

MindManager®

Server

MindManager® Server HLD



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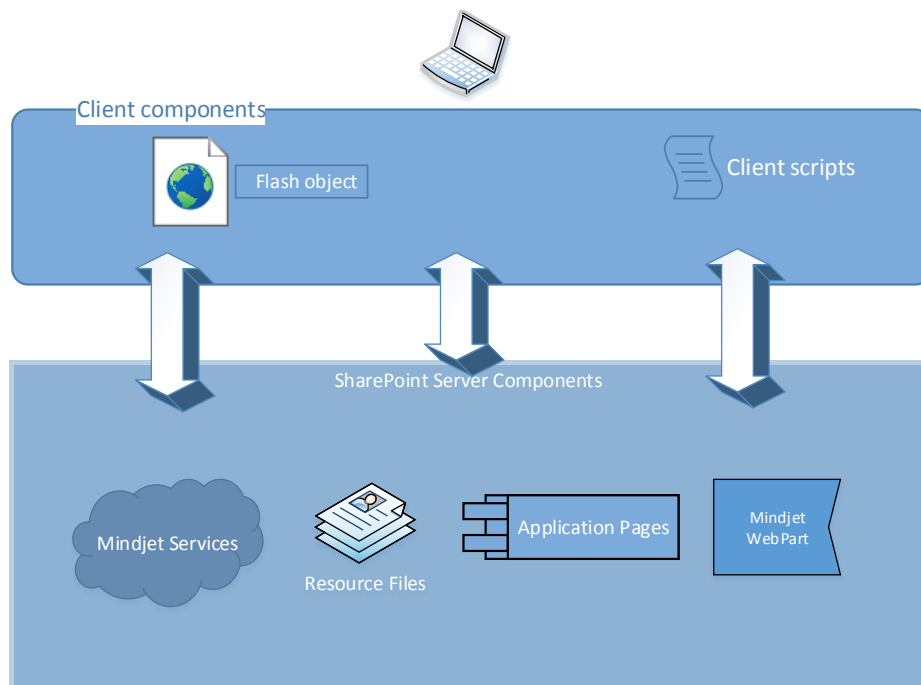
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USING MINDMANAGER SERVER WITH MICROSOFT® SHAREPOINT®

MindManager Server improves the collaboration capabilities of Microsoft SharePoint by making information easy to locate and accessible. Once installed on SharePoint servers, the product can be used company-wide, allowing teams to collaboratively ...

- read, edit, and create maps—without downloading software.
- create and manage projects, prioritize strategies, and assign tasks.
- use embedded maps to help users find information quickly within SharePoint.
- stay in synch across the organization through shared workflow.
- leverage the SharePoint infrastructure for security, compliance, governance, and process management.

The illustration below maps the architecture and interactions of Mindjet and SharePoint components.



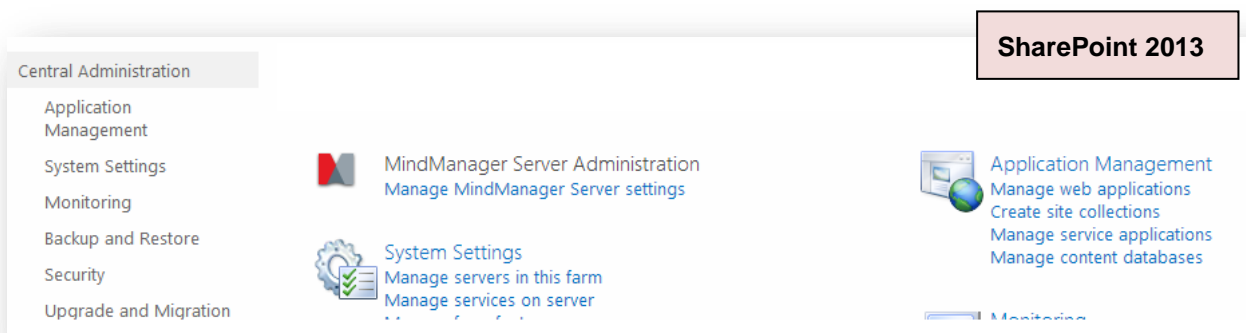
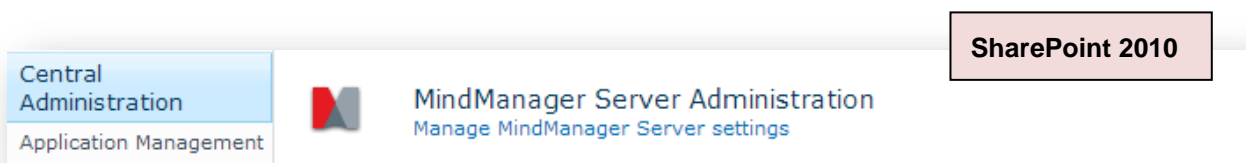
Two points about the relationship between Mindjet and SharePoint:

Mindjet respects SharePoint security and authentication: users will not be allowed to view or edit linked documents if they do not have permissions to those documents. (Note: the application also supports NTLM and Kerberos authentications.)

The product is deployed in SharePoint servers and rendered in SharePoint sites; if SharePoint is unavailable, Mindjet may not be accessible.

Installation and access

The Mindjet license key designates the installation and expiration dates, and number of users. The Administrator inputs the key during installation, or via the Administration dialog, which can be accessed through Microsoft Central Administration:



The key is then embedded into a license object added to the SharePoint server farm property bag. If a key is not provided, the application will operate as a 30-day trial installation for a maximum of 5 users.

When a new user creates or edits a map, the application assigns the user a key, which is checked each time that user accesses Mindjet. If a user does not access the application for 90 days, they are removed as a user and their key is returned to the pool of unassigned keys.

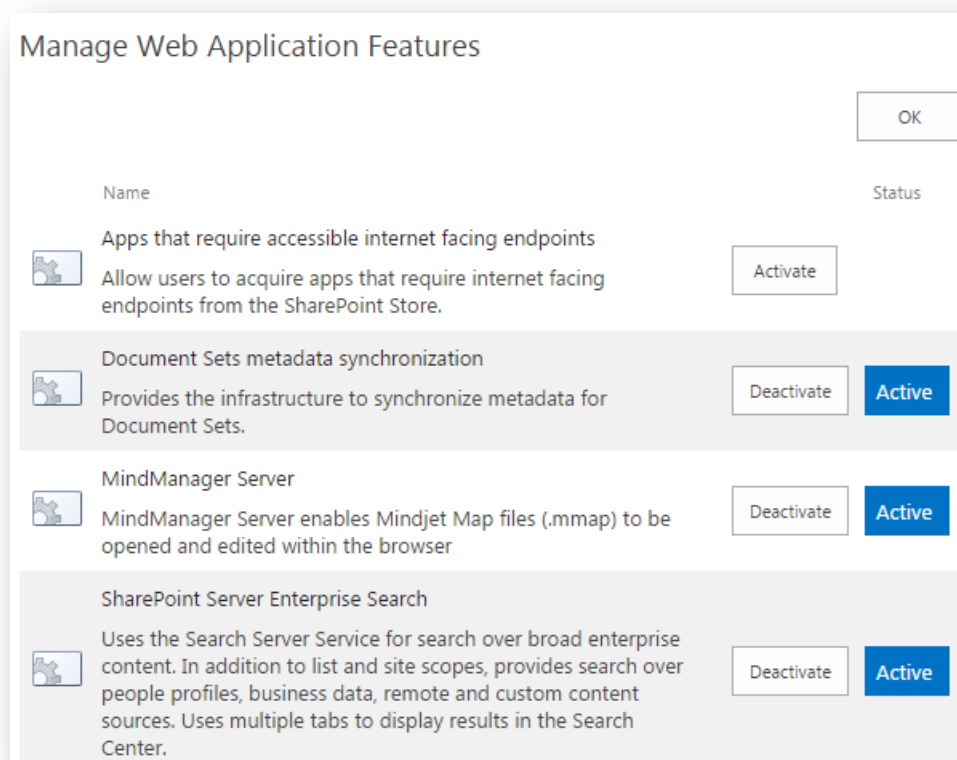
Sizing and Capacity Planning

To change either the term or number of users designated by the end user licensing agreement, the licensee must contact the Mindjet Sales department.

