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WHITE PAPER

LIVELINK MIGRATION TO MOSS WITH TZUNAMI DEPLOYER FOR LIVELINK MIGRATION



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EXECUTIVE SUMMARY

INTRODUCTION

As organizations grow, the more of a necessity it becomes to manage information retained as an enterprise asset. Governmental and industry pressures to comply with corporate governance, risk management and security regulations are further reasons to implement adequate content management systems. The popularity of Microsoft Office SharePoint Server 2007 (MOSS) is increasing due to its effective, user-friendly functionality and ability to manage both unstructured and structured content on one integrated platform. MOSS now provides many benefits including traditional portal functionality, enterprise research, Web content management, document library services, records management, business intelligence and collaboration capabilities.

While most of the attention has been given to the actual content management system features and benefits of MOSS, little consideration is given to the process of migrating the actual content from the older ECM systems. While MOSS streamlines the procedure of creating, managing and delivering content and information processes, it does not offer a viable and complete migration tool. Yet, before even using MOSS, migrating documents from the older ECM systems is a necessity and has shown to be quite a challenge. Most organizations have documents in a mapped network drive with terrible metadata, many duplicates and are badly organized.

This white paper focuses on migrating content from Open Text LiveLink to MOSS. It discusses some of the main challenges involved in migrating content from Open Text LiveLink as well as solutions to automatically migrate data to MOSS.

Business Drivers

More companies today are beginning to realize the benefits of collaboration tools such as Microsoft Office SharePoint System 2007. The costs involved however are often greater than originally anticipated, largely due to the additional applications required for migrating from their older Enterprise Content Management (ECM) systems. Additional key factors concerning organizations include the amount of time involved in the migration process and the quality of information retained by the target system.

Quality Retention

One of the biggest drawbacks with traditional migration methods is the fact that problems are not discovered until the very end of the migration process. This is because traditional methods allow users to view their documents in the target system, only once migration is completed. It is only then that business users realize that either some of the documents were not saved from the original or source system, some of the data has been lost and/or are not filed or saved correctly. Additionally the fact that poor data often exists in the actual source system causes even further problems. The IT manager in charge of the migration process cannot be expected to understand each department's data requirements. Each business user will have specific rules in mind of how to collate and organize content, which may differ from how the IT manager classifies the data.

Until now, resolving these issues involves going back to the original source repository, fixing the problems and then repeating the migration process all over again. A tedious procedure that can frequently be repeated hundreds of times.

Downtime

In an ideal world, the migration process will be performed seamlessly and transparently, with no demand on the current work processes. The current reality is that when most migration takes place, business processes grind to a halt.

Some migration systems solve this problem of total downtime by allowing users to have read-only access to the system for specific existing content. Users will then find an alternative way to keep working using ad-hoc solutions. This however is destined to create even further complications when trying to upload that content onto the new systems. Alternatively, other systems use a "freeze" method and divide the content into "critical" and "non-critical" data, specifying what must remain accessible during the migration process. Unfortunately, however the length of "freezing" the system is almost always underestimated.

A further problem with traditional migration solutions is they require both the source and target repositories to work online. This puts great demand on network bandwidth, which inadvertently slows down work processes.

Costs Accrued from Multiple ECM Systems

Like each human being is different with unique needs, so too each organization comes with various migration requirements. Nevertheless, the majority of organizations today own more than one content management system which performs separate functions. It makes the most sense to consolidate all these functions and data onto one collaboration system such as MOSS. Unfortunately each content management system naturally requires separate migration tools. This means additional expenditure with each purchase of the various add-ons to complete the migration process.

Expertise

A successful migration of an entire organization's content depends on the expertise of those implementing the migration process. Working with various source repositories, it is critical for a thorough understanding and knowledge of how these source repositories' rules and processes are applied to the target repository. Most available tools today however only concentrate on migrating from one or two repositories, leaving the IT manager to negotiate the complicated process of migrating from multiple ECM systems.

Tsunami Deployer is a stand-alone application, which focuses on migration from **all** the common content management systems. It is a platform that migrates and integrates from all current repositories, as well as enables customizable solutions to be included in the process. The information below concentrates on migrating and integration from just one of the widely used repositories, OpenText LiveLink to MOSS.

