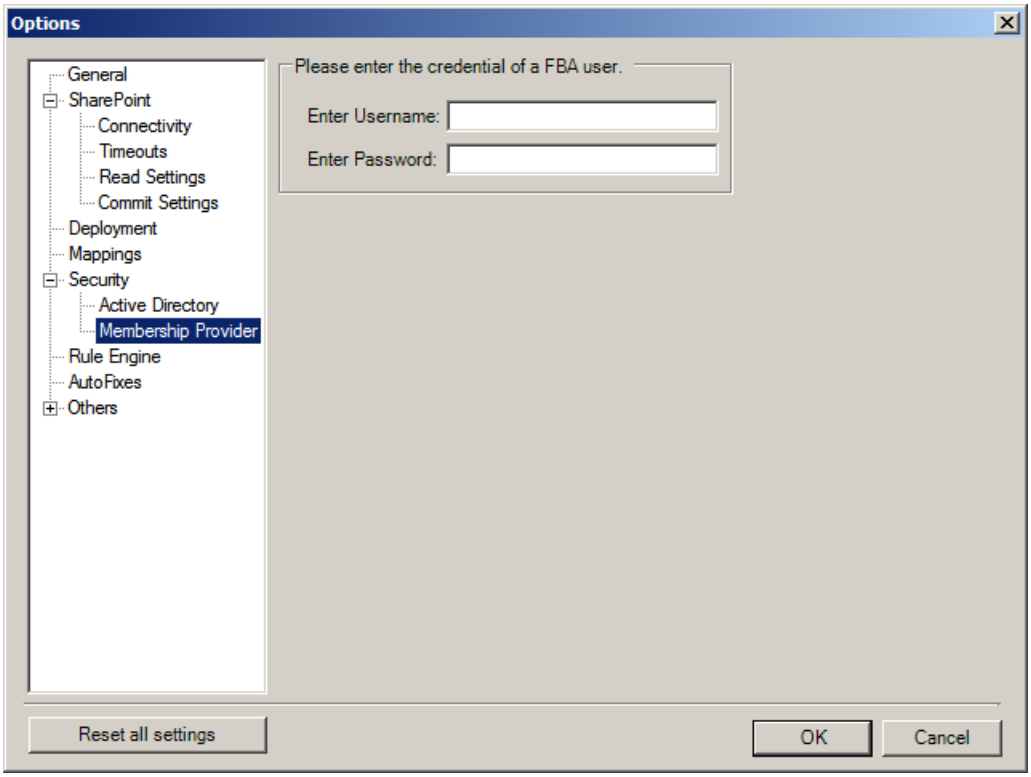


Figure 87: Options Window – Membership Provider

Table 29: Deployer Options - Rule Engine

Option	Description
Please enter the credentials of a FBA user	Enter the credentials of a Form Based Authentication user. The user should have enough privileges in the web application to add other FBA users to SharePoint. The user must have Full Control and Full Read permission in the User Policy of the Web Application.

