Quest®

Quest® Migrator for Notes to SharePoint 7.6.0

User Guide

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Legend

CAUTION: A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

IMPORTANT, **NOTE**, **TIP**, **MOBILE**, or **VIDEO:** An information icon indicates supporting information.

Migrator for Notes to SharePoint User Guide
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1

Migrator for Notes to SharePoint

- Overview of Migrator for Notes to SharePoint
- Migrator for Notes to SharePoint features and functions

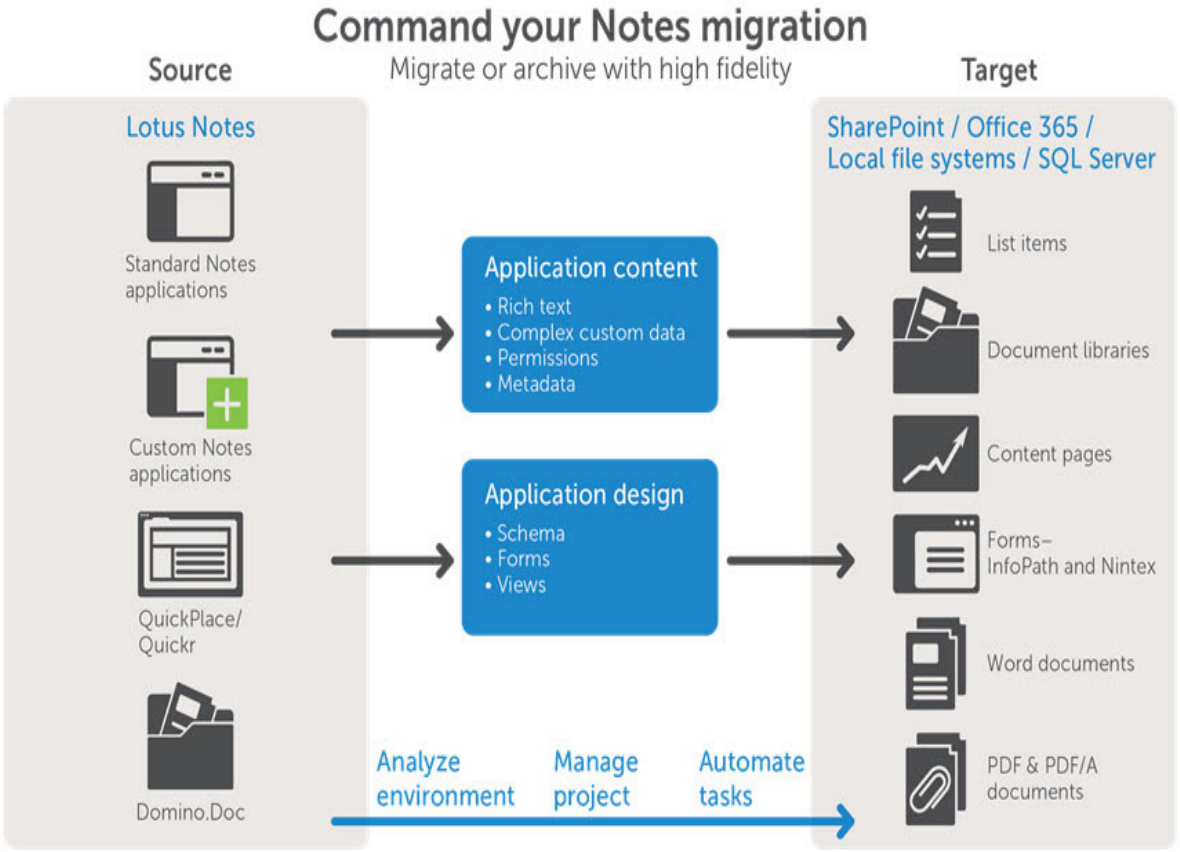
Overview of Migrator for Notes to SharePoint

Migrator for Notes to SharePoint allows organizations to safely and effectively migrate HCL Notes® (previously Lotus Notes®), Domino®, QuickPlace®, Quickr®, or Domino.Doc application data to Microsoft SharePoint or SQL Server®.

Migrator for Notes to SharePoint provides "Point and click" migration of HCL Notes® (previously Lotus Notes®), QuickPlace®/Quickr®, or Domino®.Doc documents to SharePoint Lists, Libraries and InfoPath® Form Libraries. This simple but powerful tool makes it easy for technical or non-technical users to select data from a Lotus data source, define any desired data mapping rules, and write the data out to SharePoint. Information technology professionals can take advantage of the tool's many features to perform enterprise-level migration projects.

The tool utilizes the HCL Notes® Application Programming Interface (API) to access source data for migration and as such data processing is dependent on the supportability of the API from the vendor (HCL). In cases where source system versions or data structures have limited API support from the vendor updates to the source data, outside the scope of the tool, may be required before migration or the tool may have limited data access capacity for migration.

Figure 1. Overview of Migrator for Notes to SharePoint.



Migrator for Notes to SharePoint features and functions

Migrator for Notes to SharePoint provides the following general features and components:

- Quickly and easily migrates Lotus Notes and Domino databases, Lotus QuickPlace/Quickr sites, or Lotus Domino.Doc cabinets
- Automatically maps Notes fields to SharePoint fields based on predefined rules
- Automatically detects when predefined Data Definitions can be applied (based on Notes template and SharePoint template used)
- Customizes Notes and SharePoint data access details as well as data mapping rules
- Saves customized Data Definitions for future use against other applications based on the same application template
- Provides command line mode for batch processing
- Provides detailed event logging
- Supports running migration jobs directly on your SharePoint server or sending extracted data to remote SharePoint servers from your desktop
- Allows bulk migration by IT professionals or ad-hoc migration by end users

2

Migrator for Notes to SharePoint Console

- Overview
- Console configuration using the setup wizard
- Advanced configuration options
- Database discovery
- QuickPlace/Quickr discovery
- Domino.Doc discovery
- Discover directory entries
- Import database records
- Notes databases
- Applications
- Classification Rules
- Classification Rule Properties
- SharePoint Targets
- Scheduled tasks
- Reports
- Task history
- Link Analyzer/Updater/Finalizer
- License

Overview

The Migrator for Notes to SharePoint Console provides a higher level view of your migration process than the Migrator for Notes to SharePoint Designer. Rather than focusing on designing and running one migration job for one Notes database, the Console looks across many databases (potentially all the databases in your organization) and helps you control the entire migration process.

If you are using the Migrator for Notes to SharePoint Console, you can:

- manage complete Job Definitions
- set tool options
- run migration jobs
- select one or more databases from the database results view
- select the Migrate to SharePoint action to run the databases' migration jobs

The functionality offered by the console includes:

Pre-migration assessment

- Discover Notes Databases across all servers in all locations
- Classify Applications according to Technical or Business attributes
- Analyze Application Usage to identify unused applications
- Analyze Design Complexity and deviations from standard templates
- Analyze Data Complexity and identify content migration needs
- Scan Notes Database scripts

Migration project management

- Collect additional Business Analysis and Technical Analysis details
- Track outstanding migration tasks
- Triage what to migrate and when (Use rules-based engine and/or override manually)
- Develop time & cost estimates (Use rules-based engine and/or override manually)
- Design custom views, filters, and interactive reports
- Use open data repository and optional data exports

Migration target planning

- Extract QuickPlace®/Quickr® and Domino.Doc site hierarchies
- Assign target SharePoint sites, lists and libraries (Use rules-based engine and/or override manually)
- Assign content migration jobs (Use rules-based engine and/or override manually)
- Preview your migration plan in the context of your existing SharePoint infrastructure
- Centrally manage migration plan, job execution, and results

Provisioning and content migration

- Provision SharePoint Sites, Sub-sites and Member lists
- Provision Lists, Document Libraries and InfoPath Form Libraries
- Perform high-fidelity Content Migration (rich text, embedded elements, special Notes constructs)
- Ensure that DocLinks continue working throughout migration process
- Set Site/List/Item permissions to reflect Notes security settings
- Ensure that SharePoint Workflows or SharePoint Event Receivers are disabled/removed before you begin a migration.
- Complete all workflow processes before migrating Notes documents. There should not be any workflows in an “open” or “in process” state.

The Migrator for Notes to SharePoint Console is available as a Microsoft Management Console (MMC) 3 Snap-In. MMC is a standard interface for all dialog box management tools and can run as a stand-alone tool or inside a console that includes multiple tools.

The Console consists of three dialog box panes:

Table 1. Contents of MMC

Pane	Description
Console Tree (left pane)	Allows a user to navigate to a particular set of functionality and ultimately to a set of objects to work on. The top level tree nodes are: • Notes Databases • Applications (databases arranged according to special application hierarchies, such as QuickPlace/Quickr site/rooms and Domino.Doc libraries/cabinets) • Classification Rules • SharePoint Targets • Reports • Task History • Tools
Results View (middle pane)	Contains a detailed view appropriate to the item currently selected in the Console Tree. This can be a list of child nodes, a detailed list of selected items such as database records, or a report. You can perform various actions on the items depending on what type of node is selected. You can view details about one particular node in the Property Sheet. You can customize the results view by: • creating a custom view. For more information, see Custom views on page 49. • showing or hiding items in the menu bar • selecting and sorting columns • adding and removing columns **NOTE:** To see the entire list of available columns organized by category, see Results View data columns on page 136.
Action (right pane)	Consists of a list of actions that can be performed to either the entire result set or the selected items in the result set. The type of actions available depends on what type of result set is displayed. If the Action Pane is not visible, enable it by selecting View | Customize and checking the "Action Pane" option, or selecting the Show/Hide Action Pane button on the console toolbar.

Console configuration using the setup wizard

The Setup Wizard can be used to perform the initial steps required to properly configure Migrator for Notes to SharePoint Console including setting up Notes and SharePoint access and creating the Migrator for Notes to SharePoint Repository database.

The Wizard is automatically launched the first time you open the Migrator for Notes to SharePoint Console. It can also be accessed directly from the Console.

To configure the Console using the wizard

1 Right-click Migrator for Notes to SharePoint in the Console tree, and select **Setup Wizard**.

The introductory screen of the wizard reminds you that all of the settings defined in the wizard can also be changed in the Global Options dialog box. For more information, see Advanced configuration options on page 13.

2 Click **Next**.

3 Enter your Notes ID and password. If you are using an .INI file other than the default, select Browse to locate the file. Click **Next**.

> **NOTE:** To support Notes IDs that require more than one password, enter the passwords starting with a vertical bar character, with a vertical bar character separating each password and ending with a vertical bar character. For example: `|password1|password2|password3|`

4 Create a new repository database or select an existing one. Click **Next**.

If you are creating a new repository:

a Select the server where you want to create the repository database.

b Enter the name of the file and Database file.

c Click **Create Repository Database**.

d Click **Next**.

> **NOTE:** The Migrator for Notes to SharePoint Console uses a Notes database as its Repository in order to store data that is gathered through analysis and user input. Before using the Migrator for Notes to SharePoint Console, this database must be created using the QuestIRepository.ntf template that has been installed in your Notes data directory. Create the Repository database before running the Notes Database Discovery process.

If you have already created a repository database:

a Select the server name and database path.

b Click **Next**.

> **NOTE:** Currently, only a local database is supported for the Repository.

5 If you want to select a database discovery type, select a scan type. Else, select **I don't want to discover databases at this time**. Click **Next.**

6 Define the Notes servers that you want scanned in the Discovery process. Add all of the servers that contain databases that you want analyzed for migration.

To edit an existing server, select the server in the server listing dialog box and click **Edit**. To delete an existing server, select the server in the server listing dialog box and click **Delete**. To add a Notes server, click **Add** and the **Define Scan Location** dialog box will appear. Enter the Notes Server and Path and click **OK**.

7 Define the Notes users you want to exclude from your Notes database analysis. You can add your own Notes name using the **Add Yourself** button as well as all known servers using the **Add Known Servers** button. Click **Next.**

8 Select the type of connection you will be using to migrate to SharePoint, and click **Next**.

- To migrate to a remote SharePoint server running the Quest Import Service, select "**I want to migrate to SharePoint servers using the Quest Import Service**".
- To migrate to a remote SharePoint 2013, 2016, 2019 or 2021 Server Subscription Edition using the SharePoint web services, select "**I want to migrate to SharePoint sites using:**" first, and then select "**SharePoint web services (Classic Mode Authentication)**" or "**SharePoint web services (Forms Based Authentication)**" from the dropdown list according to your actual authentication method.
- To migrate to Office 365 SharePoint sites using Microsoft's Windows Identity Foundation, select "**I want to migrate to SharePoint sites using:**" first, and then select "**SharePoint web services (Office 365 Authentication)**" from the dropdown list.

9 Select to use Windows authentication, or enter your SharePoint credentials to connect to SharePoint. Click **Next**.

10 Select a SharePoint site that you are migrating to, or add a new one. Click **Next**.

11 To save your changes, click **Finish**.

If you do not want to run the Notes Database Discovery process at the time you click **Finish**, clear the **Discover my databases now** check box before you click **Finish**.

Advanced configuration options

To change the default Migrator for Notes to SharePoint options

1. Select the Migrator for Notes to SharePoint root node in the Console Tree.
2. Select **Action** | **Advanced Configuration Options**.

   -OR-

   Select **Advanced Configuration Options** in the Action Pane.

   The **Migrator for Notes to SharePoint Options - Default** dialog box opens.

   > **NOTE:** The required subset of these options can also be defined by going through the Setup Wizard. The Wizard can be run by selecting **Setup Wizard** from the same **Action** menu item. For more information, see Console configuration using the setup wizard on page 11.
   >
   > **NOTE:** Many of the options displayed here are also found in the Designer client's Customizing global options on page 111. As these options are stored in a single place, any changes made in one client will impact the other client.

   The dialog box contains the following tabs:

   - General tab
   - Notes tab
   - Discovery tab
   - Analysis tab
   - Console tab
   - SharePoint tab
   - SQL Server tab
   - Folder tab
   - User Mapping tab
   - Group Mapping tab
   - Link Tracking tab
   - Publish Status tab
   - Notification tab
3. Make your changes, and click **Save as Default**.

You can also save your settings for the options as an options file so that you can apply different sets of settings for different migration jobs without changing the default Migrator for Notes to SharePoint options.

To save your settings as an options file:

1. In the General tab, select **Save as Default** > **Save as...**.
   The **Save as Options File** dialog box opens.
2. Enter a name for the options file.
3. Click **OK**.

To delete an options file, click the link **Manage Options List** on the dialog box, and select one or more existing options files in the list to delete. Note that the currently applied options file cannot be deleted.

To apply a saved options file:

1. Select the Migrator for Notes to SharePoint root node in the Console Tree.
2. Select **Action** | **Apply Saved Options...**.

   -OR-

   Select **Apply Saved Options** in the Action Pane.

   The **Apply Saved Options** dialog box opens.
3. Select an options file from the drop down list.
4. Click **OK**.

General tab

Table 2. General tab

Item	Description
Jobs Path	This is the folder where Migrator for Notes to SharePoint stores external migration job definition files. This will be the default location for importing jobs into and exporting out of the Migrator for Notes to SharePoint Console. By default, this is set to a sub-folder of your Migrator for Notes to SharePoint program folder, but you can change this to be any folder you want.
Default Definitions Path	This is the folder where Migrator for Notes to SharePoint stores all predefined Source Data Definitions and Target Data Definitions. By default, this is set to a sub-folder of your Migrator for Notes to SharePoint program folder, but you can change this to be any folder you want. For example, you may have a shared location on your network where Definitions for all the custom templates in your organization are stored.
Log File Path	This is the folder where Migrator for Notes to SharePoint stores external log files. This will be the default location for exporting log files out of the Migrator for Notes to SharePoint Console. By default, this is set to a sub-folder of your Migrator for Notes to SharePoint ***ProgramData*** folder, but you can change this to be any folder you want.
Allow Deletion of SharePoint records	Select this check box to allow Migrator for Notes to SharePoint to delete the target record when migrating the same record. This can be fine tuned at the migration job level using the If Duplicate Found option. **CAUTION: This may cause data loss.**
Configure Character Replacement List	Illegal characters are removed from documents and folder names as well as SharePoint page titles. Clicking the link opens a dialog box where you can set mappings between the illegal characters and the characters used to replace with. You can: • click a cell to enter new character. • double click a cell to edit the character. • leave the field **Replace With** blank to simply remove the corresponding illegal character. • click the first cell in a row and then click **Remove** to remove a mapping. The default replacement character is the underscore "_" which is used to replace the illegal characters not mentioned in the list.

Table 2. General tab

Item	Description
On errors handling all tasks	These check boxes indicate how you want to handle migration errors. To prompt the user with the migration error, select the **Prompt user** check box. To log the error and continue with the migration, select the **Log and continue** check box. These two options are not mutually exclusive.
Max Log Level	This is the level of logging that you want to be recorded when running migration jobs and other tasks. There are four levels of logging to choose from. • Critical - Displays general information entries plus critical entries. • Warning - Displays same information as Critical plus warning entries. • Informational - Displays same information as Warning plus informational entries. • VerboseTrace - Displays all log entries. **NOTE:** You should avoid VerboseTrace unless you really need it as this can slow down large migration jobs.

Notes tab

Table 3. Notes tab

Item	Description
Password for local Notes ID	This is the password for your local file. It will be stored in an encrypted format in the "UserOptions.config" file in the application data directory under: Quest/Migrator for Notes to SharePoint. To support Notes IDs that require more than one password, enter the passwords starting with a vertical bar character, with a vertical bar character separating each password and ending with a vertical bar character. For example: |password1|password2|password3|
Override default Notes.INI file	By default, Migrator for Notes to SharePoint will use the default Notes configuration file in use by your Notes client. In rare cases, you may wish to specify an alternate configuration file here
Configure Repository Database	This button opens the **Configure Repository Database** dialog box. This dialog box is where you define the locations of the Quest Repository database and Task History Repository database. The Quest Repository database is a Notes database where all the data for the Migrator for Notes to SharePoint Console is stored. If you kept the default settings during the installation of the console, it is `QuestRepository.nsf`. However, you can store your Task History data in a different database by specifying the database on the **Task History Repository** tab. By default, the Task History Repository database is the same as the Quest Repository one. • Database Server: Specify a local database by leaving it as `(local)`, or a remote one by entering the IP address or host name of the database server, and clicking **Select...** to select the database. **NOTE: T**he current version does not support multi-user access to the Repository database. You may use your Notes client to replicate your Repository database to a Domino server but you should not allow multiple users to update the database. A subsequent version of Migrator for Notes to SharePoint will support concurrent shared Repository usage. • Database Path: `QuestRepository.nsf` is the default value. **NOTE:** If the name or location of the Repository changes, you must restart the Console for the changes in these fields to take effect.

Table 3. Notes tab

Item	Description
Configure User/Group Resolution Server	This button opens the Configure Domino Server Location dialog box. The Domino Directory server listed here is the one used for expanding groups when generating SharePoint Groups from ACL Groups. For more information, see Migration Targets tab on page 58. To manage the servers in the list, select **Edit favorites...** from the dropdown list, and add, edit or delete a server. • Directory Server: Notes name for the server from where you would like to scan directory information
Max Group Size	This property limits all group expansion operations to those groups that are smaller than the given number. During migrations, groups that are larger than the Max Group Size will not be written to SharePoint. A warning will be written to the migration log. The default is 100.
Process internal HTTP links as DocLinks	When migrating rich text fields that contain URL links to other QuickPlace/Quickr pages or Domino web pages, Migrator for Notes to SharePoint can detect these links and convert them to use the Link Tracking Service. Select this check box to turn this feature on. When this check box is selected, the **Translations** button is active. The **Translations** button opens the Configure Link Translations dialog box. This is where you specify the URL prefixes you want to convert and from which Domino servers. **NOTE:** Enabling this feature is useful in cases where you have Notes documents that link to other Notes documents through Domino URL links rather than true Notes DocLinks. This is especially common in QuickPlace/Quickr and other web enabled Domino applications. Migrator for Notes to SharePoint will recognize URL links that start with the prefix you specify here and will attempt to locate the actual Notes document on the server you specify. If successful, Migrator for Notes to SharePoint will process the link as if it were a true Notes DocLink and make sure that it works correctly with the Link Tracking Service. **NOTE:** When performing a Doclink Scan, Quickr links are not included as Doclinks, even when this feature is enabled.
Strict data extraction	By default, Migrator for Notes to SharePoint will try to recover from certain errors while querying. If there is a problem reading an item, it will return NULL and automatically skip to the next item. If there is a problem reading a document, it will automatically skip to the next document. If you select this check box, an exception will be thrown when the first error is encountered. This may be helpful when trying to debug why certain data items were not processed.
Override default read cache size	By default Migrator for Notes to SharePoint reads up to 100 records at a time while sending data to SharePoint. In rare memory-constrained conditions, it may be helpful to override this setting to less than that (as low as 1). This may impact performance, but it will help keep the memory footprint down. To change the default size, select this check box and enter the desired size in the field to the right.
Compression Exclusions	This option allows you to specify any file extensions that should never be zipped during migration. This would typically include media files that are already well-compressed and would not benefit from zipping.

Discovery tab

NOTE: This tab is only available when you open Options from the Console.

Before you can start managing your migration process, Migrator for Notes to SharePoint must identify all of your Notes databases. The Migrator for Notes to SharePoint Console supports several modes of discovering Notes databases. Discovery occurs by reading the information in your organization's Database Catalog or Domain

Catalog or by directly scanning the Domino server folders, or both. For more information, see Database discovery on page 30. The configuration on this tab is used during the database discovery process. This tab must be filled out before you can run this process.

Table 4. Discovery tab

Item	Description
Domain/Database Catalogs	This button opens the Configure Catalog Databases dialog box. This dialog box is where you define the location of the Database Catalogs or Domain Catalogs that you want to extract information from. The number on the button shows how many catalog databases are defined. To add a catalog click **Add.** To edit, select an entry and click **Edit**. To delete, select an entry and click **Delete**. Both **Add** and **Edit** opens the Configure Catalog Database dialog box • Server: If the server is local, this can be left blank • Database: Catalog name (default is catalog.nsf) **NOTE:** Not all organizations run the Domino Cataloger process, which keeps catalog.nsf databases updated with current information. If you are not sure, simply do a direct scan instead.
Direct Server Scan Locations	This button opens the Configure Scan Locations dialog box. This dialog box is where you define the location of the servers you want scanned during the database discovery. The number on the button shows how many items are defined. To add a server click **Add.** To edit, select an entry and click **Edit**. To delete, select an entry and click **Delete.** Both **Add** and **Edit** opens the Define Scan Location dialog box • Scan Server: If the server is local, this can be left blank • Scan Path: Leave this blank if you want Migrator for Notes to SharePoint to scan the entire data directory on the specified server.
Known QuickPlace Servers	This button opens the Known QuickPlace Servers dialog box. This dialog box is where you define the QuickPlace Servers that you want analyzed during the Discover QuickPlace Organization process. For more information, see QuickPlace/Quickr discovery on page 31. To add a server click **Add** and enter the server name. To edit, select an entry and click **Edit**. To delete, select and entry and click **Delete**. To add several servers to the Known QuickPlace Servers list, copy them to your clipboard using a comma, semi colon, or a new line to separate each server name. Click the **Paste** button to copy them to the list.
Known Quickr Servers	This button opens the Known Quickr Servers dialog box. This dialog box is where you define the Quickr Servers that you want analyzed during the Discover Quickr Organization process. For more information, see Domino.Doc discovery on page 32. To add a server click **Add** and enter the server name. To edit, select an entry and click **Edit**. To delete, select and entry and click **Delete**. To add several servers to the Known Quickr Servers list, copy them to your clipboard using a coma, semi colon or a new line to separate each server name. Click the **Paste** button to copy them to the list
Known Domino.Doc Servers	This button opens the Known Domino.Doc Servers dialog box. This dialog box is where you define the Domino.Doc Servers that you want analyzed during the Discover Domino.Doc Organization process. For more information, see Domino.Doc discovery on page 32. To add a server click **Add** and enter the server name. To edit, select an entry and click **Edit**. To delete, select and entry and click **Delete**. To add several servers to the Known Domino.Doc Servers list, copy them to your clipboard using a coma, semi colon or a new line to separate each server name. Click the **Paste** button to copy them to the list.

Table 4. Discovery tab

Item	Description
Excluded User Names	This button opens the Excluded User Names dialog box. Add any user names that you do not want taken into account during any of the analysis (for example: You might not want the Administrator sessions or updates by scheduled Server agents taken into account when reporting on how frequently a database is used). The number on the button shows how many user names are defined. To add an excluded user, click **Add** and enter the user name. To edit, select an entry and click **Edit**. To delete, select and entry and click **Delete**. To add several users to the Excluded User Names list, copy them to your clipboard using a coma, semi colon or a new line to separate each user name. Click the **Paste** button to copy them to the list. If you change the excluded user list after doing a data scan, you can use the Recompute database details action to update the data in the Console without having to re-scan the Notes database.
Preferred Notes Servers	This button opens the Preferred Notes Servers dialog box. This dialog box is where you add the servers that you want in the Preferred list. The Preferred list determines which replica is chosen to be displayed on the Unique Replicas view in the case where the discovery process has discovered multiple replicas of the same database on different servers. The number on the button shows how many servers are defined. To add a server click **Add** and enter the server name. To edit, select an entry and click **Edit**. To delete, select and entry and click **Delete**. To add several servers to the Preferred Notes Servers list, copy them to your clipboard using a coma, semi colon or a new line to separate each server name. Click the **Paste** button to copy them to the list.
Domino Directory Servers	This button opens the Domino Directory Servers dialog box. This is where you define the servers used by the Discover Directory Entries process. This process scans Domino Directories to collect additional information about the Notes databases in your environment. In particular, it detects when databases are configured as Mail-in databases (that is, they have addresses that users can send mail to). The number on the button shows how many servers are defined. To add a server, click **Add** and enter the server name. To edit, select an entry and click **Edit**. To delete, select and entry and click **Delete**.

Analysis tab

NOTE: This tab is only available when you open Options from the Console.

The upper half of the Analysis tab stores the global option for picking which algorithms you want to use for automatically assigning database complexities. The following example says that we will use a weighted mix of Data Complexity (50%) and Design Complexity (100%) to compute the overall complexity recommendation. The database's overall complexity recommendation is found in the Complexity tab of the Database Properties.

Table 5. Analysis tab

Item	Description
Effort estimation units label	Controls what units should be displayed on the estimation tab of Database properties and Class rules.
Analysis time limit per database	Sets a limit for how much time Migrator for Notes to SharePoint will spend analyzing one database. If this time is exceeded, the scan will stop and an exception will occur. If you have Migrator for Notes to SharePoint set to log exceptions without interruption, it will immediately move on to the next database.

Table 5. Analysis tab

Item	Description
Cache Database Script	Allows you to cache database scripts to the path *<MNSP_Home>\ScriptScan*. When this option is checked, MNSP caches the scripts from an existing DXL file, instead of reading source Notes database and creating new scripts.
Local Design Copies Folder	Defines where the database design copy is stored. For information on created a design copy, see the Analyze databases action.

Console tab

NOTE: This tab is only available when you open Options from the Console.

Table 6. Console tab

Item	Description
Global Exclusions	During the discovery processes, certain information may be immediately excluded based on the configured Exclusion and Filtering rules defined in this tab. Setting Global exclusions will prevent certain information from being loaded into memory and may result in better performance. • **Servers:** This is where you specify servers to exclude. • **Database Classes:** This is where you specify database classes to exclude. For more information, see Notes databases on page 35. • **Template Names:** This is where you specify template names to exclude. • **Categories:** This is where you specify categories to exclude. • **File Names:** This is where you specify file names to exclude. • **Folders:** This is where you specify folders to exclude. To add several values to one of the above exclusion lists, copy the values to your clipboard using a coma, semi colon or a new line to separate each value. Click the **Paste** button to copy them to the exclusion list.
Automatically set Migration Status fields as console operations are performed	For each of the below tasks that are checked, Migrator for Notes to SharePoint can automatically set a database's status of the task to complete as it completes the task for the database. • Design Analyzed • Data Analyzed • Targets Identified • Migration Jobs Assigned • Content Migrated

Table 6. Console tab

Item	Description
Edit the list of Database Disposition choices	The disposition of a database indicates what you want to do with the database in the migration process (for example, 'Migrate to standard SharePoint targets' or 'End-of-life'). The database's disposition is set in the Migration Status tab of the database properties. To edit the list of available database dispositions for a database, select the Database Disposition button to open the Database Disposition dialog box. To create a new disposition, click **Add**. To edit an existing disposition, select the disposition from the list and click **Edit**. To delete an existing disposition, select the disposition from the list and click **Delete**. **NOTE:** Migrator for Notes to SharePoint does not take the indicated actions, such as deleting the database, for you automatically. Rather the decisions you make about each database are recorded and may be used for reporting, filtering and data export.
Limit console reports to this number of databases	Set this higher or lower to limit the number of databases processed by the console reports. This is a global default for all reports but individual reports may be customized to increase this limit.This value helps prevent the console from exhausting the available memory while rendering complex reports against a large number of databases. The default is *50,000*. Choosing a value of *0*, requires each report definition to be customized with its own upper limit before it will render any result.

SharePoint tab

The SharePoint tab is where you can define your target SharePoint sites and how you want Migrator for Notes to SharePoint to connect to them. Migrator for Notes to SharePoint is capable of migrating to local (same machine) or remote SharePoint servers.

Table 7. SharePoint tab

Item	Description
Name	The Name field is used to distinguish between defined SharePoint environments if you have enabled and defined more than one environment. To define more than the standard default, select the **Enable multiple SharePoint environments** check box.
Type	Use the **Type** dropdown to control the mode of operation. The **Type** dropdown has the following options: • **SharePoint servers using Quest Import Service** - Use this option for migrations to a remote SharePoint server that is running the Quest Import Service. • **SharePoint web services (Classic Mode Authentication)** - Use this option for migrations to a remote SharePoint 2013, 2016, 2019 server or 2021 Server Subscription Edition using Microsoft Web Services rather than the Quest Import Service. • **SharePoint web services (Forms-Based Authentication)**- Use this option for migrations to a remote SharePoint 2013, 2016, 2019 server or 2021 Server Subscription Edition using Microsoft Web Services using forms based authentication. • **SharePoint web services (Office 365 Authentication)** - Use this option to migrate to Office 365 SharePoint sites using Microsoft's Windows Identity Foundation. Microsoft's Windows Identity Foundation must be installed on the client in order to use the *Office 365 Authentication* environment type. • **SharePoint API services (SingleSignOn-OAuth Authentication)** - Use this option to migrate to SharePoint sites using SingleSignOn OAuth authentication. The customer needs to provide credentials in Microsoft login pop-up only once when using this option. **NOTE**: User must check TLS1.3 option in settings window. **NOTE:** You can use the *Forms-Based Authentication* environment type to access Office 365 SharePoint sites. The advantage of using the *Office 365 Authentication* environment type is that Migrator for Notes to SharePoint can authenticate with SharePoint without user intervention. **NOTE:** If you are using Quest Import Service, the version of Quest Import Service should be the same as or greater than the version of the Migrator for Notes to SharePoint client. **NOTE:** If you are using Microsoft Web Services, you must use the client for User and Group Mapping. For more information, see User Mapping tab on page 25, and Group Mapping tab on page 27.

Table 7. SharePoint tab

Item	Description
Settings	Click this button to define options for your SharePoint environment. The general options are: • **Use TLS 1.3 -** Select this check box to connect to SharePoint sites using the TLS 1.3 protocol. • **Enable the Quest Link Tracking Service** - Select this check box to use the Link Tracking Service. The options for environments using the Microsoft Web Services are: • **SharePoint Online throttling** - Specify a value in **Incremental back off uses x seconds between retries to avoid getting throttled** to set the time waited after receiving a 429 web exception from SharePoint, before retrying the migration. Specify a value in **Retries x times before reporting throttled error** to set the number of times the migration will be retried. The delay time doubles with each retry. For example, if you set 30 seconds and 5 retries, the delay between retries will be 30, 60, 120, 240, and 480 seconds. If migration is not successful after the last retry, throttling is reported. • **Refresh cookies x minutes before they are due to expire** - Connections to SharePoint sites using Forms Based Authentication will automatically renew cookies as needed during long migration jobs and other operations. The tool will routinely check the expiration time of the authentication tokens that it holds for the client and, if a token is due expire within this specified time limit, it will force a new authentication. The time limit defaults to 30 minutes. Depending on your particular authentication system, this may appear to the user as a browser prompt forcing the user to re-authenticate. In other cases, it may appear as a browser that opens briefly and then closes again. • **Force cookies to expire x minutes after they are acquired** - For SharePoint sites using Forms Based Authentication where the cookies are issued by authentication providers other than SharePoint, Migrator for Notes to SharePoint is unable to determine the expiration of the cookies. This option allows Migrator for Notes to SharePoint to manage the expiration. • **Cache authentication cookies in configuration file -** Select this check box to cache the authentication cookies in the configuration file. If you choose to not cache the authentication cookies, Migrator for Notes to SharePoint will re-authenticate to get new cookies every time Migrator for Notes to SharePoint is restarted. If you are using forms-based authentication, you will have to manually sign in each time. • **Azure Storage Account Settings -** Check **Enable Azure Turbo Mode** to use the SharePoint Online Migration API to perform migrations to Office 365. Azure Turbo mode significantly improves migration speed for large migrations. You must supply an Azure Storage Account name and Access Key, where migrated data is stored temporarily. If you are migrating confidential information, check **Encrypt Content** for extra protection at a small performance cost. You can also set a timeout interval for the migration job by the option **Stop migration import job after …**. Leaving the field empty means no timeout. The Azure option is available for Office 365, and SharePoint Online using Form Based Authentication. The options for environments using the Quest Import Service are: • **Perform user/group mapping operations on the client** - To have the client (Console or Designer) rather than the Import Service perform the user and group mapping operations, select this check box. When selected, the options configured in the User Mapping tab and Group Mapping tab will be used rather than the options found on the Migrator for Notes to SharePoint Services configuration page on the SharePoint server.

Table 7. SharePoint tab

Item	Description
Settings (continued)	• **Use shared folder for transferring data** - If you do not wish to use the shared folder as a means of transferring data even though a shared folder has been configured on the server, do not select this check box. For more information on the shared folder, see the Configuring Migrator for Notes to SharePoint Services section of the Migrator for Notes to SharePoint Installation Guide. This check box is only enabled if Remote SharePoint connections are enabled. Unchecking this check box will force the client to transmit the data as encrypted bits. Checking this check box will have no effect if a shared folder has not been configured on the server. • **Update managed metadata field using web service** - Select this checkbox if you get an “Access is denied” error while migrating to a SharePoint List with Managed Metadata field using Import Service, and the Import Service and SharePoint are running under different accounts. **NOTE:** You do not have to select this check box if your migration to the Managed Metadata field is successful. • **Perform direct writes to the Link Tracking database from clients** - To have the client rather than the Import Service perform the updates to the Link Tracking database, select this check box. When this is selected, the options configured in the Link Tracking tab will be used rather than the options found on the Migrator for Notes to SharePoint Services configuration page on the SharePoint server.
Credentials	Click the **Credentials** link to enter your SharePoint user name and password. **NOTE:** For the Forms Based authentication Type, the Credentials link is not active until you click **Add** to add the SharePoint site URL to the SharePoint Site Collections list. For all other Types, the Credentials link is active right away. If you are using single sign-on and want to use Windows authentication in Migrator for Notes to SharePoint to be able to authenticate with Office 365, select the **Use Windows authentication** radio button. • **Home Realm** - Enter the Active Directory Federation Services (ADFS) Federation Service endpoint URL. This should be the same host name that you are using in the "whr" parameter in your single sign-on SharePoint URLs. • **STS application pool identity** - Enter the name of the identity that is being used by the ADFS application pool. It should be in the form of “domain\username”. • **Internal Site** - To migrate to the public facing website, enter one of your internal site collection URLs in this field.

Table 7. SharePoint tab

Item	Description
Configure SharePoint Site Collections	Click the **Add** button to add your particular SharePoint site URL to the SharePoint Site Collections list and test connectivity to those sites. Note that you do not need to specify each sub-site here; Migrator for Notes to SharePoint can discover those automatically. To add a site, enter the site URL, including "http://" or "https://", and click **OK** in the **Add SharePoint Site** dialog box. To add your login credentials, click the 'Credentials' link. If you are authenticating using Forms Based Authentication, the credentials link works a little differently. Click the 'Not authenticated' link to display the sites configured login screen. Migrator for Notes to SharePoint saves the resulting authentication as long as possible and then re-prompt the user when appropriate. To test a site, select it and click the **Test Connections** link. • Can you access the site with the address and credentials you supplied? If this test fails, correct your address and credentials and try again. • Is the site you specified enabled to allow remote import of documents? This requires that Migrator for Notes to SharePoint's Import Service is installed on the remote server and is enabled and configured for that particular site. • Can you connect to the Migrator for Notes to SharePoint Import Service? If this test fails, make sure that the Import Service is running and that the service address and endpoint are correctly configured for that particular site. Also, check that the host name and port number being used by the Import Service is not being blocked by a firewall on the client or server. **NOTE:** There are valid cases where only test #1 above will succeed. In particular, your organization may have selected the "Install on separate Import and Export machines" deployment option (see the Installation Requirements section of the Migrator for Notes to SharePoint Installation Guide) and would not have installed Migrator for Notes to SharePoint Import Services on the target SharePoint server. In this case, tests #2 and #3 will fail, as shown below. You will still be able to connect to the SharePoint server while designing your migration jobs and you will be able to export extracted data to intermediate files.
Enable multiple SharePoint environments	In order to maintain multiple SharePoint environments in Migrator for Notes to SharePoint, select this check box. If this is checked, then the options on the tab are replaced with an Environment list that allows you to define more than one environment, each one having its own above set of options. To add an environment click **Add**. An environment is a set of options particular to a SharePoint site, or set of sites. It is the following subset of options: • Connection type • Authentication method and credentials • List of top level site connections • Options for client-side user mapping and link tracking If you have multiple SharePoint servers that need different options, using this feature allows you to save these options and use them as needed. At migration/provisioning time, the appropriate environment should be selected (and logged) automatically for that target site.
Blocked Files	Click the **Blocked Files** button to configure the maximum allowed file size property and define the list of disallowed file extensions. These settings will be used at Analysis time to report on which databases have blocked files and oversized attachments. They will also be used at migration time to improve performance and memory utilization by not extracting such files from the Notes databases and not sending them to SharePoint. From the Configure Blocked Files dialog box, you can add your own blocked file extension list or use the list from SharePoint by clicking the **Set to SharePoint defaults** link.

SQL Server tab

Migration of data directly to a SQL Server database can be turned on and configured from this tab.

Table 8. SQL Server tab

Item	Description
Preferred Servers List	This button opens the Preferred SQL Server Instances dialog box where you add the SQL Server instances that you want available in the migration target server list. The migration target server list will display the instances in the same order as they appear in this dialog box. Make sure that the server you will be migrating to the most often appears at the top. The number on the button shows how many servers are defined. To add a server click **Add** and enter the server name. To edit, select an entry and click **Edit**. To delete, select and entry and click **Delete**. Click **OK** to save changes. To add several servers at once, copy them to your clipboard using a coma, semi colon, or a new line to separate each server name. Click the **Paste** button to copy them to the list.
Enable migration directly to SQL Server tables	Select this check box to enable migration directly to your SQL Servers. When you select this check box from Designer, SQL Server becomes available in the Type dropdown.
SQL Server Authentication Options	Enter the credentials for your primary SQL Server database. At the time of migration, this information can be changed depending on which SQL Server database you have selected as the migration target.
Link Tracking Options	To use link tracking for your migrated SQL Server data, check the Enable Link Tracking for SQL Server records check box. Enter the Link Redirector Url you want to use with the content being migrated to SQL Server. The Database Settings link will take you to the Link Tracking tab where you can edit the Link Tracking database information.
User/Group Mapping Options	To perform mappings using the client rather than the server, select this check box. The Mapping Options link will take you to the User Mapping tab where you can edit the user mapping information.

Folder tab

This tab allows you to enter a root folder to which to migrate data.

Table 9. Folder tab

Item	Description
Link Tracking Options	To use link tracking for your migrated data, check the Enable Link Tracking for files check box. Enter the root folder you want to use with the migrated content. The Database Settings link will take you to the Link Tracking tab where you can edit the Link Tracking database information.

User Mapping tab

The information on this tab is used only when user mapping is performed on the client. If the mapping is to be performed remotely by the Import Service, the user mapping settings defined on the Migrator for Notes to SharePoint configuration page of the SharePoint Server will be used.

SharePoint tracks "users" as numeric indexes into the SharePoint Site Collection Users list. When using the "Preserve Created/Modified Identities" option in your Job Definition, or when migrating a Notes name field to a SharePoint User field, Migrator for Notes to SharePoint maps Notes names to Site Collection User identities based on the configured rules.