TZUNAMI DEPLOYER: OVERVIEW

Developed over years of experience, the Tsunami Deployer Family of Products is designed to respond to all SharePoint 2007 migration requirements. Supporting the rapid creation of SharePoint server structures, the solution effortlessly transfers data from older Enterprise Content Management (ECM) systems. Automating the entire process of migrating unstructured content, Tsunami Deployer offers a user-friendly solution to real-world business challenges.

COST-CONTROL

Tsunami Deployer is a stand-alone application, which is a simple, multi-source tool handling all an enterprises' migration requirements. As described above, with organizations running multiple ECM systems, consolidation into one collaboration tool becomes costly. Tsunami Deployer supports migration from various content sources on one platform, reducing the demand for multiple add-ons to support each ECM system. These content sources include:

- File Shares
- SharePoint 2001
- SharePoint 2003 (WSS V2)
- MOSS ,WSS 3.0
- Exchange Public Folders
- Lotus Notes
- EMC Documentum
- EMC eRoom
- Hummingbird
- OpenText LiveLink
- Hyperwave
- DocuShare
- Plumtree/Aqualogic
- Custom Repositories

EASE OF USE

Unlike traditional migration systems, Tsunami Deployer does not only offer a deployment wizard. It enables the user to view the entire picture using familiar Explorer-like views. Tsunami Deployer offers a powerful and flexible graphic user interface (GUI), which is simple and easy to learn. It has drag-and-drop elements between the original source system and the target, SharePoint, as well as providing

wizards for complex processes. It supports the rapid creation of SharePoint Server structures including: Site Collections, WSS Sites, Portal Areas, Lists, Libraries, Folders and Columns. It further allows the extraction of metadata and security schemas from the source repository to map them to MOSS.

To create a LiveLink folder as a site collection for example, simply drag and drop it into the SharePoint Virtual Server or to any site in order to create it as a sub-site or list.

OFFLINE MANAGEMENT

As discussed above, a major disadvantage of current migration methods is that problems are not discovered until the very end of the migration process. Tsunami Deployer is based on holding replicas of both the source and the target repositories such as LiveLink and MOSS. Users can perform migration and manage SharePoint offline from anywhere - with no need to be connected to both systems. This not only reduces the need to take up bandwidth space but also enables problems to be discovered early on in the migration process, which greatly reduces downtime.

Working with an Explorer-like view further simplifies the process with all actions performed virtually. These actions can be reviewed and repeatedly fine-tuned before committing to the actual migration.

Tsunami Deployer's offline management capabilities include the following key features:

Property Mapping

Properties can be mapped from the source content to most recent equivalent MOSS fields/properties or even to different property types. Properties can be also added and modified to the target system both during the migration process as well as from a central point for metadata administration. Furthermore, Tsunami Deployer allows retention of original document properties as well as revised or updated versions.

Value Mapping

Users are able to map between the different values from the source content to the equivalent values in the target system. This provides mapping content to content-types, i.e. allows custom lists to be created in MOSS that can hold various properties and content types according to one's specifications.

Deployment Wizard

The Deployment Wizard provides full modeling capabilities with a rich variety of options to design the new hierarchy. Using the powerful deployment wizard, content structure can be remodeled during the migration processes. SharePoint sites, lists, libraries, folders and more can be modeled, customized, designed and redefined. Tsunami Deployer retains the 'created', 'created by', 'modified' and 'modified by' details as well as all system properties. The deployment wizard also offers:

- **Built-in and Custom Site and List Template Support:** Site templates are utilized (both global and template galleries) as well as list templates in order to retain the look, feel and design of the new SharePoint solution.
- **Content Restructuring and Remodeling** – Content is restructured and remodeled with the freedom to migrate from non-SharePoint systems. Cleansing and remodeling is also enabled from SharePoint systems.

Rule Engine

The migration process can primarily be automated with an easy to use rule engine and an extendable list of conditions and actions. With a powerful interface and predefined rule-base, users can easily create new sets of rules for large amounts of data. Drawing on extensive experience, all rule engine functions have been customized according to a wide range of requirements.