Rule Engine

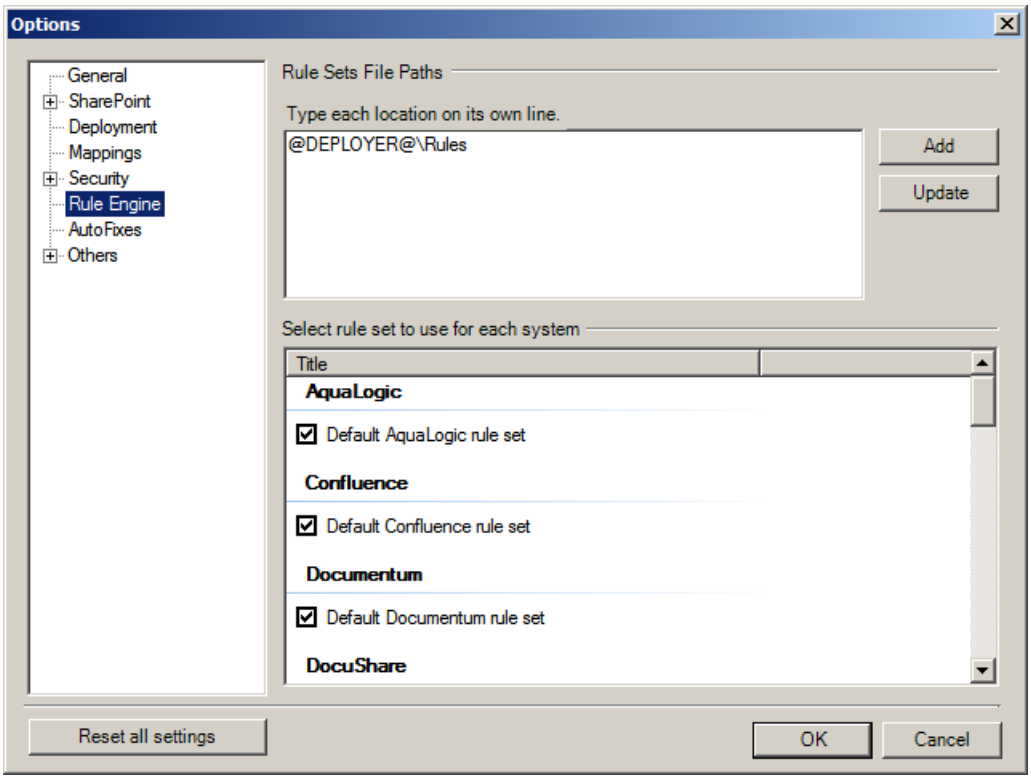


Figure 88: Options Window – Rule Engine

Table 30: Deployer Options - Rule Engine

Option	Description
Rule Sets File Paths	Enter the Rule Set File Paths.
Select rule set to use for each system	Allows you to select the rule set to use for each system.

Auto Fixes

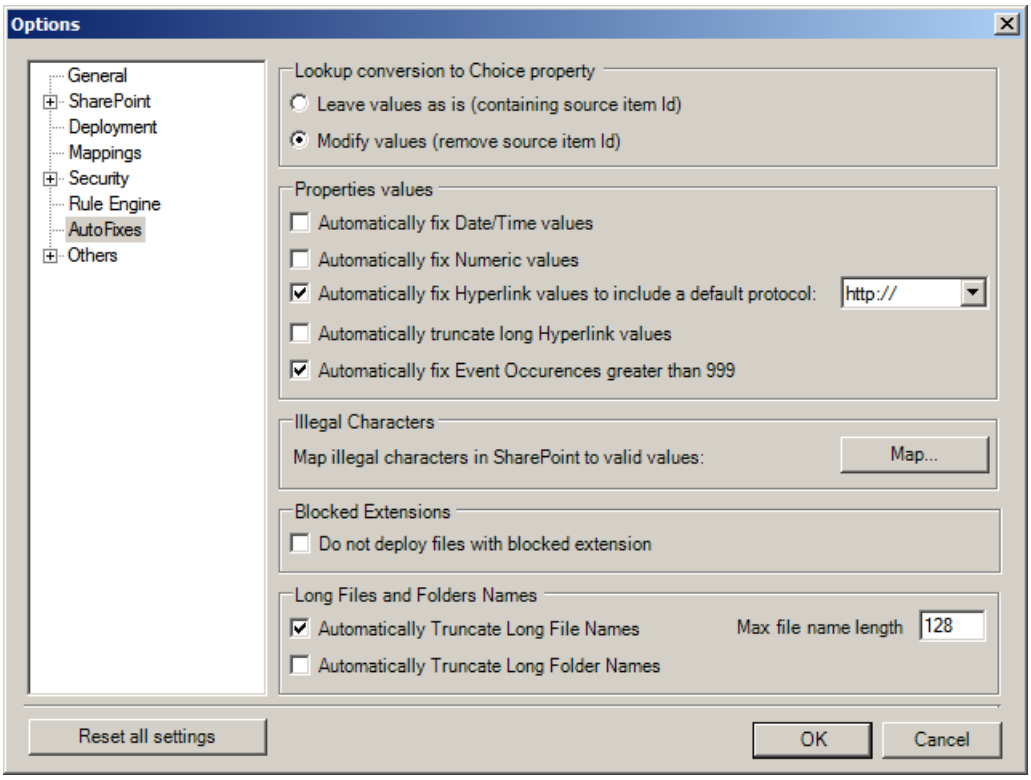


Figure 89: Options Window - Auto Fixes

Table 31: Deployer Options - Auto Fixes

Option	Description
Lookup conversion to choice property	When a list containing a lookup column is deployed without the list to which the lookup column is pointing to, then that column is changed into a choice type in SharePoint after commit. Deployer allows you to decide the format of the corresponding choice value in the target SharePoint with the help of the following two options: i. Leave values as is (containing source item id): If you select this option, the choice value in target appears as: "Item id;* Item Value", where "Item id" is the lookup id and "Item Value" is the lookup value. ii. Modify values (remove source item id): If you select this option the choice value in target appears as: "Item Value", which is the lookup value.
Properties Values	
Automatically fix Date/Time values	Select this option to let Deployer fix Date/Time values that are out of valid range, to valid SharePoint values.
Automatically fix Numeric values	Select this option to let Deployer fix numeric values that are out of valid range (Maximum or Minimum values), to the valid values.
Automatically fix Hyperlink Values to include a default protocol	Specify whether to automatically add a protocol to values of properties of type Hyperlink, in order to meet SharePoint restrictions.