The application does not use custom lists for data storage.

Activation

Once installed, Mindjet becomes available in the existing SharePoint web applications. For new web applications, Mindjet needs to be manually activated:



When Mindjet's web application component is activated, several features become available for all site collections.

Maps

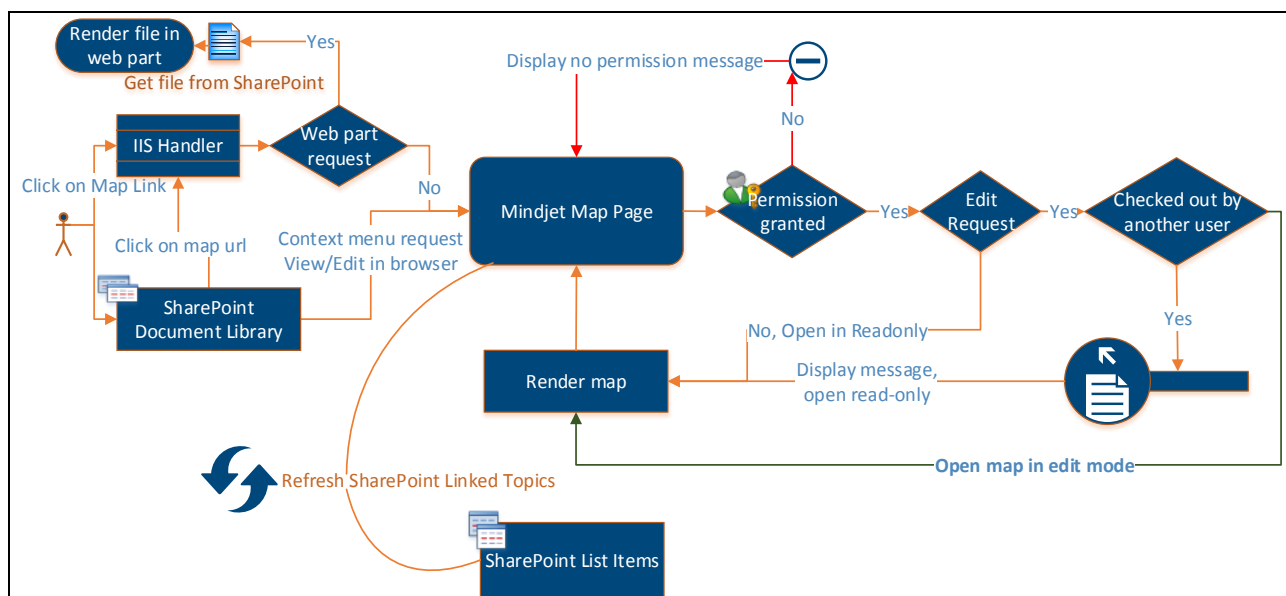
MindManager Server Web allows the user to insert a map into any page by adding to the page's custom properties.

Context menus for **View in Browser** and **Edit in Browser** are added to maps in SharePoint, allowing users to click on a link that gets redirected and rendered as content in a browser.

The map is refreshed first time it opens.

Maps can be saved in secure and non-secure mode.