The Rule Engine includes built-in suggested rules for migration from LiveLink as well as various additional content sources. It allows the user to define a set of rules for both modeling the hierarchy and for mapping the metadata in a detailed resolution. For example, the user may define a rule that selects a specific site template in MOSS which is based on an item type used in LiveLink. He or she would then select a corresponding list template of choice for each list deployed and automatically set the mapping for the metadata. Such a rule can automate the migration process when deploying various sites of the same type.

Tsunami Deployer comes with a predefined set of suggested rules for LiveLink migration which can be modified according to specifications.

QUALITY RETENTION

Working offline during the planning stage allows the quality of the data to be maintained throughout the migration process. Tsunami Deployer allows much of the work to be performed in the planning stages, prior to migration. Identifying errors early on in the migration process resolves many problems such as having to repeat the whole migration at a later stage – an unnecessary and often time-consuming process. Once modeling has taken place ‘virtually’, it is easy to involve the business users to review the data, and confirm or report any errors and issues encountered before committing it to the target repository.

Data quality is further retained due to **conversion of all file types**. This means that Tsunami Deployer allows all files to be converted with their dedicated lists, even from systems with dissimilar lists to MOSS. Furthermore, Tsunami Deployer allows customized lists to be supported in MOSS that have been created outside the usual ECM system. It simply adds missing columns to the target lists and automatically maps their values.

TIME-SAVING: One Platform; Multiple Versions

Multiple instances of Tsunami Deployer can run on the same machine. This dramatically accelerates the migration process. The user can divide the source content into logical units. Migration can then take place simultaneously from various machines or alternatively multiple instances can run on a single machine.



MIGRATION PLANNING

As explained above, Tsunami Deployer allows the majority of the work to be performed during the planning stages of the migration. Each organization has its own specific migration requirements. It is recommended for companies to start a migration project on a test environment, prior to migrating to the production environment. Tsunami suggests the following plan:

General Considerations

Development Stage – Migrating 10% of the content to a test environment.

Completing this stage ensures that all the migration needs are supplied by Tsunami Deployer and also serves, on a small-scale, as an introduction to all the different migration stages. This stage is important for discovering any custom solutions that may not have been considered and might be required.

Proof of Concept Stage – Presenting partial results to the business users.

Whether migrating 10% of data in the development stage or additional data after that stage, it is important that the business user is pleased with the results of the migrated content. Verify that all the required documents, versions, metadata, security, and structure have been migrated according to plan.

Check migration results in SharePoint – Results in line with expectations

Open SharePoint after committing a test project to ensure that all of the data (sites, lists, items and files, metadata and security) have been migrated as expected.

Plan your SharePoint Hierarchy – Provide a clear picture of the deployment

It is recommended to have a plan of which items should be deployed as sites, which as lists, and which as documents. Tsunami Deployer provides several options to illustrate this step.

Plan metadata migration – Identify the properties

Identify which properties, from the source system containers, will be mapped to properties in the SharePoint lists/folders. Identify what will be added as new properties to the SharePoint lists and which properties will not be migrated at all. It is possible to plan the property mappings and user mappings prior to working with Tsunami Deployer by creating simple XML files describing these mappings.

Keep connected to the source system – Identify the property from the source system.

Always add an identifying property from the source system. Such a property can be the ID or URL of each item in the source system which is always available in Tsunami Deployer. Such a property allows backtracking of items in the source system easier after migration. This property can be hidden in SharePoint after migration.

Pre-modeling of SharePoint – Customize SharePoint

It is recommended to customize the SharePoint environment as much as possible to suit the migration needs before starting the migration process (i.e. the deploying and committing stages).

Plan how to use the hardware – Multiple versions possible

Multiple Tsunami Deployer projects can be committed simultaneously. This speeds up the migration committing process. The amount of simultaneously-running projects depends on the servers Tsunami Deployer is functioning on, the network bandwidth between the Tsunami Deployer servers and SharePoint front-ends, as well as the SharePoint farm specifications.

Monitor the environment – Performance inspection

Inspect system performance (memory, DB, etc.) while testing the migration with several Tsunami Deployer instances when committing. Three Tsunami Deployer projects can run simultaneously on a single Dual Xeon Dual-core 2GHz 4GB RAM SAS disk server. Nine Tsunami Deployer projects can run on a farm consisting of three of these servers. It is important to monitor the SharePoint farm as well, to make sure it is not over-used, and that it will not cause a bottleneck in the migration effort.