Table 10. User Mapping tab

Item	Description
Input Translation	Allows you to specify a translation option if your input data (from Notes) is in one format and your XML mapping file or ADSI query is using a different format.
Mapping Notes Names to Site Collection Users	• **Treat input as Login Name** - The input data provided must equate to a valid Windows login name. Simple name translations are provided (for example, reformat the Notes name “Joe Cool/NMSP” to “NMSP\Joe Cool". • **Use Domino Directory Lookup** - This option performs a directory search on the designated Domino server and includes all address book databases that are configured to be part of the server’s directory. **Server Name:** The Domino server to search. Leave blank to search the local address book. **View Name:** The view to search in each configured directory database, which should be indexed such that it is sorted by the Notes user name. (The $Users view in standard address book databases do this by default, but you may also specify a customized view to use.) **Item Name:** The item that stores the Domain name (typically an Active Directory name) that is used for logging into SharePoint. • **Use Notes Database Lookup** - This option performs a lookup in the selected Notes database. **Server Name:** The Domino server to search. Leave blank to search a local database book. **Database Name:** The database to search. **View Name:** The view to search in the database, which should be indexed such that it is sorted by the Notes user name. **Item Name:** The item that stores the Domain name (typically an Active Directory name) used for logging into SharePoint. • **Use ADSI/LDAP Lookup** - Use the input data (most likely the Notes Name) as the basis for an Active Directory (or other LDAP) lookup to find the correct Windows login name. **ADSI path:** Specify the path to the Active Directory (or other LDAP) server that contains the user mappings. You can actually use any ADSI path here including "GC://" for the global catalog and "WinNT://" for the local metabase. **Query String:** Specify a valid query string for finding the user based on the Notes Name. For example, if your policy is to store the Notes Name in the Description field of Person records in Active Directory, you might specify "(&(ObjectClass=Person)(description={0}))" as the Query String. The {0} part is replaced with a formatted version of the Notes Name and the entire Query issent to the directory server. For example, if the Person has a field called "distinguishedName" and was formatted as Windows names (like "PROD\Joe Smith"), then you would use a query like: (&(ObjectClass=Person)(distinguishedName={0})) **Field to use**: Indicates the field to use in the directory lookup. By default, the ‘distinguishedName’ property is used. This should work in most cases, especially when the directory you are querying is the same one SharePoint uses. In rare cases, this name will not work. If there is a different directory property (other than ‘distinguishedName’) that contains a more useful version of the name that would work in SharePoint, use this field to indicate the different property. **ADSI login name** and **ADSI password:** Specify authentication credentials.

Table 10. User Mapping tab

Item	Description
	• **Use Text File Lookup** - Use the input data (most likely the Notes Name) as the basis for a lookup in an XML or comma-delimited text file to find the correct Windows login name. In practice, most organizations that have both Notes and Active directory will have the mapping of names stored somewhere and it is usually a simple matter to write a script to generate a simple mapping file. You can use the Extract database users tool to automatically generate this lookup file for your users in one or more Notes databases. **Format**: The mapping file can be formatted as an XML file or a Comma Delimited file. An example of each format is shown below: <?xml version="1.0" encoding="utf-8"?> <identityMappings> <userMappings> <user notes="Joe Cool/NMSP" sharePoint="NMSP\jcool"/> <user notes="Mike Mulligan/NMSPTest" sharePoint="BUNTING\mike"/> </userMappings> <groupMappings> <group notes="QuickPlaceAdministratorsSUGroup" sharePoint="BUILTIN\Administrators"/> <group notes="Authorized Users" sharePoint="NMSP\Team 101"/> </groupMappings> </identityMappings> Joe Cool/NMSP, NMSP\jcool Max Smart/NMSP, BUNTING\mike **Path**: The location of the mapping file. **NOTE:** If you have non-ascii characters in your user data, you need to specify the encoding in your XML declaration and save the user mapping file with that encoding, for example UTF-8.
Output Translation	Allows you to define a string to format the output of the user mapping. In the string, "{0}" represents the output of the user mapping. If you want to add "prod\" to each of the mapped names, enter *prod\{0} as* the format string. For example, you have a test domain and a production domain in which all of the user logins are the same (except for the domain name). You want to create one XML mapping file that contains just the user logins, and add in the appropriate domain name (depending on which domain they were currently migrating to) using their user mapping options. To test each of the mapping modes, click the **Test User Mapping** link. Type in a test Notes name and click **Lookup**. The resulting mapped user name appears in the After Name Translation and After Name Lookup fields. Click V**alidate in SharePoint** to resolve the name that your configured mapping process produces. This capability is only available when using client-side user mapping and not when configuring server-side mapping in the Import Service. **NOTE:** If connecting to remote SharePoint servers, the User Mapping functions are controlled at the server and the options are disabled at the client. **NOTE:** A good way to understand the steps that Migrator for Notes to SharePoint goes through when mapping user names is to turn on Verbose logging and see what happens.

Group Mapping tab

The information on this tab is used only when group mapping is performed on the client. If the mapping is to be performed remotely by the Import Service, the group mapping settings defined on the Migrator for Notes to SharePoint configuration page of the SharePoint Server will be used.

In addition to the User Mappings, there are several options for mapping Notes Group names to Domain group names (typically Active Directory group names) for use in SharePoint. This translation may occur in several scenarios:

- Translating a Group listed in a Notes database Access Control List (ACL) so the equivalent Domain group can be granted access to a SharePoint list or library.
- Translating a Group listed in a Notes database Access Control List (ACL) that is a member of a Notes Role so the equivalent Domain group can be added to the new SharePoint Site Group that corresponds to that Role.
- Translating a Group listed in a Notes document reader/writer field so the equivalent Domain group can be granted access to a SharePoint list or library.

As with the User Mapping function, Migrator for Notes to SharePoint gives you several choices as to how the mapping occurs. Each of the options shown here work exactly like the corresponding User Mapping options.

NOTE: If you have non-ascii characters in your user data, you need to specify the encoding in your XML declaration and save the user mapping file with that encoding, for example UTF-8.

Link Tracking tab

The Link Tracking Service allows Notes DocLinks to be migrated as dynamic links instead of direct links. As you click dynamic links, they are automatically redirected to the current location of the target document, regardless if it has been migrated or not.

To enable link tracking, select the **Enable the Quest Link Tracking Service** check box. You can also perform the Link Tracking Finalizer/Updater operations from the Console rather than from the Migrator for Notes to SharePoint Services configuration page.

NOTE: Performing the Link Tracking Finalizer/Updater operations from the Console is the preferred way since it is faster and more user friendly.

The following Link Tracking settings are now available:

- **Server** – The SQL Server instance that contains the Link Tracking database.
- **Database** – The SQL Server name for the Link Tracking database.
- **Execution time-out** – The maximum time in seconds the Link Tracking Service is allowed to run. The default value is `30`. For no time limit, set it to `0`.
- **Authentication** – The credentials that the client should use when accessing the Link Tracking database. This can be your Window's account, a different user's Window's account, or your SQL Server login.
- **Test Connection** - Click on this button to verify your settings.
- **Use default Redirector URL**– Link Tracking for SharePoint migrations will use the default redirector page.
- **User Defined Redirection URL** – This option allows you to define your own user defined redirection URLs if you want the redirection to be handled in some other way.

NOTE: Be sure to use the same values for the Link Tracking database as those that were entered for Link Tracking in the Migrator for Notes to SharePoint Services configuration page. These values were initially set by the Migrator for Notes to SharePoint Services installer but may have been overridden in the Services configuration page.

Publish Status tab

Select the Enable publishing migration status to SharePoint check box to record the migration progress to a SharePoint list.

Table 11. Publish Status tab

Item	Description
Type	Allows you to select a SharePoint site which will publish the report list: • **SharePoint servers using Quest Import Service** - Use this option for migrations to a remote SharePoint server that is running the Quest Import Service. • **SharePoint web services (Classic Mode Authentication)** - Use this option for migrations to a remote SharePoint 2013, 2016, 2019 server or 2021 Server Subscription Edition using Microsoft Web Services rather than the Quest Import Service. • **SharePoint web services (Office 365 Authentication)** - Use this option to migrate to Office 365 SharePoint sites using Microsoft's Windows Identity Foundation. Microsoft's Windows Identity Foundation must be installed on the client in order to use the *Office 365 Authentication* environment type.
Site Url	Allows to enter the SharePoint site URL
List name	Allows you to enter the name of a report list to record the full migration progress. The report list includes: • Job Name - the job name of the migration. If there is no job name, the default name would be Migration Job_XXX (XXX is the time when it is created) • Status - the status of the migration; can be either InProgress, Complete, Canceled, Stopped, Suspended • Source Type - the type of the source, such as Notes, Domino.Doc. • Migration Mode - the mode of migration such as WebServices, ImportService • Source Documents - the number of source documents • Processed Documents - the number of processed documents • Migrated Items (including attachments) - the number of migrated Items including attachments • Warnings - the number of warnings during migration • Errors - the number of errors during migration • Accepted - preserved field for customers. Default value is No. • Target List - the target list name with link to the list • Target Definition - the target definition, such as PDF Documents, Wiki Pages • Last Error - the detailed information of the last error • Created - shows the time the item was created and the when the migration started • Modified - the date and time the item was last updated. The list will be sorted by this field in descending order by default.
List name (Brief info)	Allows you to enter the name of a report list to record a summary of the migration progress. • Job Name - the job name of the migration. If there is no job name, the default name would be Migration Job_XXX (XXX is the time when it is created) • Records Read - the number of the documents that are read • Records Written - the number of the documents that are written • Warnings - the number of warnings during migration • Errors - the number of errors during migration • Start - when the migration started • Stop - when the migration stopped • Run By - the name of the user who started the migration • Database - the name of the database that was migrated (for Lotus Notes only) • Target - the name of the target with link • Replica Id - the unique ID of Notes database

Table 11. Publish Status tab

Item	Description
Credential	Allows you to enter your SharePoint user name and password. If you are using single sign-on and want to use Windows authentication in Migrator for Notes to SharePoint to be able to authenticate with Office 365, select the **Use Windows authentication** radio button.
Update migration status every X minutes	Allows you to enter an interval to update the migration report. **NOTE:** If the status changes, the report is immediately updated.

Notification tab

Migrator for Notes to SharePoint can be configured to send a notification email after the migration jobs have been completed. The notification email includes the following information:

- **Job**: Job name.
- **Status**: The job status after migration.
- **Documents Read**: The number of documents read during the migration.
- **Documents Written**: The number of documents written during the migration.
- **Error**: The number of errors occurred during the migration.
- **Warning**: The number of warnings occurred during the migration.

To send the notification email, select the check box **Send email after migration has finished** first, and then fill in the fields on this tab for the mail settings and recipients.

Once you complete the mail settings, you can send a notification email for test. To do so, click **Test**, then fill in the **Recipient** field with one or more email addresses (separated by semicolon) to receive the test email, and click **Send Now**.

Database discovery

Before you can start managing your migration process, Migrator for Notes to SharePoint must identify all of your Notes databases. The Migrator for Notes to SharePoint Console supports several modes of discovering Notes databases. Discovery occurs by reading the information collected by the Domino Cataloger process or by directly scanning the Domino server folders, or both. If your organization maintains a Database Catalog or Domain Catalog, that is a great place to start for quick discovery of all your databases. If not, a direct scan works just as well (although it will not be quite as fast and is subject to the access rights of the person performing the discovery).

During the discovery process, certain information may be immediately excluded based on the configured Exclusion and Filtering rules defined in the Console tab of the Configuration dialog box.

Also during the discovery process, Database Classes are assigned according to your configured Classification Rules. For more information, see Notes databases on page 35.

The actual discovery process is initiated by the user. All discovered information is stored as part of the database record in the Repository database and is viewable in database views and the database property sheets.

NOTE: This level of discovery should not be confused with the deeper (and more expensive) data and design scans offered. It includes high level properties that might be found in the standard Notes domain catalog (General, Location, Statistics, User Activity, User Access).

Once you have filled out the Discovery tab in the Configuration dialog box, you can run the Database Discovery process.

To discover databases

1. From the Migrator for Notes to SharePoint Console, select the root node, Migrator for Notes to SharePoint.
2. Select **Action** | **Discover Databases**.

You can also select the **Discover Databases** action in the Action Pane or the context menu. The Database Discovery Options dialog box will appear.

This dialog box is where you specify:

- **Discover from known server locations** - Select the check boxes for all the servers that you want to run this process for. You can click the **Select All** link to select all check boxes. To deselect all of the check boxes, click the **select none** link.
- **Discover from known database/domain catalogs** - Select the check boxes for all the database/domain catalogs for which you want to run this process. You can click the S**elect All** link to select all of the check boxes. To deselect all of the check boxes, click the **Select None** link.

  NOTE: To scan all the listed servers/databases, click the **Select All** link.

  To scan a specific database on a server, click the **Select individual database** link. This will open the **Select Database** dialog box. Select the server and database path that you want to run the discovery scan on. To browse all the databases on the server, click the **Select** button. Once the server and database path are specified, click **OK** to run the database discovery process.

  To add another server location to the list, click the **Manage Locations** link. This will open the **Configure Scan Locations** dialog box. To add another server, click the **Add** button. These newly defined servers will be added to the list of servers to run the discover process against once **OK** is clicked.

- Scan database headers - Select this check box to run a scan of the usage history on the selected databases. This will produce detailed usage information like database size, number of reads, writes and uses by user and by form used. To exclude certain users from this analysis, see Excluded User Names on page 18. You can view these results in the Usage Analysis tab of the Database Property sheet. This action is also available as a button on the Usage Analysis tab of the Database property sheet.
- **Run task in background** - Select this check box to run the process in the background. The process will be displayed as a task under the Task history node of the console. Open the task to view the results of the process as well as any errors or warnings. If this option is not selected, the process will run in the foreground. For more information, see General rules for running tasks on page 85. Click **OK** to run the process. As databases are discovered, they will appear in the appropriate database views. For more information, see Notes databases on page 35.

QuickPlace/Quickr discovery

The QuickPlace/Quickr Discovery process browses the configured QuickPlace/Quickr servers and determines how the various databases used to implement QuickPlace/Quickr sites relate to one another and what roles they play in the QuickPlace/Quickr application abstraction (sites -> rooms -> sub-rooms). The discovery process also reads the QuickPlace/Quickr room menu to rebuild the SharePoint Quick Launch menu to mirror it during migration. During the discovery process, certain information can be excluded based on the configured Exclusion and Filtering rules defined in the Console tab of the Configuration dialog box.

The result of this process updates the Application information stored under the Applications node of the Console.

To discover QuickPlace/Quickr servers

1. From the Migrator for Notes to SharePoint Console, right-click **Migrator for Notes to SharePoint**, then select **Discover QuickPlace Organization** or **Discover Quickr Organization.**
2. Select the check boxes for all the QuickPlace/Quickr servers or places for which you want to run the process. You can click **Select All** to select all of the check boxes. To clear all of the check boxes, click **Select None**.

To add another server to the list

1 Click **Manage Lists**.

The **Known QuickPlace Servers** or **Known Quickr Servers** dialog box opens.

2 Click **Add**, enter a server name, and click **OK**.

These newly defined servers are added to the list of servers to run the discover process against.

To run tasks in background

- Select the **Run Tasks in the background** check box, and click **OK**.

  The process is displayed as a task under the Task history node of the console. Open the task to view the results of the process as well as any errors or warnings. If this option is not selected, the process runs in the foreground. For more information, see General rules for running tasks on page 85.

Domino.Doc discovery

The Domino.Doc Discovery process browses the configured Domino.Doc servers and determines how the various databases used to implement Domino.Doc libraries relate to one another and what roles they play in the Domino.Doc application abstraction (libraries -> cabinets -> binders). During discovery, certain information can be excluded based on the configured Exclusion and Filtering rules defined in the Console tab of the Configuration dialog box.

The result of this process updates the Application information stored under the Applications node of the Console.

To discover Domino.doc servers

1 From the Migrator for Notes to SharePoint Console, right-click **Migrator for Notes to SharePoint**, then select **Discover Domino.doc Organization**.

The Domino.doc Discovery Options dialog box appears. This dialog box is where you specify which Domino.doc servers to run the discovery against.

2 Select the check boxes for all the Domino.doc servers or places for which you want to run the process. You can click **Select All** to select all of the check boxes. To clear all of the check boxes, click **Select None**.

To add another server to the list

1 Click **Manage Lists**.

The **Known Domino.doc Servers** dialog box opens.

2 Click **Add**, enter a server name, and click **OK**.

These newly defined servers are added to the list of servers to run the discover process against.

To run tasks in background

- Select the **Run Tasks in the background** check box, and click **OK**.

  The process is displayed as a task under the Task history node of the console. Open the task to view the results of the process as well as any errors or warnings. If this option is not selected, the process runs in the foreground. For more information, see General rules for running tasks on page 85.

Discover directory entries

The Discover Directory Entries process scans Domino Directories to collect additional information about the Notes databases in your environment. In particular, it detects when databases are configured as Mail-in databases (that is, they have addresses that users can send mail to).

The result of this process updates the following database properties for the databases that are configured as mail-in databases:

- Mail Name – the name users can send mail to
- Mail Domain – the domain users can send mail to
- Mail Type – “Database” for normal mail-in databases or “Resource” for resource reservation request databases
- Mail Description – Full description of the mail-in database (if any)

To discover directory entities

1. From the Migrator for Notes to SharePoint Console, right-click **Migrator for Notes to SharePoint**, then select **Discover Directory Entities**.

   The Directory Discovery Options dialog box appears. This dialog box is where you specify which entities to run the discovery against.

2. Select the check boxes for all the servers or places for which you want to run the process. You can click **Select All** to select all of the check boxes. To clear all of the check boxes, click **Select None**.

To add another server to the list

1. Click **Manage Lists**.

   The **Preferred Notes Servers** dialog box opens.

2. Click **Add**, enter a server name, and click **OK**.

   These newly defined servers are added to the list of servers to run the discover process against.

To run tasks in background

- Select the **Run Tasks in the background** check box, and click **OK**.

  The process is displayed as a task under the Task history node of the console. Open the task to view the results of the process as well as any errors or warnings. If this option is not selected, the process runs in the foreground. For more information, see General rules for running tasks on page 85.

Import database records

The Import Database Records tool reads records from a CSV file and updates values in certain Quest Repository database records. The tool is available only on the main Migrator for Notes to SharePoint node.

To import database records

1. From the Migrator for Notes to SharePoint Console, right-click **Migrator for Notes to SharePoint**, then select **Import Database Records**.
2. Select a CSV file that contains the records you want to import.

   Then the Import Database Records dialog box appears.

3. Map the data from the file to the corresponding columns in the Quest Repository. For each column in the CSV file, choose one of the available database record properties to which to map it. If your file does not have a header row, do not select the **Treat first row as column headers** check box.

This tool can be used to update existing records, or add new ones. There are several methods that you can choose from for associating an input record with existing database records:

- Server and File Path
- Server and Replica ID
- Replica ID only

- Database Key

Depending on what options are selected, you can map additional fields. If you have not done this, a warning message appear sand the OK button is disabled.

When setting values, the related "Locked" flag is set.

Log file entries clearly indicate which databases were updated, added or not found.

Currently, the following database properties are available for mapping:

- Server
- Replica ID
- File Path
- Database Key
- Title
- Technical Class
- Technical Class Comments
- Business Class
- Database Owner
- Business Owner
- Analysis Priority
- Analysis Responsible
- Migration Priority
- Migration Responsible
- Disposition
- Disposition Comments
- Design Analyzed
- Data Analyzed
- Targets Identified
- Targets Provisioned
- Targets Finalized
- Jobs Assigned
- Jobs Finalized
- Content Migrated
- Migration Verified
- Target Site
- Complexity
- Effort Analysis
- Effort Targets
- Effort Jobs
- Effort Content
- Effort Testing
- Base Effort Analysis
- Base Effort Targets

- Base Effort Jobs
- Base Effort Content
- Base Effort Testing
- Effort Is Incremental

NOTE: If the column names match exactly, the mapped database property field pre-populates.

Notes databases

The **Notes Databases** Console Tree node allows you to view and act upon all the Notes databases that were identified during the Database Discovery process. The nodes below this node provide different filters of the databases.

Table 12. Notes databases

Property	Description
All Databases And Templates	Select this node to view all databases and templates in the center pane.
All Databases	Select this node to view the list of all databases in the center pane
Unique Replicas	Select this node to view just the unique database replicas in the center pane. In cases where you have multiple replicas of the same database (that is, they have the same Replica ID) only one representative of the database will appear in the view. The ordering of databases in your Preferred Server list will determine which replica is selected.
By Disposition	This tree node allows you to navigate the databases by the database dispositions as defined in the Migration Status tab of the database properties. In cases where you have multiple replicas of the same database (that is, they have the same Replica ID) only one representative of the database will appear in the view. The ordering of databases in your Preferred Server list will determine which replica is selected.
By Server	This tree node allows you to navigate the databases by the known servers hierarchically
By Technical Class	This tree node allows you to navigate the databases by their technical classes. In cases where you have multiple replicas of the same database (that is, they have the same Replica ID) only one representative of the database will appear in the view. The ordering of databases in your Preferred Server list will determine which replica is selected.
By Business Class	This tree node allows you to navigate the databases by their business classes as defined in the Classification tab of the database properties. In cases where you have multiple replicas of the same database (that is, they have the same Replica ID) only one representative of the database will appear in the view. The ordering of databases in your Preferred Server list will determine which replica is selected.
Notes Templates	This tree node allows you to view all the templates.
Custom Views	This tree node allows you to create your own views of the databases. For more information, see Custom views on page 49.

Select a Database in the Results View and in the context menu or in the Action Pane is a list of database actions that can be selected.

Database actions

Table 13. Database actions

Property	Description
Actions - All Databases	The actions listed under the 'All Databases' header are actions that are performed on all of the databases in the Results View.
Actions - Selected Item	The actions listed under the database name header are actions that are performed on the selected databases in the Results View. The header name will change according to which databases is selected in the Results View. When performing certain actions for a database that has child databases under it, you will be asked if would you also like to perform the action on the child databases. If you answer: • **Yes**: The action will be performed on the selected database and all of its child databases. • **No**: The action will be performed on just the selected database. • **Cancel**: The action will not be performed at all.

View

This action brings up several submenu items that allow you to customize the Results View. Properties such as column selection, column ordering and sorting are defined using the View menu item.

Table 14. View

Property	Description
Add/Remove Columns	Select the submenu item Add/Remove Columns to change the view's column selection as well as to reorder and sort the columns.
Toggle Grid Lines	Select this menu item to show grid lines in the result view. If the grid lines are already displayed, select this menu item to hide them.
Refresh	Refreshes the data displayed in the console from the data that is stored in the Repository. When you make a change in one dialog box and save it, the data is saved to the Repository but some of the views in the console might not reflect the change. Executing a Refresh will update the views with the new data as well as run the Classification process.
Customize	This submenu item allows you to show or hide items in the Console dialog box.

Copy to custom view

This action copies the current Results View to the Custom Views node of the Console Tree. Using the Custom View Options dialog box, you define the name and scope of the custom view that will be created. For detailed information on creating custom views, see Custom views on page 49.

Export list

Exports the result set in the center pane to a comma delimited (.cvs) file.

Assign properties

This action allows you to quickly set some of the more common database properties for the selected databases. This action contains the following:

Table 15. Assign properties

Property	Description
Lock all	This quick set option will select all of the Locked check boxes in the selected databases' properties. The Locked check boxes keep manual changes from being over-ridden in future design scans.
Unlock all	This quick set option will deselect all of the Locked check boxes in the selected databases' properties. By de-selecting all of the Locked check boxes, any manual changes made in to the database properties may be over-ridden in future design scans.
Disposition	This will set the disposition value in the Migration Status tab of the selected databases' properties.
Technical Class	This will set the Technical Class value in the Classification tab of the selected databases' properties.
Business Class	This will set the Business Class value in the Classification tab of the selected databases' properties.
Choose Target Site	This allows you to define the Target Site in Migration Targets tab of the selected databases' properties.
Clear Target Site	This allows you to remove the site that is defined in the Target Site property of the Migration Targets tab of the selected databases' properties. The purpose of this is to remove any specific target site that has been applied either directly or through the application of class rules. If any of the databases migration jobs have SharePoint target assignments in them, then this site would be used when running that particular job. So the job supplied target is the last resort target. Jobs built within the console do not have a SharePoint target site in the job. When jobs were created in the designer and imported, then they'd retain whatever target site was in that job, but that would get overridden by any target set directly to the database or applied through class rules.
Map Notes Users to Domain Users	Enable or disable the highlighted databases' **Map Notes Users to Domain Users** option of the Migration Targets tab. If enabled, this will cause any Notes users listed in the source database's Access Control List to be added to the target SharePoint list or library. The Notes user names are mapped to Site Collection identities based on the rules configured in the tool's User Mapping options and those Users are granted access to the target SharePoint site.
Map Notes Groups to Domain Groups	Enable or disable the highlighted databases' **Map Notes Groups to Domain Groups** option of the Migration Targets tab. If enabled, this will cause any Notes groups listed in the source database's Access Control List to be added to the target SharePoint site. The Notes group names are added to the Site Collection as external groups and are granted access to the target SharePoint list or library. Each group name must correspond to an actual Domain group.
Expand Notes Roles to SharePoint Groups	Enable or disable the highlighted databases' **Expand Notes Roles to SharePoint Groups** option of the Migration Targets tab. If enabled, it causes a new SharePoint Site Collection Group to be created for each Role defined in the Notes database ACL.
Expand Notes Groups to SharePoint Group	Enable or disable the highlighted databases' **Expand Notes Groups to SharePoint Groups** option of the Migration Targets tab. If enabled, it allows you to take what was once a Domino Directory group (scoped to the entire Notes Domain) and convert it to a SharePoint group (scoped to just one Site Collection). As part of this conversion, the tool will query the Domino Directory for any groups listed in the ACL, extract all its members (expanding any sub-groups as needed), and add those members to the new SharePoint group.
Use Existing Security Groups	Enable or disable the highlighted databases' **Add to existing SharePoint groups** option of the Migration Targets tab. If enabled, Migrator for Notes to SharePoint will provision security by adding people to one of the predefined SharePoint groups rather than setting permission on the site members.
Migration Jobs	This allows you to set various properties in the highlighted databases' migration jobs.

Analyze databases

This action will run various scans on the selected databases. When selected, you will be prompted with options of which types of scans you want run. This action contains the following:

Table 16. Analyze databases

Property	Description
Scan Database Headers	Select this to run a scan of the usage history in the selected databases. This will produce detailed usage information like database size, number of reads, writes and uses by user and by form used. To exclude certain users from this analysis, see Excluded User Names on page 18. You can view these results in the Usage Analysis tab of the Database Property sheet. This action is also available as a button on the Usage Analysis tab of the Database property sheet.
Scan Data Documents	Select this to run a direct scan of all the data documents in a database to produce a summary of data patterns in use there. This action is also available as a button on the Complexity tab of the Database property sheet. There are three levels of Data Analysis to choose from: • Analyze Rich Text – Full scan reading the rich text identifying Docs with Notes Rich Text, Docs with MIME, Docs with Images, and Docs with DocLinks. • Analyze Documents – Opens each document and counts up documents, but does not read rich text fields. Up to twice as fast as the full scan. • Data Tally only – Counts documents but does not open them. Typically 5 times as fast as the full scan. **NOTE:** In Quickr, many "design elements", including custom pages and custom fields, are stored as data documents. Similarly, in Domino.Doc, many "design elements", including custom binder and document type descriptions, are stored as data documents. The data analysis does not treat these as data documents.

Table 16. Analyze databases

Property	Description
Scan Design Elements	Select this to run a direct scan of all the design elements in a database to produce a summary of data patterns in use. This action is also available as a button on the Complexity tab of the Database properties sheet. **NOTE:** In QuickPlace/Quickr, many design elements, including custom pages and custom fields, are stored as data documents. Similarly, in Domino.Doc, many design elements, including custom binder and document type descriptions, are stored as data documents. The design analysis process recognizes these documents as constituting the interesting application design and looks at those abstractions rather than true Notes design elements. The following options are available for this design scan: • **Compare with class templates for best fit**: Select this option to do a best fit design matching in order to recognize which applications are based on similar designs, regardless of whether or not they are currently inherited from the same application template. The design of each database is compared with the designs of the technical class templates you want to compare to. This is similar to the existing feature for comparing the designs of applications and their assigned templates, but this is many-to-many instead of one-to-one. The best fit for each database is then displayed in two results view columns (Best Fit Class and Best Fit Percent) as well as on the Design Analysis tab. **NOTE:** For a technical class template to be considered in this Best Fit analysis, it's property, **Include in "Best Fit" testing for all databases,** must be checked in the Class Template tab of the Technical Class Properties sheet. For a quick way to include all the Notes databases and templates that you want as technical class templates for Best Fit analysis, use the Create Technical Class database action. If you have already done the design scan for the database and the templates, you can adjust the list of things to test for and rerun the comparison using the Recompute database details function. • **Assign default templates for database comparison (if none assigned):** If selected, this will automatically set the reference database using the database's default template. To do this, it uses the database's template name to locate a matching template database. This reference database is then used in the design analysis for measuring deviations. • **Copy database designs to local folder:** When enabled, a partial copy of each scanned Notes database is made on the local machine. While all the design elements are copied, none of the data documents are. The copies are placed in a folder that defaults to **ProgramData\Quest\Migrator for Notes to SharePoint\Design Copies**. This may be changed on the Analysis tab of the Advanced Configuration Options dialog. The design copies are named **<replica id>.nsf** in the file system and the database titles will be appended with the string "- DESIGN COPY". Since the replica id is the unique identifier for design copies, they will be shared by all replicas of the database. If you analyze two servers with replicas of the same database, the second one will not be copied unless the **Override prior copies** option is checked. The design copy provides an easy way for a developer to look deeper into the design when needed.
Scan Doclink	Select this check box to scan all Doclinks in one or more databases. This action is also available using the **Doclink Scan** button on the Data Analysis tab of the Database properties sheet. To see details of the scan, see the **Doclinks** button in the Data Analysis tab on page 52.
Scan Design Scripts	Select this check box to scan all design scripts of one or more databases. To see details of the scan, see Script Analysis tab on page 53.
Advanced	**Run task in background**: If selected, this action will run in the background as a task. To see the status and log files generated, go to Task history on page 84. If deselected, this action will run in the foreground with the task properties dialog box displaying progress, status and logs.

Recompute database details

If you have already done the design scan and data scan, Analyze databases, for the database and the templates, you can adjust the list of things to test for and rerun the comparison using this process.

NOTE: The Recompute uses the information for the Notes database that was gathered during the last design scan. If your Notes databases have changed and you want to recapture the information for them, you must rerun the design scan.

Resolve truncated user names in Domino Directory - The data that Domino stores for user activity truncates user names to 32 characters. If you run the Recompute with this option, Migrator for Notes to SharePoint will resolve the truncated user names in Domino Directory. This option will slow down usage scans.

Apply class rules

This action will apply the class rules to the selected databases. When this action is selected, you will be prompted with options of which types of rules you want applied.

Table 17. Apply class rules

Property	Description
Triage selected database	This action will use the classification rules defined for the selected database to automatically triage the database. For more information on these rules and triage, see Auto Triage tab on page 69.
Assign effort for selected database	This action will use the classification rules defined for the selected database to automatically assign migration effort for the database. For more information on these rules, see Assign Effort tab on page 70.
Assign targets for selected database	This action will use the classification rules defined for the selected database to automatically assign migration targets for the database. For more information on these rules and targets, see Auto Target tab on page 71.
Assign migration jobs for selected database	This action will use the classification rules defined for the selected database to automatically assign migration jobs. For more information on these rules, see Migration Jobs tab on page 73.
Assignment based on	You can choose to run the actions using the Technical Class rules or the Business Class rules
Override all Locks	The Lock selections of the selected database will be ignored. This means that any locks in the selected databases will be cleared and any database properties that were set manually will be overridden by the properties defined in the class rules.
Run task in background	If selected, this action will run in the background as a task. To see the status and log files generated, go to the Task history node. If deselected, this action will run in the foreground with the task properties dialog box displaying progress, status and logs.

Migrate to SharePoint

This action will run migration activities for the selected databases. When this action is selected, you will be prompted with options of which types of migration activities you want performed. Click the Details link to see a preview of the migration tasks to be performed based on the options you selected.

Table 18. Migrate to SharePoint

Property	Description
Provision planned SharePoint sites	This action will perform the actual site provisioning of sites and subsites for the selected databases. The planned sites for a database can be viewed/defined in the Migration Targets tab of the Database Properties sheet.
Provision site content types	This action provisions the content types defined for the selected databases. These content types can be viewed in the in the Content Types tab of the Database Properties sheet.
Provision site members	This action will migrate the Access Control List mappings defined for the database. Migrator for Notes to SharePoint will map various access control properties of the source Notes database, QuickPlace/Quickr, or Domino.Doc cabinet to the equivalent constructs in SharePoint. An extensive set of options are available for mapping various access control properties of the source Notes database and individual Notes documents to the equivalent security constructs in SharePoint. These mappings can be viewed in the Migration Targets tab of the Database Properties Sheet. For more information on ACL mappings, see ACL entry mapping and SharePoint group provisioning on page 59.
Provision site navigation	This action will migrate the QuickPlace/Quickr room menu to the SharePlace QuickLaunch menu bar as defined by the database's QuickPlace/Quickr tab properties or the Classification Rule's Auto Target tab properties. **NOTE:** Link Tracking tab needs to be enabled for the provisioning of the site navigation. **NOTE:** If new menu items have been added to the QuickPlace/Quickr room menu since the last time a QuickPlace/Quickr discovery or Domino.Doc discovery process has been run, you will need to run this discovery process again in order for this provisioning action to pick up the new items.

Table 18. Migrate to SharePoint

Property	Description
Run content migration job	This action will run the migration jobs defined for the selected databases. These job definitions can be viewed in the Migration Jobs of the Database Properties Sheet. Each running migration job will be displayed as a task under the Task node of the console. If the selected database had more than one job defined for it, each job will be displayed as a separate task and there will be a wrapper job called 'Content Migration Sequence (#jobs)' where # is replaced with the number of jobs being run for the database. Open the task to view the results of the migration as well as any errors or warnings. For more information on the Task node, see "Task history" on page 84. There are three run options: • **Complete jobs** • **Provisioning only** • **Provisioning and security only** The **Complete jobs** option migrates the content as well as provisions the lists, columns, content types, and security. You can also choose to only perform the provisioning or the provisioning and security.
Advanced	The Advanced area contains the following options: • **Run task now**: The task run in the foreground with the task properties dialog box displaying progress, status and logs. If there are no migration jobs assigned to the selected databases, you will receive an error message. You can assign migration jobs using Properties on page 50. • **Run task in background**: If selected, this action will run in the background as a task. To see the status and log files generated, go to the Task history node. • **Create a scheduled task**: Select to create a scheduled task. For scheduled tasks, only **Complete jobs** are supported. All other migration task options are disabled. Once you select **Create a scheduled task** and click **OK**, the New Scheduled Task window opens. See Scheduled tasks on page 77.

Recover Link Tracking Data

This action allows you to recover the Link Tracking data in database without migrating again. Perform this action when data is missing from the Link Tracking database after migration.

Generate InfoPath form template

This action allows you to migrate your Notes Forms to InfoPath Form Templates.

From the first page of the wizard, choose which type of template you would like to create. Select Form Library, to create a form template to be used in a SharePoint Form Library. Select List to create a form template to be used in a SharePoint List Form. This type is only available for SharePoint 2013/2016/2019 Enterprise edition and requires InfoPath 2010/2013.

If you select List, go to Template for form library for the wizard details.

Template for form library

If you selected to create an InfoPath form template to be used in a SharePoint Form Library, then the second page of the wizard allows you to name the generated template file (if only one Form was selected), or select a folder to save the templates into (if multiple Forms were selected - destination filename will be the Form name). If any of the selected forms exist on-disk, a dialog box will launch asking the user to confirm overwriting the existing forms.

Table 19. Template for form library

Option	Description
Form Template compatibility	• InfoPath 2007 client: The InfoPath client supports all the InfoPath controls, so no restriction is placed on the controls being migrated. • InfoPath 2007 client and Forms Services: For form templates to be compatible with InfoPath Forms Services (that is, rendered in a browser), certain controls are not allowed, such as multi-select list boxes, combo boxes, and rich-text fields with embedded image support. Migrator will create a form template without these controls, so it will be compatible with Forms Services.
Add attachment section to rich text controls	Enabling this option will cause a repeating Attachment section to be added after every rich text control that is migrated. This is because Rich Text fields in InfoPath do not support attachments like they do in Notes.

The second page of the wizard is where you select the Notes form elements to be migrated.

Table 20. Notes for elements

Option	Description
Do not migrate elements that are	Paragraphs in a Notes Form can be marked hidden based on several different factors. If unchecked, the paragraphs are migrated regardless of the hide setting, but the check boxes in this section can be used to honor the hide setting in Notes. So if "Hidden in Read mode" is checked, then if a paragraph is marked "hide when opened for reading", the paragraph will NOT be migrated.
Create InfoPath Sections for elements that are	The corresponding check box must be unchecked for this to be enabled. Checking one of these will cause paragraphs hidden by the given method to be wrapped in an InfoPath "Section" control. This is handy because it allows the InfoPath developer to refer to the entire hidden area with a single identifier, making show/hide logic easier.

The third page of the wizard is where you set the default control sizes.

Table 21. Default control sizes

Option	Description
Control measurements	Some fields in Notes do not have a specified size, like text fields and dialog lists. When these controls are mapped to InfoPath controls, they need to be given a width and sometimes a height. These options specify the default height/width for controls that do not have a set size in Notes. If the Auto check box is selected, no width or height value is needed. When set to Auto, the InfoPath field takes up no screen space until you type into it, then it grows as necessary, similar to Notes. Not all field types support the Auto feature. Only the supported field types will have this option available.
Set fields in table cells to 100% width	If a table cell contains a control that does not have size specified in Notes, checking this box will cause InfoPath to set the control width to 100%, instead of the width set in the Control measurements. This may provide a table rendering closer to the original table in Notes.

The fourth page of the wizard is used to set which Notes fields are migrated to InfoPath, and how those fields should be mapped when creating a InfoPath document migration job later. For more information, see Generating InfoPath forms (post version 5.2) on page 114.

The following is a description of the options:

Table 22. Options

Option	Description
Notes field name	Name of the field on the Notes form to be migrated. This is not modifiable.
Migrate to InfoPath	If checked, the Notes field will be migrated to the new InfoPath form template. To exclude a field from being migrated, uncheck the corresponding check box.
Setup field for data mapping	If checked, the field will be marked available for mapping when this generated template is used to setup a document migration job.
InfoPath field name	The name of the corresponding InfoPath field that is generated. This name can be changed if desired.
Options	This is a dropdown list that is dependent on the field type. For date/time field types, you can specify what part of the date/time to migrate. When the generated template is used to create a InfoPath document migration job, this field serves as a hint on what type of data is in the Notes field and how it should be encoded

The fifth page of the wizard shows you the options you have selected.

Table 23. Options

Option	Description
Write migration report	Enabling this option will create an HTML file in the template's destination folder named templatename.html. This file is a report of the form migration job, showing all paragraphs, tables, text, controls and other elements of the Notes form, and what was done to migrate the element to the InfoPath form template.
Write detailed log files	The InfoPath XSN file format is comprised of several files archived together in the Microsoft CAB format. Selecting this option will leave these generated files on-disk in a folder named template_Migrator for Notes to SharePointiplog, in the same folder as the completed template. These may be helpful to Customer Support when diagnosing a problem.
Create developer documentation version of the form template	This will create a separate InfoPath XSN named template_DevMarkup.XSN which gives the developer extra information about the Form. Currently, we are marking all hidden paragraphs and HTML pass-through text with a circled H icon. Hovering over the H in Form fill-in mode will show some text indicating why the field was hidden. The following Notes field Formulas are marked with an F icon: Default Value, Input Translation, and Input Validation. Other markups may be added in the future.

Once the migration is complete, a dialog box will appear with the buttons:

- **Launch Form Template in Design Mode** - launches InfoPath in design mode, so the developer can make changes to the template
- **Fill-out the Form** - shows a preview of what the generated form would look like to an end-user
- **View Detailed Migration Report -** opens the migration report in the default web browser
- **Launch Developer Markup Template**

The migrated form will appear as a .XSN file in the selected folder. If the option **Write migration log files** is checked, in the folder will be a subfolder named formname_Migrator for Notes to SharePointiplog. This folder contains all the source files that comprise the InfoPath template, and a log file named "Migrator for Notes to SharePoint_infopath_log.txt" if the form migration failed. These are useful for debugging in case the template does not load properly in InfoPath.

The newly migrated form can now be used to migrate Notes documents to InfoPath documents. For more information, see Generating InfoPath forms (post version 5.2) on page 114.