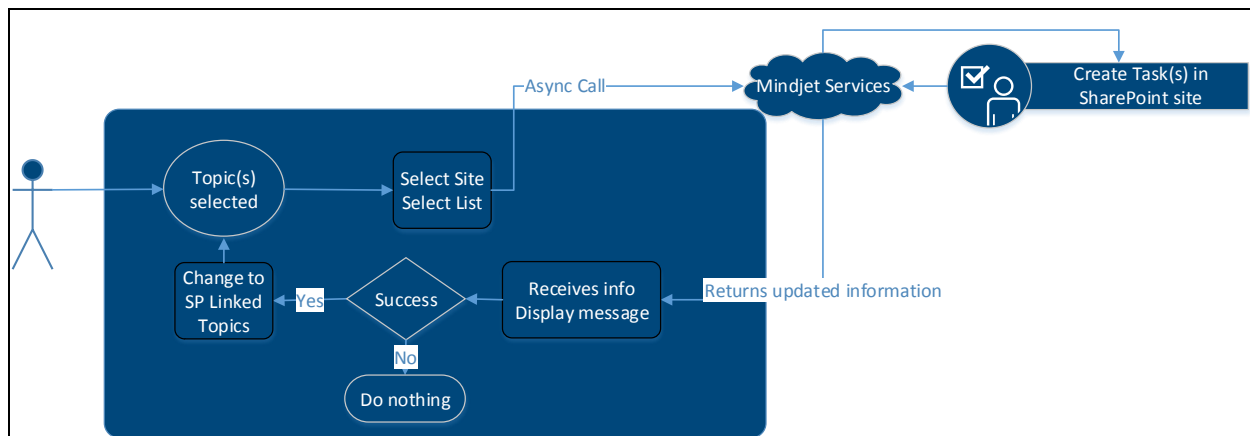
Here's a workflow diagram for opening and editing a map in SharePoint:



Tasks

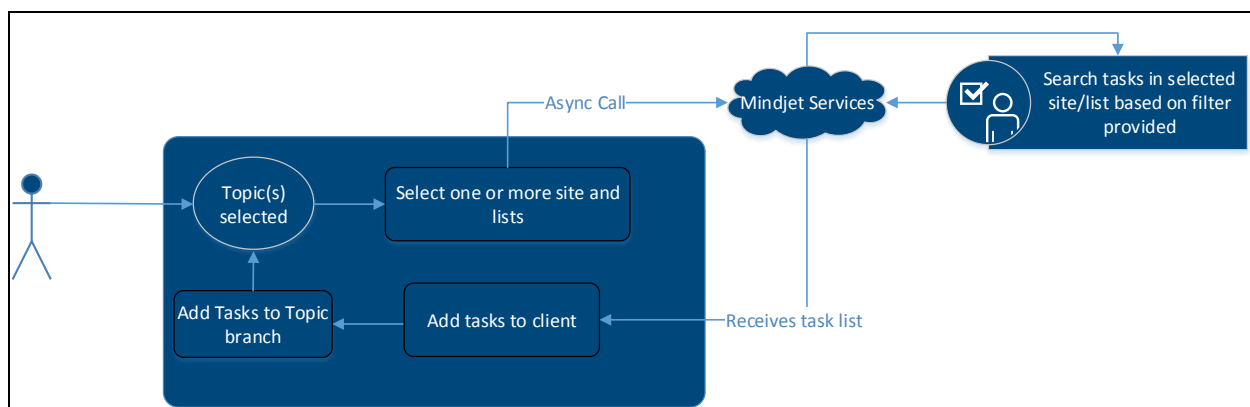
Mindjet allows users to create a map topic, link it as a task, and send it to SharePoint. This is called a "SharePoint linked Topic."

This is the workflow diagram for sending a task to SharePoint:



Users with edit permissions for the map can add or edit a task query. A task query contains a set of tasks with pre-defined filters. The query will be automatically refreshed every time the user opens the map, or when the refresh button is clicked.

Here is the workflow diagram for searching for tasks in the SharePoint task lists:



Third Party Tools

MindManager Server gives companies using Microsoft SharePoint the ability to view and display Mindjet map (.mmap) files directly within the SharePoint environment, without requiring any proprietary software installed on the individual user's local computer. Additionally, MindManager Server allows companies to configure the SharePoint server to let users edit maps directly from SharePoint lists and embed map Web Parts in your SharePoint sites.



The deployment package included all necessary WSP files and installation materials for third-party tools. Additionally, the deployment package includes the file, THIRDPARTYREADME.txt, which provides details on third-party tools.