LIVELINK MIGRATION

Tsunami Deployer for LiveLink enables migrating LiveLink content into MOSS or Windows SharePoint Services 3.0 (WSS3.0) or Microsoft SharePoint Portal Server 2003/Windows SharePoint Services 2.0 (SPS2003/WSS2.0).

Tsunami Deployer for LiveLink supports the following:

- Migration Items
- Metadata
- Security Definitions

LiveLink Migration Items

Tsunami Deployer for LiveLink allows users to export the following types of objects (with their relevant subtype ID) from the OpenText LiveLink server:

- Enterprise Workspaces (sub type 141)
- Discussions (sub type 215), Topics (sub type 130) and Replies (sub type 134)
- Tasks Lists (sub type 204), Tasks Groups (sub type 205), Tasks (sub type 206), and Milestones (sub type 212)
- Channels (sub type 207) and News (sub type 208)
- Projects (sub type 202)
- Folders (sub type 0)
- Documents (sub type 144), Text Documents (sub type 145), and Compound Documents (sub type 136)
- Links (sub type 140) and Aliases (sub type 1)

Migrating LiveLink Metadata

While migrating documents is the key task, migration of the metadata is usually a more complex issue. Tsunami Deployer easily retains business-critical information, such as when and who created the documents. Additional metadata, both out of the box and customized, can be simply migrated using the property and value mappings.

On top of the basic metadata, Tsunami Deployer for LiveLink enables the migration of metadata implemented using the two methods of metadata supported by OpenText LiveLink:

- OpenText LiveLink 8.x or earlier releases: Additional Nodes Attributes (also called System Attributes).
- OpenText LiveLink 9.x or later: Categories and Attributes.

Both methods are supported, and allow users to migrate metadata, and properties/columns to the target system.

Security Migration

Information is one of an organization's most valuable assets. Security migration can be performed as part of the content migration, thus retaining users' and groups' permissions. Users' access control lists are preserved during the migration process and can easily be mapped to MOSS' permissions levels and ACLs.

As part of the export process, Tsunami Deployer for LiveLink repositions users and groups even across Active Directory domains, as well as allows the following permissions to be exported:

- See
- See Content
- Modify
- Edit Attributes
- Delete Versions
- Add Items
- Delete
- Reserve
- Edit Permissions

LiveLink to MOSS Requirements

Tsunami Deployer can be installed on any machine with access to both LiveLink and MOSS servers (LiveLink Server, MOSS Server or a dedicated machine).

Tsunami recommends installing Tsunami Deployer for LiveLink on one or several dedicated machines. Multiple instances of Tsunami Deployer for LiveLink can run on the same machine in order to accelerate the migration process. Both the LiveLink and MOSS servers can be remotely access by Tsunami Deployer for LiveLink.

LiveLink Considerations

When migrating LiveLink items into special sites and lists in SharePoint 2007, any special site templates and list templates to be used, should be first installed in SharePoint 2007 environment.

Due to technology differences between LiveLink and SharePoint, some best practices should be taken into consideration. These include migrating folders to their relative list types, based on the items in those folders:

LiveLink item type	Relevant SharePoint Types
Workspace	Site Collection Site
Channel	Announcements List
Discussion	Discussion Board
Project	Site Collection Site
Task List	Tasks List
Task Group	Folder inside a Tasks List
Compound Document	Folder
URL	Link inside a Links List Document inside a Document Library (with the "Link to a Document" Content Type)
Alias	Link inside a Links List Document inside a Document Library (with the "Link to a Document" Content Type)
Document	Document inside a Document Library
Text Document	Document inside a Document Library
Folders	Depending on the content of the folder, valid options might be to migrate as Lists, Folders or even Sites.

URLs and Aliases can be migrates in two ways:

1. Migration as data-items in a Links List.
2. Migration as documents in a Document Library. MOSS/WSS3.0 provides a Content Type named "Link to a Document", which functions in a similar way to a shortcut.