Option	Description
Automatically truncate the long Hyperlink values	Select this option to truncate the long URLs.
Automatically fix Event Occurrences greater than 999	Select this option to let Deployer fix event occurrences greater than 999 times
Illegal Characters	Select map illegal characters in SharePoint to valid values
Blocked Extensions	**Do not deploy files with a blocked extension** – Select this option to stop deploying files with blocked extensions.
Long Files and Folders Names	
Automatically Truncate Long File Names	Select this option to automatically truncate long file names while deploying. • **Max file name length:** Enter the file name length value to automatically truncate long file names. The maximum file name length is 128
Automatically Truncate Long Folder Names	Select this option to automatically truncate long folder names while deploying.

Others

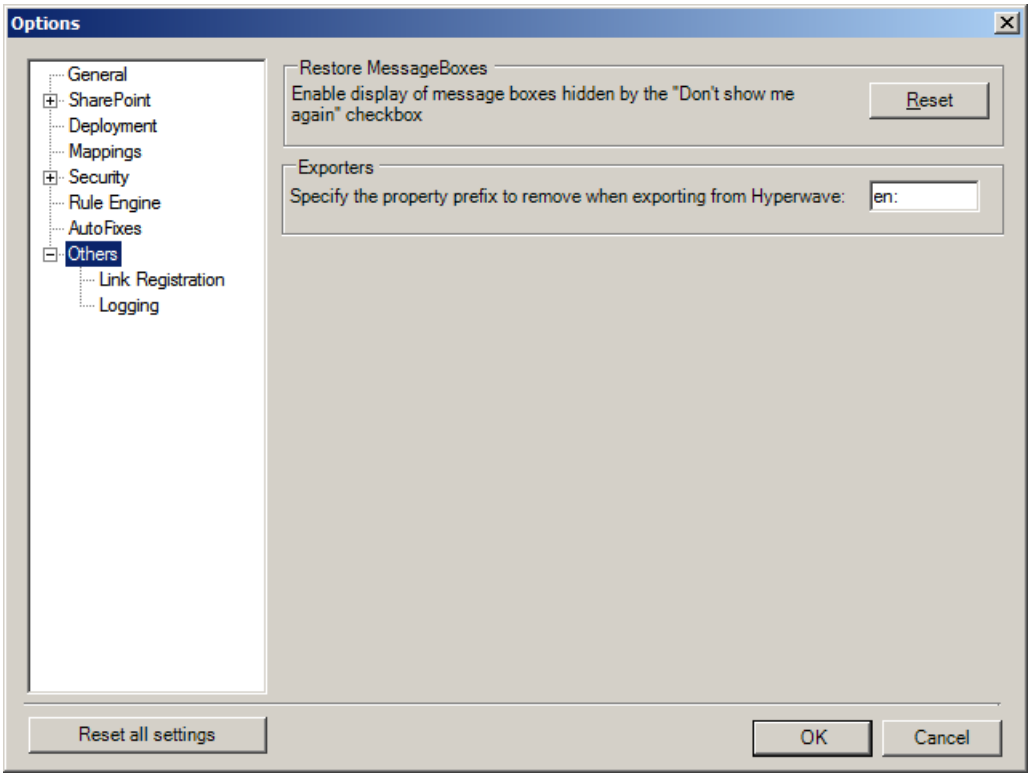


Figure 90: Options Window – Others

Table 32: Deployer Options - Others

Field	Description
Restore message boxes	**Enables display of message boxes hidden by "Don't show me again" checkbox** – This will result in all message boxes being displayed to the user.
Exporter	
Specify the property prefix to remove when exporting from Hyperwave	Set the language prefix to remove from any property value. This prefix will be used in case the HW_Langauge property was not provided by HyperWave.