InfoPath's rendering engine is HTML based, so most of the form's text, fonts, colors, styles, and tables will be migrated as straight HTML in the same way HTML is generated today. The following Notes properties and fields are migrated:

- Background color - will be the background color of the InfoPath template
- Background image - will be the background image of the InfoPath template. These repeat styles are supported: repeat once, repeat horizontal, repeat vertical, and repeat both.
- Editable Text field
- Computed Text field: 1. Computed OR Computed for Compose: Creates a schema entry and renders an expression box mapped to the schema entry. 2. Computed for display: Does NOT create a schema entry. Renders an expression box with nothing displayed. Also, the Notes field will not show up in the list of fields to migrate.
- Date/Time field: will be migrated as Text fields with Data Type set to Date, Time, or DateTime, depending on the field settings in Notes. If the display value for the date/time field is "User setting", this means that Notes will use Operating System preferences for displaying the date/time. Notes has eight "Show" settings for the date when User Setting is used, and not all of these map to an operating system preference value in InfoPath, so an approximation will be made.
- Number: these fields in Notes can be of the following formats: decimal, percent, scientific, and currency. Currency will map to a currency type in InfoPath. The other three types will map to decimal. The Notes number field formatting options "parenthesis when negative" and "Punctuated at thousands" will be migrated to InfoPath
- Richtext: these have no set size in Notes but require a fixed size in InfoPath. Size is set in migration options dialog box.
- Radio button
- check box
- ListBox (single and multi-select)
- Dialog List - This is a popup list selector. InfoPath has no concept of this, so a drop-down list, Combo box, or Multi-select list box is generated depending on the properties of the dialog list (whether multi-select is allowed and whether the user can enter new values).
- Hidden properties on paragraphs are honored according to the user-defined migration options.
- "Help description" in Notes will appear as a "ScreenTip" (hover text) in InfoPath.

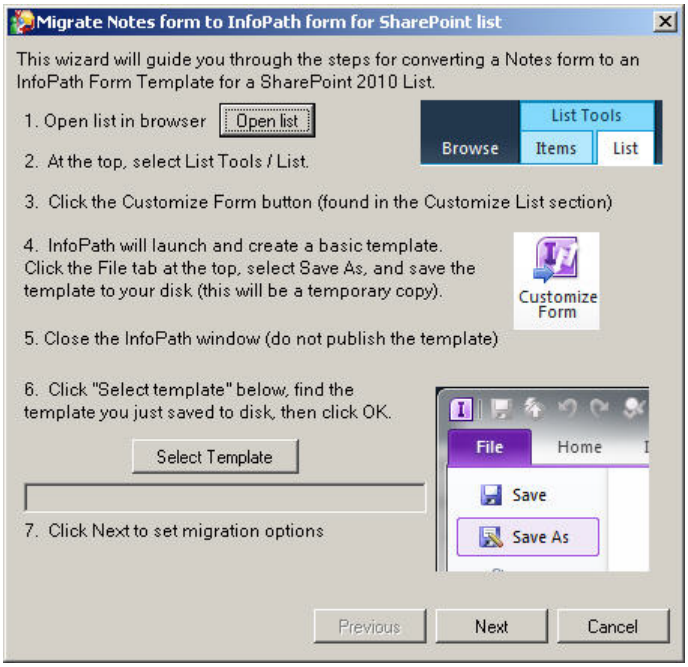
Template for list form

If you selected to create an InfoPath form template to be used in a SharePoint List Form, then you will need to select a migration job that will be used.

To create an InfoPath form template

1 Follow the steps in Figure 2.

Figure 2. Migrate Notes form to InfoPath form for SharePoint list



2 Select the Notes form that you want migrated and the destination filename for the InfoPath Form Template that is to be created. Click **Next**.

3 Select the Notes form elements to be migrated.

- **Do not migrate elements that are…**: Paragraphs in a Notes Form can be marked hidden based on several different factors. If unchecked, the paragraphs are migrated regardless of the hide setting, but the check boxes in this section can be used to honor the hide setting in Notes. So if "Hidden in Read mode" is checked, then if a paragraph is marked "hide when opened for reading", the paragraph will NOT be migrated.
- **Create InfoPath Sections for elements that are…**: The corresponding check box must be cleared for this to be enabled. Checking one of these will cause paragraphs hidden by the given method to be wrapped in an InfoPath "Section" control. This is handy because it allows the InfoPath developer to refer to the entire hidden area with a single identifier, making show/hide logic easier.

4 Set the default control sizes.

- **Control measurements**: Some fields in Notes do not have a specified size, like text fields and dialog lists. When these controls are mapped to InfoPath controls, they need to be given a width and sometimes a height. These options specify the default height/width for controls that do not have a set size in Notes. If the Auto check box is selected, no width or height value is needed. When set to Auto, the InfoPath field takes up no screen space until you type into it, then it grows as necessary, similar to Notes. Not all field types support the Auto feature. Only the supported field types will have this option available.
- **Set fields in table cells to 100% width**: If a table cell contains a control that does not have size specified in Notes, checking this box will cause InfoPath to set the control width to 100%, instead of the width set in the Control measurements. This may provide a table rendering closer to the original table in Notes.

Go to Notes database

This action will launch Notes if it is not already open and take you to the selected Notes database.

Import default Notes views

This action will import the following set of views to the selected Notes database from a local database “NMSP Views”:

- **zz_AllByForm**: This view displays all documents by Form, and also indicates whether the document is a main document or a response document (contains a $Ref field).
- **zz_Categories**: This view displays the number of categories per Notes document.
- **zz_CategoryLevels**: This view displays the maximum of hierarchical Category levels for each Notes document.
- **zz_CreateMod**: This view displays when a Notes document was last modified or created.
- **zz_DocSize**: This view displays the total size of documents.
- **zz_Private**: This view displays all documents that have a Readers field set – Private documents – and cannot be read by the current (migrator) Notes ID.
- **zz_ReplConflicts**: This view displays the Replication Conflicts in the database.
- **zz_Responses**: This view displays all response documents in the database.
- **zz_RichText**: This view displays the size of documents and number of attachments in documents.
- **zz_SubjectMain**: This view displays all main documents categorized on Subject.

For more information about these views, see http://notesapplicationmigration.com/notes-migrator-for-sharepoint-views/

Open database design

This action will open the database design in Domino Designer. This requires that Domino Designer be installed.

Open local design copy

This action will open the copy of the database design that was created during the Analyze databases action if the **Copy database designs to local folder** option was selected. This action will not appear for a database if a local copy of the design has not been created.

Create technical class

This action will automatically create a Technical Class using the Notes database or template that you have highlighted. The highlighted Notes database or template will be assigned as the Reference Database for the new Technical Class. You can use this to quickly create a Class that uses the database as the Reference Database and is preconfigured for Best Fit testing. If it is a template, the class rule will recognize it that way.

To create a technical class

1. From the Console, right-click a Notes database or template.
2. Select **Create Technical Class**.

Export database records

This action will export all of the database properties to an XML file. This file may be analyzed by or imported into external tools, but cannot be imported back into the Console.

Export data analysis details

Right-click a database and select **Export Data Analysis Details** to create the following `.csv` files in a folder named after the database name:

- Attachment Summaries
- Data Analysis by Author
- Data analysis by Form Used
- Document Link Analysis

The content of these files is taken from fields displayed in the Data Analysis tab of the Database Properties. See the last four table entries in the Data Analysis tab.

You can select multiple databases. A folder is created for each database.

If no data applies to a file, the file is not created. If no files are created, the folder is not created.

Extract database users

This tool will export database users to an XML file. You can select one or more databases in any database view in the Migration Console and then extract all the user names contained in those databases. This tool is useful for simply gaining an understanding of the users involved in a group of Notes applications, but the primary purpose of the tool is ultimately to generate a user mapping file that Migrator for Notes to SharePoint can use at migration time.

To export database users

1. From the Console, right-click a Notes database or template.
2. Select **Analyze Databases**. Click **OK**, then **Close**.
3. Select **Export Database Users**.

   The Extract Database Users and Groups dialog box opens.

The sources of the user names are listed in the view columns. You can filter this list by using the filter options at the top of the dialog box. **Filter by source** allows you to filter the sources shown to only list users that came from certain sources. The list will automatically refresh when a filter option is changed.

The type of user name (Person, Group, Unspecified) is also shown and you can filter based type. Note that Unspecified users may become specified as you perform certain operations such as group expansion or imports. Finally, you can manually set the user type by using the combo boxes in the view.

You can also filter by the Notes domain. This is a simple text match against the last part of the abbreviated name, so either "Westford/IBM" or just "IBM" would select "Kevin MacDonald/Westford/IBM". If is common to want to select all the users plus all the groups, which the "No domain" check box allows you to do.

Users may also be added to the list by expanding Domino groups. If a group is listed in a database, it is sometimes useful to be able to find all the members of the group. If you press the **Expand Groups** button, Migrator for Notes to SharePoint will contact the configured Group Resolution Server (from Advanced configuration options on page 13) and look up every Group and Unspecified entry (in case it really is a group). Any new members will be added to the list and indicated as "ACL via Group".

Users may also be added to the list by importing existing Migrator for Notes to SharePoint User Mapping XML files.

To remove users from the list, you can select one or more rows and click **Remove**.

The last column in the view is the SharePoint names column. You can set these names automatically using the Import function, using the Set SharePoint Names function, or by typing them in manually.

The Import process loads in users from existing XML User Mapping files and sets the Imported column. Imported data is merged with existing data but if a SharePoint name is specified in the imported file, it will overwrite the existing name every time.

The Set SharePoint Names function gives you several ways to automatically assign your SharePoint names.

- **Lookup value in Domino Directory** - use any field in the user's Person document on the Domino directory as the new SharePoint name
- **Set Default using format string** - Generate a new SharePoint name by substituting the various parts of the Notes name.
- **Set Default using the Notes common name** - Use the simple common name as the SharePoint name

NOTE: In all these cases, existing SharePoint names will be preserved unless the override SharePoint names flag is already checked.

4 Click **Export** to generate a User Mapping file (either in an XML or comma delimited format).

Delete

Deletes the selected database from the Repository. The database can be added back to the Repository by running the Database Discovery process.

When a database is deleted in a view, another replica of that database may become the "preferred replica" and reappear in the view. The replica chosen as the “preferred replica” is the replica whose server is highest in the Preferred Notes Server List of the Global Options Discovery tab.

Custom views

In addition to the standard database views that are provided, users can design their own.

All custom views appear under the Custom Views scope node under the Notes Databases node. The Custom View node has actions to add, edit or delete custom views.

To create a new custom view

1 From the Actions Pane, select **Create new custom view**.

The Custom View Options dialog box will appear and contains the following:

Table 24. Custom View

Property	Description
View Title	The name of the custom view
View Scope	The database scope node that the custom view will be based on. The custom view will be a filter of this scope node’s result set.
Filters	Select one or more check boxes for the data types you want to filter the result set on. The data type button on the right of the check box will be enabled. Select the button to specify the filter. Check one or more of the check boxes that correlate to the data you want displayed in your view. You can deselect a check box by selecting it again.

To edit a custom view

1 Right-click a custom view and select **Customize View**.

To delete a custom view

1 Right-click a custom view and select **Delete**.

To rename a custom view

1 Right-click a custom view and select **Rename**.

Other view properties such as column selection, column ordering and sorting are defined using the **View** menu item of the Actions pane. Select the submenu item **Add/Remove Columns** to change the view's column selection as well as to reorder the columns. The **Sort By** menu items allow you to change the field that the view is sorted on.

Properties

This action opens the Database Properties. This is where you can view collected information and manage migration decisions for the selected database. Migration jobs can be defined and run from here is well.

General Tab

General information about the current database. This information is automatically filled in during the Database Discovery process.

Table 25. General tab

Property	Description
Title	name of database
Categories	Name of the database's category in the Database Catalog. This can be used in classification rules to assign the database to a business or technical class
Server	Server that the database resides on
Path	Location on the server for the database
Replica ID	A globally unique identifier shared by all replicas of the same database
Other Replicas of this database	Listing of other databases that are replicas of the current database. It includes the server name, path and last date modified
Database is a Design Template	check box that indicates if this database is being used as a design template for other databases
Template name	Name of the database template
Database is based on a Design Template	check box that indicates if this database uses another database as its design template.
Template name	Name of the template that the database is based on
Database is a Mail-in Database	check box that indicates if this database is a Mail-in database. This property is set when the Discover directory entries process is run.
Name	Mail Name if the database is a Mail-in database

QuickPlace/Quickr

If this is a QuickPlace or Quickr database, the QuickPlace or Quickr tab will be visible. This is where you set QuickPlace or Quickr specific options.

Select **Provision Navigation Links to QuickLaunch Area** if you would like to recreate the QuickPlace/Quickr room menu in the SharePoint QuickLaunch during migration. You can choose to append to the existing QuickLaunch menu at the top or bottom of the menu or to completely replace the menu. The **Replace list** option will delete the current QuickLaunch menu and replace it with the QuickPlace/Quickr room menu being migrated.

The **At the top of the list** and **At the bottom of the list** options will delete and then add the links that contain the same names as those in the migration. This will prevent duplicate menu items.

NOTE: While QuickPlace/Quickr rooms can have several levels of menu items in the navigation hierarchy, SharePoint can only have two levels. During provisioning of the navigation hierarchy, all levels that are lower than the second level will be flattened to the second level in SharePoint.

Classification tab

Table 26. Classification tab

Property	Description
Technical Classification	• **Class**: The technical classification of the given database. This is automatically populated by the Classification Rules engine. You can change this value manually by selecting a different class in the dropdown list box. To keep this manual change from being over-ridden in future design scans, select the Locked check box. If you do not see the class you want to assign this database to, you can define a technical class using the Classification Rules node. For more information, see Notes databases on page 35.
Business Classification	• **Class**: The business classification of the given database. This is automatically populated by the Classification Rules engine. You can change this value manually by selecting a different class in the dropdown list box. To keep this manual change from being over-ridden in future design scans, select the Locked check box. If you do not see the class you want to assign this database to, you can define a business class using the Classification Rules node. For more information, see Notes databases on page 35. • **Comments**: Free form text field

Database Access tab

This database access information is automatically populated during the Database Discovery process. This tab contains a list of all the users of the given database. To update this list, select the **Scan Data** button.

The user list contains the following information:

- **Name:** User name
- **Access:** Type of access
- **Create:** Do they have Create privileges?
- **Delete:** Do they have Delete privileges?
- **Roles:** Roles the user is associated with.

Usage Analysis tab

The Usage Analysis tab is automatically populated during the Database Discovery process. This tab contains user activity based on the data scan. To get updated user activity, rerun the data scan for the given database. The ‘as of’ date is the date of the last scan.

NOTE: Every time a data scan is run, the number of reads and uses will increment if the current user running the console is not excluded in the Discovery tab of the Global Options. For more information, see Excluded User Names on page 18.

The statistics displayed are:

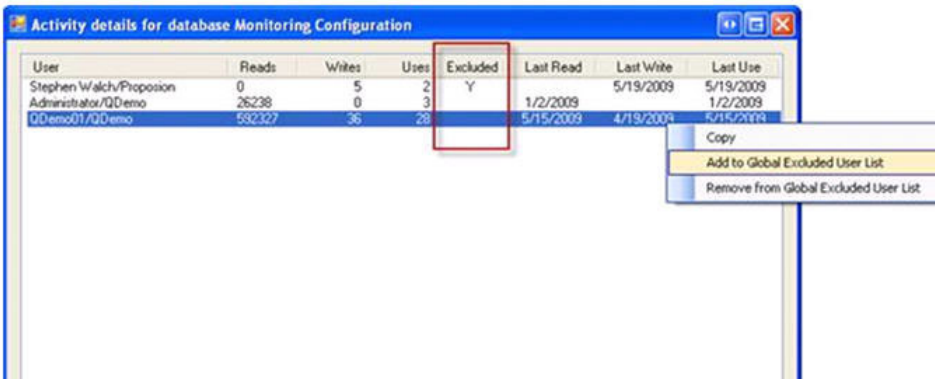
- Create Date
- Last Modified
- Design Modified
- Last Used

- Number if reads, writes and uses for a given length of time. The row, “Last xxx days” includes all days for which non-filtered usage information is present in the database. This usually differs between databases.

The user activity table displays the number of database reads, number of writes and number of uses in the last 24 hours, last week and last month.

Details by user button gives you the number of reads, writes and uses as well as the last read, last write and last used dates by user. It also displays if the user is part of the Excluded User Names list. A user can be added or removed from the Global Excluded User Names List using the context menu once the row for the user has been highlighted. This type of change does require the Data Scan to be re-run it to be picked up in the details.

Figure 3. Activity details



NOTE: In order to capture user activity for a database, User Activity must be turned on in the Notes database. To do this, open the User Details of the Database Properties and check the Record Activity check box.

Data Analysis tab

The Data Analysis tab is automatically populated by the Data Scan process. To update the information on this tab, rerun the process using the scan data buttons on the top right of this tab. Click the **Rich Text Scan** button to run the full scan that reads the rich text and identifies Docs with Notes Rich Text, Docs with MIME, Docs with Images, and Docs with DocLinks. Click the **Document Scan** button to run the scan that opens each document and counts up Attachments, but does not read rich text fields. This is up to twice as fast as the rich text scan. Click the **Doclink Scan** button to run a Doclink scan.

This tab contains the following data analysis:

Table 27. Data Analysis tab

Property	Description
Database size	Total size of the database
Data Document Size	Total size of all documents stored in the database (excluding design elements, deleted documents and unused database space)
Data Documents	Number of data documents
with Attachments	Number of documents with attachments
with Objects	Number of documents with embedded OLE objects
with Responses	Number of documents with responses
with Notes Rich Text	Number of documents with original Notes Rich Text
with MIME/HTML	Number of documents with MIME/HTML
with Images	Number of documents with embedded images
with DocLinks	Number of documents with DocLinks
with Embedded Forms	Number of documents with embedded copies of the original Notes form that was used to create the document. This is useful for seeing how prevalent embedded forms are in practice.

Table 27. Data Analysis tab

Property	Description
with Reader Security	Number of documents with reader security
with Writer Security	Number of documents with writer security
with Signatures	Number of documents that are digitally signed
with Encryption	Number of documents with encryption
Profile Documents	Number of Profile Documents. These are special types of documents in a Notes database that are typically used to store per-user profile information for an application. Since these are not "normal" documents they will not show up in views and folders.
Blocked Attachments	Number of attachments that will be blocked by SharePoint and therefore will not be included in the migration. This number includes files that are larger than the maximum attachment size allowed as well as files whose extensions are on the blocked file extension list. To view or define the list of blocked file extensions, see SharePoint tab of the Advanced Configuration Options dialog box.
Oversized Attachments	Number of attachments that are larger than allowed and therefore will not be included in the migration. To view or define the maximum attachment size, see SharePoint tab of the Advanced Configuration Options dialog box
Doclinks	Shows the total number of Doclinks in all known databases. Click this button to view Doclink information for each database, including the number of Doclinks, server, and last filepath of the database. **NOTE:** Quickr links are not included as Doclinks in this view.
By forms used	Gives you statistics around the number of forms used of which type and when. The number of forms used as “document types” of actual data documents is typically far less than the number of forms in the database design. Knowing which forms are used to create actual data documents is often helpful when planning the equivalent Content Types in SharePoint.
By unique authors	gives you statistics around data created by each user
Attachments	shows you the summary of Attachments by file extension or by size depending on which radio button is selected. The red X indicates what will be blocked during migration. **NOTE:** If you only did a Document Scan and not a full Rich Text Scan, it may be possible for some blocked attachments to be missed by the analysis. This is because at the document level, Notes sometimes uses internal file identifiers that do not reveal the actual final extension. Therefore it is possible that files that should be blocked show up with “unknown” file extensions. A warning message is displayed at the bottom of the attachment summaries dialog in such a case. Click the **Details** link to open the **Blocked Attachments Details** dialog box. This information is not available as a Report data source, but it is available as part of the export to XML (for end user reporting)

Script Analysis tab

The Script Analysis tab is automatically populated with you scan design scripts (see Scan Design Scripts on page 39).

This tab contains the following:

Table 28. Script Analysis tab

Property	Description
Last Script Scan	Gives details, such as date and time of scan, number of lines of script scanned, and size of DXL. Click Show Summary to open the Script Scan Viewer so you can see the scan details of the database design objects.

Table 28. Script Analysis tab

Property	Description
Database Script Scan	Allows you to run the script scan again by clicking **Script Scan**.
Script Scan Configuration	Allows you to add or remove database objects. To remove objects, right-click an object and select Remove Include Objects or click the Remove All button. To add objects, right-click IncludeObjects and select Add Include Object to add one object, or click the Add All button to add all include objects. To change an include object, click an object, and click Edit to select another object. You can add or remove Categories or Search Terms. To add a category, right-click a scope and select Add Category. To add a search term, right-click a category and select Add Search Term. A script name such as SearchTtem635629750611275480 is added, but you can edit it. To remove a category, right-click a category and select Remove Category. To remove a search term, right-click a script, and select Remove Search Term. Once you have added or removed categories or search terms, click Save, then Close. Click Script Scan to run the scan again.

Design Analysis tab

The Design Analysis tab is automatically populated by the Design Scan process. To update the information on this tab, rerun the process using the Scan Design button on the top right of this tab.

This tab contains the following:

Table 29. Design Analysis tab

Property	Description
Design Element Summary	• **Forms**: Number of forms used in the database • **Views/Folders**: Number of views/folders used in the database • **Agents**: Number of agents used • **Total**: Total number of design elements • **Design Details** button opens the Design Element Details dialog box
Design Details	From the Design Element Details dialog box (click **Design Details**), you can view the design elements of the database organized by type. To exclude particular design elements from the Complexity tab calculations, highlight the elements in the dialog box and click **Exclude**. The elements that have been flagged for exclusion will have a red 'X' next to them. To re-include an element, select it and click the **Exclude** button again. An example for needing to exclude elements is if you know you are not going to be migrating any web only design elements. Then you don't want them part of the design complexity analysis so you would filter out all the web-only design elements. Use the Quick Filter as a quick way to Exclude multiple elements. You will need to rerun the Recompute database details for the design analysis to be updated for the database. You can also select a Notes Form that you want migrated to an InfoPath form template. Select the Form you want migrated and click the **Export to InfoPath Template** button, or right-click and from the context menu select the menu item **Export to InfoPath form template**. For detailed information on this process, see Generate InfoPath form template on page 42.

Table 29. Design Analysis tab

Property	Description
Measure deviations from template or similar database	This is where you can measure deviations in design between the current database and another database (typically a design template or another database that you suspect is based on a common design). Identifying similar databases can be very useful when planning your migration process. To select a template or similar database to compare to, check the box and click the **Select** button. The **Default** button will automatically find the template database based on the template name, if there is one. You can assign the reference database automatically during the Auto Triage process by setting up a Class Rule and using the fields on the Auto Triage tab. If both databases have had a Design Scan done than you get a comparison of the two databases immediately. Or, if you press the Scan Design button, both databases will be scanned immediately. • **Design Element Delta**: Difference in design between the current database and the reference. • **Percent Match**: Percentage the database matches the reference • **Difference Details**: To see the detailed differences, click this button.
Class Template Matching	The Class Template Match Details dialog shows all the partial matches as well as the best fit match. To associate the technical class of one of the matches to the current database, highlight the class name and click **Set as Technical Class for Database.** • **Best Fit**: The technical class template that best matches the database in regards to design. **NOTE:** For a technical class template to be considered in the Best Fit analysis, it's property, **Include in "Best Fit" testing for all databases,** must be checked in the Class Template Tab of the Technical Class Properties sheet. For a quick way to include all the Notes databases and templates that you want as technical class templates for Best Fit analysis, use the Create Technical Class database action. • **Percent Match**: Percentage the database's design matches the best fit class template's design. • **Details**: To see the class template match details, click this button.

Complexity tab

Once a design scan and/or data scan is completed, a summary of data patterns in use are displayed in this tab. The global complexity settings from the Global Option's Analysis tab are used in the complexity computations in this tab.

This tab contains the following:

Table 30. Design Analysis tab

Property	Description
Microsoft Design Element Index (DEI)	If the Microsoft Design Element Index is defined as a factor to use in the automatic complexity assignment as defined in the Analysis tab of the Global Options, then this section will be filled out using the published DEI algorithm. • **Average**: Average number of the Index • **Max**: Maximum number of the Index • **Calculations**: This button will open a dialog box that shows the detail calculations of the Index **NOTE:** The complexity is based on Microsoft's published DEI (Design Element Index) algorithm which tallies the numbers of various types of design elements and computes a complexity index.
Data Complexity	This information is populated when the Scan Data is run. • **Computation**: Overall data complexity recommendation of the database using the algorithms defined in the Analysis tab of the Global Options. • **Details**: To view the data details click this button. This will take you to the Data Analysis tab which shows a summary of similar data record counts summarized by Form Used. • **Data Scan:** This button runs the data scan against the database to populate the Data Complexity. This process can also be run from the database actions list in the database context menu. For more information, see Scan Design Elements on page 39.
Design Complexity	This information is populated when the Scan Design is run. • **Computation**: Overall design complexity recommendation of the database using the algorithms defined in the Analysis tab of the Global Options. • **Details**: To view the design details click this button. This will take you to the Design Analysis tab which shows a list of all interesting design elements in the database with basic information about each. • **Design Scan:** This button runs the design scan against the database to populate the Design Complexity. This process can also be run from the database actions list in the database context menu. For more information, see Scan Design Elements on page 39.
Overall Complexity	The database complexity rating based on a scale of 1 to 5, 5 being the most complex. There are three ways this number may be set: • This number will be automatically computed and filled in when the Design and Data Scans are run. A weighted average of the algorithms will be used, depending on the preferences you set in Advanced configuration options. You should always treat automatic calculation as an approximate indicator of complexity and perform a detailed analysis of databases before performing the actual migration. • This number may be assigned by a class rule. If you have already analyzed the complexity for a particular class of database (for example, a Discussion database) you can use a class rule to automatically set the Complexity for all instances of that class. Assignment by class always overrides automatic calculations and will cause "Set by database class rule" to be displayed after the Complexity entry field. • Once you have analyzed the complexity for a particular database, you can manually change this number if needed. To keep the manual number from being over-ridden every time a scan is run, select the **Locked** check box.

Migration Effort tab

Databases that qualify to be members of the given class can have their migration effort automatically set using the information defined in this tab. To do this, you must run the Apply class rules action for the databases once this tab is filled out.

Table 31. Migration Effort tab

Property	Description
Include estimates already credited to template or similar database	If checked, the numbers entered below should not reflect the analysis, development and testing effort that is expected for the original database template (the reference database on the Design Analysis tab). The effort estimates for the reference database will be displayed alongside the incremental effort required for this databases instance. If the database does not have a reference database defined for it, click the **Set database** link to define one.
Analysis work	Enter a number that represents the analysis work effort.
Development of new targets	Enter a number that represents the development of new targets effort.
Development of new migration jobs	Enter a number that represents the development and content migration effort.
Provisioning and content migration	Enter a number that represents the provisioning and content migration effort.
Testing and verification	Enter a number that represents the testing and verification effort.
Totals	Estimate total.
Locked	Select this check box to keep the manual numbers from being over-ridden every time a scan is run.

Migration Status tab

The Migration Status tab provides a number of fields useful for planning the migration project and the decisions the users make along the way. In particular, it tracks the high level decisions of whether or not to migrate a particular database and where it should migrate to. The assignments and priorities of certain migration steps may be tracked here as will as which steps have been completed.

The data collected here is primarily used for high level viewing and reporting; it does not drive actual processing. It may be set manually or, in some cases, may be set automatically based on the Class Rules of the database.

Table 32. Migration Status tab

Property	Description
Database Owner	From the dropdown list, select the user that is the database owner. If the user is not in the list, select the **edit names** entry to add the user.
Business Owner	From the dropdown list, select the user that is the business owner of the database. If the user is not in the list, select the **edit names** entry to add the user.
Analysis Priority	Enter a number that represents the analysis priority.
Responsible	From the dropdown list, select the user that is the responsible for conducting the analysis of the database. If the user is not in the list, select the **edit names** entry to add the user.
Locked	Select this check box to keep the manual selections from being over-ridden every time a scan is run.
Migration Priority	Enter a number that represents the migration priority.
Responsible	From the dropdown list, select the user that is the responsible for conducting the migration of the database. If the user is not in the list, select the **edit names** entry to add the user.
Locked	Select this check box to keep the manual selections from being over-ridden every time a scan is run.

Table 32. Migration Status tab

Property	Description
Disposition	Dropdown list of predefined actions that you want to do with this database (for example, 'Migrate to customized SharePoint targets', and 'End of life'). This list can be customized using the Console tab of the Global Options. This value can be automatically set using Classification Rules. For details, see Auto Triage tab of the Classification Rules.
Locked	Select this check box to keep the manual selection from being over-ridden every time a scan is run.
Comments	Text box
Status	These check boxes allow you to keep track of what has been finished for this database in the migration process workflow. As each task is completed, check the task's check box. Many of these check boxes can be automatically checked as the actions are completed by the console. The Console tab of the Global Options dialog box is where you can turn on the automatic management of these statuses. • Design Analyzed • Data Analyzed • Targets Identified • Targets Provisioned • Targets Finalized • Migration Jobs Assigned • Migration Jobs Finalized • Content Migrated • Migration Verified

Migration Targets tab

This tab collects information about where in SharePoint you plan to migrate the current Notes database. This information may be set manually or, in some cases, may be set automatically based on Classification rules. This tab allows you to have one place for specifying the target for all the migration jobs defined for this Notes database. If the Target Site is set here, it overrides any target defined in a migration job.b

NOTE: The default migration jobs for QuickPlace/Quickr in the Classification Rules in the Migration Console perform a basic quality migration of all pages within a Room to a custom list in the target SharePoint site. If you wish to migrate to SharePoint pages or have special handling blogs or wikis, you will need to customize these jobs.

Table 33. Migration Targets tab

Property	Description
Target Site	Enter the Url of the SharePoint site you intend to migrate to. This target site will override the site that may be specified in the individual migration jobs. By clicking the **Select** button, the site sector dialog box opens. The site selector shows existing and planned SharePoint sites and subsites in a tree. The planned sites are indicated using a green plus sign icon. To be sure this is the site you want to target, you can open the site by select the site on the tree and selecting the **Go To** button. To indicate new sites that you plan to provision in the future, select the parent site in the tree and then select the **New Sub-Site** button. This will bring up the Site Creation Options dialog box. For information on this dialog box, see Plan a new SharePoint subsite on page 76.
Target Site Information	This section shows information about the SharePoint site (if it exists) or information about the planned site if it has been defined.

ACL entry mapping and SharePoint group provisioning

Migrator for Notes to SharePoint 's security mapping options will map various access control properties of the source Notes database, QuickPlace/Quickr, or Domino.Doc cabinet to the equivalent constructs in SharePoint. An extensive set of options are available for mapping various access control properties of the source Notes database and individual Notes documents to the equivalent security constructs in SharePoint.

To enable security mapping at the Site level, check one or more of the four available Security Mapping check boxes of your Job Definition.

Table 34. ACL entry mapping

Security Mapping check boxes	Description
Map Notes Users to Domain Users	causes any Notes users listed in the source database's Access Control List to be added to the target SharePoint list or library. The Notes user names are mapped to Site Collection identities based on the rules configured in the tool's User Mapping tab options and those Users are granted access to the target SharePoint site.
Map Notes Groups to Domain Groups	causes any Notes groups listed in the source database's Access Control List to be added to the target SharePoint site. The Notes group names are added to the Site Collection as external groups and are granted access to the target SharePoint list or library. Each group name must correspond to an actual Domain group.
Expand Notes Roles to SharePoint Groups	causes a new SharePoint Site Collection Group to be created for each Role defined in the Notes database ACL
Expand Notes Groups to SharePoint Groups	allows you to take what was once a Domino Directory group (scoped to the entire Notes Domain) and convert it to a SharePoint group (scoped to just one Site Collection). As part of this conversion, the tool will query the Domino Directory for any groups listed in the ACL, extract all its members (expanding any sub-groups as needed), and add those members to the new SharePoint group.

To fine-tune you mapping options, click the **Advanced Security Settings** link.

Advanced security settings

The options are:

- Advanced Options tab
- Permission Mapping tab
- Group Assignment tab
- Advanced Options tab
- Permission Mapping tab
- Group Assignment tab

Advanced Options tab

Advanced Options tab

a From the Advanced Options tab, provision ACL members by:

- adding members to an existing SharePoint group (Migrator for Notes to SharePoint will provision security by adding people to one of the predefined SharePoint groups rather than setting permission on the site members. You must fill out the mappings for various ACL levels to SharePoint Groups on the Group Assignment tab.)
- setting explicit SharePoint permissions directly on site members. When "Add to existing SharePoint groups" is selected (the mappings on the Permission Mapping tab will apply)

b Provision SharePoint Groups. This is only active if the **Expand Notes Roles to SharePoint Groups** or **Expand Notes Groups to SharePoint Groups** options have been selected in the Migration Targets tab.**Group name mappings:**

a To override the new SharePoint group name, click the **Group name mappings** button. The **Security Group Mapping dialog box** opens to map Notes Roles or Groups to new or existing SharePoint groups. To disable expanding a Notes Role or Group to a SharePoint group, select **False** for the **Expand Group** field.

b Click **Add** to add a Notes role or group to an existing SharePoint Group. If you are mapping to a SharePoint group that is not in this mapping table, a new SharePoint Group with the old Notes role or group name is created.

c To allow only standard SharePoint groups, select the Only allows standard SharePoint Groups check box.

d Select Prevent creation of new SharePoint Groups check box if you want to limit the number of new groups that are created as a side effect of the user mapping process. If you leave this clear, the "Expand Notes Roles to SharePoint Groups" and "Expand Notes Groups to SharePoint Groups" functions will create groups with the same name that was used in Notes (with the optional prefix). But if you check this option, only the names listed in the mapping table will be used.

e Enter a value for **Prefix the names of groups created for roles with**: the **Expand Notes Roles to SharePoint Groups** option causes a new SharePoint Site Collection Group to be created for each Role defined in the Notes database ACL. To avoid possible collisions with existing SharePoint Group names, you can enter a prefix that will automatically be appended to the beginning of each group name.

c Provision document level security. The **Provision Document Level Security** section is only active if the **Map Reader/Author fields** option is selected in the migration job's Advanced tab.

- Select the **Add new site collection members if needed to access documents** radio button is selected by default. This ensures that a reader/author that has no access to the site is still given "Limited Access" permissions at the list and site level so that they have access to the document.
- Select the **Only grant access to documents if member already has access to site collection** radio button so the readers/authors with no permissions at the site level will not be given "Limited Access". They will not be able to access the document.

NOTE: All of the security options have the possible side effect that SharePoint permission inheritance links may be broken. This means that future changes to site level permissions would not "trickle down" to the list or library and future changes to list or library level permissions would not "trickle down" to all the individual documents.

The Provision Document Level Security section is only applicable to job specific security settings. This dialog is inactive if opened from the Migration Targets tab of the Database Properties sheet.

Permission Mapping tab

Permission Mapping tab

If either the **Map Notes Users to Domain Users** or **Map Notes Groups to Domain Groups** options are checked in the Migration Targets tab, the **Permission Mapping** options will determine how the Notes database access levels (and related flags) are translated into SharePoint permission levels. The **Map ACL Levels to SharePoint Permissions** section allows you to assign a SharePoint permission level to each of the possible Notes access levels (Manager, Designer, Editor, Author and Reader). Similarly, the **ACL Flag Mapping** section allows you to assign a SharePoint permission level to certain access flags (Can Create, Can Delete) in each Notes ACL entry.

While the default mappings provided by Migrator for Notes to SharePoint are good choices in most cases, there is not a one-to-one mapping between Notes access levels and SharePoint permission levels so you may need to adjust the mappings as appropriate to your application. If your SharePoint site defines custom permission levels,

you can uncheck the **Only allow standard permission levels** option and select the custom permission levels that are available in your site.

> **NOTE:** You should be aware that Notes defines an access level called "Author" which implies that a user should only be able to access his or her own documents. A similar concept is available in SharePoint, but it is expressed as a global setting for an entire list or library. Migrator for Notes to SharePoint does not attempt to set this, but you should consider doing this manually for certain applications.

The SharePoint permission level that is selected in the Advanced Security Mapping dialog must match the name of a permission level on the target SharePoint site. This is true even for the standard SharePoint permission levels such as "Full Control". In order for the ACL Level mapping to succeed, there must be a SharePoint permission level on the target site named "Full Control".

This can present a problem when trying to map ACL Levels to a SharePoint site that is not using English. For example, in a French SharePoint site, the name of the "Full Control" permission level is "Contrôle total".

Unchecking the **Only allow standard permission levels** option will also retrieve the names of the permission levels from the target SharePoint site. In this case, however, the selections will not be restricted to "Full Control" and "Design". The names will be in the language of the target SharePoint site. When this check box is unchecked, the text in the combo boxes can be edited. This allows you to fill in permission levels in case you cannot access the SharePoint site.

Checking the **Only allow standard permission levels** option again will restore the standard permission level selections to the combo boxes, and they will no longer be editable. If you had entered a non-standard name in the combo box, it will be replaced with the appropriate default for that combo box.

Clicking the **Load from SharePoint Site**/**Refresh** link in the dialog retrieves the names of the permission levels from the target SharePoint site thus bringing in the appropriate permission level name. When this dialog box is first opened, a target SharePoint site has not been specified, so Migrator for Notes to SharePoint won't know where to retrieve the permission level values from. The **Refresh** link will initially be replaced with a **Load from SharePoint site** link. Clicking on this link will bring up a site picker that will allow you to choose a SharePoint site from which to load the permission level values. Once you have loaded the permission levels from a site, the link will change to **Refresh**.

Group Assignment tab

Group Assignment tab

The combo boxes will let you select from existing Site groups or the abstract {Owners} {Members} or {Visitors} groups. You can also just type in a new group name. New mappings are similar to the existing ACL Level to SharePoint permission mappings on the Permission Mapping tab.

Clicking the **Load from SharePoint Site**/**Refresh** link in the dialog retrieves the names of the groups from the target SharePoint site. When this dialog box is first opened, a target SharePoint site has not been specified, so Migrator for Notes to SharePoint won't know where to retrieve the group names from. The **Refresh** link will initially be replaced with a **Load from SharePoint site** link. Clicking on this link will bring up a site picker that will allow you to choose a SharePoint site from which to load the group names. Once you have loaded the group names from a site, the link will change to **Refresh**.

If you have the **Only allow standard SharePoint Groups** option checked, then only the {Owners} {Members} or {Visitors} groups are available and the combo boxes are not editable.

Unchecking the **Only allow standard SharePoint Groups** option will retrieve the names of the groups from the target SharePoint site. The names will be in the language of the target SharePoint site. When this check box is unchecked, the text in the combo boxes can be edited. This allows you to fill in the group names in case you cannot access the SharePoint site.

Content Types

This tab allows you to define and provision SharePoint Content Types for a SharePoint Site.

You can add Content Type definitions to be provisioned in many ways.

- **New:** Define from scratch a Content Type.
- **Import:** Allows you to add a Content Type definition from a previously exported Content Type definition file.
- **From Notes Form:** Create a Content Type definition based on a Notes Form.
- **From Migration Jobs:** Allows you to take the fields in the target data definition of a migration job and use them in a Content Type definition.
- **From Existing List:** Allows you to take a SharePoint List and turn it into a Content Type definition.
- **From Existing Content Types:** Create a Content Type definition based on an existing Content Type.

To edit a Content Type definition, select it in the list and click **Edit**.

To delete a Content Type definition, select it in the list and click **Delete**.

To provision the list of Content Types shown in the tab, click **Provision**.

NOTE: If a Content Type in the list already exists in the target site, the existing Content Type definition will be updated. Any new columns will be added but columns that are in the existing Content Type that are not part of the Migrator for Notes to SharePoint definition will not be removed. They will be left as is.

Content Type tab

Specify the SharePoint site where you would like this Content Type to be created.

Table 35. Content Type Tab

Property	Description
Name	Name of Content Type
Description	Enter a long description of Content Type. This is optional.
Content Type Group	Enter the Group that this Content Type should be associated with. Use the **Select** button to choose from the Content Type Groups already defined in the target site. If the Content Type Group you enter does not exist in the target site during provisioning, the Content Type Group will be created in the site.
Parent Content Type:	Enter the Parent Content Type for this Content Type. Use the **Select** button to choose from the Parent Content Types already defined in the target site. The Parent Content Type you enter must already exist in the target site during provisioning.
Associated Forms	Select a Notes Form that is associated to this Content Type.
Current Status	The status of the Content Type automatically updates to indicate the current state.

Site Columns tab

This tab allows you to define the columns for the Content Type. Any site columns that do not already exist in the target site will be created during the provisioning of the Content Type. Then the new or existing site columns will be added to the target content type.

If a Content Type column already exists with the same name and has the same properties, Migrator for Notes to SharePoint will use it rather than creating a new one.

If a Content Type column already exists with the same name and has minor differences in properties, Migrator for Notes to SharePoint will use it and a warning will be issued.

If a Content Type column already exists with the same name but the **Type** is different, an exception will be issued.

If a Content Type column does not exist, but a Site column with the same name, type and properties already exists, Migrator for Notes to SharePoint will add it to the Content Type definition.

If the column has **Is Title Field** set to *true*, the current **Title** column will be renamed in the Content Type definition.

If a Site column already exists on the target site that has the same name but the Type is different, Migrator for Notes to SharePoint will create a new Site column and add it to the Content Type definition.

Otherwise a new Site column will be created and it will be added to the Content Type definition as well.

Migration Jobs

This tab contains the list of all the migration jobs defined for this database. From here you can edit or delete an existing job, create a new job, import a job from a file or export a job to a file. You can run one or all of the listed jobs.