System Requirements

Supported Operating Systems:

- Windows XP SP2
- Windows Server 2003 SP1 or SP2
- Windows Server 2003 R2 with or without SP2
- Windows Vista
- Both x86 and x64 version of all operating systems

Required Software:

Microsoft .NET framework 3.0 is required for Tsunami Deployer

Processor:

2GHz Pentium processor or equivalent

RAM:

2 GB (Minimum); 4GB (Recommended)

Disk Space Requirements:

50Mb (additional space will be required for the Tsunami Deployer projects, which size may vary from 10Mb to 4 GB).

CONCLUSION

The benefits of migrating content to Microsoft Office SharePoint System 2007 have been documented several times. Migrating and integrating data onto one Enterprise Content Management system however is not as simple and straight forward as expected. Furthermore, with organizations owning multiple sources, migrating to MOSS is often more costly than anticipated. One platform carrying out all migration requirements from multiple sources ensures costs are kept at a minimum while providing an efficient, time-saving and quality migration.

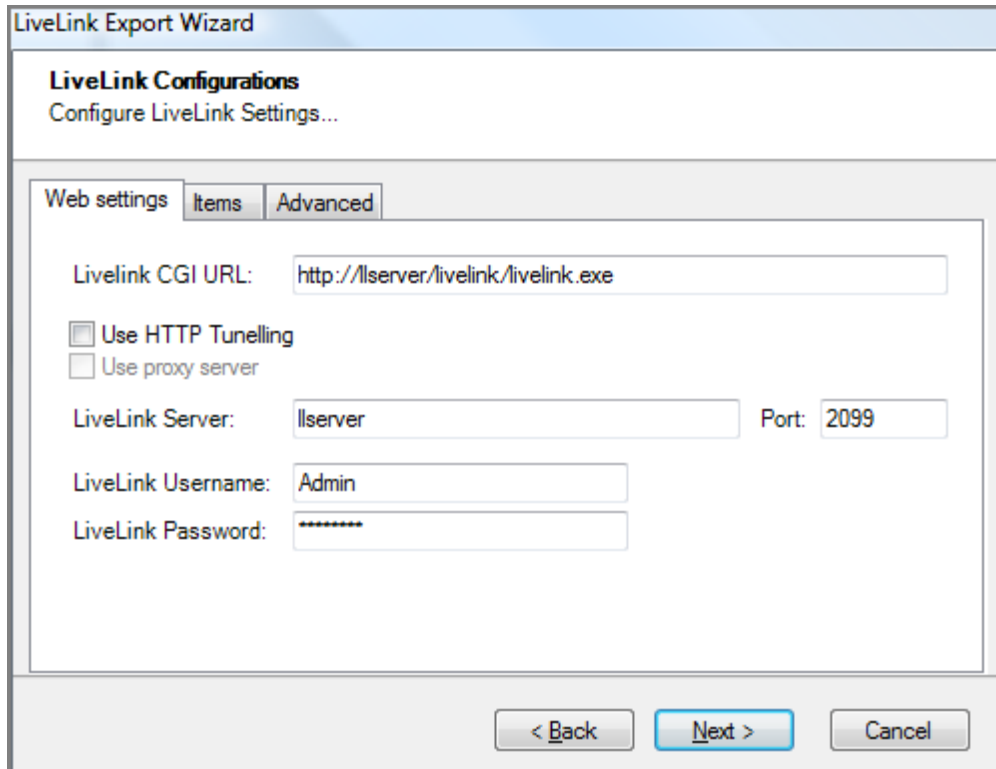
APPENDIX: MIGRATING LIVELINK TO MOSS: A Sample Step-By-Step Guide

Exporting from LiveLink

Tsunami Deployer for LiveLink generates Tsunami Deployer Export (TDX) files that are later imported by Tsunami Deployer prior to the deployment process. The exporter can be used within Tsunami Deployer or as a standalone tool. Tsunami Deployer for LiveLink can fully export the data to the file system (full export) or download the binaries on demand only, in order to save storage space, before they are uploaded to SharePoint (light export).