Link Registration

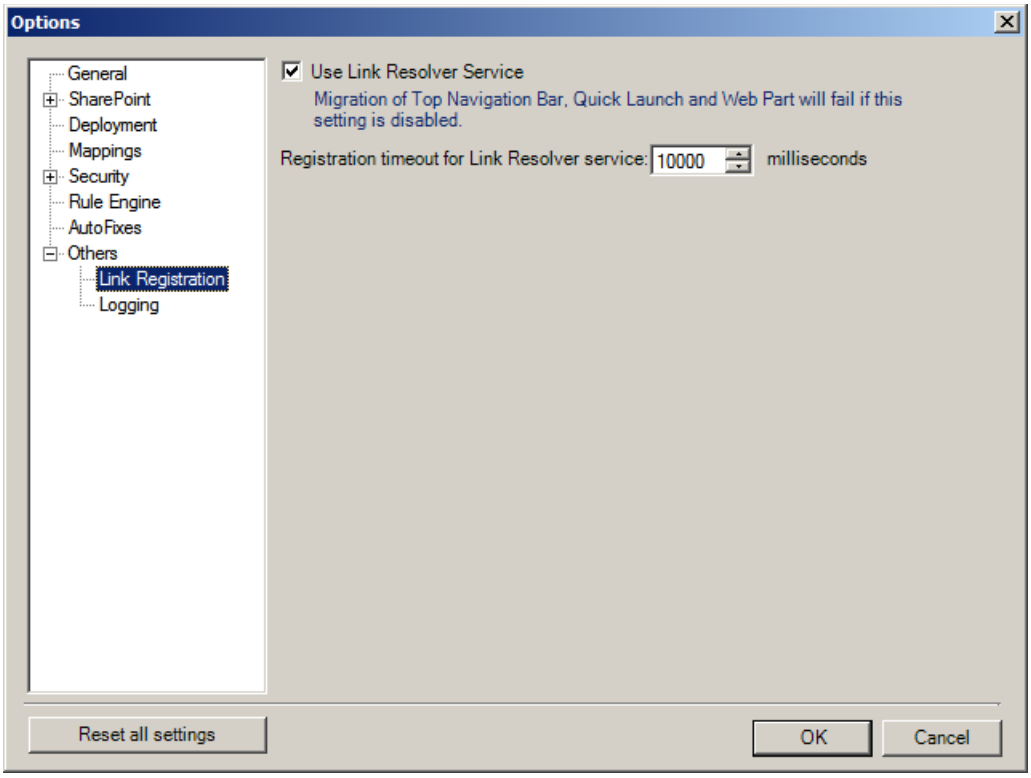


Figure 91: Options Window – Link Registration

Table 33: Deployer Options – Link Registration

Field	Description
Use Link Resolver Service	Controls if Deployer will register committed items to redirector service.
Registration timeout for Link Redirector service	Specify the link registration timeout for Link Resolver Service in milliseconds.

Logging

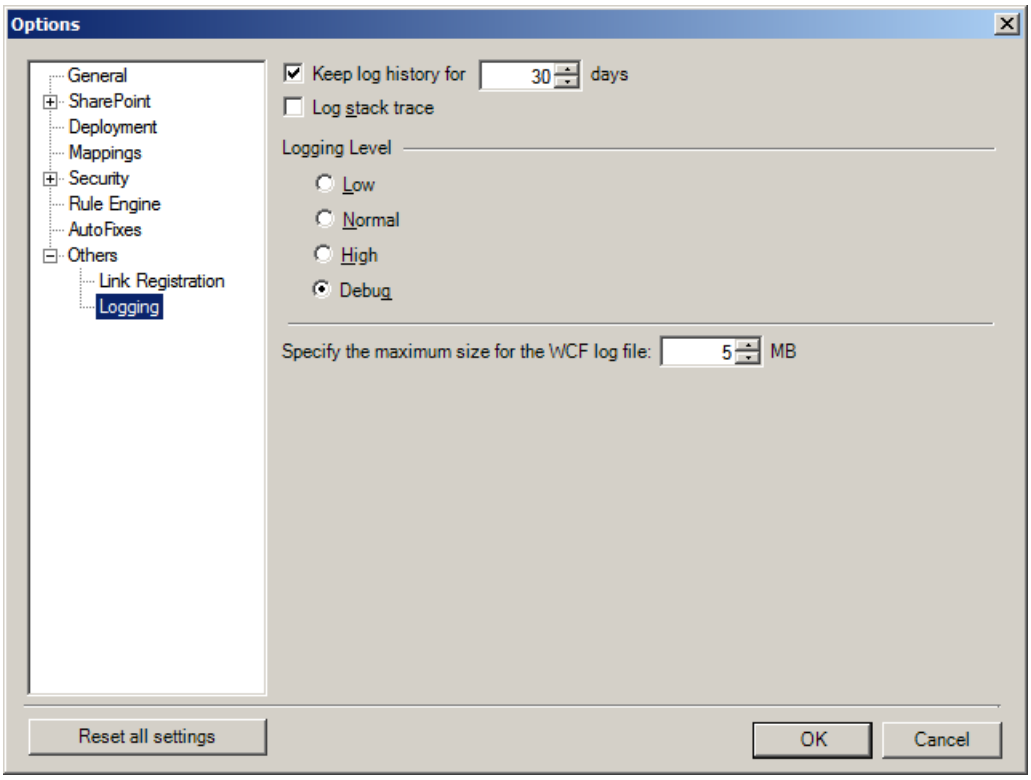


Figure 92: Options Window – Logging

Table 34: Deployer Options – Logging

Option	Description
Keep log history for	Enables you to specify for how long Tzunami Deployer retain log files in the open project.
Log stack trace	Specify whether to include additional information in the log files.
Logging Level	Specify the verbosity of the logs. The higher the level you select, the more verbose the logs will be. It is recommended to leave this to Debug level.
Specify the maximum size for the WCF log file	Enables you to set WCF Log file size. The default WCF log file size is 1 GB.

FOLDER AND FILE NAMING CONSIDERATIONS

To ensure the smooth management of a SharePoint migration project, you should ensure that your folder and file names and pathnames conform to the following guidelines and other constraints.