To edit an existing job

1. Select the job in the list.
2. Click **Edit**.

   This will open the job definition in the Job Designer dialog box.

To create a job

- Click **New**.

  An empty Job Designer dialog box opens.

  To give your job an easily identifiable name, select the Properties button on the Job Designer. You can define a Job Name and Description which will then be displayed in the Migration Jobs tab.

For detailed information on defining a migration job using the Job Designer, see “Migrator for Notes to SharePoint Designer” on page 91.

For detailed information on running a migration job, see “Migration Jobs” on page 63.

Migration History

This tab contains the history of all of the migration jobs run for this database. It lists out each job with Date and Time the job was run, the status of the job and the description of the job. Double Clicking a job will open the log file for the job. This information is also viewable in the Task history node.

To migrate the failed items for a job, right click on the job entry, and select **Migrated Failed Items**. For more information, see Migrating failed items on page 125.

Applications

There are cases where one or more Notes databases can be grouped together as a single "application". This is particularly useful when treating multiple databases as a single application is important: namely QuickPlace, Quickr, and Domino.Doc. With these environments, recognizing the patterns of application organization can drive automatic assignment of migration jobs or automation of actual migration jobs.

Applications are "discovered" by running the Discover Quickr Applications, Discover QuickPlace Applications, and Discover Domino.Doc Applications actions. Once these applications are discovered, you can expand the Applications node and drill-down into the Quickr and QuickPlace server/place/room or Domino.Doc server/library/cabinet application hierarchies.

NOTE: This hierarchy of application nodes can be used to automatically generate a similar hierarchy of SharePoint sites. To accomplish this, see the “Create subsite for every child application” option in the Auto Target tab of the Classification Rules.

The nodes and sub-nodes displayed here are really just database nodes (the same ones shown in the databases views) except that they are displayed according to the rules of the application abstraction rather than as "plain" databases. To view information about the underlying databases, select the Properties action.

Classification Rules

This Console Tree node is where you can classify your Notes databases. Classification is based on a set of rules which appear as nodes under the Classification Rules node. There are two types of classification, Technical and Business. Both types are organized as a set of prioritized classes.

Each class includes a set of Rules that must match for a particular database in order for that database to be recognized as a member of the class. Each rule may specify that class members should be recognized by folder path, file name, template name, database title, database category, a database manager being listed in the database ACL, any user being listed in the ACL, a design element being used, or membership in a particular application type. A rule can contain one or more matching values and regular expressions may optionally be used. If a class contains more than one rule, the user may specify an AND or OR relationship.

The actual classification process occurs as soon as databases are discovered, when database information is retrieved from the Repository, or when the user refreshes a database view. If you have updated or created new classification rules, refreshing the database view will update the classes of all the databases using the current classification rules.

Rules are prioritized (applied in a predefined order); the first one that matches is used and subsequent rules are not tested. Technical classification and Business classification are computed independently.

Assigned classes are viewable in database views and the database property sheet. If the user manually overrides a database class, this choice is considered "locked" and should not be updated by the automatic classification process if the Locked check box is selected.

The console contains a set of predefined Technical classification rules reflecting well-known database types in typical customer environments. These may be changed or extended. You can also choose at any time to restore the defaults.

Once classes have been assigned to databases, this may be used as the basis for automatically assigning Triage decisions (such as the Complexity index of a database or whether the database should be migrated), effort estimates, target SharePoint destinations, and even the actual content migration jobs that need to be run. Note that while classes are assigned (or reassigned) every time you refresh your database views, the automatic Triage, Target Assignment and Migration Job Assignment only occur when the Apply class rules action is run by the user.

Under the Notes Database tree node are “by class” tree nodes. These nodes display the pre-defined classes and the databases that are members of each class. The **By Technical Class** tree node contains all of the defined technical classes. The **By Business Class** tree node contains all of the defined business classes. Select a class to see a list of the member databases in the results view.

NOTE: While all database replicas can be assigned to a class, the "by class" views found under the Notes Database tree node only show the preferred replica. The preferred replica is determined by the order of your Preferred Notes Servers as defined in the Discovery tab of the Global Options

Classification actions

Table 36. Classification actions

Property	Description
Actions - All Classes	The actions listed under the 'Technical/Business Classification Rules' header are actions that are performed on all of the classes in the Results View.
Actions - Selected Item	The actions listed under the class rule name header are actions that are performed on the selected classes in the Results View. The header name will change according to which classes is selected in the Results View.

New class

This action creates a new class. For detailed instructions, see Creating a new class on page 66.

Export classes

This action exports the classes to an XML file.

Import classes

This action imports classes from an XML file.

To restores the default classification rules, delete all the classification rules then reimport from the DefaultTechnicalClasses.xml file that can be found in the All Users data directory.

Export list

Exports the result set in the center pane to either a tab delimited (.txt) file or a comma delimited (.cvs) file.

Assign properties

This action allows you to quickly set some of the more common properties for the databases that are classified under the selected classification rules.

Table 37. Assign properties

Property	Description
Target Site	This allows you to define the Target Site in Migration Targets tab of the selected databases' properties.
Map Notes Users to Domain Users	Enable or disable the **Map Notes Users to Domain Users** option of the Migration Targets tab of the classified databases for the highlighted classes. If enabled, this will cause any Notes users listed in the source database's Access Control List to be added to the target SharePoint list or library. The Notes user names are mapped to Site Collection identities based on the rules configured in the tool's User Mapping options and those Users are granted access to the target SharePoint site.

Table 37. Assign properties

Property	Description
Map Notes Groups to Domain Groups	Enable or disable the **Map Notes Groups to Domain Groups** option of the Migration Targets tab of the classified databases for the highlighted classes. If enabled, this will cause any Notes groups listed in the source database's Access Control List to be added to the target SharePoint site. The Notes group names are added to the Site Collection as external groups and are granted access to the target SharePoint list or library. Each group name must correspond to an actual Domain group.
Expand Notes Roles to SharePoint Groups	Enable or disable the **Expand Notes Roles to SharePoint Groups** option of the Migration Targets tab of the classified databases for the highlighted classes. If enabled, it causes a new SharePoint Site Collection Group to be created for each Role defined in the Notes database ACL.
Expand Notes Groups to SharePoint Groups	Enable or disable the **Expand Notes Groups to SharePoint Groups** option of the Migration Targets tab of the classified databases for the highlighted classes. If enabled, it allows you to take what was once a Domino Directory group (scoped to the entire Notes Domain) and convert it to a SharePoint group (scoped to just one Site Collection). As part of this conversion, the tool will query the Domino Directory for any groups listed in the ACL, extract all its members (expanding any sub-groups as needed), and add those members to the new SharePoint group.
Use Existing Security Groups	Enable or disable the **Add to existing SharePoint groups** option of the Migration Targets tab of the classified databases for the highlighted classes. If enabled, Migrator for Notes to SharePoint will provision security by adding people to one of the predefined SharePoint groups rather than setting permission on the site members.
Migration Jobs	This allows you to set various properties in the classified databases' Migration Jobs for the highlighted classes.

Generate InfoPath form template

This action allows you to migrate your Notes Forms to InfoPath Form Templates. For details, see the database action, Generate InfoPath form template on page 42.

Go to Reference Notes database

This action opens the Reference database that is defined in this Classifications Class Template tab.

Prioritizing a class

When the classification process is being run, the first class in the list whose rules match for a database will be assigned to that database. Subsequent classes will not be tested once a match is made. To re prioritize a class, select the class in the center pane and select **Move Up** from the Action View or context menu to move the class up the list of classes. Select **Move Down** from the Action View or context menu to move the class down the list.

Creating a new class

To create a new class

1 Select the classification node for which you want your class to be for: either Technical or Business.

2 Select New Class from the Action Pane. This will create a new class in the center results pane.

3 Select the new class and in the context menu or Action Pane, select Properties. This opens the Class Properties dialog box. The Class Properties dialog box is where you define the class. For more information, see Classification Rule Properties on page 67.

4 Select **OK** to save the changes. Select **Cancel** to close the dialog box without saving changes.

Editing a class

To edit a class

1 Select the classification node that contains the class to be edited: either Technical or Business.

2 Select the class to be edited from the Results View.

3 Select Edit from the Action Pane. This opens the Class Properties dialog box.

4 Edit the class definition in the Class Properties dialog box. For more information, see Classification Rule Properties on page 67.

5 Select **OK** to save the changes. Select **Cancel** to close the dialog box without saving changes.

Deleting a class

To delete a class

1 Select the classification node that contains the class to be deleted: either Technical or Business.

2 Select the class to be deleted from the Results View.

3 Select Delete from the Action Pane.

Classification Rule Properties

The Classification Rule Properties dialog box is available in the action pane as well as the context menu. This is where you define the rules for database classification as well as rules for mapping analysis and migration type properties. Migration jobs for classified databases can be defined and run from here is well. The dialog box is organized in a tabular layout.

General tab

Table 38. General tab

Property	Description
Class Name	Name of class
Description	Description of class
Type	The Type property ensures that a database assigned to this Class has the same type of reference database. It can be set to QuickPlace, Quickr, or Domino.Doc. The default is blank. Assigning the class a Type allows Migrator for Notes to SharePoint to do the following: • When you assign a reference database and analyze it in the Class Template tab of the Class Properties, it will be analyzed as that type of database. • When you create or edit migration jobs from the Migration Jobs tab of the Class Properties, it will assign the reference database with the proper type. The Type property does not impact how classification works or how rules are applied to individual databases.

Rules tab

This tab has the rules that are used when classifying a database. If a database meets the rules defined in this tab, it will be automatically classified as the given class.

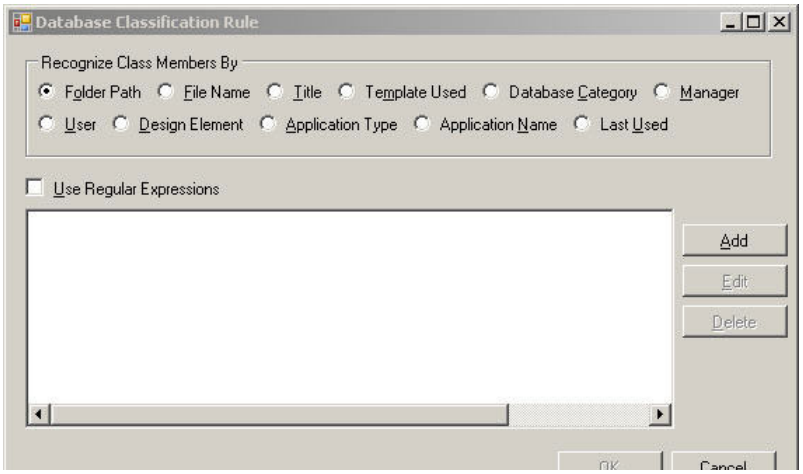
Rules are prioritized (applied in a predefined order); the first one that matches is used and subsequent rules are not tested. To move a rule higher in the order, select the rule in the list and click the **Move Up** button. To move a rule lower in the order, select the rule and click **Move Down**.

To create a rule, click the **Add** button on the right. To edit an existing rule, select the rule from the list and click **Edit**. To delete a rule, select the rule from the list and click **Delete**.

You can define as many rules as needed. Select the **Match only if All above conditions are met** radio button to create an And condition or select the **Match if ANY above conditions are met** radio button to create an Or condition for your rules.

Clicking **Add** or **Edit** opens the **Database Classification Rule** dialog box.

Figure 4. Database classification rules



Using the **Recognize By** radio buttons, select the method for identifying databases. The **Last Used** radio button allows you to identify databases whose last used date falls within a specified date range.

Select the **Use Regular Expressions** check box if your rule uses regular expressions for identifying the strings. Some examples of regular expressions:

^abc - starts with the string "abc".

abc$ - ends with the string "abc".

^abc$ - matches the string "abc" exactly.

abc - contains the string "abc".

^ab.*cd$ - starts with "ab" and ends with "cd", with anything in between.

^ab...cd$ - starts with "ab" and ends with "cd", with 3 characters in between.

For more information on regular expression, see http://www.regular-expressions.info/quickstart.html.

Class Template tab

Databases that qualify to be members of the given class can have their analysis automatically run using the information defined in this tab. To do this, you must run the Apply class rules action for the databases once this tab is filled out.

Table 39. Class Template tab

Property	Description
Reference database	The design of each database associated with this class is compared with the designs of the Reference database. To select a Reference database click Select.
Automatically assign as reference database for each class member	If checked, the reference database will be automatically assigned to the databases of this class during the Apply class rules process.
Include in “Best Fit” testing for all databases	If checked, the reference database will be included in the "Best Fit" "design matching which recognizes the applications that are based on similar designs, regardless of whether or not they are currently inherited from the same application template. For more information on this matching process, see Analyze databases on page 38.

To analyze the design of the reference database, click **Scan Design**.

The design summary will appear at the bottom of the tab once the reference database has been scanned. To view the details of the design, click **Design Details**. You can generate an InfoPath form from a Notes form.

The design information on the Class Template tab is part of the reference database’s properties sheet. It is visible here for ease of use. This same data is accessible from the database’s Design Analysis tab.

Auto Triage tab

Databases that qualify to be members of the given class can have their migration status information automatically set using the information defined in this tab. To do this, you must run the Apply class rules action for the databases once this tab is filled out.

Table 40. Auto Triage tab

Property	Description
Automatically set Database Owner	Indicates that if a database is assigned this class, it will automatically be assigned the given database owner. To automatically assign a database owner, select the check box and select the database owner in the dropdown list box.
Automatically set Business Owner	Indicates that if a database is assigned this class, it will automatically be assigned the given business owner. To automatically assign a business owner, select the check box and select the business owner in the dropdown list box.
Automatically set Analysis Priority	Indicates that if a database is assigned this class, it will automatically be assigned the given analysis priority number. To automatically assign analysis priority, select the check box and enter the priority number in the field to the right and select the user responsible for the analysis in the **Assign to** dropdown list box.

Table 40. Auto Triage tab

Property	Description
Automatically set Migration Priority	Indicates that if a database is assigned this class, it will automatically be assigned the given migration priority number. To automatically assign migration priority, select the check box and enter the priority number in the field to the right and select the user responsible for the migration in the **Assign to** dropdown list box.
Automatically assign Design Complexity	Indicates that if a database is assigned this class, it will automatically be assigned the given design complexity number. To automatically assign complexity, select the check box and enter the complexity number in the field to the right. This is a number between 1 and 5, 5 being the most complex
Automatically set Disposition	Indicates that if a database is assigned this class, its disposition will automatically be set to the disposition that is selected in the disposition dropdown list box. To automatically assign disposition, select the check box and select the desired disposition from the dropdown list box to the right. The disposition indicates what you want to do with the database in the migration process (for example, 'Migrate to standard SharePoint targets' or 'End-of-life').

Assign Effort tab

Databases that qualify to be members of the given class can have their migration effort automatically set using the information defined in this tab. To do this, you must run the Apply class rules action for the databases once this tab is filled out.

Table 41. Assign Effort Tab

Property	Description
Automatically assign effort estimates	If checked, the effort estimates in the below fields will be assigned to the databases of this class.
Estimates do not include effort tracked in template or similar database	If checked, the numbers entered below should not reflect the analysis, development and testing effort that is expected for the original database template (the reference database on the Class Template tab).
Analysis work	Enter a number that represents the analysis work effort.
Development of new targets	Enter a number that represents the development of new targets effort.
Development of new migration jobs	Enter a number that represents the development and content migration effort.
Provisioning and content migration	Enter a number that represents the provisioning and content migration effort
Testing and verification	Enter a number that represents the testing and verification effort.
Totals	Estimated total

Auto Target tab

Databases that qualify to be members of the given class can have their migration targets automatically set using the information defined in this tab. To do this, you must run the Apply class rules action for the databases once this tab is filled out.

Table 42. Auto Target Tab

Property	Description
Enable automatic Target Identification for databases of this class	If checked, enter the migration target in the Base Site Url field.
Create new site for each database	If checked, select the Option button to the right in order to define the site creation options.
Assign targets for every child application	If checked, Migrator for Notes to SharePoint assigns a target to all children *without* generating a subsite.
Create new subsite for every child application	If checked, select the Options button to the right in order to define the subsite creation options. Note that this only applies to databases that have been identified as part of an application hierarchy using the Discover QuickPlace/Quickr Organization or Discover Domino.Doc Organization processes.
Provision Navigation Links (QuickPlace/Quickr only)	Check this if you would like to recreate the QuickPlace/Quickr room menu in the SharePoint QuickLaunch during migration. You can choose to append to the existing QuickLaunch menu at the top or bottom of the menu or to completely replace the menu. The **Replace list** option will delete the current QuickLaunch menu and replace it with the QuickPlace/Quickr room menu being migrated. The **At the top of the list** and **At the bottom of the list** options will delete and then add the links that contain the same names as those in the migration. This will prevent duplicate menu items.

NOTE: While QuickPlace/Quickr rooms can have several levels of menu items in the navigation hierarchy, SharePoint can only have two levels. During provisioning of the navigation hierarchy, all levels that are lower than the second level will be flattened to the second level in SharePoint.

Site creation options

Table 43. Site creation options

Property	Description
Parent Site	Base Site Url from previous dialog box
Relative Url	Relative Url for new site/subsite. You can use the variables listed at the bottom of the dialog box to create a dynamic url. For example, if you use “{7}” in this field it will be substituted with the actual Application Name for each database you are assigning targets to. For more information, see Variable substitution rules on page 72.
New Site Url	The name of the new site will be displayed in this field taking into account the variables used in the Relative Url field.
Title	Title of the new site. You can use the variables listed at the bottom of the dialog box to create a title. For example, if you use “{0}” in this field it will be substituted with the actual Database Title for each database you are assigning targets to. For more information, see Variable substitution rules on page 72.
Site Description	Description of the new site.You can use the variables listed at the bottom of the dialog box to create a description. For example, if you use “{4}” in this field it will be substituted with the actual Technical Class for each database you are assigning targets to. For more information, see Variable substitution rules on page 72.
Site Template	SharePoint template to be used during the creation of the new site.
Inherit Parent Toolbar	If checked the new site will have the same toolbar as the parent site.
Inherit Parent Permissions	If checked the new site will have the same permissions as the parent site.
Additional Administrators	This button opens the Additional Administrators dialog box. Add users that you want defined as Administrators of the new SharePoint site. If none are added, only the user who runs the migration job will be defined as an administrator. At the bottom of the dialog box is a list of variables that can be used in any of the above text boxes. These are valid substitutions that will be used during site creation to dynamically create urls and site names.

Variable substitution rules

When SharePoint site or subsite Urls are built using this substitution, it is possible that the source text of the substitution may not conform to the restrictions required of a SharePoint site Url. If the Url does not conform to SharePoint site Url naming restrictions, then the site will not provision completely and the migration cannot succeed. To avoid this, Migrator for Notes to SharePoint modifies the site Urls to conform to the SharePoint site Url naming limitations. When a SharePoint Site Url is computed by Migrator for Notes to SharePoint, it will be modified according to the following rules in order to produce a legal site Url:

- The following illegal characters are converted to the ‘_’ character: \+?#&*|~/%:<>”
- The following illegal whitespace characters are converted to normal spaces: Tab VTab Return Newline
- Leading/trailing whitespaces are eliminated
- Embedded blocks of whitespace are compressed to a single space
- Embedded/trailing blocks of repeated underscore characters are compressed to a single underscore
- Leading dots and underscores are eliminated
- %20 is converted to space character
- Sequences of 2 or more periods are eliminated
- Trailing periods are eliminated

NOTE: The site name does not get altered, only the Url to the site.

For information on the replacement for the illegal characters in documents and folder names as well as SharePoint page titles, see “Configure Character Replacement List” on page 14.

Migration Jobs tab

Databases that qualify to be members of the given class can have their migration jobs automatically set using the information defined in this tab. To do this, you must run the Apply class rules action for the databases once this tab is filled out.

Table 44. Migration Jobs tab

Property	Description
Enable automatic Migration Job Assignment for databases of this class	If this is checked, assign which migration jobs will be used and any permissions
ACL Entry Mapping and SharePoint Group Provisioning	Allows you to map ACLs to SharePoint site members and permissions at the site level as well as generate SharePoint Groups from Notes Roles and Groups.
Content Migration Jobs	Allows you to add the migration jobs that you want each database of this class to use. The migration jobs that are defined for this class appear in the Content Migration Jobs list. To create a new job for this class, click **New**. To import an existing job definition, click **Import**. To edit an existing job, select the job from the list and click **Edit**. To delete an existing job, select a job from the list and click **Delete**. To export the job definition in order to re-use it for other classification rules or database migrations, select the job from the list and click **Export**. This will export the job to a pmjob file.

Updating a target

To update the target list name for a migration job, select the job from the list and click **Target**. The ‘Select a target list’ dialog box will appear. When entering the target list, variable substitution can be used, as shown by the helper box in the dialog box. For more information, see Variable substitution rules on page 72.

Click **Select...** to launch the Migrator for Notes to SharePoint's SharePoint List browser and select the desired List. The **Select...** button is only enabled if in the Auto Target tab, Enable Automatic Target Identification is checked, the base site URL is not empty, and the two “Create new...” check boxes are not checked. If the **Select...** button is disabled, you can still type in a list name.

For detailed information on defining a migration job using the Job Designer, see Migrator for Notes to SharePoint Designer on page 91.

Content Types tab

This tab allows you to define and provision SharePoint Content Types for a SharePoint Site.

You can add Content Type definitions to be provisioned in many ways.

- **New:** Define from scratch a Content Type.
- **Import:** Allows you to add a Content Type definition from a previously exported Content Type definition file.
- **From Notes Form:** Create a Content Type definition based on a Notes Form.
- **From Migration Jobs:** Allows you to take the fields in the target data definition of a migration job and use them in a Content Type definition.
- **From Existing List:** Allows you to take a SharePoint List and turn it into a Content Type definition.
- **From Existing Content Types:** Create a Content Type definition based on an existing Content Type.

To edit a Content Type definition, select it in the list and click **Edit**.

To delete a Content Type definition, select it in the list and click **Delete**.

To provision the list of Content Types shown in the tab, click **Provision**.

NOTE: If a Content Type in the list already exists in the target site, the existing Content Type definition will be updated. Any new columns will be added but columns that are in the existing Content Type that are not part of the Migrator for Notes to SharePoint definition will not be removed. They will be left as is.

Content Type tab

Specify the SharePoint site where you would like this Content Type to be created.

Table 45. Content Type tab

Property	Description
Name	Name of Content Type
Description	Enter a long description of Content Type. This is optional.
Content Type Group	Enter the Group that this Content Type should be associated with. Use the **Select** button to choose from the Content Type Groups already defined in the target site. If the Content Type Group you enter does not exist in the target site during provisioning, the Content Type Group will be created in the site.
Parent Content Type:	Enter the Parent Content Type for this Content Type. Use the **Select** button to choose from the Parent Content Types already defined in the target site. The Parent Content Type you enter must already exist in the target site during provisioning.
Associated Forms	Select a Notes Form that is associated to this Content Type.
Current Status	**:** The status of the Content Type automatically updates to indicate the current state.

Site Columns tab

This tab allows you to define the columns for the Content Type. Any site columns that do not already exist in the target site will be created during the provisioning of the Content Type. Then the new or existing site columns will be added to the target content type.

If a Content Type column already exists with the same name and has the same properties, Migrator for Notes to SharePoint will use it rather than creating a new one.

If a Content Type column already exists with the same name and has minor differences in properties, Migrator for Notes to SharePoint will use it and a warning will be issued.

If a Content Type column already exists with the same name but the **Type** is different, an exception will be issued.

If a Content Type column does not exist, but a Site column with the same name, type and properties already exists, Migrator for Notes to SharePoint will add it to the Content Type definition.

If the column has **Is Title Field** set to *true*, the current **Title** column will be renamed in the Content Type definition.

If a Site column already exists on the target site that has the same name but the Type is different, Migrator for Notes to SharePoint will create a new Site column and add it to the Content Type definition.

Otherwise a new Site column will be created and it will be added to the Content Type definition as well.

SharePoint Targets

The SharePoint Targets node allows you to navigate all available SharePoint sites and view any existing Lists and Libraries. The sites that you see here depend on your SharePoint configuration (see SharePoint tab on page 20).

An addition to displaying your existing sites and content, Migrator for Notes to SharePoint will also indicate any planned future sites and content that you have entered into the tool. The planned sites are displayed with a green plus icon.

Based on the Migration Plan you set up, a preview of the planned SharePoint sites is displayed under the SharePoint Targets node. These planned sites may have been manually added using the Add Sub-Site action (see Add sub-site on page 75), may have been added while specifying the Migration Targets tab for a particular database, or may have been assigned automatically based on database classes (see Auto Target tab on page 71).

Both planned and existing sites and subsites are displayed. The sites that are planned and do not actually exist are displayed with a green plus sign icon. Each planned site has a detailed set of Plan a new SharePoint subsite that may be edited by selecting the Properties action.

Go to site

This action will launch the selected SharePoint Site.

Add sub-site

To add a planned site, select the parent site node in the tree and select the Add Sub-Site action. The Plan a new SharePoint subsite dialog box will appear. Fill the options out and select **OK** to save. Your planned site will show up in the tree with the green plus sign icon.

Plan a new SharePoint subsite

Table 46. SharePoint subsite

Property	Description
Parent Site	Base Site Url from selected tree node
Relative Url	Relative Url for new site/subsite.
New Site Url	The name of the new site will be displayed in this field
Title	Title of the new site.
Site Description:	Description of the new site.
Site Template:	SharePoint template to be used during the creation of the new site.
Inherit Top Link Bar	If checked, the new site will have the same top link bar as the parent site
Inherit Parent Permissions	If checked, the new site will have the same permissions as the parent site
Add to QuickLaunch	If checked, the parent's "Sites" QuickLaunch group will have a link to the newly provisioned site added.
Enable Site TreeView	If checked, the new site will have a the TreeView control enabled in the left side navigation pane. **NOTE:** This option can be enabled/disabled manually in SharePoint after a site is created by altering the **Site Actions > Site Settings > Tree View** setting.
Additional Administrators	This button opens the Additional Administrators dialog box. Add users that you want defined as Administrators of the new SharePoint site. If none are added, only the user who runs the migration job will be defined as an administrator.

Provision planned sites

To perform the actual site provisioning of sites and subsites, select the site node that you want to start from and select the **Provision Planned Sites** action. Upon selecting the action to provision the site, the Subsite Provisioning Task dialog box is displayed.

This dialog box gives you the details of the sites that will be provisioned and the options that you chose for the sites. You have the option to provision the planned child subsites by checking the **Provision all Child Subsites** check box.

You also have the option to run this action in the background as a task. To do this, select the **Run task in background** check box**.** Once the provisioning process begins, status information is displayed in the progress bar. You can also view the detailed status of the provisioning job by viewing the corresponding task record in the Tasks view. Open the task to view the results of the process as well as any errors or warnings. For more information, see Task history on page 84.

If deselected, this action will run in the foreground with the task properties dialog box displaying progress, status and logs.

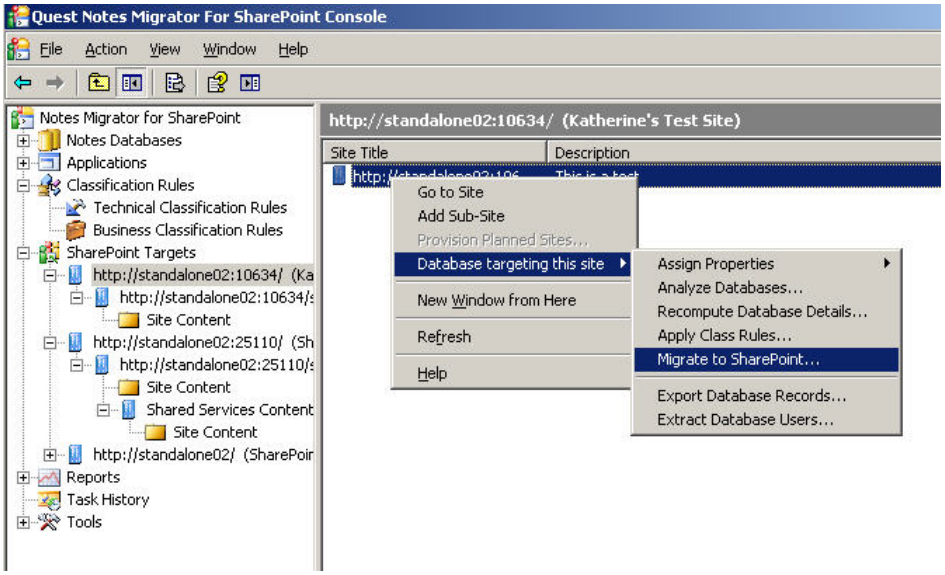
Databases targeting this site

For a site that has one or more databases targeting it, the following database actions are available from the **Databases targeting this site** menu item:

- Assign properties
- Analyze databases
- Recompute database details
- Apply class rules
- Migrate to SharePoint

- Export database records
- Extract database users

Figure 5. Database targeting this site



Scheduled tasks

All scheduled tasks are listed under the **Scheduled Tasks** node. You can see these information for each one:.

Table 47. Scheduled tasks

Column	Description
Name	Indicates the name of the scheduled task.
Database(s)	Indicates the names of the databases to be analyzed.
Status	The task status can be `Ready`, `Running`, `Succeeded`, `Failed`, `Suspended` or `Cancelled`.
Next Run Time	Indicates the time when the task will run next time.
Last Run Time	Indicates the time when the task ran next time.
Type	The task type can be `analysis` or `migration`.
Jobs	Indicates the number of the databases to be analyzed in the task.
Records	Indicates the number of the records that has been logged in the last run.
Errors	Indicates the number of the errors found in the last run.
Warnings	Indicates the number of the warnings found in the last run.

You can perform the following procedures for scheduled tasks:

- Creating a scheduled task
- Editing a scheduled task
- Running a scheduled task
- Viewing scheduled task history
- Deleting a scheduled task

Creating a scheduled task

You can create a scheduled analysis task from the **Analyze databases** window, or a scheduled migration task from the **Migrate to SharePoint** window.

To create a scheduled analysis task

1. In the NMSP console, under the **All Databases** node, right click on one or multiple databases, and select **Analyze Databases...**.
2. In the **Analyze Databases** window, click the radio button **Create a scheduled task**, and click **OK**.
3. In the **New Schedule Analyze Task** window, enter a **Task Name**, and set a **Start Time** and a **Stop Time** (optional) for the task.

   NOTE: The task will be stopped if it is still running at the stop time you set, and enter the status **Stopped**. Once stopped the task cannot be resumed again.

4. Click **Analyze Parameters** to decide which types of scans to be run for the task. For information on the various scans, see Table 16.
5. In the NMSP console, click on the **Scheduled Tasks** node, and notice that the new scheduled task is displayed in the list on the right.

To create a scheduled migration task

1. In the NMSP console, right click on a database and select **Migrate to SharePoint**.
2. In the **Migrate to SharePoint** window, click the radio button **Create a scheduled task**.

   The **New Scheduled Task** window opens.
3. Enter a **Task Name,** set a **Start Time** and a **Stop Time** (optional) for the task, and click **OK**.

   NOTE: The task will be stopped if it is still running at the stop time you set, and enter the status **Suspended**. To resume the task, right click the task in the Scheduled tasks list, and select **Continue**.

4. In the NMSP console, click on the **Scheduled Tasks** node, and notice that the new scheduled task is displayed in the list on the right.

Editing a scheduled task

To edit the properties of a scheduled task

1. In the NMSP console, click on the **Scheduled Tasks** node.

   All scheduled tasks are displayed in the list.
2. Right-click on the task you want to edit and select **Properties**.

   The **Properties** window opens for the scheduled task.
3. You can perform the following functions in the **General** tab:
   - Change the scheduled task name and start time.
   - Click **Options** and change the task options.
   - Right click a job in the list and select **Edit** to edit the job.
   - For a scheduled analysis task, click **Analyze Parameters** to edit the analyze parameters. For information on the various scans, see Analyze databases on page 38.

Running a scheduled task

To run a scheduled task immediately

1. In the NMSP console, click on the **Scheduled Tasks** node.

   All scheduled tasks are displayed in the list.
2. Right-click on the task you want to run and select **Run**.
3. In the confirmation window, click **Yes**.

   The task runs immediately.

NOTE: To see the analysis result after running a scheduled analysis task, restart the console first, and then check these tabs in the Database **Properties** window:

- Script Analysis tab
- Design Analysis tab
- Complexity tab
- General Tab
- Classification tab
- Database Access tab
- Usage Analysis tab
- Data Analysis tab

Viewing scheduled task history

To view the history of a scheduled task

1. In the NMSP console, click on the **Scheduled Tasks** node.

   All scheduled tasks are displayed in the list.
2. Right-click on the task you want to edit and select **Properties**.

   The **Properties** window opens for the scheduled task.
3. In the **Properties** window, select the **History** tab.

Deleting a scheduled task

To delete a scheduled task

1. In the NMSP console, click on the **Scheduled Tasks** node.

   All scheduled tasks are displayed in the list.
2. Right-click on the task you want to delete and select **Delete**.
3. Click **Yes** to confirm the deletion.

Reports

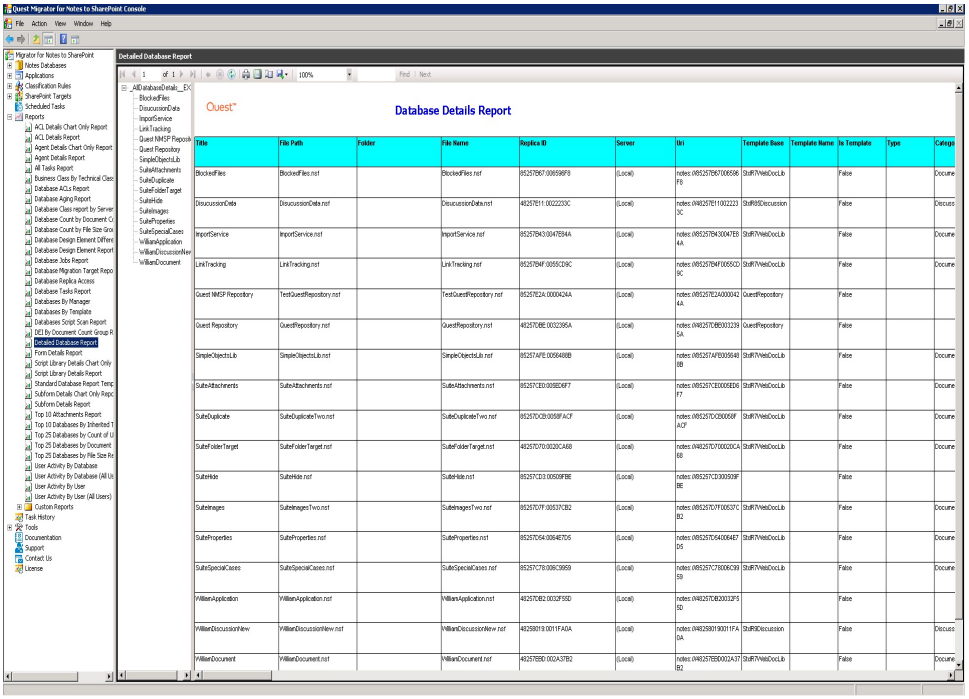
All reports are found under the Reports node. Each report is represented by a tree node. A number of standard reports are provided that summarize or detail the data collected by the user. The standard reports are found directly under the Reports node. They cannot be edited or customized within the console.

NOTE: The current version of Migrator for Notes to SharePoint includes only a limited set of standard reports and charts. Additional reports may be downloaded separately from the Quest support web site and from http://notes2sharepoint.org.

Microsoft Report Viewer 2012 is used by the console for viewing all reports. If this component is not installed, the reporting functionality will be not enabled. Report Viewer 2012 may be downloaded from the following location: http://www.microsoft.com/en-us/download/confirmation.aspx?id=35747.

To view a report, select the corresponding report node. The resulting report can be viewed in the Results View. From the Results View, you can navigate through the pages of the report, print the report or export the report using the report toolbar on the top of the Results View.

Figure 6. Detailed database report



For more information on the Report Viewer capabilities, go to http://msdn.microsoft.com/en-us/library/ms251671(VS.100).aspx.

Standard and advanced reports

The installation adds several report XML and RDLC files in the Standard Reports folder. Reports shipped with the console are listed as children of the Reports node and cannot be edited or customized within the console.

Each report consists of:

- Report Definition metadata (.XML) - provides the title, description and data filtering criteria. This is saved as an XML file in the Standard Reports or Custom Reports folder and is essentially what is represented by the report tree nodes. Each XML file contains a reference to an RDLC file (see below).
- Report Definition file (.RDLC) - supplies the visual formatting, layout of the report and data fields to render. These are created using a third party RDLC editor. By convention the RDLC will have the same file name (except for the extension) as the XML file.This is saved in the Standard Reports or Custom Reports folder.

The following is a list of Standard Reports:

- All Tasks Report
- Database ACLs Report
- Database Aging Report
- Database Class Report By Server (Chart)
- Database Design Element Differences Report
- Database Design Element Report
- Database Jobs Report
- Database Migration Target Report
- Database Replica Access
- Database Tasks Report
- Database By Manager
- Databases By Template
- Databases Script Scan Report
- Detailed Database Report
- Standard Database Report Template
- User Activity By Database
- User Activity By Database (All Users)
- User Activity By User
- User Activity By User (All Users)

The following is a list of Advanced Reports:

- ACL Details Chart Only Report
- ACL Details Report
- Agent Details Chart Only Report
- Agent Details Report
- Business Class By Technical Class Report
- Database Count by Document Count Group Report
- Database Count by File Size Group Report
- DEI By Document Count Group Report
- Form Details Report
- Script Library Details Chart Only Report
- Script Library Details Report
- Subform Details Chart Only Report
- Subform Details Report
- Top 10 Attachments Report
- Top 10 Databases By Inherited Template Report
- Top 25 Databases by Count of Uses Report
- Top 25 Databases by Document Count Report
- Top 25 Database by File Size Report

Report dataset supports the following tables:

- DbReportTable - Defines all the reporting fields associated with a database record
- DbUserActivityReportTable - Joins DbReportTable with user Read/Write/Use Activity information
- DbDesignElementReportTable - Joins DbReportTable with Design scan information about Design Elements
- DbDesignElementDifferencesReportTable - Joins DbReportTable with Design scan information about Design Elements compared with a Reference database
- DbAnalysisByAuthorReportTable - Joins DbReportTable with detailed document Author information.
- DbAnalysisByFormReportTable - Joins DbReportTable with detailed document Form information.
- DbJobReportTable - Joins DbReportTable with Database Associated Job information.
- DbTaskReportTable - Joins DbReportTable with Tasks run on each Database
- DbUserAclsReportTable - Joins DbReportTable with detailed database User ACL information.
- TasksReportTable - Provides top level Task execution details

The RDLC report files contain the dataset schema needed to design reports. There is no external XSD schema file provided containing this information. When using the Create New Custom Report feature described below, a starter RDLC is created containing the dataset schema ready for designing the report in a suitable 3rd party tool such as Visual Studio Professional.

Custom reports

In addition to the standard reports that are provided, users can design their own.

All custom reports appear under the Custom Reports scope node under the Reports node. The Custom Reports node has actions to add, edit or delete Reports.

To create a new custom report

1 Select the Reports scope node.

2 Select **Create new custom report** from the Actions pane or context menu.

The Report Definition dialog box will appear.

Table 48. Custom reports

Property	Description
Report Title	The name of the report
Description	The description of the report
RDLC Template	The report definition file the custom report will be based on. Click the **Browse** button to search on all available templates. You can use an existing template from any place on the network. The default location is the Standard Report folder since this is where the Migrator for Notes to SharePoint standard report templates are located.

Table 48. Custom reports

Property	Description
Edit	Click the **Edit** button to launch the currently installed report editor to design the report. If the template that you have chosen is sufficient, there is no need to use the **Edit** button **NOTE:** Microsoft's Visual Studio Report Designer is currently the only report designer supported as the RDLC editor. The Express versions are not supported however. For more information about this report designer and how to build reports using it, refer to http://msdn.microsoft.com/en-us/library/ms157166.aspx. If you do not have a supported report designer installed, clicking **Edit** will generate an error message indicating this. For detailed information on the available reporting dataset columns that you can use in your custom reports, see Migrator for Notes to SharePoint reporting data tables on page 146. **NOTE:** If you want to modify a standard template that is delivered with Migrator for Notes to SharePoint but for just one particular report, you will need to create a copy of the RDLC file and have the one report refer to that copy. Use the Copy Report function to do this. This copy can then be edited in the Report Designer. By changing one of the standard templates, you will be changing all the reports that use that template.
Database Scope	The database scope node that the custom report will be based on. The custom report will be a filter of this scope node's result set
Filters	Select one or more check boxes for the data types you want to filter the result set on. The data type button on the right of the check box will activate. Select the button to specify the filter. Check one or more of the check boxes that correlate to the data you want displayed in your report. You can deselect a check box by selecting it again

To edit a custom report

1. Select the report.
2. Select **Customize Report** in the Action pane or context menu.

To delete a custom report

1. Select the report.
2. Select **Delete Report** from the Action pane or context menu.

To clone a standard report or custom report

1. Select the report you want to clone.
2. Select **Copy Report** from the Action pane or context menu.

   The Report Definition dialog will appear for the new cloned report. It is pre-filled with the same settings as the source report.