The following steps describe the exporting process:

Web Settings & Credentials

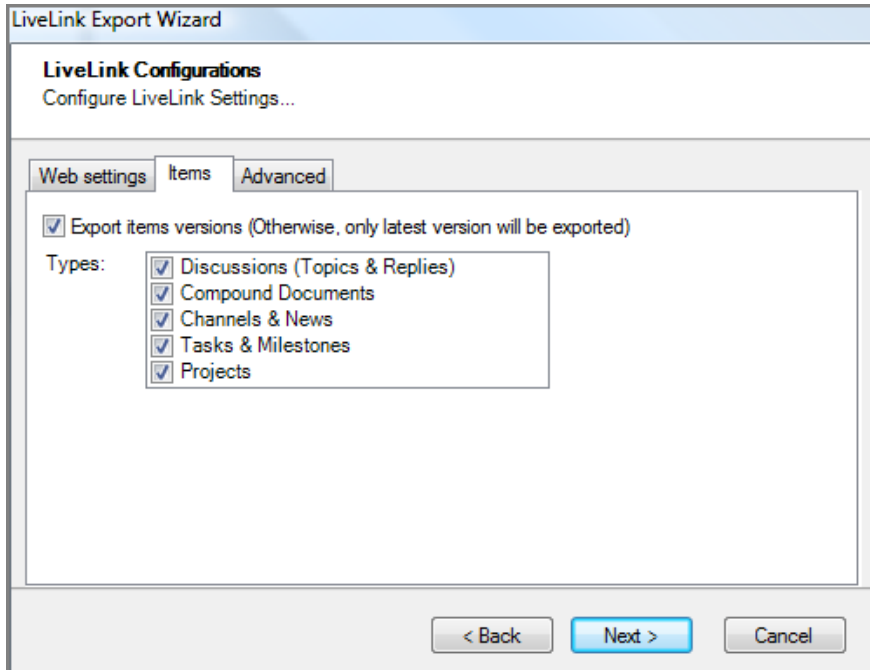


The screenshot shows the 'LiveLink Export Wizard' dialog box with the 'Web settings' tab selected. The 'LiveLink Configurations' section is visible, with the following fields and options:

- LiveLink CGI URL:**
- Use HTTP Tunelling
- Use proxy server
- LiveLink Server:** **Port:**
- LiveLink Username:**
- LiveLink Password:**

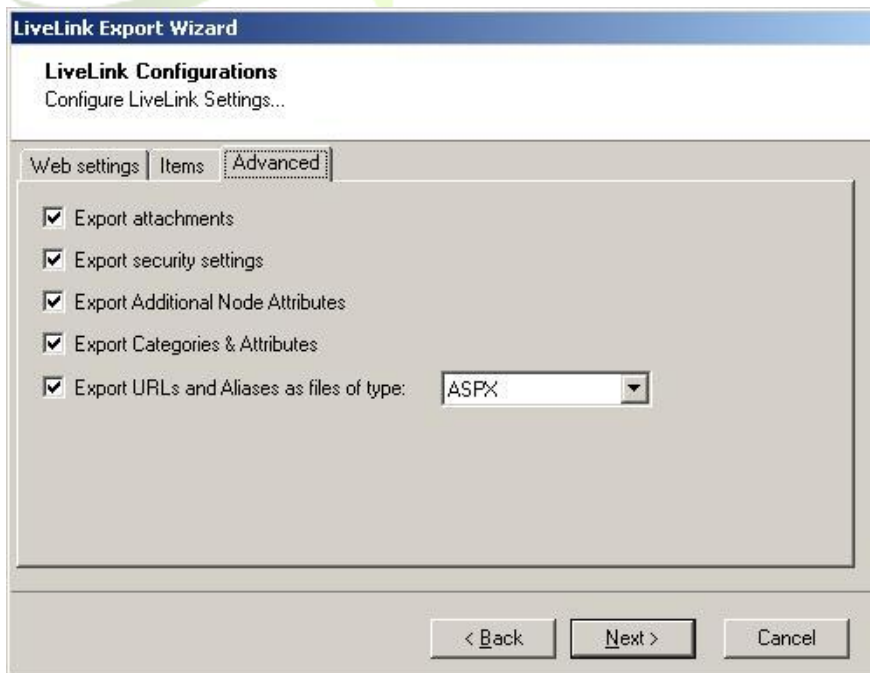
At the bottom of the dialog, there are three buttons: '< Back', 'Next >', and 'Cancel'.