FOLDER PATH AND FULLY QUALIFIED FILE NAME LENGTHS

A fully qualified file name consists of two parts:

1. File name including the file base name and file extension.
2. Folder path for the fully qualified file name.

The filename is the last component of a fully qualified file name. The folder path for a fully qualified file name starts with the drive letter and includes everything up to the filename and the last folder character (such as \ or /).

Restrictions

Microsoft Windows:

The fully qualified file name can have a maximum length of 260 characters.

The maximum length of a folder path portion of a fully qualified file name is 248 characters.

Microsoft SharePoint:

The fully qualified file name can have a maximum length of 255 characters in Windows.

Normally, it is not possible to create folder paths and fully qualified file names that are too long when using Windows Explorer or a Windows application. However, it is possible under the following scenarios:

A subfolder one or more levels below the root of the file system is shared as a UNC file share. In this case, it is possible to create an entire new folder hierarchy under the root of the file share that can store files using fully qualified file name that are a further 260 characters long.

Similarly, the subset command can be used to anchor a drive letter at a subfolder one or more levels below the root of the file system.

Using Unicode fully qualified file names prefixed with the letters: \\?\. When this approach is used, fully qualified path names can be 32,000 characters in length.

NAMING CONSIDERATIONS

Files

The following characters are not supported in Windows SharePoint Services:

/ \ : * ? " < > | # { } % & ~ or tab characters and multiple periods.

File names cannot be longer than 127 characters.

Tzunami Deployer automatically replaces invalid characters with an underscore (“_”).

Tzunami Deployer automatically replaces multiple periods with a single period.

Tzunami Deployer automatically truncates the file name to 127 characters.

Folders

The following characters are not supported:

~#%&*{}:"\|/<>? or tab characters.

Folder names cannot end with a blocked extension (configurable in SharePoint) or with one of the following:

- archivos
- _arquivos
- _bestanden
- _bylos
- -Dateien
- _datoteke
- _dosyalar
- _elemei
- _failid
- _fails
- fajlovi
- _ficheiros
- _fichiers
- -filer
- .files
- _files
- _file
- _fitxers
- _fitxategiak
- _pliki
- soubory
- _tiedostot

Folder names cannot be longer than 127 characters.

Tzunami Deployer automatically replaces invalid characters with an underscore (“_”).

Tzunami Deployer automatically replaces multiple periods with a single period.

Tzunami Deployer automatically truncates the file name to 127 characters.

Lists

Lists differentiate between a list's internal name (used for the URL) and the list's title. The name of a list is calculated based on its title. If the list title contains any of the following invalid characters, that character is omitted. If all the characters are invalid, a generic name is given to the list:

~!@#$%^&*{}[]-=+\:"'|<>,?/. or tab characters.

Lists names cannot contain multiple periods.

Lists names cannot be longer than 50 characters.

Libraries

Libraries differentiate between a library's internal name (used for the URL) and the library's title. The name of a library is calculated based on its title. If the library title contains any of the following invalid characters, the character is omitted. If all the characters are invalid, a generic name is given to the library:

~!@#$%^&*{}[]-=+\:"'|<>,?/. or tab characters.

Libraries names cannot contain multiple periods.

Libraries names cannot be longer than 50 characters.

Folder names cannot end with any of the following:

- _archivos
- _arquivos
- _bestanden
- _bylos
- -Dateien
- _datoteke
- _dosyalar
- _elemei
- _failid
- _fails
- _fajlovi
- _ficheiros
- _fichiers
- -filer
- .files
- _files
- _file
- _fitxers

- _fitxategiak
- _pliki
- _soubory
- _tiedostot

Sites

Sites differentiate between a site's internal name (used for the URL) and the site title. A site URL cannot contain any of the following invalid characters; the character is replaced by an underscore ("_"):

/\:*?"<>|#{}%&~+ or tab characters.

Sites names cannot contain multiple periods.

Sites names cannot start or end with a period (".").

Sites names cannot be longer than 127 characters.

Sites names cannot start with an underscore ("_").

Sites names cannot be any of the following:

- PRN
- AUX
- NUL
- COM1
- COM2
- COM3
- COM4
- COM5
- COM6
- COM7
- COM8
- COM9
- CON
- LPT1
- LPT2
- LPT3
- LPT4
- LPT5
- LPT6
- LPT7
- LPT8

- LPT9
- Wpresources

Groups

A group name cannot contain any of the following invalid characters:

`"/\[]:|<>+=;,?*'@` or tab characters.

FREQUENTLY ASKED QUESTIONS AND TROUBLESHOOTING

EXECUTION REPORT

When Tzunami Deployer performs long operations, such as connecting to SharePoint and committing, an execution report appears.