The Copy Report function performs the following actions:

- Copies the report definition's referenced RDLC file and places the uniquely named copy in the Custom Reports folder. The new custom report definition (the XML file) will refer to the new RDLC file in the Custom Reports folder.
- Copies the selected report definition's XML file and places the uniquely named XML file in the Custom Reports folder. The RDLC reference in the XML file is updated to point to the newly created RDLC file.

Other view properties such as column selection, column ordering and sorting are defined using the **View** menu item of the Actions pane. Select the submenu item **Add/Remove Columns** to change the report's column selection as well as to reorder the columns. The **Sort By** menu items allow you to change the field that the report is sorted on.

Another way to add a new custom report to the Console is to simply add the report's RDLC and XML files to the Custom Reports folder. The next time the Console restarts or refreshes, the new report nodes will appear under the Custom Reports node.

To share a report, you can copy the .XML and .RDLC files from your Custom Reports folder to another user's Custom Reports folder.

With new releases of the Migrator for Notes to SharePoint Console, additional reporting fields and tables may be provided, or existing ones renamed. Older custom reports may need to be updated in order to be compatible with the newer dataset schema.

To support this, the **Update Report Definition** action is available when a custom report is selected. This action will create a time-stamped backup of the current report RDLC file prior to performing the required upgrade of the report's dataset definitions. Once the report is updated, new tables and data columns are available for customizing the report.

The **Update Report Definition** action is only available for reports within the Custom Reports folder and is usually only necessary in the following cases:

- A previously working custom report generates an error after upgrading to a newer version of Migrator for Notes to SharePoint.
- New Data tables or columns needed for a particular report are not shown when modifying a report in the third party report designer.

Task history

All long running tasks are managed using a common task management facility found in the Task History node. When a process is run in the Console, Task Records are created and either dispatched to worker threads that perform the actual work or added to a task management queue, in which case they are performed serially in a predetermined order.

When the Task History node is selected, the Results View of the console shows a list of all tasks (pending + running + recently completed). This view is automatically updated in real time.

The view displays the following information for each task listed:

- Status Icon
- Task Name
- Type of Task
- Status
- Summary
- Start Time
- Stop Time

Each task record and its details are viewable in the task property sheet. If a running task is being viewed in a property sheet, the information on the property sheet updates as the task status changes.

Certain tasks such as migration jobs, will generate a log file. The log files are saved as part of the Task Record in the Repository. When a log file becomes available, additional tabs are displayed in the task property sheet. These tabs are the summary and detailed versions of the log file similar to the Migrator for Notes to SharePoint Designer log viewer. For more information, see Migration job logging on page 126. Log files can be exported to the file system by selecting the Export Log task action once the task is selected in the results view. To migrate the failed items for a task, right click on the task, and click **Migrate Failed Items**. For more information, see Migrating failed items on page 125.

Additionally, the Task Records that relate to a particular database should be displayed in that database's Migration History tab of the database property sheet.

Any tasks that are tied together to run sequentially, like running multiple migration jobs for a single database, are displayed as separate tasks with a wrapper task, for example "Content Migration Sequence".

One or more tasks can be purged from the Repository by selecting the tasks in the results view and the selecting the Delete action from the Action view.

Importing tasks

For migration jobs that have been run using Migrator for Notes to SharePoint Designer or the Migrator for Notes to SharePoint Command Line, the logs can be imported into Task History. This allows the jobs to be visible in the database's migration history.

To import a log file

1. Select the Task History node.
2. Select **Import log files** from the Action menu.

You can select one or more log files to import. A record in the Task History view will be created to log the results of the import.

Only migration logs generated by Migrator for Notes to SharePoint or Migrator for Notes to SharePointCmd will be imported. Any other log files (including those that may have been exported from the Task History view in the Console) will be ignored. Log files that have already been imported into the Console, we will ignored as well.

The import will attempt to match up the Notes database that was used for the migration with the database reference being held in the Repository. If the database reference is found, the Task History record will be associated with the database, and will show up in the Migration History tab in that database's properties.

General rules for running tasks

When running any task, the user has the option to run the task in the background. If the user does not choose this option, the task will run in the foreground. The Task Management dialog box will be displayed.

You can view your task process and, if the task is a sequence, the progress of all the sub tasks.

Click the **Cancel** button to stop the task. If there is a recoverable error the task will pause and wait for you to cancel or resume. If you click **Hide**, the dialog will close but the task will keep running in the background. You can go to the Task History View to open it again.

If the user chooses to run the task in the background, you can view the task and its status in the Task History View. You can open the Task Management dialog box for the task by selecting it in the view and double clicking.

Link Analyzer/Updater/Finalizer

The **Tools** node contains the **Link Analyzer/Updater/Finalizer** child node which allows you to manage your Link Tracking database.

The Link Tracking Service (LTS) component ensures that Notes DocLinks continue to work before, during and after the migration process, regardless of the order of document migration. The service maintains a record of every document that is ever migrated and guarantees that users clicking on an intra-document link will always be able to find the current location of the document. Users can view a Link Tracking information page first, or simply be redirected to the desired page in Notes or SharePoint.

As each document is migrated to SharePoint, its new location is tracked in a SQL Server database called the LTS database. This database is created when you first install Migrator for Notes to SharePoint Services.

When migrating Notes rich text fields that contain DocLinks to other Notes documents, these DocLinks are converted to URL links to a Link Tracking service that knows how to resolve them. If a SharePoint user clicks on a link to a document that has *not* been migrated yet, they will be redirected to the appropriate document in the Notes

client. If the user clicks on that same link *after* the document is migrated, they will be redirected to the new copy of the document in SharePoint (which might be a list item, a document library file, or even an InfoPath form).

NOTE: If you do not want to connect your production SharePoint environment to our Link Tracking database, you can use the client side Link Tracking where Link Tracking is performed by the Migrator for Notes to SharePoint Console or Designer rather than by the Migrator for Notes to SharePoint Service. You will need to configure Link Tracking using the Link Tracking tab of the Global Options dialog box of the Migrator for Notes to SharePoint client.

Documents can be added to the Link Tracking Service whether the migration is accomplished through the Import Service or by using Migrator for Notes to SharePoint products in “local” mode (running the tool directly on the SharePoint server).

If, after your migrations, you move your SharePoint site to another server or location, you can update the links in the LTS database using the Link Tracking Finalizer/Updater. If you have relocated the LTS redirector page, the Link Tracking Finalizer/Updater can also update all documents that have links to the LTS redirector page in order to look for that page in the new location. If you would like to remove the Link Tracking Service completely after the migration is done, the Link Tracking Finalizer/Updater can finalize the links to allow for its removal

The Link Tracking database can be configured and managed on the SharePoint server as a Migrator for Notes to SharePoint Service or in the client using this node of the Console. From this node, you can configure Migrator for Notes to SharePoint to use the client rather than the server to manage the Link Tracking database.

NOTE: To configure Migrator for Notes to SharePoint to use the SharePoint server for Link Tracking management, see the Configuring the Link Tracking Service section of the **Migrator for Notes to SharePoint Installation Guide**. If the SharePoint server is used, it will need the ability to connect and update the Migrator for Notes to SharePoint Link Tracking database.

Overview tab

From the Overview tab, the status of the client managed Link Tracking is indicated. If the client managed Link Tracking has not been turned on, it will be indicated. To configure client managed Link Tracking, click the **Change Settings** link. This will open the Link Tracking tab of the Advanced configuration options dialog box. From this dialog box, you can enable client side link tracking as well as configure it.

The “Link Tracking Database Settings” section shows the Server, Database and Authentication method currently in effect.

There are two links:

- Change Settings -> This opens the Link Tracking tab of the Advanced Options dialog box where the settings for Client Side Link Tracking and Finalization features can be configured.
- Test Connection -> This Link is enabled once the Link Tracking database settings are filled out. Click this link to test the connection.

The Lower section of this tab is for describing and accessing the Link Tracking Update and Finalization features. Access to these features is enabled once the Link Tracking database is successfully configured and you have turned on the “Enable Link Updater / Finalizer operations directly from the Migration Console” option on the Link Tracking tab of the Advanced Options dialog box.

Once enabled, click on the Analyze, Update or Finalize links to access the following tabs:

- Analyze tab
- Update Links tab
- Link Finalization tab
- Log tab

Analyze tab

The Analyze process inspects some or all of the SharePoint documents referenced in the Link Tracking Database and reports their status.

This tool allows you to select the set of documents that you want to analyze.

Table 49. Analyze tab

Property	Description
All migrated documents	Select this radio button to analyze all migrated documents in the Link Tracking Database.
All documents migrated to a specific Web Application	Select this radio button to analyze the documents in a particular web application.
All documents migrated to a specific Site Collection	Select this radio button to analyze the documents in a particular site collection.

Once you have made your selection, click **Analyze**. The analysis job will run. The status of the job will be indicated at the bottom of the tab. The results can be viewed from the **Analyzer Results** tab.

NOTE: Data can be copied out of the Analyzer Results tab by selecting a Cell, Row or the whole table (upper Left box in the grid) and using Ctrl-C. It can be pasted into a file or into Excel for analysis.

Update Links tab

You can use this tool to update the locations of your migrated documents in the Link Tracking database. This will be useful if the locations of your migrated documents have changed (for example, you may have changed the external host name of your SharePoint server, changed the path for a SharePoint site, or moved your content database to a different server).

For example, imagine that you have migrated all your Notes documents to a staging SharePoint environment (http://staging01:8080) and now it is time to go live. You plan to detach your content database and reattach it in your production environment or even a hosted environment such as Microsoft SharePoint Online (say, http://acme.sharepoint.online). The "Update links in the Link Tracking Database" function will allow you to update all references to documents that will be impacted by this move in the Link Tracking Database.

Table 50. Update Links tab

Property	Description
Old URL Prefix	Enter the URL prefix of the documents as they currently appear in the Link Tracking database.
New URL Prefix	Enter the new URL prefix that you want to be the replacement for the above URL prefix.
Update locations of referring documents	Select this check box to update the table of referring documents (documents that contain links to other documents) in addition to updating the locations of your documents. You should only choose this option if the documents at the NEW location will be reachable by the Link Tracking Finalizer tool. In particular, if you are preparing to finalize a set of documents before moving them, you should NOT select this option. If you do, the Finalizer tool will not be able to find them.

Table 50. Update Links tab

Property	Description
Preview	Click this button to preview the current references to documents as stored in the Link Tracking database and the proposed new references to the documents. When the Preview button is pressed, he Progress area at the bottom of the form will become visible if it is not already. The Update Preview tab will appear with the proposed changes. Note that once the Update Preview tab appears, it will continue to be available with the last results. These results are not saved. **NOTE:** Data can be copied out of the Update Preview tab by selecting a Cell, Row or the whole table (upper Left box in the grid) and using Ctrl-C. It can be pasted into a file or into Excel for analysis.
Update	Click this button when you are ready to make the changes in the Link Tracking database. If you have lots of documents to update, you will see a status page that updates every few seconds and then a final results page.

Link Finalization tab

You can use this tool to update or permanently replace all Dynamic Links in a set of migrated documents. This works for links in SharePoint List Items, SharePoint Pages, InfoPath documents, Word documents or any other SharePoint target you chose to migrate to.

You can use this tool when updating the Link Tracking Database is not enough and you want to update the actual Dynamic Links in the migrated documents. The most common reason to do this is to permanently replace all Dynamic Links with direct links to the last known locations of the target documents. A secondary reason might be to change the location of your Redirector Page.

This tool allows you to select the set of documents that contain dynamic links that you want to update.

TIP: When you decide what you want to do with Dynamic Links that point to migrated documents, the most common choice is to replace them with direct links to the migrated documents (that is, their new URLs in SharePoint). Since this is a permanent, irreversible operation, we refer to it as "Finalization".

TIP: When you decide what you want to do with Dynamic Links that point to documents that have not been migrated to known SharePoint locations, we recommend to leave them as is, in case you want to migrate the linked-to documents later. If you are really sure that those documents are going to stay in Notes, you can finalize those links with the original Notes/Domino URLs.

Table 51. Link Finalization tab

Property	Description
Which migrated documents are to be processed?	
All migrated documents	Select this radio button to process all migrated documents in the Link Tracking Database.
Specific migrated documents	Select this radio button to process the migrated documents you specify. To specify documents by folder, enter the folder relative path; To specify documents by URL, enter the string that the document URLs start with.
Which DocLinks in the migrated documents you select are to be processed?	
All DocLinks	Select this radio button to finalize all DocLinks in the migrated documents.
DocLinks in specific migrated documents	Select this radio button to finalize DocLinks in the specific migrated documents. To specify documents by folder, enter the folder relative path; To specify documents by URL, enter the string that the document URLs start with.
Links to Migrated Documents	

Table 51. Link Finalization tab

Property	Description
Modify Dynamic Links to Migrated Documents	Select this check box to modify the links. To leave the Dynamic Links as they currently are, do not select this check box. If this check box is selected, you have the following choices: • **Finalize Dynamic Links with Direct Links**: Click this radio button to replace the Dynamic Links with direct links that point to the last known locations of the migrated target documents (that is, their new URLs in SharePoint) **CAUTION: You should only perform this operation when you are sure that the documents your links are pointing to are indeed "final" and that they are not still moving around. If you have moved (or plan to move) these documents or otherwise change their external addresses, be sure to run the "Update links in the Link Tracking Database" tool before you finalize your links. This is a permanent change that cannot be reversed using this tool.** • **Replace Dynamic Links with this Alternate URL**: Click this radio button to change the Dynamic Link to reference a different Redirector Page or to a static URL. Be sure to use the {0} notation to encode the unique identifier of the target document in the link.
Links to Non-Migrated Documents	
Modify Dynamic Links to Non-Migrated Documents	Select this check box to modify the links. To leave the Dynamic Links as they currently are, do not select this check box. This is the recommended option. If this check box is selected, you have the following choices: • **Replace Dynamic Links with this Alternate URL**: Click this radio button to change the Dynamic Link to reference a different Redirector Page or to a static URL. Be sure to use the {0} notation to encode the unique identifier of the target document in the link. • **Replace Dynamic Links with Direct Links when possible, otherwise remove them**: Click this radio button to change these Dynamic Links to Direct Links that point to the original locations of target documents in Notes/Domino. **CAUTION: notes://... URLs are not allowed in SharePoint Items. So finalizing such links in (for example) rich text fields in List Items renders them completely inoperable. It is safe, however, to finalize notes://... links in library files such as InfoPath or Word documents. This is a permanent change and is not reversible using this tool.**
Preview	You can preview the proposed changes of the operation by clicking this button.
Finalize	Click this button to make the desired changes. The Log tab will display the results.

Log tab

This tab displays the results from running the Link Finalization tool.

The **Session** dropdown allows you to choose the results of a particular finalization run.

NOTE: When viewing an old 5.2/5.3 database, this list may not contain specific results sets.

Table 52. Log tab

Property	Description
Column to Filter and Filter Text drop downs	When combined, allows you to locate specific text within the results.
Show Errors Only check box	Reduces the current result set to only those items that have error information present.

License

The **License** node is where you can import your license file to install, and check your license details. For how to import and install your license, refer to the section *Licensing and product editions* in the *Migrator for Notes to SharePoint Installation Guide*.

To check your license details, right click on the **License** node in the console, and select **License Details...**.The dialog box **Migrator for Notes to SharePoint License Status** opens.

The **License Info** tab in the dialog box contains the general information regarding your license:

- Product name
- Product version
- License number
- Database limit
- Product edition
- License type
- License expiration date

The **License Consumption** tab in the dialog box contains the consumption details on your license (the database limit shown on the **License Info** tab) by listing out which databases have consumed the license with the database ID and title on these actions:

- Analyze Database
- Recompute Database Details
- Apply Class Rules
- Migrate to SharePoint
- Recover Link Tracking Data
- Generate InfoPath Form Template
- Export Data Analysis Details
- Export Database Records
- Extract Database Users

NOTE: You will be prompted to confirm the license consumption when you perform the actions above.

3

Migrator for Notes to SharePoint Designer

- Introduction
- Creating a new job
- Customizing global options
- Normalizing multi-valued items to multiple documents
- Generating links to SQL records
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- Generating InfoPath forms (pre version 5.2)
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- Generating documents from Lotus Notes
- Direct folder migration
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Introduction

The Migrator for Notes to SharePoint Designer allows you to manage complete Job Definitions, set tool options, and run migration jobs.

NOTE: Certain functions will be disabled if you are running on a computer that does not have Notes installed or if you did not select the Notes Support option during installation. See the “Installation Requirements” section of the Migrator for Notes to SharePoint Installation Guide for more details.

It includes the following tabs:

Table 53. Designer tabs

Tab	Description
Notes® / QuickPlace®/Quickr® Domino.Doc® Data Source	The data source tab is where you select the Lotus Notes® databases, QuickPlace sites, Quickr sites, or Domino.Doc libraries you want to migrate data from. It is also where you select (or create) Data Source Definition files that describe the details of how data should be selected from these data sources and how it should be converted. A different set of options will appear depending on whether you are running Migrator for Notes to SharePoint in Notes, QuickPlace, Quickr, or Domino.Doc mode. To change modes, select the desired mode from the **Type** dropdown in the upper right hand corner of the tab. For more information, see Selecting data sources on page 93.
SharePoint® Data Target	The "SharePoint" tab is where you select the SharePoint List that will be used as the destination of data to be migrated. It is also where you select (or create) a Data Target Definition file that describes how data should be written to this list.
SQL Server® Data Target	This is where you select the target SQL Server database and tables that will be the destination of migrated data. It is also where you select (or create) a Data Target Definition file that describes how data should be written to this database. **NOTE:** This data target becomes available when you select Enable migration directly to SQL Server tables check box in the SQL Server tab from Migrator for Notes to SharePoint Options dialog box. For more information, see SQL Server tab on page 25.
Folder Data Target	The Folder tab allows you to migrate the data to a target folder. The following document types are supported for migration: • Microsoft Word (.docx) • PDF and PDF/A • Mail Messages (.msg) • HTML pages (.html)
Map Data	The "Map Data" tab is where you describe how the Notes fields in your Data Source Definition map to the SharePoint fields in your Data Target Definition. In most cases, the "Auto Map" function will do the mappings for you, but you can also override the defaults. Other general options that affect the migration process are available on this tab
Advanced Job Options	The "Advanced" tab contains additional settings for controlling user mapping, security mapping and DocLink conversion functions

Creating a new job

To create a new job, you must complete the following:

- Selecting data sources
- Creating/Editing data targets
- Mapping data
- Setting up user mapping and security mapping
- Saving the job

NOTE: To load an existing job

1. Click **Load Job**.
2. Select a transfer job.
3. Click **Open**.

Selecting data sources

To manage your data source

1 Select the data source value in the Type dropdown.

2 Select a Connection String. Select the database that will be used as the source of data. You can do this by:

- using drag-and-drop. Select a Notes database (NSF file) in Windows Explorer and drag it onto the Migrator for Notes to SharePoint user interface.
- using Migrator for Notes to SharePoint's Notes database browser. Click **Select** and select the desired local or server database.

To be sure this is the database to which you want to connect, click **Go To Database to** open the database that you have selected. If you wish to type in this connection string directly, see “Notes connection string reference” on page 128. If you have typed in your own connection string or have loaded it from an existing Job Definition, you may need to click the **Test** button to force this connection to occur.

A title for the Notes database or Quickr/QuickPlace/Domino server (depending on the type selected) is automatically entered.

The **Template used** field is automatically entered. It shows the name of the Notes design template that was originally used as the basis for creating that particular Notes application. This is a key piece of information that Migrator for Notes to SharePoint uses to recognize what type of Notes application it is. For example if the Template used is "StdR6WebDocLib", the Migrator for Notes to SharePoint knows it is a standard Notes version 6 Document Library and can deduce the forms, views, items available.

3 Create a source data definition. For more information, see Creating/Editing source data definitions on page 93.

4 From the Source Records section, configure the following:

- Max Records - allows you to limit the number of Notes records to be migrated to a predetermined number. If you are running Migrator for Notes to SharePoint with a trial license, your migrations will be automatically limited to 10 records
- Skip - allows you to skip a number of Notes records before starting migration. When used in conjunction with the "Max Records" option, you can migrate data in distinct chunks.
- Delete Source Documents when migrated - causes Notes documents to be deleted upon successful migration of that document. This option is primarily useful in scenarios where you want documents to be migrated as they are added to the database (for example a mail-in database). This option may be disabled depending on how your tool Options are set.

  This option may cause data loss. Be sure that your Job Definition extracts *all* the data you will ever want out of the Notes documents.

  This option is only available when you select a Notes from the Type dropdown.

Creating/Editing source data definitions

You can also create your own Source Data Definitions for any non-standard or customized database, including databases you built yourself or databases from third-party products.

To create a Source Data Definition

1 From the Source Data Definition section, click **Create**.

The Source Data Definition editor opens.

> **NOTE:** To load an existing Source Data Definition, select **Load**, and select a data definition.
>
> **NOTE:** To edit the currently loaded Source Data Definition, select **Edit**.

Definition tab

Record Selection tab/Document Selection tab

Data Fields tab

Preview Data Query tab

Definition tab

2 From the Definition tab, enter the Name and Description of the Source Data Definition.

If you want to permanently associate this Source Data Definition with one or more templates, you can enter them in the **Templates supported** field.

If you want to associate this Source Data Definition with corresponding SharePoint List Types, you can enter them in the **Maps to list types** field.

3 If you want to convert Windows MetaFile images to JPEG, GIF, PNG and BMP, select the Windows MetaFile check box, then select a format.

IMPORTANT: Converting Windows MetaFile images can cause loss of original image's quality and content.

4 If you have selected:

Table 54. Types

Type	Then go to
Notes	Step 5, then go to Step 8
QuickPlace or Quickr	Step 6, then go to Step 8
Domino.doc	Step 7

Record Selection tab/Document Selection tab

5 From the Record Selection tab, select records based on one or more of the following:

- View/Folder index
- Form Used - This will give you an implicit Fornix" selection formula which will be combined with the explicit selection formula (if any) at migration time. The syntax allows for the selection of both multiple forms and form aliases. Multiple forms are delimited by a ";" and form aliases are delimited by a "|". While this works with any two form names, the main purpose is to support form aliases where a form in Notes may have aliases.
- Notes Full Text Search language
- Notes @Formula language
- Rich Text Content - Use this to implement one or more of the following policies for document libraries:
  - For documents that contain just one attachment (and no other rich text), migrate the attachment directly to the SharePoint document library with all the appropriate security and metadata.
  - "For documents that contain Notes rich text, generate a Word or PDF document and place it in the same SharePoint document library with all the appropriate security and metadata.
  - "For documents containing neither attachments nor rich text, either skip the document or create a stub entry in the target library.

    Selecting the **Select documents based on Rich Text Content** check box enables a **Details** button where you can specify further details.

    You must specify one or more rich text items you would like to inspect, then specify the criteria you would like to use for filtering documents:

    - Whitespace only

- One attachment only
- Multiple attachments or other rich text

NOTE: A Record Selection tab appears only if you use Notes.

- UNID

6 The Documents Selection tab allows you to specify which data records should be read from QuickPlace or Quickr.

NOTE: The Document Selection tab appears only if you use QuickPlace, Quickr, or Domino.Doc.

- **Content Pages**– These are the primary types of pages created when users type content into the QuickPlace user interface. These pages can contain rich text bodies and multiple attachments.
- **Imported Pages**– These are pages are created when users import Word files or HTML files. These pages typically contain the imported file itself, plus an HTML rendering of the file generated by QuickPlace or Quickr.
- **Link Pages**– These pages are simple links to other pages (internal to the QuickPlace or Quickr).
- **Calendar entries**– These pages contain fields for scheduling events and contain special fields for organizing attendees, repeating meetings.
- **Task entries**– These pages contain fields for managing to-do items and contain special fields for organizing due dates and assignees.
- **Discussion pages**– These pages implement a topic/response hierarchy used in threaded discussions.
- **Members**– These pages contain information about the team members who typically use the QuickPlace.
- **Orphans**– These are all the other pages that are not members of any specific view or folder in the QuickPlace or Quickr (except for the Index). In practice, these pages are often out-of-date or otherwise not useful (as evidenced by the fact that there is not direct navigation to them) and they can be omitted in many migration scenarios.

The **Publishing** section of this tab allows you to control which documents are selected for migration in terms of the QuickPlace/Quickr concepts of "published/unpublished" versions. The default is to migrate only published documents. You can choose to migrate only unpublished documents by selecting the “unpublished documents” radio button or both types of documents by selecting the “all documents” radio button.

IMPORTANT: Some options will select more than one version of a given document for migration. In this case, the different versions are considered to be the same document and will trigger Migrator for Notes to SharePoint's Duplicate Document Handling options. In particular, if Create New Versions is selected, then we are migrating version histories (for example, three versions in QuickPlace / Quickr should map to three versions in SharePoint).

NOTE: We can not control version numbers in SharePoint so the version numbers are not guaranteed to match.

For advanced jobs, you can also select documents by Folder, by Form used, or by using a dynamic Notes formula.

NOTE: While it is possible to extract all the page types at once and migrate them to a single SharePoint list or library, it is better to differentiate between them and migrate Discussion pages to a SharePoint Discussion board, Calendar entries to a SharePoint Events list, and so on. This involves running multiple jobs for each QuickPlace or Quickr (and for each sub room).

7 From the Document Selection tab, select which documents in the current Cabinet should be included in the query. You can control which types of documents are selected for migration. The default is to migrate only published documents. You can choose to migrate only unpublished documents by selecting the “unpublished documents” radio button or both types of documents by selecting the “all documents” radio

button. Select the **Binders only** option to extract Binders instead of Documents. To migrate the binders to SharePoint folders, select the “Migrate mapped data to folders” option on the Advanced Tab of your Target Data Definition.

The **Versioning** section of this tab allows you to control which documents are selected for migration in terms of the Domino.Doc and Quickr concepts of “major/minor” versions. The default is to migrate only current versions. You can choose to migrate all the latest major versions by selecting the “latest major versions” radio button or all the versions by selecting the “all versions” radio button.

CAUTION: Some of the versioning options will select more than 1 version of a given document for migration. In this case, the different versions are considered to be the same document and will trigger Migrator for Notes to SharePoint's Duplicate Document Handling options. In particular, if All Versions is selected, then we are migrating version histories (for example, three versions in Domino.Doc should map to three versions in SharePoint).

NOTE: We can not control version numbers in SharePoint so the version numbers are not guaranteed to match.

You can select documents by Binder, by Document Type, or by using a dynamic Notes formula.

NOTE: While it is possible to extract all the page types at once and migrate them to a single SharePoint list or library, it is better to differentiate between them and migrate Discussion pages to a SharePoint Discussion board, Calendar entries to a SharePoint Events list, and so on. This involves running multiple jobs for each Domino.Doc (and for each sub room).

To filter records based on their rich text content, use the **Select documents based on Rich Text Content** check box. Use this to implement one or more of the following policies for document libraries:

- For documents that contain just one attachment (and no other rich text), migrate the attachment directly to the SharePoint document library with all the appropriate security and metadata.
- For documents that contain Notes rich text, generate a Word or PDF document and place it in the same SharePoint document library with all the appropriate security and metadata.
- For documents containing neither attachments nor rich text, either skip the document or create a stub entry in the target library.

Selecting the **Select documents based on Rich Text Content** check box enables a **Details** button where you can specify further details.

Specify one or more rich text items you would like to inspect. Specify the criteria you would like to use for filtering documents:

- "Whitespace only
- "One attachment only
- "Multiple attachments or other rich text

This record selection option allows you to create multiple migration jobs for each document library, each one implementing one of the rules in the policy.

NOTE: The Migrator for Notes to SharePoint Migration Console makes it easy to sequence multiple migration jobs for one database, and to automate these jobs for many databases of the same type.

Data Fields tab

8 Add Data Fields to specify the data columns you want to extract from each row selected. Click **Add**, and select a column.

Table 55. Columns

Property	Description
Item	An item in a Notes document. You should specify the internal ItemName (which may be different than the name you are used to seeing displayed in forms and views).
View Column	A pre-computed column in a Notes view or folder. You can only select this type if you specified a view or folder on the **Record Selection** tab. You can identify columns by ColumnName or ColumnNumber.
Formula	A dynamic value based on the Notes @Formula you specify. You should also specify the **Formula** property (for example "@Uppercase(Subject)") using the Notes formula editor where you can edit your formula with built-in or custom code fragments. A sample use case for this column type is if you do not want to migrate large attachments from Notes to SharePoint. To filter out the large attachments, use the following formula as your selection criteria: @Attachments = 0 | @AttachmentLengths < 100000 Using this formula, any document with 0 attachments, or any document with attachment size less than 100,000 bytes will be migrated.
Parent Item	An item in the current document's parent document. You should specify the internal ItemName (which may be different than the name you are used to seeing displayed in forms and views).
Parent Formula	A dynamic value based on the Notes @Formula you specify. The formula will be evaluated in the context of the current document's parent document.
RichText	Extract a rich text item value as plain text, HTML, or MIME (MHT) formatted data.
Render	Render each document with the named form and return a Rich Text value. Rendering basically means taking a snapshot of the way a document is supposed to appear in the Notes client, and putting the entire thing into a single rich text field. This includes all the visual elements on the form, including form layout, field labels, graphics, and even “computed for display” fields. This can be a nice alternative to migrating all the individual data elements of a complex Notes application, especially in cases where you just want to archive the content from old applications and do not want to invest effort into migrating the application’s functionality. In most cases, set the **Option** to HTML for mapping to SharePoint. Specifying the **FormName** to render with is optional. If you do not specify one, each document will be rendered with its default form (using the “FORM” Item in each individual document). Images, objects, and attachments from the form may be included in your migration job by using the AttachmentScope property in those source data definition columns. To accomplish this, the AttachmentScope property includes the choice: “RenderWithForm”. If you choose this, you again can specify an optional **FormName** property. This should match the **FormName** you specified with the Render columns. **NOTE:** There are limitations with form rendering. As a general rule subforms, computed subforms, hide-when formulas, and computed text all work fairly well. However, some complex structures (for example hide-when formulas inside the subforms) will not always resolve correctly. In some cases it may be necessary to develop a simplified form to use while rendering documents. You can override the default form in the source data definition columns. **NOTE:** Render is not available if you have selected QuickPlace, Quickr, or Domino types.

Table 55. Columns

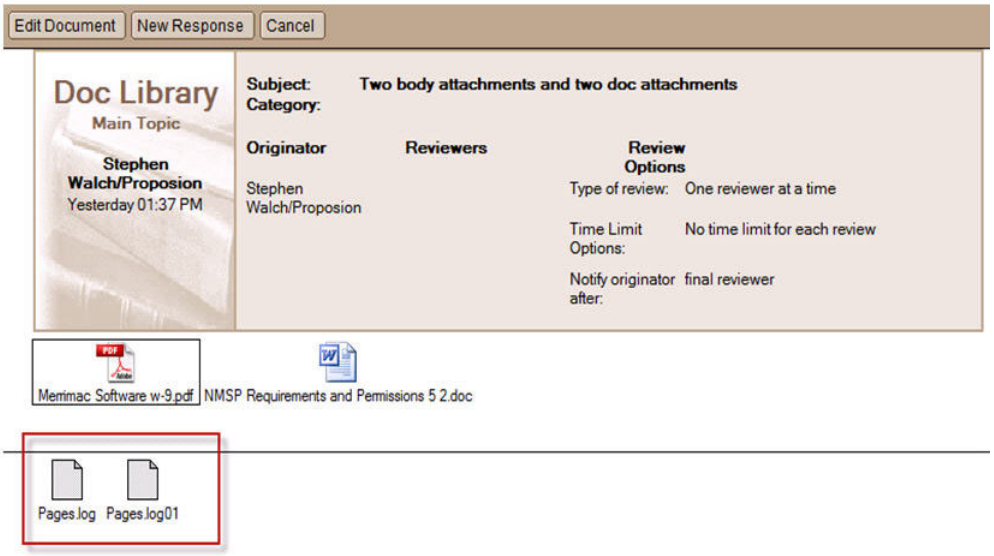
Property	Description
Attachment	Extract an attachment (or multiple attachments) from the named Rich Text item in each document and/or document level attachments. In the ItemName field, enter the rich text item you want to extract attachments from. If you leave the ItemName blank, then all attachments in each document will be extracted. For further details, see the AttachmentScope section. The Compression option, **Zip**, gives you the ability to compress Notes file attachments while migrating them to SharePoint. There are a number of good reasons for wanting to do this: • Save disk space on SharePoint server • Get around SharePoint file restrictions (that is, blocked file extensions and/or size limits) • Improve the bandwidth sending data to remote SharePoint servers • Eliminate problems (hangs and memory leaks) when embedding certain types of file attachments inside Word documents To configure a set of global exceptions to this rule, use the **Compression Exclusions** option on the Notes tab of the tool's Options dialog. This option allows you to specify any file extensions that should never be zipped. This would typically include media files that are already well-compressed and would not benefit from zipping. **NOTE:** Migrating file attachments inside of MS Word documents is not recommended for large migration jobs. Since Word attachments are implemented as “Packager” OLE objects, the migration process is forced to invoke Packager code and the OLE handlers for the file type (often in separate processes). The problem is that each type of attachment is handled differently depending on which type of application created the attachment. So (for example) the first 1000 attachments may work fine and then document 1001 has a different type of attachment that causes a memory leak when Microsoft converts it into a Packager object. When migrating attachments and OLE Objects to embedded objects in MS Word, it is highly recommended that the workstation performing the migration has original applications installed that can open and edit every type of attachment that the migration jobs will be encountering during the migration. You can migrate attachments separately to the SharePoint document library. (The links from the Word documents to the attachments will be preserved.) or place all attachments inside ZIP files inside the Word documents.
Attachment Links	This generates a list of links to the designated set of attachments as a small rich text area. This gives you a way to navigate to attachments that you may not otherwise be able to get to. For example, you could append a links section to the bottom of migrated document so users could link to all the document level attachments that were not in the main rich text area.
Image	Extract an image (or multiple images) from the named Rich Text item in each document. Images stored as original Notes bitmaps will be converted to GIF or JPEG formats.
Ole Object	Extract an embedded object (or multiple embedded objects) from the named Rich Text item in each document. Whenever possible, objects will be converted to files that can be subsequently opened by the applications that created them. (For example, an embedded PowerPoint 2003 slide will be converted to a .PPT file.) Refer to the Release Notes for details and limitations about this conversion process.

Table 55. Columns

Property	Description
Document	Convert the contents of the selected Notes document into an XML document (such as an InfoPath® form).
Additional Properties	The subsequent properties you can specify will vary depending on the ColumnType you choose. In most cases, you can specify an **Alias** for the field and a **ReturnType**. You can override the name of any data column by specifying the **Alias** property. **NOTE:** To create the most effective data definition, pay attention to the ReturnType property of your fields. Notes databases can be difficult to build strict schemas for your data. By telling Migrator for Notes to SharePoint that you always want to return a specific data type (for example, String), you guarantee that all the rows in the results will have a consistent structure. In some cases, additional options may be available: • **Multi** - Allows you to return multi-valued items as arrays. • **Flat** - Allows you to return multi-valued items as concatenated strings. • **Html** - Return Rich Text items as HTML formatted text. • **Mime** - Return Rich Text items, including images and attachments, as a complete multi-part MIME (MHT) document. • **Xml** - Return Rich Text items as XML (Lotus DXL format), including images and attachments. • **XmlNoBinary** - Return Rich Text items as XML (Lotus DXL format), excluding images and attachments. • **AttachmentScope** - This property is only available for source columns of type Image, OleObject, Attachment and AttachmentLinks. It can be set to RichTextItem, DocumentLevelOnly, All Attachments or RenderWithForm. RichTextItem returns attachments from a rich text item. If the scope is a RichTextItem, there is also an ItemName property. In the ItemName field, enter the rich text item you want to extract attachments from. DocumentLevelOnly returns the document level attachments that are not part of any rich text field. AllAttachments returns all the attachments in the document, including attachments from multiple rich text fields and document level attachments. RenderWithForm returns all the images, objects or attachments from the form that is being rendered. You can specify an optional **FormName** property. This should match the **FormName** you specified with the Render columns. **NOTE:** Render will only work well with forms designed for the Notes client. Forms designed to display in a web browser will not work very well. This is especially true with the default forms you get in QuickPlace or Quickr. There are also two options for controlling the layout of the AttachmentLinks field for Notes source (this is not applicable for QuickPlace/Quickr): • **Columns** - This property controls the number of links that will be shown on one row. Set to 0 for a pure horizontal format or 1 for a vertical format. • **Label** - This property allows you to place a text label at the start of the links area. Note that of Columns = 0, than the label will be displayed in the same horizontal line, otherwise it will be placed on a separate line. QuickPlace and Quickr do not use the same mechanism as Notes for displaying an Attachment Links area. Instead of creating a new source column for Notes, you need to use the predefined {AttachmentLinks} column. **NOTE:** Adding an AttachmentLinks area does NOT guarantee that the attachments themselves will be migrated. These still need to be explicitly migrated. For targets that can store attachments - List items, InfoPath documents and Word documents - you can map them directly. For other targets such as HTML pages, Basic pages, Wiki pages and Web Part pages you have to map the attachments to an alternate file library location.

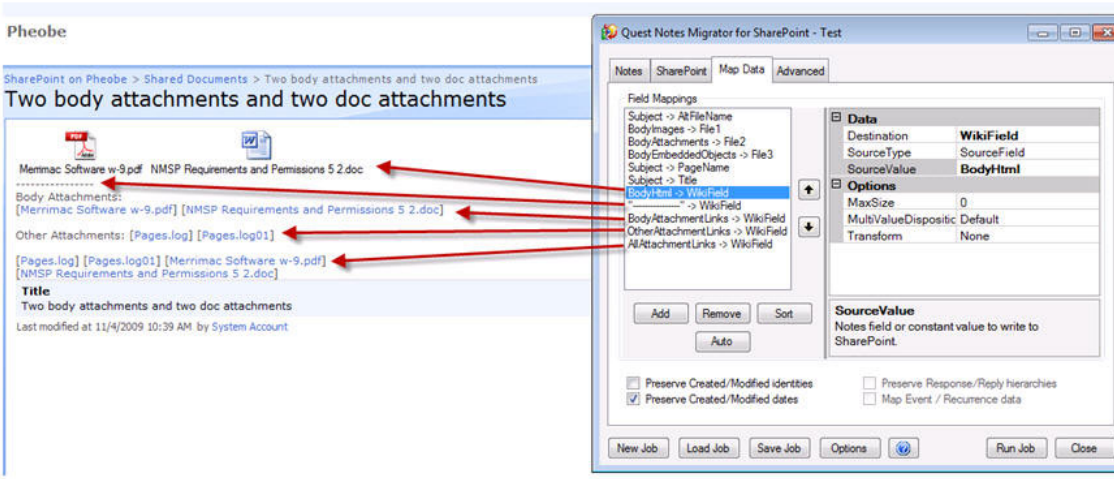
The following is an example of a migration job that places multiple AttachmentLinks sections on a Wiki page. Below is the source document.

Figure 7. Migration job example



The following is the migration job and the resulting Wiki page.

Figure 8. Migration job with resulting WiKi page



Preview Data Query tab

9 From the Preview Data Query tab, select **Test** to run the Command against live data. Any results from executing the command will be displayed in the Results dialog box.

> **NOTE:** Binary data columns (images and attachments) and MIME columns will not be shown in the preview dialog box. Multi-valued items will always be displayed as concatenated strings. To see the details of large data items, click the item's cell and the full contents will be displayed in a dialog box.

- The **Max Records** option allows you to limit the number of Notes records to be viewed to a predetermined number.
- The **Skip** option allows you to skip the first ‘x’ number of Notes records. When used in conjunction with the "Max Records" option, you can view distinct chunks of data.

For custom fields that you have added, you can perform the following tasks by right-clicking on the column title.

- **Remove This Field**: Removes the custom field from the Source Data Definition.
- **Go to Definition**: Opens the **Definition** tab containing the custom field properties.

Creating/Editing data targets

You can create the following data targets:

- SharePoint
- SQL Server
- Folder

SharePoint

The "SharePoint" tab is where you select the SharePoint List that will be used as the destination for data to be migrated. It is also where you select (or create) a Data Target Definition file that describes how data should be written to this list.

To create SharePoint data targets

1 Select the Site URL to which you will be migrating data. Navigate the SharePoint Virtual Servers, Sites, and Sub-Sites (Web Pages). Select the desired list.

> **NOTE:** If you are using the Console, the target on the Migration Targets tab overrides this target in the migration job definition.

> **NOTE:** If you have previously selected a Source Data Definition that typically maps to a particular SharePoint List Type, that List Type will be displayed in the Show Lists of Type field and the tree view will only display Lists of that particular type. If you want to see all types of Lists, select "<All>" in the Show Lists of Type field.