Technical Support

Both site administrators and users can access technical support (including Knowledge Base articles, User Forums, and other online resources) at <http://www.mindjet.com/support>, or submit a support request for additional assistance.

DETAILS OF DEPLOYMENT

Step-by-step product installation and uninstallation is covered in *MindManager Server SharePoint 2013 Installation* and *MindManager Server SharePoint® 2010 Installation*.

Manual installation of the IFilter (see page 14) is covered in *Mindjet IFilter Manual Installation*.

What is Installed?

During deployment of **Mindjet.SharePoint.2010.wsp** or **Mindjet.SharePoint.2013.wsp**, the following DLLs are installed:

Mindjet.SharePoint.ConnectSP.dll

Mindjet.SharePoint.2010.dll or Mindjet.SharePoint.2013.dll

Table 1: Features

FEATURE	SCOPE	DETAILS
ConnectSP	Web Application	<p>Contains the handler for the application, which redirects .mmap/.xmmap requests.</p> <p>When installed:</p> <p>Adds mmapHandler information to configuration/system.webServer/handlers current web.config</p> <p>For 2010:</p> <pre><add name="mmapHandler" path="*.mmap" verb="GET" type="Mindjet.SharePoint. ConnectSP.mmapHandler, Mindjet.SharePoint.2010, Version=1.0.0.0, Culture=neutral, PublicKeyToken=6346446dbb20e6e3" /></pre>

FEATURE	SCOPE	DETAILS
		<pre><add name="xmmapHandler" path="*.xmmap" verb="GET" type="Mindjet.SharePoint. ConnectSP.MmapHandler, Mindjet.SharePoint.2010, Version=1.0.0.0, Culture=neutral, PublicKeyToken=6346446dbb20e6e3" /></pre> <p>For 2013:</p> <pre><add name="mmapHandler" path="*.mmap" verb="GET" type="Mindjet.SharePoint. ConnectSP.mmapHandler, Mindjet.SharePoint.2013, Version=1.0.0.0, Culture=neutral, PublicKeyToken=6346446dbb20e6e3" /></pre> <pre><add name="xmmapHandler" path="*.xmmap" verb="GET" type="Mindjet.SharePoint. ConnectSP.MmapHandler, Mindjet.SharePoint.2013, Version=1.0.0.0, Culture=neutral, PublicKeyToken=6346446dbb20e6e3" /></pre> <p>Custom Actions:</p> <ul style="list-style-type: none"> Adds the View in Browser context menu and click redirection to ConnectSP.aspx (with parameters) Adds the Edit in Browser context menu and click redirection to ConnectSP.aspx (with parameters) Adds the Open in Desktop context menu and click redirection to MindjetPopup.aspx (with parameters) Adds a Map button to the ribbon and click redirection to CreateNewMmap.aspx (with parameters)

FEATURE	SCOPE	DETAILS
		<p>When uninstalled:</p> <p>Removes mmapHandler from web.config</p>
ConnectSP Admin	Server Farm	<p>Contains the product license, timer jobs, and resource files.</p> <p>When installed:</p> <p>Creates the deployment job: ConnectSP Resource Deployment job</p> <p>Adds a ConnectSP License object (this object is stored in local farm's property bag)</p> <p>Creates the license timer job: ConnectSP Licensing job</p> <p>When uninstalled:</p> <p>Removes ConnectSP Licensing Job</p> <p>Note: the License timer job is run once every 24 hours.</p>
ConnectSP Templates	Site Collection	<p>Installs the templates needed to create new maps.</p> <p>When installed:</p> <p>Creates the MindjetTemplates folder in the current site</p> <p>Copies templates to the MindjetTemplates folder</p> <p>When deactivated/uninstalled:</p> <p>The feature is not active but the templates remain installed.</p>
ConnectSP Web Part	Site Collection	<p>Supports adding map views to SharePoint pages.</p>

Files

The following folders are deployed on the SharePoint server:

Application Pages for 2013:

15\Templates\Layouts\Mindjet

This folder includes the following elements:

- Handlers (in **15\Templates\Layouts\Mindjet\Handlers**)
- Admin and ASPX images (in **15\Templates\Layouts\Mindjet\Images**)
- Templates
- Application Pages
- Scripts
- Flash client (.swf)
- Styles

WCF Services:

15\ISAPI\Mindjet

Resource Files:

15\Resources

15\Config\Resources

Admin Pages:

15\Admin

Application Pages for 2010

14\Templates\Layouts\Mindjet

This folder includes the following elements:

- Handlers (in **14\Templates\Layouts\Mindjet\Handlers**)
- Admin and ASPX images (in **14\Templates\Layouts\Mindjet\Images**)
- Templates
- Application Pages
- Scripts
- Flash client (.swf)
- Styles

WCF Services:

14\ISAPI\Mindjet

Resource Files:

14\Resources
14\Config\Resources

Admin Pages:

14\Admin\

Handler Files

ASHX handler files, which manage asynchronous requests from clients, are deployed in the **14\Templates\Layouts\Mindjet\Handlers** for 2010 and in the **15\Templates\Layouts\Mindjet\Handlers** folder for 2013. These files are used to:

- obtain permission for web URLs for the current SharePoint site
- identify user permissions for a selected item or file
- obtain a new form URL for a task list
- obtain task information under a specific web URL
- update an item in SharePoint

The application employs a custom HTTP handler interface to handle file requests within the ASP.NET 3.5 framework to redirect or render .mmap file requests to ConnectSP.aspx. (For example, within ASP.NET 3.5 and SharePoint Server 2010, ASPX page requests and ASMX web service requests are served by HTTP handlers.) This is required when a user clicks on the map link from the site directory or in a document or email.

WCF Services

Mindjet also supports WCF services. In this model, the service request and response is managed via JSON and configured by a custom factory class to handle different SharePoint authentications. These files are deployed in the **14\ISAPI\Mindjet** folder for 2010 and **15\ISAPI\Mindjet** folder for 2013.

Table 2: Services available through WCF

TYPE	SERVICE
Tasks Services	Get Tasks: Displays all task lists based on permissions Get Task Items: Displays all task items from the collection of IDs passed from various lists in the server Add Task Items: Adds tasks to the SharePoint task list Update Task Items: Updates task(s) in the SharePoint task list Search Task Items: Searches for task items in one or more site

TYPE	SERVICE
	collections in the meeting
Common Services	Is File Exists: Check if file exists in SharePoint location Get Localized String: Get the localized string for the key passed Get Localized Strings: Get the localized string collection for the keys passed Create .mmap: Create a map based on the template provided
List Services	GetItems: Get items in a specific list in SharePoint.

Map templates

Activating templates creates a **MindjetTemplates** folder for default maps. Users can create and add new maps as well. This will not affect any other functionalities of the site. A Web Part can be activated and used on site collections and sub-sites.

Application Pages

Application pages are used to display map-specific information.

Table 3: Pages and Triggers

PAGE	DESCRIPTION	TRIGGERS
ConnectSP	Contains an editable version of a ConnectSP Web Part. Display .mmap files inside the browser in View Only/Edit mode.	.mmap file context menus: View in Browser, Edit in Browser
CreateNewMmap	Users can create blank maps, or maps from uploaded templates	Ribbon menu for New Map from templates
MapShareForm	Used for saving maps to SharePoint.	Save button in flash client
MindjetOpenerPopup	Displays a message while opening a map in the Mindjet desktop.	.mmap file context menus: Open in Desktop

PAGE	DESCRIPTION	TRIGGERS
noflash	Displays a message if no flash is found on the client browser.	Internal
SearchTasks	Displays a wizard for searching SharePoint tasks to add to map.	From Search Task menu on map
SendTasks	Allows a user to send topics to a task in SharePoint.	From Send Task menu on map
SiteTree	Displays a site tree navigation control that allows users to browse through a SharePoint site and add hyperlinks to a map.	From Add Hyperlink dialog on map.
ConnectSPAdmin	ConnectSP administration user interface that allows a SharePoint administrator to view change licenses and license info	

Client Components

The product employs Adobe® Flash® to render feature-rich content to clients. Client scripts interact with the Adobe Flash client and server via a number of industry-standard techniques and tools:

Maps are rendered to the browser via an Adobe Flash object (.swf); JQuery APIs are also used for client-side effects.