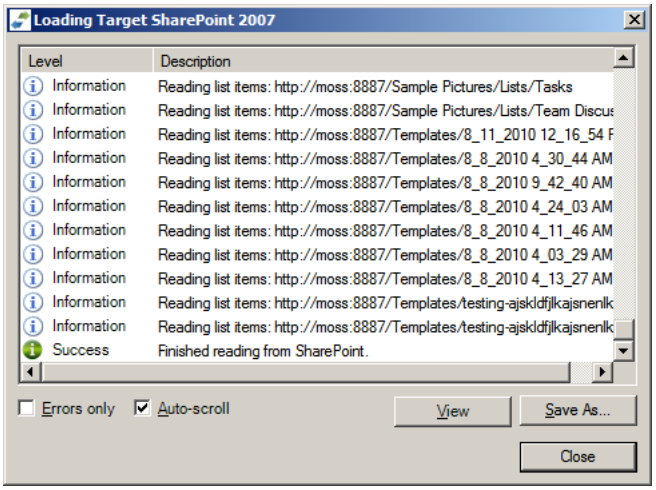


Figure 93: Execution Report

This report displays information concerning the progress of the running operation.

You can perform various actions using the report:

- Check box **Errors only** – if checked, filters the entries to display only errors and warnings.
- Check box **Auto-scroll** - if checked, the report will automatically scroll down to the newest entry.
- Button **Save As…** – Saves the report as a text file.
- Button **View** - Displays an advanced view of the report, providing users with more details and possible resolutions to errors.

If there were any errors during the running process, a balloon will appear, notifying us that errors were found. Pressing the View button, will display the advanced view of the report:

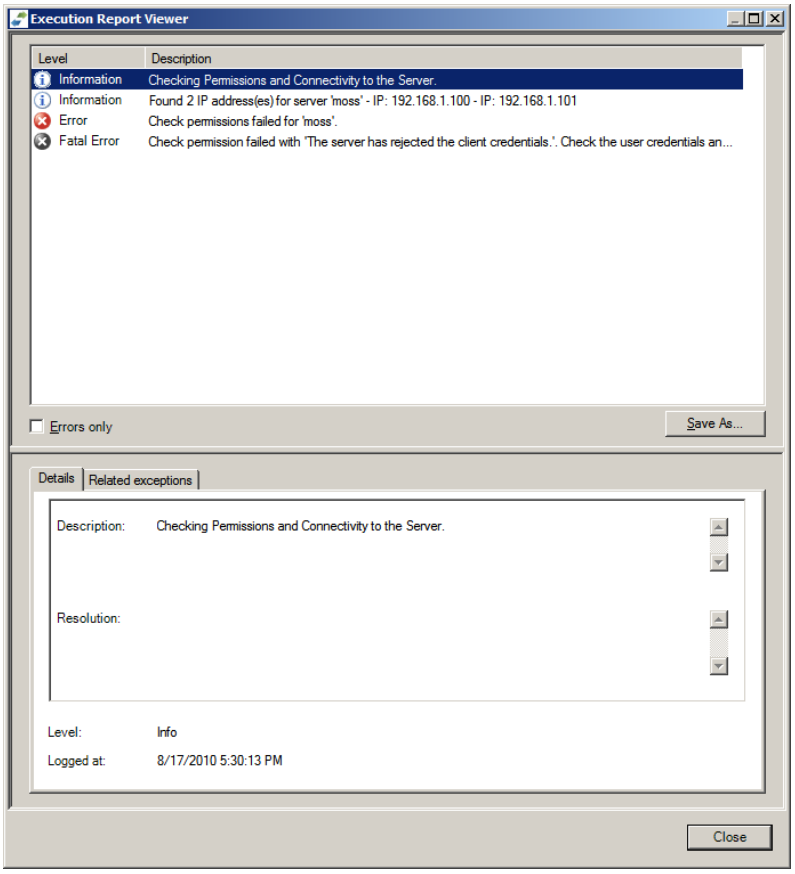


Figure 94: Execution Report – Advanced View

The upper panel in this window displays the same information entries as in the execution report.

The lower panel displays the details of the selected entry, and possible resolutions if exists. The Related Exceptions tab can be used to view information from the logs that is relevant to the selected error.

SENDING LOGS

Tzunami Deployer allows you to send logs to the Tzunami Support Team.

To send logs:

1. Select **File** > **Send Project Logs**.

   The Send Logs to Tzunami window appears.