To be sure this is the correct list, you can open the SharePoint List that you have selected by clicking the **Go To** button. Once you have selected the desired list, click **OK.**

> **NOTE:** Migrator for Notes to SharePoint is now capable of local or remote SharePoint servers. To control the mode of operation, click **Options** and go to the “SharePoint” tab. For details on how to configure your type of SharePoint connectivity, see Customizing Global Options. If your installation is configured to access remote SharePoint servers, the list of available sites contains information about each site's level of connectivity. You can add additional sites to the list by clicking the **Sites** button.

Migrator for Notes to SharePoint displays the Site URL and List Name that describe the List location. (If you prefer, you can type in the Site URL and List values instead of using the SharePoint server browser.)

Migrator for Notes to SharePoint will connect to the SharePoint server and display the List Template used in the List you selected. (If you have typed in your own Site URL and List values or have loaded them from an existing Job Definition, you may need to click **Test** to force this connection to occur.)

If the list does not yet exist and you want the Migrator for Notes to SharePoint migration process to create the list, you can enter {} substitution variables in the **List Name** field which will be used to generate the target list name. If you type ‘{‘the valid variable substitution list will appear. You can use the arrow-down key to select an entry, or click an entry with the mouse. If you type any other key, the list will disappear so you can resume typing into the field.

> **NOTE:** This feature is only available when using the Migrator for Notes to SharePoint Console.

Migrator for Notes to SharePoint displays the Template used to show what type of List it is. For example, if the Template used is "Discussion Board" Migrator for Notes to SharePoint knows it is a standard SharePoint Discussion List and can deduce the fields available within and other pertinent information.

The details about what fields, are available in a particular type of List are stored in the Target Data Definition. For each List you want to migrate, you need to load (or create) a corresponding Target Data Definition.

Migrator for Notes to SharePoint contains predefined Target Data Definitions for most of the standard List Types that ship with SharePoint (Discussion, Document Library, Events). As soon as you select a List that is based on a recognized List Type, Migrator for Notes to SharePoint will ask you if you want to automatically load the corresponding Target Data Definition.

Sometimes the SharePoint List you wish to migrate has been customized or is not based on a recognized List Type. If you know what the List Type is, you can click the Target Data Definition **Load** button to select the appropriate Target Data Definition manually.

NOTE: If you want to generate a new SharePoint list that does not exist in the location described on the SharePoint tab, select **Create SharePoint List**. The new List will be based on the List Template identified in your Target Data Definition. This will allow you provision entire SharePoint lists and document libraries as part of your migration job.

If you want any fields identified in your Target Data Definition but not in the destination List to be added to the list, select **Add or upgrade List Fields**. This will allow you to upgrade the schema SharePoint lists and document libraries as part of your migration job.

If you want Migrator for Notes to SharePoint to automatically add provisioned lists or document libraries in to the Quick Launch area in the target SharePoint site, select **When creating List, Add to Quick Launch**.

If you want Migrator for Notes to SharePoint to enable versioning to the SharePoint list, select **When creating List, enable versioning**.

If you want to remove any items previously displayed in the destination list, select **Delete Current List Items.** This option may be disabled depending on how your tool Options are set. **This option can cause data loss. Be sure that you really want to remove all existing documents from the list.**

2 From the Target Data Definition section, select **Create**.

NOTE: To load an existing Target Data Definition, select Load, and select a target data definition.

NOTE: To edit the currently loaded Target Data Definition, select Edit.

The Target Data Definition dialog box opens.

List Definition tab

Data Fields tab

Advanced tab

List Definition tab

3 From the List Definition tab, enter a name and description for the target data definition.

4 Select a list type and template.

NOTE: Template is optional. The template specified here will be used when provisioning new lists. You may specify standard or custom templates from the target site collection

5 To allow provisioning of Content Types in the target list, select the **Allow management of Content Types** check box. Click the **Add** button to enter the Content Types that should be added to the target list. Associate a Notes Form to the Content Type in order to automatically assign the Content Type to all migrated records that are associated with the Form.

Data Fields tab

6 From the Data Fields tab, click **Load from SharePoint List**. This will automatically create Field definitions for all the writable fields found in the SharePoint List you selected. Similarly, the **Load From Source Fields** button will automatically create Field definitions for all the columns in your Source data definition.

> **NOTE:** If you select **Managed Metadata** as target type, ensure you add the terms to the termset bound to the column, or you set **Adding Missing Terms to Term Store** to True so the content in source field can be migrated to the target column.

You can also add (or modify) fields one at a time by clicking **Add** (or selecting an item in the list on the left of the page) and then editing the properties in the dialog box on the right of the page.

When **Document** is selected as the **Target Type** for the **Doc** field, you can decide how the buttons in Notes will be rendered as in the target document by the **Button Style** option:

- **Text**: Buttons will be rendered as texts.
- **IconOrButton**: Buttons will be rendered as not-clickable icons, or buttons (for PDF document only).

> **NOTE:** You can create customized Target Data Definitions by altering a loaded default template and saving it with a new name. The new pmtrg file can then be selected for future migration jobs. Once you complete the template changes and return to the Designer SharePoint tab (Step 12 below), click the **Save** button in the Target Data Definition area.

> **NOTE:** When you click Files in the left column, you can specify an alternate folder where files will be written. You can also specify the maximum number of items in each alternate folder (the default is 5000). When the maximum number is exceeded, more alternate folders are created with an incremental value. For example, you can have an alternate folder called “Attachments”, once a maximum number of items in the folder is reached, another alternate folder with an incremental number, is created, called “Attachments-0001”. If you set the Max Item per Folder to 0, an incremental alternate folder will not be created.

Advanced tab

7 Define a view. From the Advanced tab, click **New**. The **Edit a SharePoint view** dialog box allows you to define the SharePoint view. Only Standard SharePoint views can be defined. Migrator for Notes to SharePoint does not create other view types like datasheets or calendar views. This editor has all the same view definition properties as the view editor in SharePoint except it does not contain any mobile settings.

- The “Columns” tab is where you define the name of the view as well as the columns to include in the view. Use the arrow buttons to change the order of the columns in the view.
- The “Group/Sort” tab is where you define how the data is grouped and sorted. In SharePoint you can only group on up to 2 columns.
- The “Filter” tab is where you define a filter. This is optional. Select the radio button **Show items only when the following is true** to define your filter. Select the field and its criteria for the filter. By selecting the **Show more columns** link, you can add additional criteria to your filter.
- The “Totals” tab is where you specify the calculations you want added to the view. You can specify only one calculation per column. Different field types can have different possible calculations, as follows:
  - All fields have *None* and *Count*
  - Integer, Currency and Number fields also have *Average*, *Maximum*, *Minimum*, *Sum*, *Standard Deviation*, and *Variance*
  - DateTime fields have *Average*, *Maximum*, and *Minimum*
- The “Limits” tab is where you define if you want to show items in their folders (hierarchical view) or show items without their folders (flat view). From this tab you also define how may items to display at a time as well as which folders to display the view in.

You can import a Notes view.

To create a view using an existing Notes view definition

1. **Select the view** - Select the Notes view that you wish to migrate to SharePoint. The name of the SharePoint view defaults to the Notes view name. If the Notes view is the default for that database, the **Make this the default view** check box is checked. If the view already exists in the Migrator for Notes to SharePoint target definition Views list, then another check box appears in red, asking you if you wish to overwrite the view. The **Next** button is disabled until you either change this view's name or you check the overwrite box.
2. **View columns** - You can decide to manually map a Notes existing column, define a new data column (which will be added to your migration job), or specify a formula for a new computed column in SharePoint. For each column in the Notes view, an entry appears in the column list. The Notes view column is labeled "(Untitled x)" if it has no title. Below the column name is a description of the view's details: sorting (ascending/descending), categorized, hidden or response-only. Each column has the following migration options:

- Migrate? - Check this check box to migrate this column with the new view.
- Hidden? - Check this check box to not display the migrated column. It will be available to use in filtering but no data will be displayed for the column
- New or Existing Column - You can create a new column or select an existing column. All new columns are added to the target definition when the wizard is done.

  When you click **Next**, some validation will occur: a migrated column must have a name, new Calculated fields must have a formula, field names cannot be duplicated, and new fields cannot duplicate those in the target definition. Next to the formula box for new fields there is an **Edit** button which will launch the Formula Editor. In the Formula Editor, you can edit your formula with built-in code fragments, or create custom formulas.

3. **Grouping, Sorting and Totals** - The SharePoint settings default to the options based on the Notes view settings, as follows:

- Grouping - If, in the previous panel, a Notes view column is set to migrate to the SharePoint view ('Migrated but not displayed', or 'Display in view'), and it is marked as 'categorized' in Notes, then the column will be set for grouping in SharePoint, based on the sort method (ascending/descending). The first two categorized columns will be set this way in SharePoint (any additional categorized columns will not be grouped - SharePoint's maximum is two columns).
- Sorting - Handled the same as grouping, except applied to the sort setting of the Notes view columns.
- Totals - Notes and SharePoint views both have the concept of showing totals for a column, but the options are somewhat different. The migration wizard maps the totals as follows:
  - For Notes setting Average Per Category, Average Per Document: use SharePoint 'Average'.
  - For Notes Total, use SharePoint 'Sum'
  - For all other Notes total settings, use SharePoint 'None'.

4. **View Selection Formula** - recreate your selection formula in the SharePoint filter editor by first selecting the **Show items only when the following is true** radio button. Select the field and its criteria for the filter. By selecting the **Show more columns** link, you can add additional criteria to your filter.
5. **View Migration Complete**- launch the completed view in the view editor to fine-tune details not available in the wizard. Your view definition has been created and added to the migration job. The migration job needs to be saved for the view definition to be saved.

8. Select the **Migrate attachment icons as image files** check box to allow the original attachment icons in Notes to appear in SharePoint.
9. From the Migrate mapped data to section, indicate that you want to migrate to a folder or document set in your target list or library rather than the default list item. Every record you extract from the data source will result in a folder or document set being created, instead of a document.

   This feature only writes new SharePoint folders; it will not update existing ones with the same name.

- If you choose to migrate to a folder, you must map at least one item to a target column of type ‘Folder ‘ in the “Map Data” tab. This controls the new folder names. Many of the usual document migration features will now apply to folders including:
  - Mapping of permissions (using the "Map Reader/Author fields" check box on your Advanced tab)
  - Mapping created/modified metadata to folders (using the "Preserve Created/Modified" check boxes on the Map Data tab)
  - Mapping additional data items to folders (requires creating a new Folder content type).
- If you choose to migrate to a document set, a target column of type ‘DocumentSet’ must be added and a value mapped to the DocumentSet.Name property in the “Map Data” tab.

10 Select the **Migrate document fields to custom properties** check box to migrate any document properties in the PDF to SharePoint. This is selected by default.

> **NOTE:** The following fields will not appear as custom properties after the document is migrated to PDF:
> - The fields with the type of RichText
> - The fields from standard properties, including Title, Author, Subject, Keywords, Creator, Producer, CreationDate, ModDate, and Trapped.

11 Select the names of the SharePoint templates that "match" this data definition. More than one template can match. Use the **Select** button to add or remove multiple selections.

The Views list contain all the views that will be created in the SharePoint target, similar to fields, during the provisioning part of the migration job.

The buttons at the bottom of the list are for importing view definitions from Notes, editing view definitions, creating new and deleting existing view definitions from the list.

If the If view already exists in SharePoint, overwrite its configuration check box is checked, the view definition in SharePoint will be overwritten. Otherwise a pre-existing view will not be changed.

12 Click **OK**.

You are returned to the SharePoint tab.

13 Select an option if a duplicate is found. This situation can occur if you have run the same migration job twice or if you have two migration jobs that process the same document (for example, a document that appears in multiple Notes views) or if you are migrating multiple versions of a QuickPlace or Domino.Doc document (see QuickPlace Publishing and Domino.Doc Publishing for more information). The following options allow for running the same migration job repeatedly (and as efficiently as possible) while always yielding the most desirable result. Your choices for this option are:

- **Write new item** - Do not check for duplicates and simply write a new SharePoint record for each Notes document encountered. This is the fastest option if you expect duplicates to be rare. If you are migrating QuickPlace or Domino.Doc versions, each version of a document will be created as a new SharePoint record.
- **Replace existing item** - If a duplicate record is encountered, delete the prior SharePoint version and then migrate the document again.
- **Create new version (if modified)** - If a duplicate record is encountered and the Notes document has been modified since it was previously migrated, the new document will be created as a new version of the old document. If the SharePoint list or library does not support versioning, then the document will be migrated as a separate record. Use this option to create corresponding versions of a SharePoint record for each version of the document in QuickPlace or Domino.Doc when you are migrating multiple versions. If you are migrating to a list that is already created, enable SharePoint version control.
- **Skip item** - If a duplicate record is encountered, then ignore the Notes document.

- **Update existing item (mapped fields)** - If a duplicate record is encountered, update the mapped fields of the item.

  NOTE: To update the document content, your field mapping must include `BodyHtml`, `BodyAttachments`, `BodyEmbeddedObjects`, and `BodyImages`.

14 If you want to save a new or modified Target Data Definition, click **Save** in the Target Data Definition area. Enter a new file name that reflects the change. (For example, if you have changed the Document page size to A4, a good name would be WordA4.pmtrg.). Then click **Save**.

SQL Server

This is where you select the target SQL Server database and tables that will be the destination of migrated data. It is also where you select (or create) a Data Target Definition file that describes how data should be written to this database.

To create SQL Server data targets

1 Select a server and database.

2 Access the database through Windows or SQL Authentication. To change authentications, click Settings and select an authentication.

3 From the Target Data Definition section, select **Create**.

  NOTE: To load an existing Target Data Definition, select Load, and select a target data definition.

  NOTE: To edit the currently loaded Target Data Definition, select Edit.

  The Target Data Definition dialog box opens.

  List Definition tab

  Data Fields tab

List Definition tab

4 From the List Definition tab:

  a enter a name and description for the target data definition.

  b specify a primary table by selecting one from the list or enter the table name, then add normalized tables.

  c if you want to generate a new table that does not exist in the SQL database described on the SQL Server tab, select **Create Tables**. The new table will be based on the Data Fields in your Target Data Definition. The **Add Table Fields** checkbox is automatically selected as you select **Create Tables**.

  d if you want any fields identified in your Target Data Definition but not in the destination table to be added to the table, select **Add Table Fields**.

  e select the **Migrate attachment icons as image files** check box to allow the original attachment icons in Notes to appear in SharePoint.

Data Fields tab

5 From the Data Fields tab, click **Load from SQL Server database**. This will automatically create Field definitions for all the writable fields found in the database tables you selected. Similarly, the **Load from Source Fields** button will automatically create Field definitions for all the columns in your Source data definition.

  You can also add (or modify) fields one at a time by clicking **Add** (or selecting an item in the list on the left of the page) and then editing the properties in the dialog box on the right of the page.

Folder

This is where you select a target folder created on a local drive to migrate data.

To create Folder data targets

1 Select the location of the data target folder.

2 From the Target Data Definition section, select **Create**.

> **NOTE:** To load an existing Target Data Definition, select Load, and select a target data definition.
>
> **NOTE:** To edit the currently loaded Target Data Definition, select Edit.

The Target Data Definition dialog box opens.

Folder Definition tab

Data Fields tab

Folder Definition tab

3 From the Folder Definition tab:

a enter a target name and description.

b select the Migrate attachment icons as image files check box to allow the original attachment icons in Notes to appear in SharePoint.

c select the Migrate document fields to custom properties check box to migrate any document properties in the PDF to SharePoint

Data Fields tab

4 From the Data Fields tab, click **Load from SharePoint List**. This will automatically create Field definitions for all the writable fields found in the SharePoint List you selected. Similarly, the **Load From Source Fields** button will automatically create Field definitions for all the columns in your Source data definition.

You can also add (or modify) fields one at a time by clicking **Add** (or selecting an item in the list on the left of the page) and then editing the properties in the dialog box on the right of the page.

Mapping data

The Map Data tab is where you describe how the fields in your Data Source Definition map to the SharePoint fields in your Data Target Definition. In most cases, the **Auto Map** function will do the mappings for you, but you can also override the defaults.

If you have selected Source and Target Data Definitions, a default set of field mappings will be generated for you using the AutoMap Names property for the target data field definitions. You can refresh these mappings by clicking the Auto Map button.

If you have multiple source fields that you are mapping to one target Note field using the target field's AllowMultipleSources property, the order of the concatenated fields depends on the order of the fields in this field mapping table.

To add new fields

1 Click **Add**.

The New Field Mapping dialog box will allow you to quickly select from a list of fields defined by your Target Data Definition. In addition to the fields you explicitly defined, a number of additional meta-data fields will also be available. These will be identified with {curly braces}.

You can map these data source fields to an unused existing SharePoint field (defined by your Target Data Definition) or add a new one. For each target data field of type WordDocument, you will see its metadata fields in the list of predefined fields as well. These are indicated in the list using the field name defined for the Word document (for example, Field0.Title).

The SourceType property can be set to any of the available types:

- None - Do not write to this SharePoint field
- Constant - Set the SharePoint field to a constant value. In the Source Value field, enter the constant value that you want written in SharePoint. If you are mapping a constant to a rich text field, you can use '\n' to denote a new line in the Source Value field.
- TargetValue - Set the SharePoint field to the target value of a corresponding field. If the SourceType is set to TargetValue, you need to set the TargetValue option.
    - Link to Parent Document - Creates a URL field that contains a link to the parent document when migrating parent/response documents to SharePoint "discussion" templates. It is especially useful if you are migrating a database containing parent/response documents to anything other than a discussion list. Without doing this mapping, you would lose any correlation between the response documents and their parents.
    - Link to Primary Document - Creates a URL field that contains a link to the main "parent" document when migrating file attachments to alternate SharePoint library locations. The link uses the parent's Subject field as the display name. Without doing this mapping, you might not know where the main document for the attachments resides.
- SourceField - Set the SharePoint field to the value of a Notes Field.
- SourceValue - The name of the Notes Field to use
- MaxSize - The maximum number of characters to write to the SharePoint item
- Multi Value Disposition - Directs how any multi-valued Notes items should be written to SharePoint Lists. The options are:
    - Default - Take the most appropriate action based on the source and target values being mapped
    - First - Takes the first value found
    - Last - Takes the last value found
    - Merge - Take all the values and combine them into a single string separated by commas
    - All - Take all values and attempt to map them to SharePoint. This will only succeed if the target column allows multiple values.
- Normalize - This option is only available for simple data types (text, date, number, choice) and only when migrating to a SharePoint list (not a document library, discussion, or calendar). Migrator for Notes to SharePoint will gather up all the possible values for Normalized mappings and write out multiple SharePoint list items, one for each value. Any mapping that is not flagged as Normalized will get copied to each of the resulting records. If more than one of the mappings is flagged as Normalized, then the one with the greatest number of elements will control the number of migrated records. For more information, see Normalizing multi-valued items to multiple documents on page 111.
- Transform - Directs how data should be modified when writing to SharePoint Lists. The options are:
    - UpperCase - Converts text to uppercase.
    - LowerCase - Converts text to lowercase.
    - CommonName - Converts Notes names to text fields formatted as Common Names.
    - AbbreviatedName - Converts Notes names to text fields formatted as Abbreviated Names.
    - Unmappable - Converts unmappable Notes names to text fields formatted as Abbreviated Names.

- CommonName, AbbreviatedName and Unmappable are useful in cases where you are NOT using the full User Mapping process, which maps Notes names to Active Directory accounts. User Mapping is still required when mapping to a User field in SharePoint. These transform types are useful when targeting "plain" Text fields in SharePoint, Word.
- XMLCompatible - Removes invalid XML characters.
- PreformattedText - Wraps in a <pre> tag (InfoPath only).

2 Select the Preserve Created/Modified Dates option to allow the Created and Modified fields to be set based on the respective properties of the original Notes document.

3 Select the Preserve Created/Modified Identities option to allows the Author and Editor fields to be set based on the $UpdatedBy property of the original Notes document. SharePoint tracks users as numeric indexes into the SharePoint Site Collection Users list. Migrator for Notes to SharePoint will attempt to map Notes names to Site Collection User identities based on the rules configured in the tool's User Mapping.)

4 Select the Preserve Response/Reply Hierarchies option to allow newly written SharePoint items to be linked with the correct parent items to reflect the parent/response relationships that existed.

5 Select the Map Event / Recurrence Data option will cause calendar information (appointment type, start date, repeat information) in Calendar items to be mapped to the equivalent fields in SharePoint Events.

Setting up user mapping and security mapping

SharePoint tracks "users" as numeric indexes into the SharePoint Site Collection Users list. When Migrator for Notes to SharePoint encounters user names, it will attempt to map them to Site Collection User identities based on the mapping rules in your Global Settings. For more information, see Customizing global options on page 111. This can occur:

- When using the "Preserve Created/Modified Identities" option in your Job Definition
- When mapping Security Attributes
- When attempting to migrate a Notes name field to a SharePoint User field

On a per-job basis, you can decide what happens if no user mapping is found for a particular Notes name. The record can be rejected or defaults can be applied depending on the **If user mapping fails** setting.

The details of how user mapping occurs is controlled by the Global Options.

Migrator for Notes to SharePoint 's security mapping options will map various access control properties of the source Notes database, QuickPlace, Quickr, or Domino.Doc cabinet to the equivalent constructs in SharePoint.

To enable security mapping at the job level

1 Select one or more of the five available Security Mapping check boxes of your Job Definition.

- The **Map Notes Users to Domain Users** option will cause any Notes users listed in the source database's Access Control List to be added to the target SharePoint list or library. The Notes user names are mapped to Site Collection identities based on the rules configured in the tool's User Mapping and those Users are granted access to the target SharePoint list or library.

  The **Map Notes Groups to Domain Groups** option will cause any Notes groups listed in the source database's Access Control List to be added to the target SharePoint list or library. The Notes group names are added to the Site Collection as external groups and are granted access to the target SharePoint list or library. Each group name must correspond to an actual Domain group.

  NOTE: If either the Map Notes Users to Domain Users or Map Notes Groups to Domain Groups options are checked in the Migration Targets tab, the Permission Mapping options will determine how the Notes database access levels (and related flags) are translated into SharePoint permission levels.

- The **Expand Notes Roles to SharePoint Groups** option causes a new SharePoint Site Collection Group to be created for each Role defined in the Notes database ACL.

- The **Expand Notes Groups to SharePoint Groups** option allows you to take what was once a Domino Directory group (scoped to the entire Notes Domain) and convert it to a SharePoint group (scoped to just one Site Collection). As part of this conversion, the tool will query the Domino Directory for any groups listed in the ACL, extract all its members (expanding any sub-groups as needed), and add those members to the new SharePoint group.

  > **NOTE:** If both the Map Notes Groups to Domain Groups and Expand Notes Groups to SharePoint Groups options are selected, Migrator for Notes to SharePoint will first try to find a mapping for the group name in the directory or mapping file. If it finds a mapping, it will map to the Domain group. If it doesn't, it will provision a SharePoint group instead.

- If the **Map Reader/Author fields** option is set, then any Reader Names or Author Names items encountered in a particular Notes document will cause a permission list to be generated on the corresponding SharePoint record. This new permission list will only grant read access to the users and groups named in the Reader Names field and will only grant edit access to the users and groups named in the Author Names field.
- To control precisely which security constructs are mapped to Notes, click the **Advanced security settings** link (this link is available when you select a check box).

2 Configure DocLinks handling. You can select:

- **Convert to original notes:// URLs (for use with the Notes client)** - When generating HTML or MIME documents from Notes Rich Text fields, any DocLinks, ViewLinks, and DatabaseLinks that are encountered are converted to "Notes URLs" (for example *notes:///85256B20007EED50/38D46BF5E8F08834852564B500129B2C*). On machines where the Notes client is installed, such a URL allows Notes to open to the correct document, view, or database.

  > **CAUTION: Unfortunately, SharePoint does not currently allow Notes URLs in HTML fields, so the feature is not useful in those cases.**

- **Use the Quest Link Tracking Service** - This option utilizes the Link Tracking Service, which ensures that Notes DocLinks continue to work before, during and after the migration process, regardless of the order of document migration. The service maintains a record of every document that is ever migrated and guarantees that users clicking on an intra-document link will always get redirected to the current location of the document.

  > **NOTE:** This feature requires the use of Migrator for Notes to SharePoint's Link Tracking Service. For details, see the Understanding the Link Tracking Service section in the Migrator for Notes to SharePoint Installation Guide.

- **Convert to a link to the specified URL** - This option replaces each DocLink with a link to a fixed generic web page.
- **Convert to http:// URLs (for use with the Domino server)** - This option prompts you for an additional field **URL for Converted DocLinks**. To allows you to map the "notes:///" portion of the Notes URL to point to a Domino web server where the linked-to database exists. For example, if you specify "http://proposion.com/" in the **URL for Converted DocLinks** field, the URL would be changed to "*http://proposion.com/85256B20007EED50/38D46BF5E8F08834852564B500129B2C*".
- **Convert to original notes:// URLs (plain text)** - When generating HTML or MIME documents from Notes Rich Text fields, any DocLinks, ViewLinks, and DatabaseLinks that are encountered are converted to "Notes URLs" in plain text (for example *notes:///85256B20007EED50/38D46BF5E8F08834852564B500129B2C*).

Saving the job

To save the job

- Click **Save Job**.

Validation issues can occur. A Validation Issues dialog box may appear showing the severity of the issue, the issue message, and its context. You cannot run jobs if issues are marked Critical. To edit the job, click **Cancel**.

If you have only errors and warnings, you can save the job. Click **OK**, then **Save**.

Customizing global options

To change the default Migrator for Notes to SharePoint options, click the **Options** button at the bottom of the tool or open the System Menu (at the top left corner). The Options dialog box that is displayed includes several tabs of options you can change.You can also apply different sets of settings (saved options files) for different migration jobs by selecting **Options** > **Load Options**. For more information, see Advanced configuration options on page 13.

If you are using the Migrator for Notes to SharePoint Console, the Options button is not available. You can get to the Global Options by selecting the Global Settings link in the Advanced tab of the Job Designer. All of these options can also be edited using the Advanced Configuration Options dialog box of the Console.For more information, see Advanced configuration options on page 13.

Normalizing multi-valued items to multiple documents

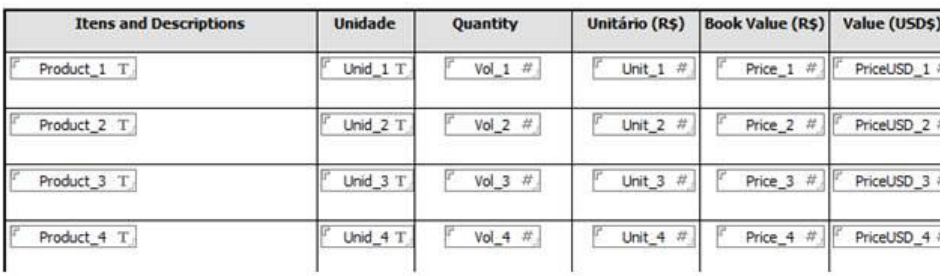
Notes forms implement detail records (the things that relational developers would have set up a one-many-relationship for) using multi-valued data fields arranged to look like a table, as shown below. Users would then fill in as many entries as needed, making sure that the values from each multi-valued item lined up properly.

Migrator for Notes to SharePoint can extract the multi-valued items as separate records. To do this, set the Multi-Value disposition option for the columns that you expect to contain arrays to "Normalize". This will cause Migrator for Notes to SharePoint to generate multiple SharePoint items for the values in the columns designated for Normalization.

If you also wanted "header" records you could first migrate those using a separate migration job. You could use lookup fields or some other mechanism to relate the "header" and "detail" columns. For example, Customer ID in the Contacts list could be set up as a lookup field that references the Customers list (where Customer Name and Category are also stored).

Finally, you may encounter Notes forms that list out each item in separate rows, instead of using multi-valued items. Migrator for Notes to SharePoint can handle that case as well, but you will need to do a little work with formulas to generate multi-valued items with Normalize on. For example, you could define a source data definition column with the formula "Product_1: Product_2: Product_3: Product_4" to generate a "Products" array.

Figure 9. Defining source data definition column



NOTE: Documents generated in this manner will not be added to the Link Tracking database, so you cannot link to them.

Restrictions for normalization

The "Normalize" value is only added to the Multi-Value disposition option for columns if the following is true:

- The migration target is SharePoint (not SQL Server)
- The target is a custom list (not a document library, discussion, or calendar)
- The target SharePoint field is one of the types that we support for Normalization (for example, Text). This option is not available for the following field types:
  - Note
  - WebPartProperty and PageName
  - Attachments
  - DocumentSet
  - File, FileName and Folder
  - InfoPathDocument, WordDocument and PdfDocument
- The target field (SharePoint) is only for the primary list (that is, "AppliesTo" must be set to "PrimaryOnly" or "ContentTypes")
- The source field (Notes) is multi-valued (that is, it must be set to use the "Multi" option)

Generating links to SQL records

This section of the Advanced tab is for a SQL Server data target definition. If all the images and attachments are going to be stored in a separate table, you can control how the migrated rich text field refers to them by using this option. Here you can specify how links to images, attachments and even other documents should be formatted in the migrated rich text. This feature is optional, and only makes sense if you have designed a web application to display the images and attachment files in response to a web request.

Generating XML documents

Migrator for Notes to SharePoint Document Generation feature allows you to generate XML documents and ASPX pages from Notes documents. This is accomplished by substituting elements in a "template" XML document that you provide with values derived from each Notes document being migrated. All the powerful data extraction capabilities of Migrator for Notes to SharePoint will be available here, including rich-text, attachments, dynamic @formulas for data conversion, multi-valued item handling, author name and access control mapping, versioning, and much more. The resulting generated XML documents can be saved into SharePoint as Document Library files, Form Library documents, List Item fields or Web Part Pages.

Generating InfoPath forms (pre version 5.2)

NOTE: This is the pre 5.2, way of generating InfoPath forms. While this method is still supported for backward compatibility, a new, easier InfoPath form generation is now available. For more information, see Generating InfoPath forms (post version 5.2) on page 114.

A common use for this feature is generation of InfoPath forms for use in SharePoint applications. Customers who are trying to replace existing Notes applications often build new InfoPath form templates that reproduce the

dynamic behavior of their Notes form, such as hide-when formulas, computed fields and validation logic. These InfoPath form templates can be integrated in a variety of ways with SharePoint to create powerful document management, workflow and other compelling solutions. Migrator for Notes to SharePoint can rapidly migrate complex Notes documents to InfoPath forms for use with such solutions.

To generate XML documents

1 Add a column of type “Document” to your Notes Source Data Definition. The DocumentTemplate property of the column definition should be a complete XML document that contains all the declarations and tags you want in your generated documents. Users would typically create a sample document in their target application and use that as the starting point for their Document Template.

NOTE: Applications such as InfoPath can be very sensitive to the schema version and other metadata such as form template location (that is, the information expressed in the mso-infoPathSolution tag). A common best practice, therefore, is to first develop your InfoPath form template, publish to SharePoint, and fully verify the integrated solution. Then create your sample XML document in the context of your working SharePoint application and use that as the basis for creating a Document Template in Migrator for Notes to SharePoint.

2 Add a namespace declaration for ‘ppm’ to map to the namespace “http://schemas.proposion.com/PortalMigrator/V4”. You can then add special <ppm:replace> tags to specify the parts of your XML document that you want to replace with data extracted from Notes documents. The ‘src’ attribute of the <ppm:replace> should refer to another column in the same Notes Source data definition.

3 To generate repeating entries (an array) based on the values in a Notes multi-valued item, add the *multi=‘repeat’* attribute to your <ppm:replace> tag. This will cause the surrounding XML tag to be repeated once for each input value encountered. You can also specify multi='repeatparent' to repeat the surrounding XML tag and its parent once for every value encountered in the multi-valued item. This option is useful for encoding multiple attachments (see below) or other repeating group elements in InfoPath.

To avoid generating tags when the Notes values are null, missing or empty strings, use the *ifempty='remove'* or *ifempty='removeparent'* attribute. This will cause the surrounding XML tag (or its parent) to only be generated if there is actual data in the source Notes item.

4 To generate rich text entries, add the *encode=’xhtml’* attribute to your <ppm:replace> tag. This will cause the HTML markup extracted from your Notes documents to be saved into your generated document as XML tags rather than as plain text.

When using encode='xhtml' you can also add an 'images' attribute. This is similar to the 'src' attribute in that it should be the name of another source data definition column. The images are encoded right into the XHTML and you go not need to migrate them separately.

When using encode='xhtml' any Notes DocLink icons that are encountered are converted to encoded icons in your XML document. To disable this behavior, add the attribute *linkicons=’false’ to your* <ppm:replace> tag. This will cause Notes DocLink icons to be replaced with a simple text link instead.

Other possibilities for the *encode* attribute are 'commonname' and 'abbreviatedname' for formatting Notes names and 'datetime', 'dateonly' and 'timeonly' for formatting XML Date/Time values.

If you wish the source data column to copied “as is” into the XML document, you can use *encode=’xml’* rather than *encode=’xhtml’*. This might be useful if, for example, you have a Notes item that contains pure XML or you have created a formula column in your source data definition that emits an XML fragment. If you omit the *encode* attribute completely, the source data will be encoded as a Text element by default and any special characters (such as XML angle brackets) will be escaped.

To encode your attachment as an InfoPath attachment (using InfoPath’s proprietary format), add the *encode=‘attachment’* attribute to your <ppm:replace> tag. To encode your attachment using standard base64 encoding, add the *encode=‘base64’* attribute to your <ppm:replace> tag. This later choice is useful in some XML applications, but not for InfoPath.

To substitute target information in your XML, use the tag, *<ppm:replace target=’site’>*. Currently, the only supported value is “site” which yields the complete site URL.

NOTE: To make sure InfoPath attachments display properly, include the <?mso-infoPath-file-attachment-present?> processing instruction at the top of the document.

> **NOTE:** While this release only implements the <ppm:replace> tag, more advanced tags and attributes are planned for subsequent releases. As a workaround to most limitations you might encounter, consider using Formula columns to create XML fragments.

> **NOTE:** In this release, a simple drop-down text editor is available for entering multi-line Document Templates. In practice, many users would prefer to use their favorite XML editor and copy/paste the results in Migrator for Notes to SharePoint. A more powerful editor/designer is planned for future releases which will assist with loading a sample XML document, merging source columns, generating PPM tags.

5 To save your generated XML documents into a Document Library or Forms Library in SharePoint, simply map your new “Document” column to a File field in SharePoint, just as you would when extracting attachments or embedded images. You can also map Document columns to List Item text fields or List Item attachment fields.

   You can control the name of generated XML files by mapping a dynamic source column to a FileName field in your target data definition.

Generating InfoPath forms (post version 5.2)

To generate InfoPath form documents from Lotus Notes documents that were created using Notes forms

1 Create an InfoPath form template from the Notes form. Migrator for Notes to SharePoint can do this automatically for you. See Generate InfoPath Form Template for detailed instructions on how to do this. You can also start with your company's existing InfoPath form template.

2 Use the InfoPath client itself to publish the form template to SharePoint. You do this using the InfoPath client's File/Publish… menu option. For more information, see your InfoPath help guide.

3 Copy the published form template from the SharePoint document library to your local drive. This template is what you will use in your Migrator for Notes to SharePoint migration job definition. If the template is the default template for the document library, you can copy it by changing the “Allitems.aspx” in the URL of the document library to “template.xsn”.

4 Save it from the pop-up that appears. Be sure to turn of your Pop-up Blocker before doing this. If the template is not your default, you can copy it by going to the Form Library Advanced Settings page.

5 Once you have the form template (.xsn file), you can then add it to the Migrator for Notes to SharePoint migration job using the Target Data Definition.

> **NOTE:** You cannot use the template that was generated from the InfoPath Form Template generation tool. You must use the copy of the template that was published to the document library in your Migrator for Notes to SharePoint migration job.

6 In the Target Data Definition, add a target column of type InfoPathDocument. You must also specify a column Name (which is used in the field mapping process).

7 Specifying a Template is required for InfoPath documents. To specify a template, click the InfoPath Template property and click the Details button to launch the Map InfoPath template fields dialog.

8 In the Map InfoPath template fields dialog, import an InfoPath template (.xsn file) using the ‘Load XSN’ link. A complete copy of the imported template will be saved as part of your Target Data Definition and will be used as the basis for any documents that you generate with it.

   With some form templates, the XSN importer cannot determine what the HREF (location of template) should be for a generated document. For instance, if a template was imported into Central Admin, approved by an administrator, then assigned to a site, where SharePoint automatically created a content

type for it. In this case, the published XSN location is not in the XSN. For these unusual cases, you need to specify the template location in the **Published XSN location** field. This field will be automatically loaded with the location if the XSN importer can determine the HREF.

Once an XSN has been loaded using the 'Load XSN' link, the 'Export XSN' link is enabled. Clicking 'Export XSN' launches a file save dialog box, allowing you to save the previously-imported XSN back to a file on disk.

The Map InfoPath template fields dialog also includes a complete list of the available Mappable Fields, which are the parts of the generated InfoPath form documents that you might want to map Notes data to. If desired, you can customize how these Mappable Fields appear on the Mapping tab. Recall that Migrator for Notes to SharePoint maintains the distinction between the reusable Target Data Definitions that describe the schema of your SharePoint targets and the mapping of source columns to target fields in a specific migration job. You can clear certain Mappable Fields that you do not want to show on the Mapping tab. You can also override some of the Mappable Field properties such as the MappableName that is visible on the Mapping tab and the AutomapNames property that provides a hint as to which Notes source columns should automatically map to the target field.

If you import a form template (.xsn) with two leaf nodes having the same name, the MappableNames fields are pre-filled with a fully-qualified path to the node in the tree (that is, Customers/Customer/name). This prevents duplicates in the target documents.

If a field is inside a field that is repeating, it's Multi property will be auto-set to 'RepeatParent'. All sibling fields must have this property set to 'RepeatParent'. This prevents the parent element from being repeated in the generated XML.

You may wish to enable the "Migrate Attachment Icons" feature in your migrated InfoPath form documents. This will allow the original attachments icons in Notes to appear in SharePoint.

Once you save your Target Data Definition, the various parts of the InfoPath Document field you defined will be available on the Mapping tab. A special "Field.Part" notation is used here. In the example, we called the InfoPathDocument field "Doc" so the mappable parts are called "Doc.Body", "Doc.Title", "Doc.Status" and so on. There is also a special field called "Doc.FileName" that allows you to set the names of the generated InfoPath files from dynamic Notes data

When you run the job, Migrator for Notes to SharePoint will generate one InfoPath form document for each Notes document. You can inspect the migration log for any issues.

Generating raw HTML and XML

When using Migrator for Notes to SharePoint to migrate Notes rich text documents to SharePoint, the tool extracts your rich text "Body" item as HTML and map that to a SharePoint "Note" field (a multi-line text field supporting Enhanced HTML).

If you want to control how your HTML is encoded, Migrator for Notes to SharePoint supports the use of "pass through" HTML. If you want a string in your source data definition to be interpreted as pure HTML, set the Return Type to "HtmlString". For example, some custom Notes applications, especially web-enabled Domino applications, actually store raw HTML in text fields. Using the HtmlString return type can migrate those to SharePoint rich text fields "as is".

This is similar to the capability available when generating InfoPath XML documents from Notes documents. You can use the attribute encode="xml" inside your <ppm:replace> tags to indicate that you want the mapped source column to be treated as "pass through" XML.

Generating read-only HTML

When using Migrator for Notes to SharePoint to render Notes documents as HTML, the Notes fields for radio buttons and check boxes become editable in the output since the generated HTML documents are not read-only. To disable editing of radio buttons and check boxes, set the HTML output to read-only.

To generate read-only HTML:

- Set the render Return Type to **HTML**.
- Map it to a target field with the type **File**.
- Set the Read-only field to **True**.

Generating ASPX pages using document columns

In most cases, the best way to generate ASPX content pages is to use the PageName feature in your Target Data Definitions. This feature allows you to generate pages based on predefined ASPX page types and layouts and then override various page properties using content extracted from Notes documents. In some cases, however, this feature is inadequate for generating content pages as it does not allow you to generate the ASPX code itself dynamically. An example of where you might need to do this is MOSS publishing pages. In cases like this, you would want to use Document columns in your Source Data Definition.

When generating ASPX pages in SharePoint using the Document Column feature, the same process in Generating InfoPath forms is followed but with exceptions. Since ASPX pages are not true XML documents, some additional tags have to be added to the ASPX page before it can be added to the DocumentTemplate property of the Document column in the Notes Source Data Definition. The below tags have been added to our XML replacement extensions:

```
<!--[PPM:PASSTHROUGH]  any content  [PPM:PASSTHROUGH]-->
```

This construct allows encoding of any content that is not legal XML (for example <%@ Page %> tags common in ASPX pages). This is structured as an XML comment and anything inside that comment will be passed through "as is" in the generated documents.

```
<ppm:document> other xml tags </ppm:document>
```

This construct allows wrapping multiple "top level" tags in a single top level tag, as required in legal XML documents. The outer <ppm:document> tag is simply removed in the generated documents.

```
<ppm:replace target="site">
```

This construct allows you to substitute target information in your XML file. Currently, the only supported value is "site" which yields the complete site URL.

A common best practice is to first develop a sample ASPX Page in SharePoint that contains all of the layout and Web Parts that you want in your resulting pages. Then download your ASPX Page and edit it to make certain parts dynamic (using ppm:replace tags) and escape the parts that are not legal XML (using ppm:document tags and ppm:passthough sections). You will use this ASPX document to create the XML for the Document Template property.