Handling Items



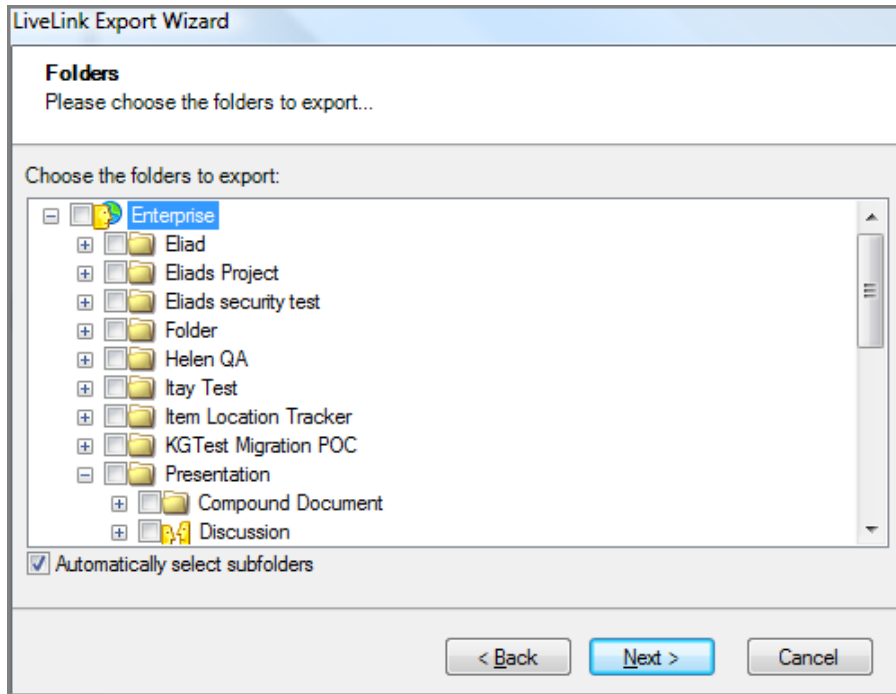
The screenshot shows the 'LiveLink Export Wizard' window with the 'Items' tab selected. The title bar reads 'LiveLink Export Wizard'. Below the title bar, it says 'LiveLink Configurations' and 'Configure LiveLink Settings...'. The 'Items' tab is active, showing a checkbox for 'Export items versions (Otherwise, only latest version will be exported)' which is checked. Underneath, there is a list of item types, each with a checked checkbox: 'Discussions (Topics & Replies)', 'Compound Documents', 'Channels & News', 'Tasks & Milestones', and 'Projects'. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'.

Advanced Export Options



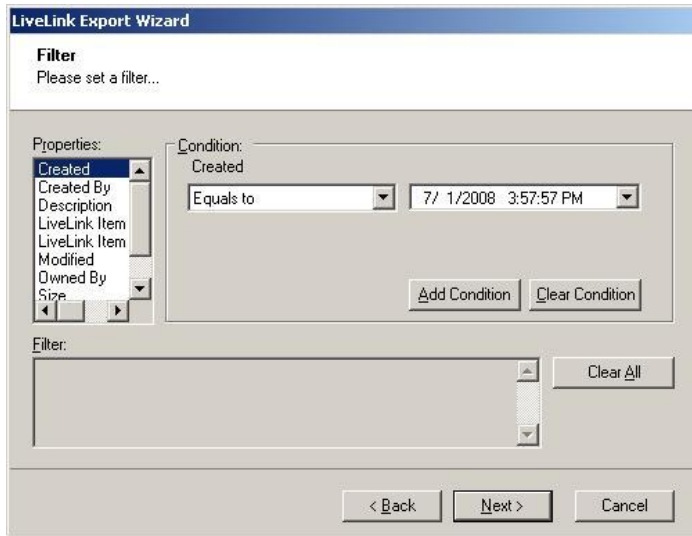
The screenshot shows the 'LiveLink Export Wizard' window with the 'Advanced' tab selected. The title bar reads 'LiveLink Export Wizard'. Below the title bar, it says 'LiveLink Configurations' and 'Configure LiveLink Settings...'. The 'Advanced' tab is active, showing several checkboxes, all of which are checked: 'Export attachments', 'Export security settings', 'Export Additional Node Attributes', 'Export Categories & Attributes', and 'Export URLs and Aliases as files of type:'. The last option has a dropdown menu set to 'ASPX'. At the bottom of the window are three buttons: '< Back', 'Next >', and 'Cancel'.