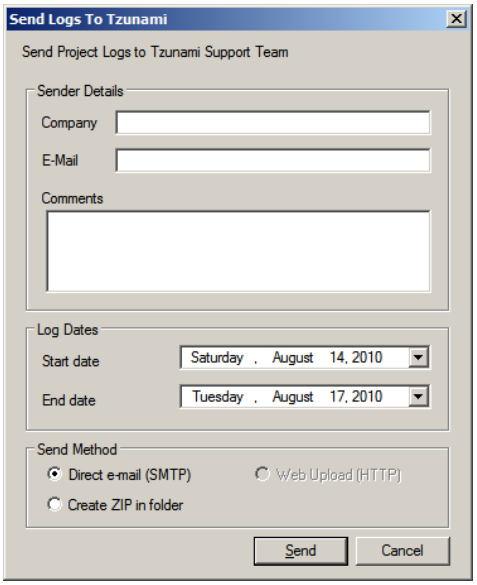


Figure 95: Send Logs To Tzunami window

2. Fill the **Company**, **E-Mail** and **Comments** fields.
3. Select a Log Dates interval (**Start date** and **End date**). Only logs created in the Log Dates interval will be sent.
4. Specify how the logs are sent to Tzunami:
    - **Direct e-mail (SMTP)** – Sends an email to the Tzunami Support Team.
    - **Create ZIP in folder** – Creates a ZIP file that users can manually send to Tzunami.
5. Click **Send**.

Depending on the selected Send Method, the logs will be sent to the Tzunami Support Team, or a Windows Explorer window will open displaying the created ZIP file.

UNEXPECTED ERRORS

When Tzunami Deployer encounters an unexpected error the following window pops up:

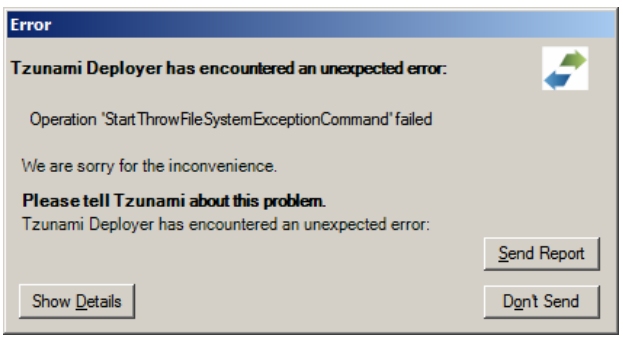


Figure 96: Unexpected Error window

This window provides information about the error. In order to see more details, click **Show Details**. You can also report this error to the Tzunami Support Team by clicking the **Send Report** button, or return to Tzunami Deployer by clicking **Don't Send**.

To send a report:

1. Click Send Report.

   The Report window appears.

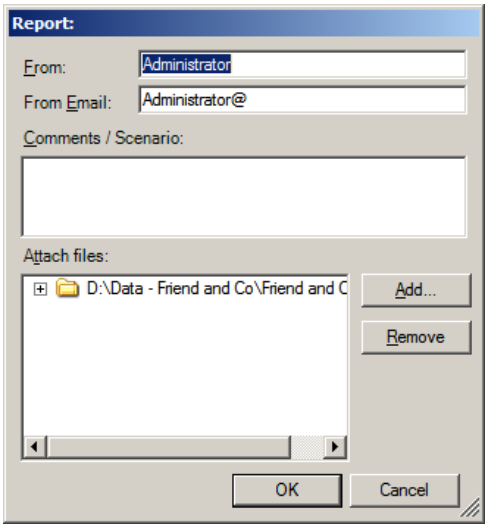


Figure 97: Report window

2. Fill the **From** and **From Email** fields.
3. In the **Comments/Scenario** field, describe the steps you performed that led to the unexpected error or add comments about the process.
4. In the **Attach files** section, you can add or remove files that to send with the report. By default, Tzunami Deployer adds the logs of the project as attached files.
5. Click **OK**.

   The generated report is sent to the Tzunami Support Team

FREQUENTLY ASKED QUESTIONS

This section includes frequently asked questions in the following areas:

Installation

Where do I get the install software for the Tzunami Deployer Remote Service?

Tzunami Deployer Remote Service is a component needed in order to run Tzunami Deployer on non-SharePoint machines. This component is not available during the Tzunami Deployer evaluation phase (in which the Tzunami Deployer installation must be on the SharePoint server). Upon purchasing the product, all relevant links for download are supplied. If you have any more questions about this subject, please contact the Tzunami Support Team at support@tzunami.com.

Does Tzunami Deployer support running migration operations without having to install any components on the SharePoint servers?

When performing a migration to SharePoint 2003, there are no components that require installation on the SharePoint server.

When migrating to SharePoint 2007/ SharePoint 2010/ SharePoint 2013, the current version of Tzunami Deployer requires a Windows service component, Tzunami Remote Service and Tzunami Link Resolver Service to be installed on the SharePoint server.

When migrating to Office 365 or SharePoint Server 2010 (without using remote service), the current version of Tzunami Deployer requires Windows service components, Tzunami Sandbox Solution. For more information, see the ***Tzunami Deployer Installation Guide***.

Is Tzunami Deployer a Windows or a web based application?

Tzunami Deployer is a Windows-based application with a Windows service component running on the SharePoint server (for migration to SharePoint 2007/ SharePoint 2010/ Office 365/ SharePoint 2013 only).