NOTE: This Web Part Page is only used to generate the XML that needs to go into the DocumentTemplate property of the Notes Source Data Definition. Once you have the needed XML, this sample Web Part Page can be deleted. It is not used during the migration process.

This ASPX document is not a valid XML document so it can not be used in the DocumentTemplate property yet. To make it a valid XML document, open this ASPX document in your favorite XML editor and modify it by using the additional tags. Once it is valid XML, copy the XML to the DocumentTemplate field of the Source Data Definition in Migrator for Notes to SharePoint.

NOTE: In this release, a simple drop-down text editor is available for entering multi-line Document Templates. In practice, many users would prefer to use their favorite XML editor and copy/paste the results in Migrator for Notes to SharePoint. A more powerful editor/designer is planned for future releases which will assist with loading a sample XML document, merging source columns, and generating PPM tags.

To save your generated Web Part Pages into a Document Library in SharePoint, simply map your new “Document” column to a File field in SharePoint, just as you would when extracting attachments or embedded images.

To migrate the source data fields into the various Web Parts on the page, you must know each Web Part's WebPartTitle and PropertyName. You can use your XML editor or SharePoint Designer to identify these.

> **NOTE:** The list of Web Parts that are shipped as part of WSS v3 can be found at http://msdn.microsoft.com/en-us/library/microsoft.sharepoint.webpartpages.aspx. The MSDN website also contains detailed information about each Web Part property including the PropertyNames. For example, the detailed information for the ContentEditorWebPart properties can be found at http://msdn.microsoft.com/en-us/library/microsoft.sharepoint.webpartpages.contenteditorwebpart_properties.aspx.

For each Web Part, add a data field of type 'WebPartProperty' in the Target Data Definition with the WebPartTitle and PropertyName properties filled out. Then map the source columns to these fields in your target data definition.

You can control the name of the Web Part Pages by mapping a dynamic source column to a FileName field in your target data definition.

Generating web part pages using PageName

Using the PageName feature in your Target Data Definitions is the easiest way to generate Web Part Pages based on predefined ASPX page types and layouts. With this feature, you do not need to edit the ASPX page with the PPM tags to make it a legal XML document as you would using the Document Columns feature. With the PageName feature, you can override various page properties using content extracted from Notes documents by using WebPartProperty fields. The steps for generating Web Part Pages are described below.

First create a sample Web Part Page in SharePoint that contains the layout and Web Parts, that you want in your resulting pages. Then use SharePoint Designer to view the ASPX code of the Web Part Page and copy it to the clipboard.

> **NOTE:** SharePoint Designer merges the "ghosted" page layout and the web part tags into one page. If you were to simply export the ASPX page from SharePoint in the browser, you would not get everything.

You will use this ASPX code in the PageTemplate property of your target data definition.

> **NOTE:** This Web Part Page is only used to generate the ASPX code that needs to go into the PageTemplate property of the Notes Target Data Definition. Once you have the needed ASPX code, this sample Web Part Page can be deleted. It is not used during the migration process.

Add a PageName field to your target data definition and set the type to 'Template'. Open the PageTemplate drop-down editor and paste the ASPX code you copied in the previous step.

Add WebPartProperty fields to your target data definition to override various properties of various web parts with live Notes data. For each Web Part whose properties you want to override with Notes data, add a data field of type 'WebPartProperty' in the Target Data Definition. Fill out its WebPartTitle and PropertyName properties. Then map the source columns to these fields in your target data definition.

Add any other target data definition fields you need. In particular, if you want to preserve images/attachments/objects you will need to map them to File fields using the AlternateLibrary or AlternateFolder properties.

On the mappings tab, add mappings for all the target data definition fields.

> **NOTE:** If you plan to overwrite the Title property of any of the web parts, make sure that those mappings come after any other mappings to that web part. Once you change the Title, other mappings will not be able to find the web part.

Generating documents from Lotus Notes

This feature allows you to generate Microsoft Word 2007 (OpenXML) documents from Lotus Notes documents. Microsoft Word is a very flexible and powerful environment and Migrator for Notes to SharePoint supports a wide range of migration scenarios:

1. Migrate Notes rich text to new (blank) Word document - In this scenario the user wants to map the rich text portion of their Notes documents (typically the "Body" field) to Word 2007 documents (DOCX files) created from scratch. The generated rich text content is pretty much the only thing in the resulting documents. The fidelity of the migrated content is very high and includes tables, fonts, bullets, images, doc links, and much more. The known limitations are listed at the end of this document.

   Optionally, the user may want to migrate specific Notes data items to Standard Document Properties such as Author, Category or Description within the generated Word documents.

   As these documents are generated, they will be checked into the designated SharePoint library.

   A large number of existing Migrator for Notes to SharePoint features apply here, including the ability to set created/modified metadata, document permissions, target folders, content types, workflow state, version history, data transformations and more.

   Furthermore, the user may want to migrate specific Notes data items to specific metadata columns in the document library. When the document is opened in SharePoint, these properties will appear as "Server Properties" in the Word user interface.

2. Migrate Notes rich text to new Word documents based on existing templates - This scenario is similar to the one above except that the user can specify the Word 2007 template (DOTX file) they want to start with. The generated documents will pick up the headers, footers, or backgrounds of the original template. If the template includes any rich text content, the migrated content will be appended to it.

   If the Word template defines Custom Document Properties, the user may want to migrate specific Notes data items to these Custom Properties as well as to the Standard Properties.

3. Migrate Notes documents to Word documents with embedded content controls and legacy controls - In this scenario, the user is using the Word template as a "form" with rich layout and data entry fields (and possibly data validation rules, computations, actions.). For each Notes document, Migrator for Notes to SharePoint will generate an equivalent Word document with specific Notes data items mapped to these controls.

- If the user is taking advantage of SharePoint's automatic mapping of SharePoint meta-data columns to Word content controls (exposed to SharePoint developers as "Quick Parts") then the best approach is to simply map the Notes data items to the metadata columns in the document library and let SharePoint synchronize them with Word.
- Migrator for Notes to SharePoint can also set the contents of the content controls or legacy controls directly with the mapped Notes data. They will continue to appear as data entry fields in the document, but they will not be synchronized with SharePoint metadata columns.
- Migrator for Notes to SharePoint can also replace the content controls or legacy controls entirely with the mapped Notes data. They will no longer appear as data entry fields.

NOTE: The user may still want to map a Notes rich text "Body" field to the document in addition to populating the controls, as described in the first two scenarios.

Using this feature

When designing Target Data Definitions in Migrator for Notes to SharePoint, you can add target columns of type WordDocument. You must also specify a column Name (which is used in the field mapping process).

Specifying a Template is optional. If you do not specify one, you will always get plain word documents containing whatever rich text contents and standard properties you choose to map from Notes. If you want to specify a

template, simply click on the Template property and press the details button to launch the Word Template Options dialog.

In the Word Template Options dialog you can optionally import a Microsoft Word 2007 template (.DOTX file) using the Import button. Note that a complete copy of the imported template will be saved as part of your Target Data Definition and will be used as the basis for any documents that you generate with it.

If the imported template contains any of the MSWord Content Controls that are supported by Migrator for Notes to SharePoint, and these controls are not bound to SharePoint columns or XML data, then they will appear as mappable controls in the Mappable Fields section of the dialog. The content controls that are supported are RichText, PlainText, DatePicker, ListBox, ComboBox.

Word Template Options dialog also includes a complete list of the available Mappable Fields, which are the parts of the generated Word documents that you might want to map Notes data to. This list includes the main rich text Body of the document, all the Standard Properties available in every Word document (Author, Created date, Subject, Title, Keywords, Category, Status and Revision) and well as any Custom Properties that may have been defined by the Word template you loaded.

If desired, you can customize how these Mappable Fields appear on the Mapping tab. (Recall that Migrator for Notes to SharePoint maintains the distinction between the reusable Target Data Definitions that describe the schema of your SharePoint targets and the mapping of source columns to target fields in a specific migration job.) You can clear certain Mappable Fields that you do not want to show on the Mapping tab. You can also override some of the Mappable Field properties such as the MappableName that is visible on the Mapping tab, the AutomapNames property that provides a hint as to which Notes source columns should automatically map to the target field, and the AllowMultiple property which controls when mapping of two or more source fields to one target field should be allowed.

For embedded content control type fields, you can define how the data value will be mapped to the content control using the Mapping Behavior property. This property has the following options:

- Set Value
    - If the control contains an initial value added by the template designer, this is preserved and then all mapped values will follow this initial value.
    - If the control only contains PlaceHolder text (typically shown in gray) and often says something similar to "Click Here to enter text", this content gets removed prior to adding values.
- Replace Control
    - If multiple fields are mapped to a control with this behavior set, then only the FIRST mapped value is handled. After that all other mapped values are ignored.
    - If the control has non-placeholder content added by the template designer, it is discarded with the control when the control is replaced.

Content controls in MSWord may be data bound to either SharePoint fields or XML data. We do not allow mapping to any data bound content controls as MSWord would ignore our content in favor of the bound data resulting in data loss for the user.

Note that your Target Data Definition may well contain additional target fields that are not part of the generated Word Document. In particular, you can add target columns for any additional metadata properties that should be written to the SharePoint document library, rather than inside the generated Word documents (as described in scenario #3).

You may also want to specify Folder names as well as the alternate locations for embedded attachments and OLE objects that should be migrated separately to SharePoint. These are existing features that are described elsewhere, but they apply equally well to Notes documents.

One final thing you may wish to enable in your migrated Word documents is the new "Migrate Attachment Icons" feature. While this is not always desirable when migrating to List Items, it looks pretty nice in Word Documents.

Once you save your Target Data Definition, the various parts of the WordDocument field you defined will be available on the Mapping tab.

In most cases, you will (at a minimum) want to map the Html version of your Notes documents to the Doc.Body field and map the Subject (or a similarly descriptive Notes item) to Doc.FileName. You can also add additional mappings for standard properties and custom properties as needed.

When you run the job, Migrator for Notes to SharePoint will generate one Word document for each Notes document. You can inspect the migration log for any issues.

NOTE: Large images that do not fit within the page margins of the target Word document will be automatically resized during migration taking the size, orientation and margins of the template into account.

Direct folder migration

On the Advanced tab of your Target Data Definition, you can indicate that you want to migrate to a folder in your target list or library. In this mode of operation, every record you extract from the data source will result in a folder being created, instead of a document.

The only additional requirement is that you map at least one item to a target column of type ‘Folder ‘. This controls the new folder names. Many of the usual document migration features will now apply to folders including:

- Mapping of permissions (using the "Map Reader/Author fields" check box on your Advanced tab)
- Mapping created/modified metadata to folders (using the "Preserve Created/Modified" check boxes on the Map Data tab)
- Mapping additional data items to folders (requires creating a new Folder content type).

NOTE: Many job features that would apply to document migration will not apply to folder migrations. For example, document generation and duplicate document handling options would be disallowed in this context.

Extracting information from Domino.Doc Binders

With this new feature, you can migrate all the information from your Domino.doc Binders to SharePoint folders. To support this, a new option has been added in the Domino.Doc Source Data Definitions. Simply check the **Binders only** radio button on the Document Selection tab. When this job is run, Binders are extracted instead of Documents.

Each row in the Preview Data Query tab represents a Binder in the current file cabinet. Additional columns have been added for all of the standard Binder metadata available in Domino.Doc. You can add additional columns to this query as well.

Putting these features together, you would typically map the {Title} property of your data source to a Folder column in your target. Simply checking **Map Reader/Author fields**, **Preserve Created/Modified identities**, and **Preserve Created/Modified dates** should bring over most of the other metadata but you can certainly add additional mappings if desired.

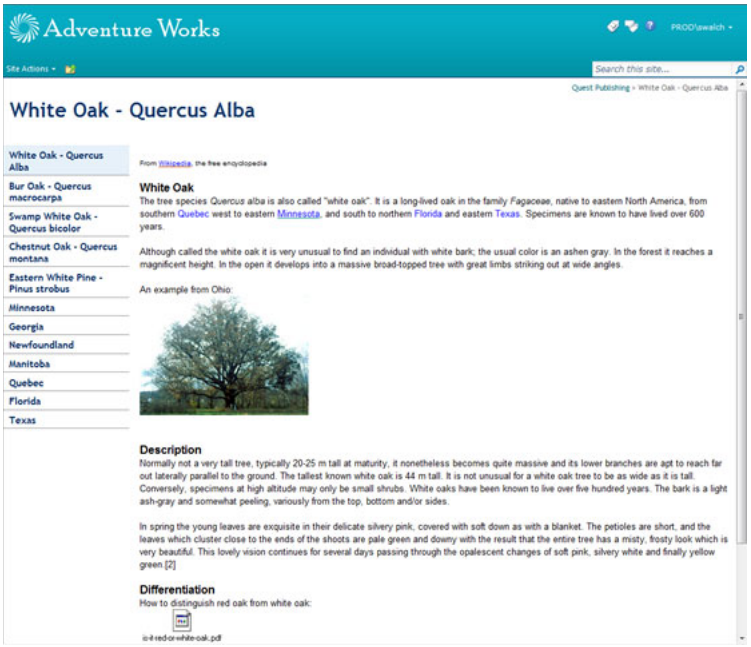
Note that this feature will only write new SharePoint folders; it will not update existing ones with the same name. So a best practice is to run the Binder migration job first (to create the folders with all the properties intact) and then run you normal document migration job. Remember that the Migrator for Notes to SharePoint migration console makes it easy to sequence multiple migration jobs for one database, and to automate these jobs for many databases of the same type.

Migrating to SharePoint publishing pages

Many Notes applications were designed primarily to publish rich content to a wide audience. These often included some type of approval process, management of draft content, and version control. These are great examples of

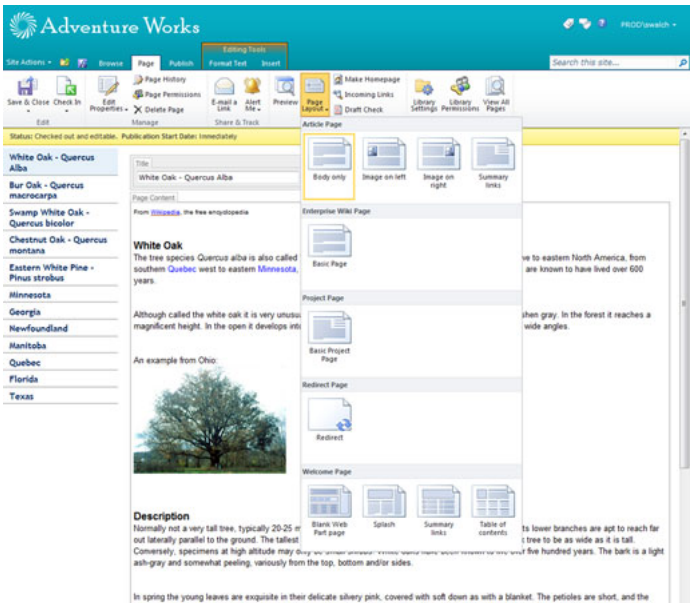
applications that may well to the “publishing” site templates available in SharePoint Server 2013/2016/2019. Here, for example, is a rich text Notes document (with embedded images, attachments and doc links) that has been migrated to a 2010 “Publishing Portal” using Migrator for Notes to SharePoint.

Figure 10. Document that has been migrated using Migrator for Notes to SharePoint



If we put this page into edit mode, we can see that a great deal of out-of the-box functionality is available with no development required.

Figure 11. Document that has been migrated using Migrator for Notes to SharePoint



Migrator for Notes to SharePoint supports migrating any Notes content to publishing pages. This is a little more complex than doing other wiki pages or basic pages and uses the tool’s unique capability to create pages using custom ASPX template code.

If you do not already have a publishing site, create one using SharePoint Central Administration and specify one of the “Publishing” templates

Next, you need to create a “template” for generating pages from your Notes documents. Go to your new SharePoint publishing site and create a sample page by selecting Create Page from the Site Actions menu.t

Select the page layout you want for your new pages. The list of layouts may vary depending on the site template you started with and may include custom layouts designed by your site owners. Populate the page with a little sample data and save it.

Feel free to experiment with checking the page in and out, versioning it, scheduling it’s release or submitting it for approval. These are all powerful features of the SharePoint publishing templates, but you actually do not need to use them for the task at hand.

For designing a migration job, you need to extract the page to a local file so you can get an example of the ASPX layout. Select **View All Site Content** from the **Site Actions** menu and then go to the “Pages” document library.

In the Pages library, locate the test page you just created and pick **Send To –> Download a Copy** from the drop down menu for that page. y

Save the ASPX file to your computer and edit in any text editor. Keep this ASPX file handy, because you will be using it later.

Digression: ASPX developer’s may be interested in how this page is constructed. It inherits from a class in the Microsoft.SharePoint.Publishing namespace, but does not actually specify any HTML markup. Instead the code behind the pages uses the data in an XML data island to render the page. Notice that the XML parts specify not only content properties such as PublishingPageContent but also the page layout in the PublishingPageLayout property.

Now you have what you need to create your Migrator for Notes to SharePoint migration job. You can start from scratch or customize an existing job.

If you are starting with an existing job, first change the source Notes database to refer to your database and you may need to customize the source data definition to extract different Notes data items than the default ones specified (“Subject”, “Body”).

You should also change and target SharePoint URL to point to your publishing site. The pre-existing jobs are already configured to create new pages in the “Pages” library, place any embedded objects in the “Images” library, and place any attachments or embedded objects in the “Documents” library. This is consistent with the way things work normally when a SharePoint user created content in a publishing site, so you probably do not need to change those parts.

If you open the target data definition in the migration job, you will notice that there is a target field of type ‘PageName’ and that the **PageType** property of this field is set to “Template”. This **PageType** allows you to specify your own custom ASPX code in the **PageTemplate** field.

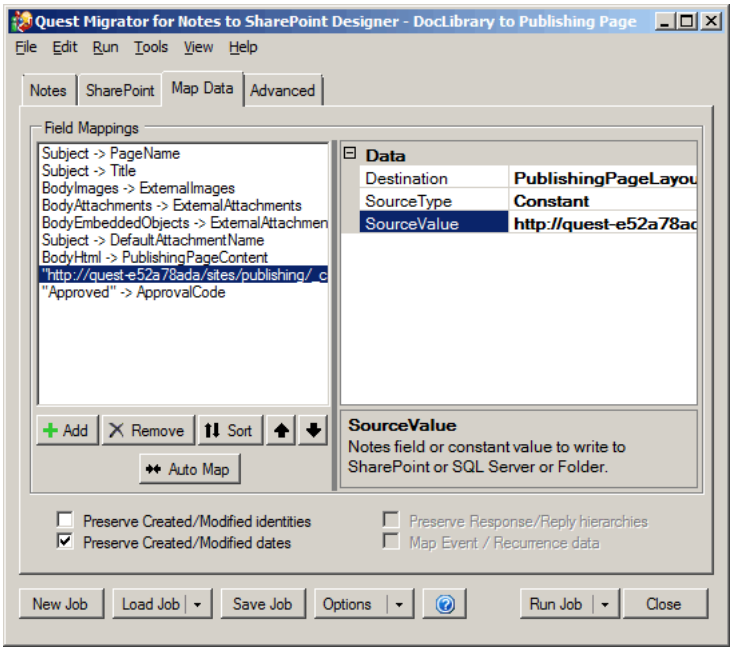
The ASPX code is what needs to be put into the **PageTemplate** field. Not all of it though, just the bits that describe the page structure. The content parts can be left out and, as you will see shortly, we will specify the content in a different way (mapping the data dynamically from Notes). Your ASPX page may look different, but generally you want the ASPX tags at the top (which start with “<%@”) and the <html> tag.

Notice that the target data definition also specifies several fields that allow data to be mapped as content in the generated pages. Some of these you may recognize as the properties that were specified in the XML data island (the green part). We included **PublishingPageContent** for mapping the Notes rich text and **PublishingPageLayout** for specifying the page layout. Other page types may require additional properties but you will find that many of them can be omitted as the defaults are acceptable for migrations. **Title** and **ApprovalCode** allow setting of metadata on the page. **ExternalImages** and **ExternalAttachments** allow mapping of additional files to the appropriate SharePoint libraries.

Press **OK** to save the target data definition. Next, go to the Mapping tab to review how various fields are set from the dynamic Notes data. Most of these mappings will make sense to an experienced Migrator for Notes to SharePoint user, but two deserve special attention.

The **PublishingPageLayout** is set to a constant value, which is the URL of the appropriate layout page. It is critical that you replace this value with the address of a layout page on your SharePoint server. Recall that in the newly created test page in the example, the page layout “Article page with body only” was selected. In the resulting ASPX file, this translated to the **PublishingPageLayout** property in the XML data island (the green bit) set to “http://quest-e52a78ada/sites/publishing/_catalogs/masterpage/PageFromDocLayout.aspx”. This is the URL that you need to use here. If you do not get this part right, your pages will not open.

Figure 12. Replacing source value with address of a layout page on your SharePoint server



The jobs are also designed to set any migrated content to the “Approved” state. This is accomplished by mapping a constant value to the **ApprovalCode** field. Of course you can change this to a different constant value or even make it dynamic depending on the state of your Notes document.

Depending on the page layout you selected, you may need to map other properties as well. When you are ready, press the **Run Job** button to start the migration.

4

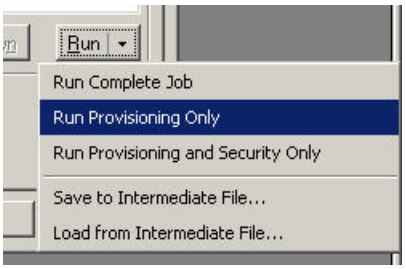
Migration jobs

- Running migration jobs
- Migrating failed items
- Migration job logging
- Managing migration jobs

Running migration jobs

When you are ready to run your migration job, select Run. You can do this by selecting the **Run** toolbar menu or by clicking the **Run** button at the bottom of the Designer or the Migration Jobs tab of the Console's Database Properties dialog box. This button is a split function button. If you click the left side of the button, the entire migration job will run. The right side of the button is a drop down menu that allows you to run portions of the job like provisioning.

Figure 13. Run provisioning only



If you have access to both SharePoint and Notes on your machine, or if you are connected to a remote SharePoint server running Migrator for Notes to SharePoint's Import Service, you can run a complete data migration job all at once. Otherwise, you need to export the intermediate results to an XML file from Notes and then import intermediate results from an XML file into SharePoint. The following is an example of how you might use the export/import:

Machine A:

1. Install Migrator for Notes to SharePoint on a machine that has a Notes client (remember that you can still connect to other Domino servers in your organization).
2. Define your complete data transfer job (Source Definitions, Target Definitions, and Mappings) or load an existing job.
3. Click the **Save Job** button to save the Job Definition.
4. Click the **Run** button's drop down menu and select **Save to Intermediate File** to save the results to an intermediate XML file.

Machine B:

1. Install Migrator for Notes to SharePoint on your target SharePoint server.
2. Click the **Load Job** button to save the Job Definition you saved in step #3.

3 Change the SharePoint target site, list, and transfer options if needed. However, you should not change the Data Definitions or Mappings.

4 Click the **Run** button's drop down menu and select and **Load from Intermediate File** to load from the intermediate XML file you saved in step #4.

If you choose to use an intermediate data transfer file, you should also save the matching Job Definition. See Managing migration jobs on page 127 for more details.

From the Console, you can select multiple databases, right-click, and select Migrate to SharePoint.

To view detail information regarding the jobs before you run them, click the **Details** link.

If you choose **Save to Intermediate File,** a dialog comes up that gives you an option to have the attachments saved to a separate folder rather than the default of the intermediate data file.

There are a couple of benefits to saving the attachments in a separate folder:

- If you need to "post-process" the intermediate data file (either to modify it before you import it into SharePoint, or to use it for you own purposes) and it is much easier to do this with a smaller XML file.
- There are bugs in the .NET serializer for large XML elements. Keeping the attachments in a separate folder keeps the XML file smaller and therefore should prevent these bugs.

When you choose to save attachments and generated documents to a separate folder, Migrator for Notes to SharePoint uses the correct file names wherever possible when the attachments and generated documents (but not images) are saved to the file system.

The name of this separate folder is derived from the name of the intermediate data file with "_Files" appended. The name or location of this shared folder cannot be changed. You can move the intermediate file and its corresponding folder, but you cannot rename them, and they must remain in the same relative location to each other (that is, When reading "journal.xml" we expect that the "journal_Files" folder will be in the same directory as "journal.xml").

You should see your progress displayed in a task process dialog box. If you are using the Console and chose to run the job in the background, you can find the task process dialog box in the Task history node of the tree.

To cancel the migration, click **Cancel Task** or close the dialog box.

When your job is complete, you will have the opportunity to view your log file or go directly to the SharePoint list or library by clicking **Go to List**. To migrate the failed items for a job that completed with error, click **Migrate Failed Items**. For more information, see Migrating failed items on page 125.

Migrating failed items

You can load the failed items from the log file after changing the relevant settings, and migrate them again.

To migrate failed items

1 In the data source (**Notes/QuickPlace/Quickr/Domino.Doc**) tab of **Migrator for Notes to SharePoint Designer**, select **Load Failed Items from Log** in the drop down menu list of the **Load Job** button.

2 Select a log file, and click **Open**.

3 Click **OK** to confirm the number of the loaded failed items.
To see the UNIDs of those items, click **Edit** in the **Source Data Definition** section, select the **Record Selection** tab, and click **Details** for the **Select records based on UNID** check box.

4 Click **Run Job**.

Migration job logging

Your migration job log contains more or less detail, depending on the logging options you have set. If you are running Migrator for Notes to SharePoint Designer, you can also change the file folder that log files are saved to. See Customizing global options on page 111 for more details. If you are running your migrations through the Console, your log is written to the repository and can be viewed and exported from the Task history node or the Migration History tab of the Database Properties sheet.

The **General** tab of the Event Log dialog box displays basic migration job information. To display more information, click the arrows on the upper right side of the tab. Click the arrows again to close this detail.

To export the log to an XML file, click **Export Log**.

To open the target SharePoint list, click **Go to List**.

The **Log Summary** tab of the Event Log dialog box displays the processed records of the migration job. While the migration job is running, this information is automatically updated every 3 seconds.

In the processed records list, if the message column is not wide enough to fit the text, hovering over a row will show a tool tip with the complete message.

To view the details of a processed record, select it in the table and click **View Details**.This opens the Log Entry Details dialog box.

To navigate to a previous entry, click **<Prev** and to navigate to the next entry, click **Next>**.

For a processed record of error type, you can click **Search for solution** to search the **Context** and **Message** texts of the record from the product Knowledge Base, and display the results in a new window, where you can preview the titles of those relevant articles. To show a snippet of a knowledge article immediately, hover your mouse over the title, or click the title to read the complete knowledge article in your browser.

To copy the entire entry to the clipboard, select **Copy to Clipboard**. You can then paste the contents into an editor of your choice.

To open the document for the given log entry in the source Notes database, select **Open in Notes**.

Select **Close** to close the Log Entry Details dialog box.

To view the log details for a migrated document, select the document in the Log Summary tab and click the **Show in Log** button on the right side of the tab. This will take you to the line item in the **Log Details** tab that represents the migration of the selected document.

The **Log Details** tab contains the detail line items of the log file. While the migration job is running, this information is updated by clicking the **Refresh** link in the upper left side of the tab. This link is only visible while the job is processing.

> **NOTE:** The refresh link is not available when viewing a running job through the Task History node of the Console.

The data can be sorted by clicking on the column heading you want to sort by.

You can open the Log Entry Details dialog box by double clicking a row in the table.

The Duration column shows how long each task takes to complete. To view the tasks that are taking the longest, sort by this column.

For migration jobs that have been run using Migrator for Notes to SharePoint Designer or the Command Line, the logs can be imported into the Console. This allows the jobs to be visible in the database's migration history tab.

See Importing tasks on page 85 for details.

To open log files from prior jobs, you can select **Open Log File** from the **File** Menu. And if any items failed to migrate according to the log, click **Migrate Failed Items** to migrate them again. For more information, see Migrating failed items on page 125.

Latest Log File will open the log from the last time a job was run and **Recent Log Files** allows you to choose from a list of logs of the most recent run jobs.

Managing migration jobs

Migrator for Notes to SharePoint Jobs consist of the following:

- Notes / Domino Connection and corresponding Source Data Definition
- SharePoint Connection and corresponding Target Data Definition
- Mapping options

In other words, everything you entered on the "Notes", "SharePoint" and "Map Data" tabs combine to make a Job Definition.

For an ad-hoc data migration job, you never need to save Job Definitions to disk. However, there are several reasons you might want to save a Job Definition:

- To run the job at a later time
- To run the job using Command Line mode (for example, as part of a scheduled task)
- To reuse the Job Definition for a similar job

To save a Job Definition, click the **Save Job** button.

To load a Job Definition, click the **Load Job** button.

To dispose of the current Job Definition and start a new one, click the **New Job** button.

Migrator for Notes to SharePoint Job Definition files are formatted as XML text. For details on this format, see Job definition file format on page 134.

A

Appendix: Reference information

- Notes connection string reference
- Command line options
- Connecting the Console to alternate Repository database
- Notes source data definition file format
- QuickPlace/Quickr source data definition file format
- Domino.Doc data definition file format
- Target data definition file format
- Job definition file format
- Results View data columns
- Migrator for Notes to SharePoint reporting data tables

Notes connection string reference

Migrator for Notes to SharePoint connection strings are used when opening connections to Notes or Domino databases. The syntax takes the form of one or more "parameter=value" declarations separated by semicolons. For example:

```
database=petshop.nsf; server=server1/NMSP; altserver=server2/NMSP;
```

Specify the *Database* or *ReplicaID* and optionally the *Server* parameters for the database to connect to. If both the *Database* and *ReplicaID* are specified, or if the *AltServer* is specified, multiple attempts to connect will be made before giving up.

Connection parameter names are not case sensitive; *"Server"* and *"server"* are equivalent.

Parameters

Database - Path to the desired database, including the ".nsf" extension. Paths should typically be relative to the Notes/Domino data directory, though full absolute paths can be used to access a local database.

As an alternative to specifying a database path in a connection string, developers can specify "$usermail" as an alias for mail file of the current user. For example, a connection string may include the parameter "database=$usermail". If a server is not specified in the connection string, then Migrator for Notes to SharePoint will attempt to open the user's mail file on their default mail server. If a server (or "server=local") is specified, then Migrator for Notes to SharePoint will attempt to open the user's mail file on the specified server first and then fail over to the user's default mail server.

ReplicaID - Replica ID of the database as a 16 digit hexadecimal number. If both the *database* and *replicaid* are specified, multiple attempts to connect will be made before giving up.

Server - Name of server where desired database is located. This can be a short name or fully distinguished hierarchical name. Use "local" or simply omit this parameter when connecting to local database.

AltServer - Name of alternate server to be tried if database cannot be opened at **server**. This can be a short name or fully distinguished hierarchical name. Use "local" when connecting to a local database.

ImpersonateName - The fully distinguished user name you wish to use to access databases, for example "Joe Cool/Proposion" or "CN=Joe Cool/O=Acme". To enable impersonation for server databases, you need to edit the server's Server document. In the Domino Directory, go to the Security section, and add the user name (from the Notes ID that your .NET process will be using) to the "Trusted Servers" field. *This requires Domino 6.0 or higher.*

NameServer - Specifies which server to use for looking up users while validating user names and looking up the current user's mail file. If the "NameServer" parameter is not specified, the default server (where the current database resides) will be used instead.

CacheSize - The number of records that will be loaded into memory at once by the data reader. This value will not impact final results but could impact the memory footprint and performance. The default is 10.

Command line options

The Migrator for Notes to SharePoint command line interface can be very useful for scripting jobs from other programs or from scheduling tools such as Windows Scheduler or Domino agents.

NMSPCMD.EXE is installed in our bin directory (typically C:\Program Files (x86)\Quest\Migrator for Notes to SharePoint\Bin).

Migrator for Notes to SharePoint supports the following command line options, which allow it to run in batch mode:

```
NMSPCMD.exe -job <jobfile> <options>  [ -source <connectionstring> ]  [ -target
<listOrLibraryUrl> ]  [ -import <infile> ]  [ -export <outfile> ] [-filesfolder] [ -
log <logfile> ]  [ -defaultuser <username> ] [ -mode Complete | ProvisioningOnly |
ProvisioningAndSecurityOnly | RecoverLTS ] [ -unid <unids> ] [-options
<optionsname>]
```

The parts in [square brackets] are optional overrides to the job options or global defaults. These overrides allow you to run the same job multiple times specifying different sources and targets each time.

The source can be any connection string that you see on the Notes, QuickPlace, Quickr or Domino.Doc tabs. The target should be the full path to the list or library.

Options in detail:

`-job <jobfile>: Specifies the jobfile for a data migration job.`

`-source <connectionstring>: Overrides the Notes Data Source specified in the Job Definition.`

`-targetsite <siteCollectionUrl>: Overrides the SharePoint Target Site in the Job Definition.`

`-targetweb <subsitePath>: Overrides the SharePoint Target Web in the Job Definition.`

`-targetlist <listName>: Overrides the SharePoint Target List in the Job Definition.`

`-target <listUrl>: Overrides the SharePoint Target Site and List in the Job Definition.`

`-export <outfile>: Perform a partial migration job writing intermediate results to the named XML data file.`

`-import <infile>: Perform a partial migration job using the named XML data file as a data input.`

`-defaultuser <username>: The "If lookup mapping fails" user mapping option is overridden to be "Substitute the default user", using the username that is passed as the default user.`

`-filesfolder <>: When used, the attachments will be written to a separate "_Files" folder rather than the default intermediate data file. The abbreviated "-ff" can be used as well.`

-formula <>: This argument allows whatever formula specified in the current job to be overridden.

-view <>: This argument allows whatever view specified in the current job to be overridden.

-form <formName>: This argument allows you to migrate documents associated to specified forms. If specifying multiple forms, separate form names by commas and put the whole string in double quotes.

-mode Complete | ProvisioningOnly | ProvisioningAndSecurityOnly | RecoverLTS: This argument allows you to run portions of a job.

- Complete: Run complete job.
- ProvisioningOnly: Run provisioning only.
- ProvisioningAndSecurityOnly: Run provisioning and security mapping only.
- RecoverLTS: Recover the Link Tracking data.

-unid <unids>: Overrides the option **"Select records/pages based on UNID"** in the Source Data Definition. Separate multiple UNIDs using semicolons.

-options <optionsname>: Applies a saved options file by the options name.

NMSPCMD.EXE returns one of the following exit codes:

0 = Completed

-1 = Completed With Warnings

-2 = Completed With Exceptions

-3 = Job Failed

-4 = Job Could Not Be Run

These error codes make it possible for scripts to detect the results and respond accordingly. Note that the resulting XML log file will usually contain a LogSummary section that provides further details.

Examples:

1 Run a job:

   NMSPCMD.exe -job "C:\temp\MigrateContacts.pmjob"

2 Override the source and target this time:

   NMSPCMD.exe -job "C:\temp\MigrateContacts.pmjob" -source "database=names.nsf; server=eagle/Proposion" -target http://host:8080/dev/Contacts

3 Export to an intermediate XML file:

   NMSPCMD.exe -job "C:\temp\MigrateContacts.pmjob" -export "C:\temp\ContactData.xml"

4 Import from an intermediate XML file and, whenever the automatic user mapping fails, substitute a specific user.

   NMSPCMD.exe -job "C:\temp\MigrateContacts.pmjob" -import "C:\temp\ContactData.xml" –du “ACME\JoeUser”

5 Override both the view and formula:

   NMSPCMD.exe -job "C:\temp\DocLibrary to List.pmjob" -view "($All)" -formula "subject='Florida'"

Connecting the Console to alternate Repository database

The Migrator for Notes to SharePoint Console now supports the ability to read a repository database argument from the command-line. Using the -rd command line option, you can launch the Console and specify an alternate repository database for the Console to connect to.

To use this feature, open a command prompt and launch the console using the following command:

```
mmc C:\NotesSharePoint\Migrator\MigratorConsole\migratorconsole.msc -
rd=YourTemporaryRepository.nsf
```

The console will start with the database you specified. As long as you don't save your configuration, your former repository will be used the next time you start the console without the "–rd" parameter.

To indicate an alternate repository is loaded, the Root Node label in the navigation tree will have the repository name appended. For example, "Migrator for Notes to SharePoint (TempRepository.nsf)".

Notes source data definition file format

Migrator for Notes to SharePoint stores Source Data Definitions as simple XML files (with a default extension of .PMSRC). You can edit these files using XML editors and even plain text editors. In addition, you can easily distribute them to other users.

By default, Data Definitions live in the DataDefinitions sub directory of your Migrator for Notes to SharePoint program directory, but you can change this location if you want to. See Customizing global options on page 111 for more details.

Here is an example of a Source Data Definition file:

```
<?xml version="1.0" encoding="utf-8"?>

<Source Definition xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" Name="Document Library"

Description="Standard Notes Document Library" Templates="StdR6WebDocLib;
StdR50WebDocLib" ListTypes="Document Library">

  <QuerySpec xsi:type="NotesQuerySpec">

    <From />

    <Search />

    <Formula />

    <Column ColumnType="Item" Value="Categories" Alias="Category"
ReturnType="String" Option="Multi" />

    <Column ColumnType="Item" Value="Date" ReturnType="Date" />

    <Column ColumnType="Item" Value="DocType" ReturnType="String" />

    <Column ColumnType="Item" Value="ExpireDate" ReturnType="Date" />

    <Column ColumnType="Item" Value="From" ReturnType="String" />

    <Column ColumnType="Item" Value="MainID" ReturnType="String" />

    <Column ColumnType="Item" Value="ReviewerList" ReturnType="String"
Option="Multi" />

    <Column ColumnType="Item" Value="ReviewerLog" ReturnType="String" />

    <Column ColumnType="Item" Value="ReviewTime" ReturnType="Number" />
```

```
    <Column ColumnType="Item" Value="ReviewType" ReturnType="String" />
    <Column ColumnType="Item" Value="Status" Alias="StatusCode" ReturnType="Number"
/>
    <Column ColumnType="Formula" Value="@If(Status=1;'Submitted';Status=2;'In
Review';Status=3;'Approved';'')" Alias="Status" ReturnType="String" />
    <Column ColumnType="Item" Value="Subject" ReturnType="String" />
    <Column ColumnType="Item" Value="Body" Alias="BodyText" ReturnType="String" />
    <Column ColumnType="RichText" Value="Body" Alias="BodyHtml" Option="Html" />
    <Column ColumnType="RichText" Value="Body" Alias="BodyMime" Option="Mime" />
    <Column ColumnType="Attachment" Value="Body" Alias="BodyAttachments"
Option="Multi" />
    <Column ColumnType="OleObject" Value="Body" Alias="BodyEmbeddedObjects"
Option="Multi" />
    <Column ColumnType="Image" Value="Body" Alias="BodyImages" Option="Multi" />
  </QuerySpec>
</SourceDefinition>
```

QuickPlace/Quickr source data definition file format

Migrator for Notes to SharePoint QuickPlace/Quickr mode stores Source Data Definitions as simple XML files (with a default extension of .QPSRC). You can edit these files using XML editors and even plain text editors. In addition, you can easily distribute them to other users.

By default, Data Definitions live in the DataDefinitions sub directory of your Migrator for Notes to SharePoint program directory, but you can change this location if you want to. See Customizing global options on page 111 for more details.

Here is an example of a Source Data Definition file:

```
<?xml version="1.0" encoding="utf-8"?>
<SourceDefinition xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" Type="QuickPlace" Name="QP Pages"
Description="Standard QP Pages" Templates="MeetingRoom" ListTypes="Custom List;
Generic List">
  <QuerySpec xsi:type="QuickplaceQuerySpec">
    <IncludePages>true</IncludePages>
    <IncludeFiles>true</IncludeFiles>
    <IncludeLinks>true</IncludeLinks>
    <Folder />
    <Forms />
    <ExcludeForms />
    <Formula />
    <Column ColumnType="Item" Value="c_ProjectName" Alias="ProjectName"
ReturnType="String" />
```

```
    <Column ColumnType="Formula" Value="@Uppercase(c_Serialnumber)"
Alias="SerialNumber" ReturnType="String" />
  </QuerySpec>
</SourceDefinition>
```

Domino.Doc data definition file format

Migrator for Notes to SharePoint Domino.Doc mode stores Source Data Definitions as simple XML files (with a default extension of .DDSRC). You can edit these files using XML editors and even plain text editors. In addition, you can easily distribute them to other users.

By default, Data Definitions live in the DataDefinitions sub directory of your Migrator for Notes to SharePoint program directory, but you can change this location if you want to. See Customizing global options on page 111 for more details.