Exporting all hierarchy or only selected items

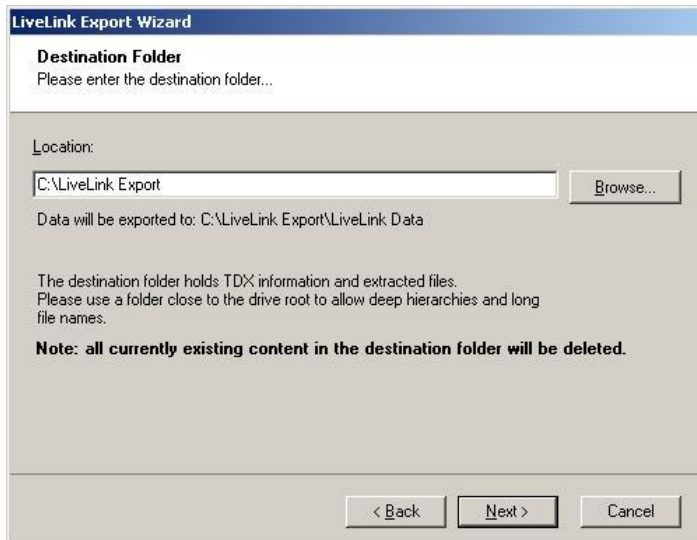


Filtering Items

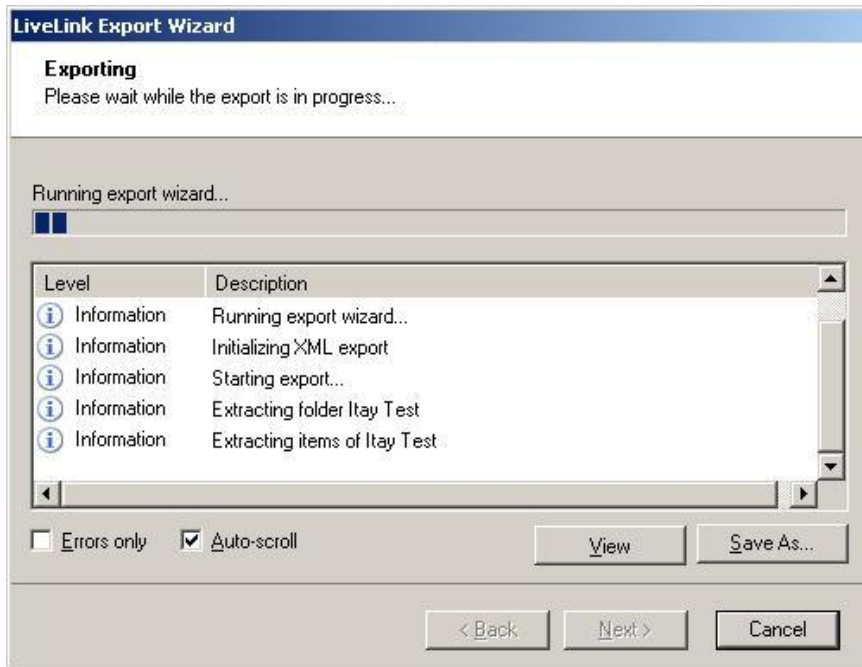
Incremental export for synchronizing data: A migration process can take a considerable amount of time, depending on the size of the content migrated and the hardware dedicated for the process. As a result, most of migration needs synchronization with the data that has been created during the procedure.



Choosing the Exported Data Destination Folder



Exporter Process



Upon completing the export process, the user will be prompted to load the exported LiveLink content into the current Tsunami Deployer project. Clicking “yes” will load the previously exported LiveLink TDX file into the Tsunami Deployer project.

For more information about loading the source TDX file into Tsunami Deployer, please refer to the *Tsunami Deployer User Guide*.