JavaScript interacts between Adobe Flash client and browser events.

JSON objects pass information back and forth.

Ajax asynchronous calls are used for client-server interaction via handlers or services.

Local JSON2.js and JQuery java script files are added to the client.

JsTree is used for rendering the client site/list structure.

Mindjet File Type Associator

The Mindjet file type associator, **Mindjet.SharePoint.FileTypeAssociator.wsp** or **Mindjet.SharePoint.FileTypeAssociator.2013.wsp**, is embedded in the installer for Mindjet map file icons. After installing and deploying the solution, .mmap icons are added to templates\images folder and references are added in a **DOCICON.xml** file.

Please note that uninstalling MindManager Server will not remove this component. It must be removed manually from the solutions store.

Application Changes

During installation, SharePoint's web application, web.config, is updated.

Two DLL references are added to Configuration\SharePoint\SafeControls entries:

- Mindjet.SharePoint.ConnectSP.dll
- Mindjet.SharePoint.2010.dll or Mindjet.SharePoint.2013.dll

Handler references specific to .mmap and .xmmap file types are added to Configuration\system.webServer\handlers:

- Mindjet.SharePoint.ConnectSP.mmapHandler

These changes revert to the original settings when the product is uninstalled.

Localization Support

Mindjet currently supports English, German, and French; resource files are located in the **14\Resources** for 2010 and **15\Resources** for 2013 and **App_GlobalResources** folders in the local web application.

Localized strings are in the **mj.connectsp** resource files deployed on the server. Standard utilities are used to obtain localization details.

IFilter

The IFilter interface allows the Windows® Indexing Service to extract meaningful text from .mmap and .xmmap documents. When deployed, the custom IFilter installer:

- performs environment checking
- installs the necessary DLLs
- registers the IFilter
- modifies registry keys to inform SharePoint Search that .mmap and .xmmap files should be indexed

The IFilter is a separate installation and uses the following reference DLLs:

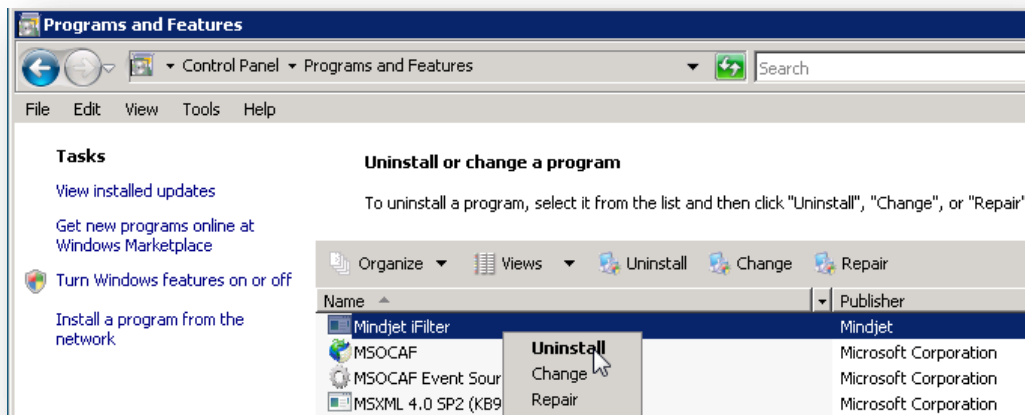
MmWindowsSearch64.dll
MmZip64.dll
Zlib64.dll

The default location for the IFilter is:

C:\Program Files\Mindjet\Mindjet IFilter

Uninstalling IFilter

Because IFilter is registered with Windows, it can be uninstalled through the Programs and Features section of the control panel:



This will remove all binary files and registry keys.

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