Here is an example of a Source Data Definition file:

```
<?xml version="1.0" encoding="utf-8"?>
<SourceDefinition xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" Type="DominoDoc" Name="Default
Cabinet" Description="Standard Domino.Doc File Cabinet"
Templates="DominoDocFileCabinet" ListTypes="Document Library">
  <QuerySpec xsi:type="DomdocQuerySpec" BinderId="" SelectionFormula="">
    <IncludeMajorVersions>true</IncludeMajorVersions>
    <IncludeCurrentVersions>false</IncludeCurrentVersions>
    <Column ColumnType="Item" Value="Business_Unit" ReturnType="String" />
    <Column ColumnType="Item" Value="Marketing_Manager" ReturnType="String" />
  </QuerySpec>
</SourceDefinition>
```

Target data definition file format

Migrator for Notes to SharePoint stores Target Data Definitions as simple XML files (with a default extension of .PMTRG). You can edit these files using XML editors and even plain text editors. In addition, you can easily distribute them to other users.

By default, Data Definitions live in the DataDefinitions sub directory of your Migrator for Notes to SharePoint program directory, but you can change this location if you want to. See Customizing global options on page 111 for more details.

Here is an example of a Target Data Definition file:

```
<?xml version="1.0" encoding="utf-8"?>
<SharePointTargetDefinition xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" Name="Discussion"
Description="Standard SharePoint Discussion" Templates="Discussion Board; General
Discussion">
  <IsDocLib>false</IsDocLib>
  <IsDiscussion>true</IsDiscussion>
  <AllowAttachments>true</AllowAttachments>
```

```
  <Field Name="Title" Type="Text" NotesItems="Subject; Title" />
  <Field Name="Body" Type="Note" NotesItems="Buddhism; Body Text; Body” />
 <Field Name=”Attachments1” Telephotographic” NotesItems=”BodyAttachments;
Attachment; Attachments" />
  <Field Name="Attachments2" Type="Attachments" NotesItems="BodyImages" />
  <Field Name="Attachments3" Type="Attachments" NotesItems="BodyEmbeddedObjects" />
</SharePointTargetDefinition>
```

Job definition file format

Migrator for Notes to SharePoint stores Job Definitions as simple XML files (with a default extension of .PMJOB .QPJOB or .DDJOB). You can edit these files using XML editors and even plain text editors. In addition, you can easily distribute them to other users.

By default, Job definitions live in the Data Definitions sub directory of your Migrator for Notes to SharePoint program directory, but you can change this location if you want to. See Customizing global options on page 111 for more details.

Here is an example of a Job Definition file. Notice that Job Definitions contain complete Source Data Definitions and Target Data Definitions:

```
<?xml version="1.0" encoding="utf-8"?>
<TransferJob xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" Name="" Description=""
Version="4.0.0.0">
  <QuerySource xsi:type="NotesQuerySource">
    <ConnectionString>server='local'; database='OnDemandTechNotes.nsf';
zone=utc</ConnectionString>
  </QuerySource>
  <SourceDefinition Name="Document Library" Description="Standard Notes Document
Library" Templates="StdR6WebDocLib; StdR50WebDocLib" ListTypes="Document Library">
    <QuerySpec xsi:type="NotesQuerySpec">
      <From />
      <Search />
      <Formula />
      <Column ColumnType="Item" Value="Categories" Alias="Category"
ReturnType="String" Option="Multi" />
      <Column ColumnType="Item" Value="Date" ReturnType="Date" />
      <Column ColumnType="Item" Value="DocType" ReturnType="String" />
      <Column ColumnType="Item" Value="ExpireDate" ReturnType="Date" />
      <Column ColumnType="Item" Value="From" ReturnType="String" />
      <Column ColumnType="Item" Value="MainID" ReturnType="String" />
      <Column ColumnType="Item" Value="ReviewerList" ReturnType="String"
Option="Multi" />
      <Column ColumnType="Item" Value="ReviewerLog" ReturnType="String" />
      <Column ColumnType="Item" Value="ReviewTime" ReturnType="Number" />
```

```
      <Column ColumnType="Item" Value="ReviewType" ReturnType="String" />
      <Column ColumnType="Item" Value="Status" Alias="StatusCode"
ReturnType="Number" />
      <Column ColumnType="Formula" Value="@If(Status=1;'Submitted';Status=2;'In
Review';Status=3;'Approved';'')" Alias="Status" ReturnType="String" />
      <Column ColumnType="Item" Value="Subject" ReturnType="String" />
      <Column ColumnType="Item" Value="Body" Alias="BodyText" ReturnType="String" />
      <Column ColumnType="RichText" Value="Body" Alias="BodyHtml" Option="Html" />
      <Column ColumnType="RichText" Value="Body" Alias="BodyMime" Option="Mime" />
      <Column ColumnType="Attachment" Value="Body" Alias="BodyAttachments"
Option="Multi" />
      <Column ColumnType="Image" Value="Body" Alias="BodyImages" Option="Multi" />
    </QuerySpec>
  </SourceDefinition>
  <SharePointConnection>
    <Site>http://bunting</Site>
    <Web>/</Web>
    <List>Tech Notes</List>
  </SharePointConnection>
  <SharePointTargetDefinition Name="Samples 101" Description="Definition for Samples
101" Templates="Custom List">
    <IsDocLib>false</IsDocLib>
    <IsDiscussion>false</IsDiscussion>
    <IsEvents>false</IsEvents>
    <AllowAttachments>true</AllowAttachments>
    <Field Name="Title" Type="Text" NotesItems="Title;Subject" />
    <Field Name="Category" Type="Text" NotesItems="Category" />
    <Field Name="Body" Type="Note" NotesItems="BodyHtml" />
    <Field Name="DocType" Type="Text" NotesItems="DocType" />
    <Field Name="Attachments1" Type="Attachments" NotesItems="BodyAttachments" />
    <Field Name="Attachments2" Type="Attachments" NotesItems="BodyImages" />
  </SharePointTargetDefinition>
  <JobOptions>
    <AutoCreateList>true</AutoCreateList>
    <AddListToQuickLaunch>true</AddListToQuickLaunch>
    <AutoCreateFields>true</AutoCreateFields>
    <PreserveIdentities>true</PreserveIdentities>
    <QueryOptions xsi:type="NotesRuntimeQueryOptions">
      <DeleteMigratedDocuments>false</DeleteMigratedDocuments>
      <ExtractRecurrencePatterns>false</ExtractRecurrencePatterns>
      <ExtractDocSecurity>false</ExtractDocSecurity>
```

```
    </QueryOptions>
    <UserMappingOptions>
      <MappingFailureSubstitution>CurrentIdentity</MappingFailureSubstitution>
    </UserMappingOptions>
    <LinkConversionOptions />
  </JobOptions>
  <SecurityMapping Enabled="false">
    <AccessLevelMappings>
     <AccessLevelMapping NotesAccessLevel="Reader" SharePointPermissionLevel="Read"
/>
     <AccessLevelMapping NotesAccessLevel="Author" SharePointPermissionLevel="Read"
/>
      <AccessLevelMapping NotesAccessLevel="Editor"
SharePointPermissionLevel="Contribute" />
      <AccessLevelMapping NotesAccessLevel="Designer"
SharePointPermissionLevel="Design" />
     <AccessLevelMapping NotesAccessLevel="Manager" SharePointPermissionLevel="Full
Control" />
     <AccessLevelMapping NotesAccessLevel="Can Create" SharePointPermissionLevel=""
/>
     <AccessLevelMapping NotesAccessLevel="Can Delete" SharePointPermissionLevel=""
/>
    </AccessLevelMappings>
    <MapACLUsers>false</MapACLUsers>
    <MapACLGroups>false</MapACLGroups>
    <MapACLRoles />
  </SecurityMapping>
  <Mapping Destination="Title" SourceValue="Subject" />
  <Mapping Destination="Body" SourceValue="BodyHtml" />
  <Mapping Destination="Category" SourceValue="Category" />
  <Mapping Destination="DocType" SourceValue="DocType" />
  <Mapping Destination="Attachments2" SourceValue="BodyImages" />
  <Mapping Destination="Attachments1" SourceValue="BodyAttachments" />
</TransferJob>
```

Results View data columns

The Results View is found in the center pane of the Console. It contains a detailed view appropriate to the item that is selected in the Console Tree. This may be a list of child nodes, a detailed list of selected items such as database records, or even a report. If the results view contains a list of records or a report, the data columns that are

displayed can be customized specifically for the item that is selected in the Console Tree. The below table is the list of available database view data columns that can be added to the results view.

Table 56. Results View data columns

Column	Category	Description	Source of Information
ACL Map Author	Migration Targets	Defines what SharePoint permission level or group will be assigned to the Notes Author access level. Defined in the Advanced Security Mapping dialog of the Migration Targets tab.	Classification rules or Manual Entry
ACL Map Create	Migration Targets	Defines what SharePoint permission level or group will be assigned to the Notes Create access level. Defined in the Advanced Security Mapping dialog of the Migration Targets tab.	Classification rules or Manual Entry
ACL Map Delete	Migration Targets	Defines what SharePoint permission level or group will be assigned to the Notes Delete access level. Defined in the Advanced Security Mapping dialog of the Migration Targets tab.	Classification rules or Manual Entry
ACL Map Designer	Migration Targets	Defines what SharePoint permission level or group will be assigned to the Notes Designer access level. Defined in the Advanced Security Mapping dialog of the Migration Targets tab.	Classification rules or Manual Entry
ACL Map Editor	Migration Targets	Defines what SharePoint permission level or group will be assigned to the Notes Editor access level. Defined in the Advanced Security Mapping dialog of the Migration Targets tab.	Classification rules or Manual Entry
ACL Map Manager	Migration Targets	Defines what SharePoint permission level or group will be assigned to the Notes Manager access level. Defined in the Advanced Security Mapping dialog of the Migration Targets tab.	Classification rules or Manual Entry
ACL Map Reader	Migration Targets	Defines what SharePoint permission level or group will be assigned to the Notes Reader access level. Defined in the Advanced Security Mapping dialog of the Migration Targets tab.	Classification rules or Manual Entry
Active Users	Usage Analysis	The number of users who have accessed the database.	Database Header scan
Active Users All Replicas	Usage Analysis	The number of users who have accessed the database across all known replicas.	Database Header scan
Activity Custom Reads	Usage Analysis	The number or database reads in the activity log's custom reporting days interval (for example, "last 301 days").	Database Header scan
Activity Custom Uses	Usage Analysis	The number or database uses in the activity log's custom reporting days interval (for example, "last 301 days").	Database Header scan
Activity Custom Writes	Usage Analysis	The number or database writes in the activity log's custom reporting days interval (for example, "last 301 days").	Database Header scan
Activity Day Reads	Usage Analysis	The number of database reads in the last 24 hours.	Database Header scan
Activity Day Uses	Usage Analysis	The number of database uses in the last 24 hours.	Database Header scan
Activity Day Writes	Usage Analysis	The number of database writes in the last 24 hours.	Database Header scan
Activity Month Reads	Usage Analysis	The number of database reads in the last month.	Database Header scan

Table 56. Results View data columns

Column	Category	Description	Source of Information
Activity Month Uses	Usage Analysis	The number of database uses in the last month.	Database Header scan
Activity Month Writes	Usage Analysis	The number of database writes in the last month.	Database Header scan
Activity Week Reads	Usage Analysis	The number of database reads in the last week.	Database Header scan
Activity Week Uses	Usage Analysis	The number of database uses in the last week.	Database Header scan
Activity Week Writes	Usage Analysis	The number of database writes in the last week.	Database Header scan
Agent Count	Design Analysis	The number of agents in the database.	Design scan
Agent Delta	Design Analysis	The difference between the number of agents in the database, and the number of agents in the reference database or template from which deviations are being computed.	Design scan
Analysis Priority	Migration Status	The number that represents the analysis priority. This is set manually in the Migration Status tab of the db properties sheet.	Classification rules or Manual Entry
Analysis Responsible	Migration Status	The user that is the responsible for conducting the analysis of the database. This is set manually in the Migration Status tab of the db properties sheet.	Classification rules or Manual Entry
Application Children	Application Tree Node	The name of the Quickr, QuickPlace or Domino.Doc application's children. Application children are "discovered" by running the Discover Quickr/QuickPlace/Domino.Doc Organization actions.	Discover Organization
Application Name	Application Tree Node	The name of the Quickr, QuickPlace or Domino.Doc application. Applications are "discovered" by running the Discover Quickr/QuickPlace/Domino.Doc Organization actions.	Discover Organization
Application Siblings	Application Tree Node	The name of the Quickr, QuickPlace or Domino.Doc application's siblings. Application siblings are "discovered" by running the Discover Quickr/QuickPlace/Domino.Doc Organization actions.	Discover Organization
Application Type	Application Tree Node	The name of the Quickr, QuickPlace or Domino.Doc application type. Application types are "discovered" by running the Discover Quickr/QuickPlace/Domino.Doc Organization actions.	Discover Organization
Attachments Count	Data Analysis	Total number of attachments in the database	Data scan w/Document Analysis
Attachments KB	Data Analysis	Total size of the attachments	Data scan w/Document Analysis
Author Count	Database Access	Number of users or groups with Author access in the database.	Database Header scan
Average DEI	Complexity	Average number of the Microsoft Design Element Index	Design scan
Base Effort Analysis	Migration Effort	The number that represents the analysis work effort for the reference database.	Classification rules or Manual Entry

Table 56. Results View data columns

Column	Category	Description	Source of Information
Base Effort Jobs	Migration Effort	The number that represents the development and content migration effort for the reference database.	Classification rules or Manual Entry
Base Effort Targets	Migration Effort	The number that represents the development of new targets effort for the reference database.	Classification rules or Manual Entry
Base Effort Testing	Migration Effort	The number that represents the testing and verification effort for the reference database.	Classification rules or Manual Entry
Base Effort Total	Migration Effort	Estimated total effort for the reference database.	Classification rules or Manual Entry
Base Effort Content	Migration Effort	The number that represents the provisioning and content migration effort for the reference database.	Classification rules or Manual Entry
Blocked Attachments Count	Data Analysis	Number of attachments that will be disallowed by SharePoint because of file extensions and therefore will not be included in the migration.	Data scan w/Document Analysis
Blocked Attachments KB	Data Analysis	Total size of attachments that will be disallowed by SharePoint because of file extensions and therefore will not be included in the migration.	Data scan w/Document Analysis
Business Class	Classification	The business classification of the given database. This is automatically populated by the Classification Rules engine. You can change this value manually by selecting a different class in the Classification tab of the database properties sheet.	Classification rules or Manual Entry
Business Class Locked	Classification	Indicates if the Business Class value is locked which keeps a manual Business Class change from being over-ridden in future design scans.	Set when data is manually changed
Business Owner	Migration Status	The user that is the business owner of the database. This is manually set in the Migration Status tab of the db properties sheet.	Classification rules or Manual Entry
Business Owner Locked	Migration Status	Indicates if the Business Owner is locked which keeps a manual Business Owner change from being over-ridden in future design scans.	Set when data is manually changed
Category	General	Name of the database's category in the Database Catalog. This can be used in classification rules to assign the database to a business or technical class.	Database Header scan
Complexity	Complexity	The overall complexity of the design of the database. This is a weighted average of other complexity numbers based on the settings defined in the Analysis tab of the Global Options.	Design scan or Manual Entry
Complexity Assigned	Complexity	Indication that the overall Complexity was assigned by a class rule rather than a Design Scan.	Classification rules
Complexity Locked	Complexity	Indicates if the Complexity value is locked which keeps a manual Complexity change from being over-ridden in future design scans.	Set when data is manually changed
Computed Data Complexity	Complexity	Overall data complexity recommendation of the database using the algorithms defined in the Analysis tab of the Global Options.	Design scan
Computed Design Complexity	Complexity	Overall design complexity recommendation of the database using the algorithms defined in the Analysis tab of the Global Options.	Design scan

Table 56. Results View data columns

Column	Category	Description	Source of Information
Computed Incremental Complexity	Complexity	The computed difference between the complexity of the database design, and the complexity of the design of the reference database or template from which deviations are being computed.	Design scan
Content Migrated	Migration Status	Indicates that the content migration task has been completed.	Automatic setting or Manual entry
Convert ACL Groups	Migration Targets	When provisioning site members, this option causes a new SharePoint site collection group to be created for each Domino Directory group defined in the Notes database ACL. (Now “Expand Notes Groups to SharePoint Groups” in the User Interface.)	Classification rules or Manual Entry
Convert ACL Roles	Migration Targets	When provisioning site members, this option causes a new SharePoint site collection group to be created for each Role defined in the Notes database ACL. (Now “Expand Notes Roles to SharePoint Groups” in the User Interface.)	Classification rules or Manual Entry
Creation Date	General	Date the database was created.	Database Discovery
Custom Reporting Days	Usage Analysis	The number of days in the activity log’s custom reporting days interval (for example, “last 301 days”).	Database Header scan
Data Analyzed	Migration Status	Indicates that the data analysis task has been completed.	Automatic setting or Manual entry
Data Doc Size	Data Analysis	Total size of all documents stored in the database (excluding design elements, deleted documents and unused database space)	Data scan w/Document Analysis
Data Docs	Data Analysis	Number of data documents	Data scan (any level)
Database Key	General	A string that uniquely identifies an instance of a database.	Database Discovery
Database Owner	Migration Status	The user that is the database owner of the database. This is manually set in the Migration Status tab of the db properties sheet.	Classification rules or Manual Entry
Database Owner Locked	Migration Status	Indicates if the Database Owner value is locked which keeps a manual Database Owner change from being over-ridden in future design scans.	Set when data is manually changed
Database Script Count	Design Analysis	Indicates whether or not the Database Script has been defined in the database. (This value will be set to 1 if the Databases Script has been defined.)	Design scan
Database Script Delta	Design Analysis	The difference between the Database Script Count in the database, and the Database Script Count in the reference database or template from which deviations are being computed.	Design scan
Database Size	Data Analysis	Size of the database	Database Header scan
Depositor Count	Database Access	The number of users or groups with Depositor access to the database.	Database Header scan
Design Analyzed	Migration Status	Indicates that the design analysis task has been completed.	Automatic setting or Manual entry
Design Docs	Design Analysis	Number of design documents in the database.	Data Scan
Design Element Count	Design Analysis	Number of design elements in the database	Design scan

Table 56. Results View data columns

Column	Category	Description	Source of Information
Design Element Delta	Design Analysis	The difference between the Design Element Count in the database, and the Design Element Count in the reference database or template from which deviations are being computed.	Design scan
Design Modified	Design Analysis	Date the design was last modified in the database.	Database Discovery
Designer Count	Database Access	Number of users or groups with Designer access in the database.	Database Header scan
Disposition	Migration Status	The action that you want to do with this database (for example, 'Migrate to customized SharePoint targets', and 'End of life').	Classification rules or Manual Entry
Disposition Comments	Migration Status	Any comments on the disposition.	Manual Entry
Disposition Locked	Migration Status	Indicates if the Disposition value is locked which keeps the manual selection from being over-ridden every time a scan is run.	Set when data is manually changed
Disposition Type	Migration Status	The type of action (for example, 'Migrate to SharePoint', 'Delete') that you want to do with the database. This value corresponds to the user-defined Disposition, and is automatically assigned when the Disposition is assigned.	Classification rules or Manual Entry
Doc Authors	Data Analysis	The number of unique authors of documents in the database.	Data scan w/Document Analysis
Docs With Attachments	Data Analysis	Number of documents with attachments	Data scan w/Document Analysis
Docs With Children	Data Analysis	Number of documents with children (for example, responses).	Data scan w/Document Analysis
Docs With Composite	Data Analysis	Number of documents with Notes Rich Text fields	Data scan w/Rich Text Analysis
Docs With Doc Links	Data Analysis	Number of documents with Doc links	Data scan w/Rich Text Analysis
Docs With Encryption	Data Analysis	Number of documents with encryption	Data scan w/Document Analysis
Docs With Form	Data Analysis	Number of documents with embedded forms	Data scan w/Document Analysis
Docs With Images	Data Analysis	Number of documents with embedded images	Data scan w/Rich Text Analysis
Docs With Mime	Data Analysis	Number of documents with MIME/HTML	Data scan w/Rich Text Analysis
Docs With Objects	Data Analysis	Number of documents with OLE objects	Data scan w/Document Analysis
Docs With Readers	Data Analysis	Number of documents with reader security	Data scan w/Document Analysis
Docs With Signatures	Data Analysis	Number of documents that are digitally signed	Data scan w/Document Analysis
Docs With Writers	Data Analysis	Number of documents with writer security	Data scan w/Document Analysis
Editor Count	Database Access	Number of users or groups with Editor access in the database.	Database Header scan

Table 56. Results View data columns

Column	Category	Description	Source of Information
Effort Analysis	Migration Effort	The number that represents the analysis work effort.	Classification rules or Manual Entry
Effort Content	Migration Effort	The number that represents the provisioning and content migration effort.	Classification rules or Manual Entry
Effort Is Incremental	Migration Effort	Indicates if a reference database is used in the effort comparison.	Classification rules or Manual Entry
Effort Jobs	Migration Effort	The number that represents the development and content migration effort.	Classification rules or Manual Entry
Effort Locked	Migration Effort	Indicates if the effort values are locked which keeps the manual numbers from being over-ridden every time a scan is run.	Set when data is manually changed
Effort Targets	Migration Effort	The number that represents the development of new targets effort.	Classification rules or Manual Entry
Effort Testing	Migration Effort	The number that represents the testing and verification effort.	Classification rules or Manual Entry
Effort Total	Migration Effort	Estimated total effort.	Classification rules or Manual Entry
Embedded Forms	Design Analysis	Number of embedded forms in the database.	Design scan
Excluded Element Count	Design Analysis	Number of miscellaneous design elements not tabulated in this tool.	Design scan
Excluded Users	Usage Analysis	Number of users omitted from usage information because the were listed in the Excluded Users List in Advanced Configuration Options.	Database Header scan
Excluded Users All Replicas	Usage Analysis	Number of users omitted from usage information across all known replicas because the were listed in the Excluded Users List in Advanced Configuration Options.	Database Header scan
File Name	General	Database file name, excluding the folder components.	Database Discovery
File Path	General	Database file name, including path relative to the Notes/Domino data directory.	Database Discovery
Folder	General	The folder in which the database file is located, relative to the Notes/Domino data directory.	Database Discovery
Folder Count	Design Analysis	Number of folders used in the database.	Design scan
Folder Delta	Design Analysis	The difference between the Folder Count in the database, and the Folder Count in the reference database or template from which deviations are being computed.	Design scan
Form Count	Design Analysis	Number of forms used in the database.	Design scan
Form Delta	Design Analysis	The difference between the Form Count in the database, and the Form Count in the reference database or template from which deviations are being computed.	Design scan
Forms Used	Data Analysis	The number of unique forms names associated with the data documents in the database.	Data scan w/Document Analysis
Is Template	General	Indicated if the database is a design template.	Database Discovery

Table 56. Results View data columns

Column	Category	Description	Source of Information
Jobs Assigned	Migration Status	Indicates that the migration job assignment task has been completed.	Automatic setting or Manual entry
Jobs Finalized	Migration Status	Indicates that the migration job finalization task has been completed.	Manual Entry
Last Data Analysis	Data Analysis	Date the last data analysis was run against the database.	Data scan (any level)
Last Design Analysis	Design Analysis	Date the last design analysis was run against the database.	Design scan
Last Doc Accessed	Usage Analysis	Date a document was last accessed from within the database.	Data scan w/Document Analysis
Last Doc Created	Usage Analysis	Date of the last document that was created in the database.	Data scan w/Document Analysis
Last Doc Modified	Usage Analysis	Date the last document was modified in the database.	Data scan w/Document Analysis
Last Usage Analysis	Usage Analysis	Date the last usage analysis was run against the database.	Database Header scan
Last Used	Usage Analysis	Date the database was last used.	Database Header scan, Data scan (if needed)
Last Used All Replicas	Usage Analysis	Date the database was last used, across all known replicas.	Database Header scan, Data scan (if needed)
Mail Description	General	Mail description if the database is a Mail-in database.	Domino Directory scan
Mail Domain	General	Mail Domain if the database is a Mail-in database.	Domino Directory scan
Mail Name	General	Mail Name if the database is a Mail-in database.	Domino Directory scan
Mail Type	General	Mail Type if the database is a Mail-in database (that is, Mail, Resource).	Domino Directory scan
Manager Count	Database Access	Number of users or groups with Manager access in the database.	Database Header scan
Map ACL Groups	Migration Targets	When provisioning site members, this option causes any Notes groups listed in the source database ACL to be added to the target SharePoint site. (Now “Map Notes Groups” in the User Interface.)	Classification rules or Manual Entry
Map ACL Users	Migration Targets	When provisioning site members, this option causes any Notes users listed in the database ACL to be added to the target SharePoint list or library. (Now “Map Notes Users” in the User Interface.)	Classification rules or Manual Entry
Max DEI	Complexity	Maximum or “worst case” ranking of design element types according to Microsoft’s Design Element Index specification	Design scan
Migration Jobs Count	Migration Jobs	The number of migration jobs that have been associated with this database.	Classification rules or Manual Entry
Migration Jobs Locked	Migration Jobs	Indicates if the migration jobs associated with this database are locked which keeps manual changes from being changed by future scans.	Set when data is manually changed

Table 56. Results View data columns

Column	Category	Description	Source of Information
Migration Locked	Migration Status	Indicates if the Migration Priority value is locked which keeps a manual Migration Priority change from being over-ridden in future design scans.	Set when data is manually changed
Migration Priority	Migration Status	The number that represents the migration priority. This is set manually in the Migration Status tab of the db properties sheet.	Classification rules or Manual Entry
Migration Responsible	Migration Status	The user that is the responsible for conducting the migration of the database. This is set manually in the Migration Status tab of the db properties sheet.	Classification rules or Manual Entry
Migration Verified	Migration Status	Indicates that the verification of the migration jobs task has been completed.	Manual Entry
Modified Date	General	Date the database was last modified.	Discovery, Header Scan, or Data Scan
No Access Count	Database Access	Number of users or groups explicitly denied access to the database.	Database Header scan
Oversized Attachments Count	Data Analysis	Number of attachments that are larger than allowed and therefore will not be included in the migration.	Data scan w/Document Analysis
Oversized Attachments KB	Data Analysis	Total size of the oversized attachments.	Data scan w/Document Analysis
Page Count	Design Analysis	Number of pages used in the database	Design scan
Page Delta	Design Analysis	The difference between the Page Count in the database, and the Page Count in the reference database or template from which deviations are being computed.	Design scan
Profile Docs	Data Analysis	Number of profile documents in the database.	Data scan (any level)
Reader Count	Database Access	Number of users or groups with Reader access in the database.	Database Header scan
Recording Activity	Usage Analysis	Indicates if Activity Logging is enabled on the database.	Database Header scan
Replica	General	A globally unique identifier shared by all replicas of the same database	Database Discovery
Replica Count	General	Number of databases that are replicas of the current database.	Database Discovery
Script Library Count	Design Analysis	Number of script libraries used in the database	Design scan
Script Library Delta	Design Analysis	The difference between the Script Library Count in the database, and the Script Library Count in the reference database or template from which deviations are being computed.	Design scan
Server	General	The server the database resides on.	Database Discovery
Site Group Prefix	Migration Targets	When provisioning site members, this option will cause any roles names mapped to SharePoint groups to be prefixed with this name.	Classification rules or Manual Entry
Style Sheet Count	Design Analysis	Number of style sheets used in the database	Design scan

Table 56. Results View data columns

Column	Category	Description	Source of Information
Style Sheet Delta	Design Analysis	The difference between the Style Sheet Count in the database, and the Style Sheet Count in the reference database or template from which deviations are being computed.	Design scan
Subform Count	Design Analysis	Number of subforms used in the database	Design scan
Subform Delta	Design Analysis	The difference between the Subform Count in the database, and the Subform Count in the reference database or template from which deviations are being computed.	Design scan
Target Site	Migration Targets	The Url of the SharePoint site you intend to migrate to. This target site will override the site that may be specified in the individual migration jobs.	Classification rules or Manual Entry
Target Site Locked	Migration Targets	Indicates if the Target Site value is locked.	Set when data is manually changed
Targets Finalized	Migration Status	Indicates that the finalization of the migration targets task has been completed.	Manual Entry
Targets Identified	Migration Status	Indicates that the identification of the migration targets task has been completed.	Automatic setting or Manual entry
Targets Provisioned	Migration Status	Indicates that the provisioning of the migration targets task has been completed.	Automatic setting or Manual entry
Technical Class	Classification	The technical classification of the given database. This is automatically populated by the Classification Rules engine. You can change this value manually by selecting a different class in the Classification tab of the database properties sheet.	Classification rules or Manual Entry
Technical Class Comments	Classification	Comments made in the Comments field of the Classification tab of the database properties sheet.	Manual Entry
Technical Class Locked	Classification	Indicates if the Technical Class value is locked which keeps a manual Technical Class change from being over-ridden in future design scans.	Set when data is manually changed
Template	General	The Design Template the database is based on.	Database Discovery
Template Database Key	General	The location of the Reference Database or Template that this database should be compared to during design analysis.	Classification rules or Manual Entry
Template Database Locked	General	Indicates if the Template Database Key value is locked which keeps a manual Template Change change from being over-ridden in future design scans.	Set when data is manually changed
Template Match	Design Analysis	Percentage the database matches the template database.	Design scan
Title	General	Name of the database. This is a required column for the results view.	Database Discovery
Uri	General	Link to original Notes database	Database Discovery
Use Security Groups	Migration Targets	When provisioning site members, map database ACL levels to predefined SharePoint groups instead of setting explicit permissions. Defined in the Advanced Security Mapping dialog of the MigrationTargets tab.	Classification rules or Manual Entry

Table 56. Results View data columns

Column	Category	Description	Source of Information
View Count	Design Analysis	Number of views used in the database	Design scan
View Delta	Design Analysis	The difference between the View Count in the database, and the View Count in the reference database or template from which deviations are being computed.	Design scan

Migrator for Notes to SharePoint reporting data tables

DbReportTable

This table provides access to discovered Notes Database information compiled by the Migrator Console application.

Each field in this table is prefixed: "DB_".

Table 57. DbReportTable

Column	Value Type	Description
DB_FilePath	String	Full File System Relative Pathname to this Database
DB_FileName	String	File Name and extension of this Notes Database, excluding path
DB_Server	String	Name of the Server hosting this database. May be blank or '(Local)' if located on the current machine.
DB_TemplateBase	String	Name of the base template in the event that this database's template inherits from another template.
DB_IsTemplate	Boolean	True if this database is a Template
DB_Category	String	
DB_ModifiedDate	DateTime	Date this database was last modified
DB_DatabaseSize	Int64	Size in bytes of this database on disk
DB_DesignDocs	Int64	Count of the Design Documents contained in this database
DB_ActivityDayWrites	Int64	Number of times this database was Written to today
DB_ActivityWeekReads	Int64	Number of times this database was Read from this week
DB_ActivityWeekUses	Int64	Number of times this database was Accessed this week
DB_ActivityMonthWrites	Int64	Number of times this database was Written to this Month
DB_ActivityCustomReads	Int64	Number of times this database was Read from over the custom timespan defined in DB_CustomReportingDays
DB_ActivityCustomUses	Int64	Number of times this database was Accessed over the custom timespan defined in DB_CustomReportingDays
DB_ManagerCount	Int32	Number of users with Database Manager access
DB_EditorCount	Int32	Number of users with Database Editor access
DB_ReaderCount	Int32	Number of users with Database Reader access

Table 57. DbReportTable

DB_NoAccessCount	Int32	Number of users excluded from access
DB_TechnicalClassLocked	Boolean	True if this Technical class assignment is locked
DB_BusinessClassName	String	Name of the Business Class (if any) assigned to this database
DB_DatabaseOwner	String	Name of the Database Owner
DB_BusinessOwner	String	Name of the Business Owner
DB_AnalysisPriority	Int32	Analysis Priority assigned to this database
DB_AnalysisLocked	Boolean	True if the analysis responsibility assignment property is locked
DB_MigrationResponsible	String	Name of the user responsible for migrating this database
DB_Disposition	String	Migration Disposition status of this database
DB_DispositionComments	String	Disposition comments.
DB_DesignAnalyzed	Boolean	True if the database design has been analyzed
DB_TargetsIdentified	Boolean	True if the SharePoint targets have been identified
DB_TargetsFinalized	Boolean	True if the migration targets have been finalized
DB_JobsFinalized	Boolean	True if the jobs have been finalized and ready for migration
DB_MigrationVerified	Boolean	True if the migration has been verified
DB_TargetSiteLocked	Boolean	True if the target site property is locked
DB_MapACLGroups	Boolean	True if ACL Group mapping is enabled
DB_SiteGroupPrefix	String	String containing the site group prefix
DB_AccessLevelMappingReader	String	True if Access Level is Reader
DB_AccessLevelMappingEditor	String	True if Access Level is Editor
DB_AccessLevelMappingManager	String	True if Access Level is Manager
DB_AccessLevelMappingCanDelete	String	True if Access Level Mapping allows Deleted
DB_MigrationJobsLocked	Boolean	True if the Migration Jobs property is locked.
DB_ApplicationGroup	String	Application Group name
DB_ApplicationSiblings	Int32	Number of Sibling Applications
DB_ComputedDataComplexity	Int32	Computed Data Complexity
DB_ComputedIncrementalComplexity	Int32	Computed Incremental Complexity
DB_MaxDEI	Int32	Max DEI
DB_ComplexityLocked	Boolean	True if the design complexity property is locked
DB_DesignElementCount	Int32	Number of design elements counted
DB_FormCount	Int32	Number of forms counted
DB_ViewCount	Int32	Number of views
DB_SubformCount	Int32	Total number of subforms counted
DB_ScriptLibraryCount	Int32	Number of Script Libraries counted.

Table 57. DbReportTable

DB_StyleSheetCount	Int32	Number of Style sheets counted
DB_DesignElementDeltaCount	Int32	
DB_ViewDeltaCount	Int32	
DB_SubformDeltaCount	Int32	
DB_ScriptLibraryDeltaCount	Int32	
DB_StyleSheetDeltaCount	Int32	
DB_TemplateMatch	Int32	Percent Match identifies how closely this design matches the template
DB_DesignScanQuickplace	Boolean	True if this is had Design Scan performed on the Quickplace
DB_TemplateDatabaseLocked	Boolean	True if the Template database property is locked.
DB_EffortIsIncremental	Boolean	True if this is an incremental effort
DB_EffortTargets	Int32	Effort assigned for target definition
DB_EffortContent	Int32	Effort assigned for content migration
DB_EffortTotal	Int32	Total effort assigned
DB_BaseEffortTargets	Int32	Base Effort Targets
DB_BaseEffortContent	Int32	Base Effort Content
DB_BaseEffortTotal	Int32	Base Effort Total
DB_HasDatabaseActivityDetail	Boolean	True if this database has activity detail logged
DB_DataDocSize	Int64	Data Document size
DB_LastDocModified	DateTime	Timestamp of most recent document modified
DB_DocsWithReaders	Int32	Number of documents with readers defined
DB_DocsWithChildren	Int32	Number of documents with children
DB_DocsWithImages	Int32	Number of documents with images
DB_DocsWithMime	Int32	Number of documents with Mime content
DB_DocsWithSignatures	Int32	Number of documents with Signatures
DB_FormsUsed	Int32	Number of forms used in this database
DB_LastDataAnalysis	DateTime	Timestamp of the last data analysis.
DB_CatalogDate	DateTime	Timestamp of the Catalog.

TasksReportTable

This Data Table provides a row for each entry in the Task History. This table contains no joined database fields. The prefix for Task Record specific fields is: "TSK_".

DbTasksReportTable

This Data Table joins all Task History Records with Database Records and produces data only for Tasks associated with a Notes Database. The prefix for Task Record specific fields is: "TSK_" and Database specific fields are prefixed: "DB_".

Table 58. DbTasksReportTable

Column	Value Type	Description
TSK_StartDateTime	DateTime	The Date and Time this task or sequence was started
TSK_Status	String	Last known State of this task. Pending, Running, Cancelled, Completed, RunningWithErrors, RunningWithWarnings, CompletedWithErrors, CompletedWithWarnings, Failed, Suspended or Other
TSK_StatusDetails	String	Detailed status message with the results of this task.
TSK_Description	String	Brief description of this task's goal.
TSK_DatabaseServer	String	Server or machine name of the database being processed (if any). May be blank or (Local) for local machine
TSK_TargetPath	String	SharePoint Site or List URL if this task is operating against SharePoint.
TSK_RecordsProcessed	Int32	Total number of records processed. The definition of a record varies by task type.
TSK_Errors	Int32	Number of errors encountered so far for this task.
TSK_LogXml	String	Detailed XML formatted log of this task. (Advanced property with format and content subject to change)
TSK_RunBy	String	Name of the user initiating this task.
TSK_CatalogUnid	String	

DbUserAclsReportTable

Joins User ACL information with each Database record to produce a unique database row for each User or group specified in the database's ACL list. User access level fields are prefixed: "ACL_" and database specific fields are prefixed "DB_".

Table 59. DbUserAclsReportTable

Column	Value Type	Description
ACL_IsDesigner	Boolean	True if this user is a Designer.
ACL_IsAuthor	Boolean	True if this user is an Author.
ACL_IsDepositor	Boolean	True if this user is a Depositor.

DbUserActivityReportTable

Joins User Activity Summary information with each Database record to produce a unique database row for each User or group where activity information has been recorded. Database Activity Summary fields are prefixed: "DAS_" and database specific fields are prefixed "DB_".

Table 60. DBUserActivityReportTable

Column	Value Type	Description
DAS_ReadCount	Int64	Number of Reads.
DAS_UseCount	Int64	Number of Uses.

DbJobReportTable

Joins Assigned Job information with each Database record to produce a unique database row for each database migration job. Database Migration Job fields are prefixed: "JOB_" and database specific fields are prefixed "DB_".

Table 61. DbJobReportTable

Column	Value Type	Description
JOB_SiteUri	String	Job Target site URI
JOB_Summary	String	Job Summary description.
JOB_UpdatesQuickLaunch	Boolean	True if this job adds to the QuickLaunch menu.

DbDesignElementReportTable

Joins Database Design Elements with Database records to produce a unique database row for each database design element in the database. Design Element fields are prefixed: "DE_" and database specific fields are prefixed "DB_".

Table 62. DbDesignElementReportTable

Column	Value Type	Description
DE_Title	String	Design Element Title
DE_DesignerVersion	Double	Designer Version
DE_Unid	String	Unique Notes ID
DE_IsNotesOnly	Boolean	True if this is a Lotus Notes only design element
DE_Modified	DateTime	Date of last modification

DbDesignElementDifferencesReportTable

Joins Database Design Element comparison records with Database records to produce a unique database row for each design element difference detected in the database. Design Element Differences are the result of comparing each database's design against the design of some specified Reference database. Design Element Difference fields are prefixed: "DED_". Fields from the Target Database Design Element are prefixed: "TDE_". Fields from the Reference Database Design Element are prefixed: "RDE_" and database specific fields are prefixed "DB_".

Table 63. DbDesignElementDifferencesReportTable

Column	Value Type	Description
DED_Type	String	Type of Design Elements being compared
DED_IsStandard	Boolean	True or False indicates a change from the reference design element. Blank denotes no change to this property.

Table 63. DbDesignElementDifferencesReportTable

DED_Language	String	If the Language is listed, this indicates a change from the reference design element. Blank denotes no change to this property.
DED_IsWebOnly	Boolean	True or False indicates a change from the reference design element. Blank denotes no change to this property.
DED_IsExcluded	Boolean	True or False this indicates a change from the reference design element. Blank denotes no change to this property.
TDE_Language	String	Language of the Database being compared.
TDE_IsWebOnly	Boolean	From the Database being compared: True or False indicates whether this is a Web Only design element.
TDE_IsExcluded	Boolean	From the Database being compared: True or False indicates whether this is an excluded design element.
RDE_IsStandard	Boolean	From the Reference Database: True or False indicates whether this is a standard design element.
RDE_Language	String	Language of the Database being compared.
RDE_IsWebOnly	Boolean	From the Reference Database: True or False indicates whether this is a Web Only design element.
RDE_IsExcluded	Boolean	From the Reference Database

DbAnalysisByAuthorReportTable

Document Summary counts are created for each Author and are stored in Data Tally fields. This report table joins Data Tally field information for Authors with each Database record to produce a unique database specific rows for each author. Author Data Tally fields are prefixed: "DTR_" and database specific fields are prefixed "DB_".

DbAnalysisByFormsReportTable

Document Summary counts are created for each Form and are stored in Data Tally fields. This report table joins Data Tally field information for Forms with each Database record to produce a unique database specific rows for each form used. Form Data Tally fields are prefixed: "DTR_" and database specific fields are prefixed "DB_".

Table 64. DbAnalysisByFormsReportTable

Column	Value Type	Description
DTR_Count	Int64	Total number of items.
DTR_LastDocCreated	DateTime	Date of most recent document addition.
DTR_LastDocAccessed	DateTime	Date of most recent document access.
DTR_DocsWithWriters	Int32	Number of documents with Writers assigned.
DTR_DocsWithAttachments	Int32	Number of documents with attachments.
DTR_DocsWithObjects	Int32	Number of documents with other objects.
DTR_DocsWithComposite	Int32	Number of documents with composites.
DTR_DocsWithEncryption	Int32	Number of documents with encryption.
DTR_DocsWithForm	Int32	Number of documents with embedded forms.

About us

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- View how-to-videos.
- Engage in community discussions.
- Chat with support engineers online.
- View services to assist you with your product.