Permissions

What access rights does Tzunami Deployer require on the source environment?

This varies from system to system. Generally, a user with full read permissions is required for the source system. A user that can access the data through the regular system interface should be sufficient in most cases. For more information about the requirements of the various systems, see the relevant ***Tzunami Deployer Exporter Guide***. For information about the requirements for connecting to SharePoint, see the ***Tzunami Deployer Installation Guide***.

Migration

Does Tzunami Deployer migrate folder structure? Does Tzunami Deployer migrate Documents and lists metadata?

Tzunami Deployer extracts and enables the deployment and committing of any hierarchy structure existing in the source system. Tzunami Deployer migrates metadata for sites, lists, items, and files, including the system properties (Create, Created By, Modified, and Modified By).

Does Tzunami Deployer migrate version history of documents?

Yes. Tzunami Deployer retains version history for items and documents with all relevant metadata.

Does Tzunami Deployer migrate Document Policy Management? Does Deployer migrate Alerts?

No. Tzunami Deployer is a data migrating tool and, as such, it does not support migrating document policies or alerts.

Does Tzunami Deployer migrate Documents and Lists?

Yes. Tzunami Deployer supports migrating all kinds of containers and contained items from the source system, including documents, data-items, folders, lists, libraries, and sites.

Does Tzunami Deployer support the migration of all list types?

Yes. Tzunami Deployer supports the migration of all list types, including Document Libraries, Issues, Tasks, Contacts, Announcements, Discussions, as well as custom lists.

Does Tzunami Deployer support multi-lingual migration?

Tzunami Deployer is not language-specific. Whatever the language your data is written in, Tzunami Deployer will migrate it as-is.

Does Tzunami Deployer migrate layouts, themes, and headers of sites?

No. Tzunami Deployer is a content migration tool. Layouts, themes, and templates in general are not part of the content and, therefore, are not migrated. However, you can create your own custom templates in the target SharePoint and use those templates in Tzunami Deployer.

Does Tzunami Deployer migrate Site Definitions?

The main site definitions of SharePoint reside on the SharePoint server and are not part of the SharePoint data itself. For this reason, Tzunami Deployer does not support the migration of site definitions. Custom site/list templates, on the other hand, reside in the SharePoint libraries: "site/list template gallery". These lists are read with Tzunami Deployer and the contained item can be migrated to the target SharePoint. Note that any dependency or inconsistency that might occur after migration is the responsibility of the creator of the site/list template – Tzunami Deployer is responsible only for moving the files.

Does Tzunami Deployer migrate regional settings? Does Tzunami Deployer migrate workflows?

No. Tzunami Deployer is a data migration tool and, as such, it does not support migrating non-data related definitions.

Does Tzunami Deployer migrate Personal sites?

Yes. Personal sites are treated as any site collection in Tzunami Deployer and can be migrated along with their content.

Does Tzunami Deployer support site level migration? Does Tzunami Deployer support item level migration?

Tzunami Deployer allows migration of content from any level in the source system to any level in the target system.

Security

Does Tzunami Deployer migrate file system security?

Tzunami Deployer extracts file system security definitions and enables the mapping of these to SharePoint security definitions. Security modeling is a complex topic – if you have more questions about how exactly Tzunami Deployer supports security migration, contact the Tzunami Support Team at support@tzunami.com.

Does Tzunami Deployer support migrating permissions at the list level?

Tzunami Deployer enables the management of list-level permissions at any level, as well as migration of security settings during the migration process. Security modeling is a complex operation – we recommend consulting with the Tzunami Support Team at support@tzunami.com on all aspects of your security migration needs.

Broken Links

Does Tzunami Deployer fix broken links?

Tzunami Deployer itself does not handle the fixing of relative links that refer to the source system. Tzunami offers a redirection tool to solve such cases. For more information, contact the Tzunami Support Team at support@tzunami.com.

Batch and Command Line Operations

Does Tzunami Deployer support creating a batch of migration operations that can be run a scheduled time?

Yes. Tzunami Deployer works offline from SharePoint and commits all performed operation in a batch style manner. You can schedule Tzunami Deployer as a command-line tool to run at a scheduled time using the Windows Scheduled Tasks.

Remote Operation

Does Tzunami Deployer allow migration operations to be performed remotely?

When performing a migration to SharePoint 2003, Office 365 and SharePoint Server 2010 (without using remote service), all operations are done remotely.

When migrating to SharePoint 2007/ SharePoint 2010/ SharePoint 2013, Tzunami Deployer requires a Windows Service component to be installed on the SharePoint server. After installation, all Tzunami Deployer clients can communicate and function remotely.

Logging

Does Tzunami Deployer log migration operation results to a file?

Yes. All actions are logged for later reviewing in case of errors. Tzunami Deployer also provides several XML reports for you.

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