

Formpipe.

Lasernet

Lasernet 9
SharePoint



Lasernet 9 – SharePoint [Revision 4 – November 2020]

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1 INTRODUCTION

1.1 Who Should Use This Guide

This guide is written for Lasernet Developers. It is intended primarily as a reference to the different Microsoft SharePoint functions in Lascript.

It provides the information required for successfully integrating Microsoft SharePoint and Lascript in your business. The guide addresses the Microsoft SharePoint 2007 and newer development tasks of the Lascript Output Management system.

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3 SHAREPOINT IN LASERNET

3.1 Microsoft SharePoint

Microsoft SharePoint a family of software products developed by Microsoft for collaboration, file sharing and web publishing.

From Lasernet's point of view SharePoint is seen as a file/document archive. Support for SharePoint is implemented so use is very similar to what is known from working with databases.

We will not explain what SharePoint is and it is required that you already have knowledge of document libraries, fields etc.

3.2 Lasernet Components

Lasernet Output Management for Microsoft SharePoint 2007 and newer consists of the following components.

3.2.1.1 *SharePoint Output Module*

The SharePoint output module enables Lاسernet Server to deliver documents and associated metadata to Microsoft SharePoint.

3.2.1.2 *SharePoint Connection*

A SharePoint Connection is used by a SharePoint Command to tell Lاسernet where the server is located and which credentials are needed for successful connection. It is possible to address a specific subsite on the SharePoint Server and a Document library within this subsite

3.2.1.3 *SharePoint Command*

SharePoint Commands can be inserted at modifier event points and supports the following options:

- insert new documents with metadata
- update metadata on existing documents or folders
- create new folders
- delete documents or folders along with all documents in the folders
- discard check out (not supported by Graph API)
- check in documents (Not supported by Graph API)
- check out documents (Not supported by Graph API)
- discard check outs (Not supported by Graph API)
- new document library (Not supported by Graph API)
- new subsite (Not supported by Graph API)

3.2.1.4 *Scripting*

Script support enables you to call your SharePoint commands in batches in a logical manner.

3.3 Troubleshooting and Support

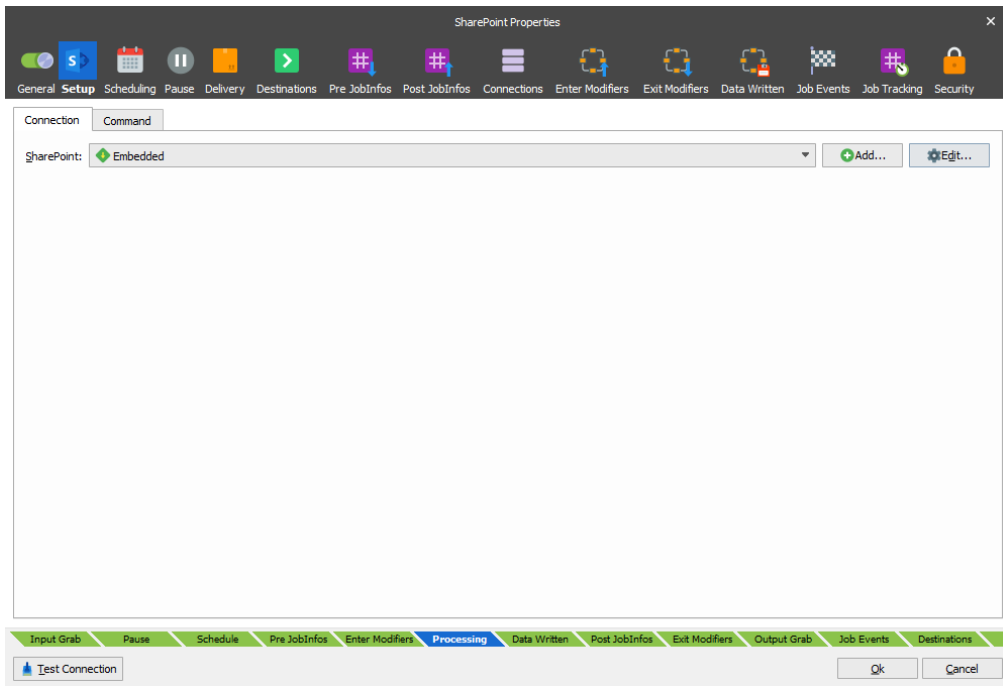
For technical support please contact your local partner or reseller.

Email help can be reached via support.lasernet@formpipe.com

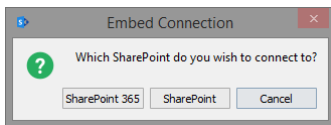
4 REFERENCE

4.1 SharePoint Output Module

The SharePoint Output module is used to insert a new document in SharePoint with metadata or to update the metadata of an existing document. Supported connection types are Web Services and REST API (Legacy or Graph).



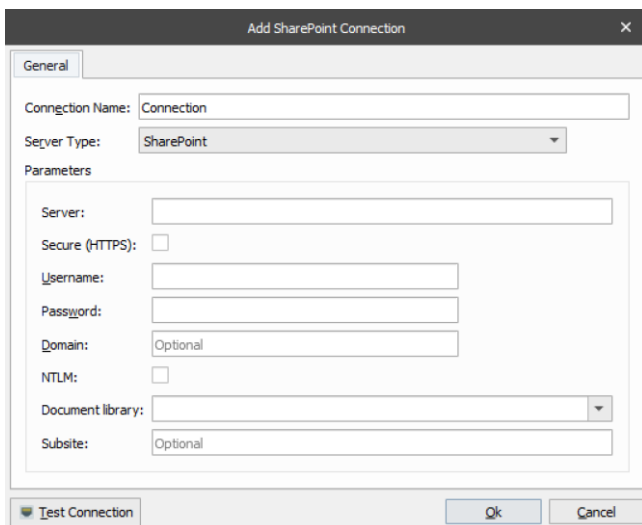
On the **Connection** tab Select **Embedded** and click **Edit** to setup a connection to SharePoint. An embedded connection is accessible from this module only.



Select **SharePoint 365** to set up a **REST** connection and **SharePoint** to connect via **Web Services**.

Connect to SharePoint via Web Service or REST interface. An advantage of using REST is that you do not have to add references to any SharePoint 365 libraries or client assemblies. Instead, you make HTTP requests to the appropriate endpoints to retrieve or update SharePoint 365 entities, such as webs, lists, and list items. Supported command types and properties can varies between the two protocols, since not all types are supported by the REST interface.

Connection: Web Services

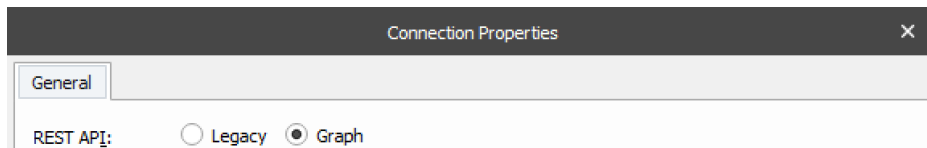


Protocol	Web Service.
Server	The name of the server. Note. Do not use IP address or localhost.
Secure (HTTPS)	HTTP security can be activated for encrypted communication and secure identification.
Username	A SharePoint user with appropriate rights. The domain can be specified using the format: <domain>\<username>.
Password	Password of the SharePoint user.
Domain	Domain name for SharePoint server.
NTML	Windows network protocol for security.
Document library	(Optional) the library where insert/update is done. Library can be specified as part of the Destination path.
Subsite	If SharePoint is set up with subsites, a subsite must be specified.

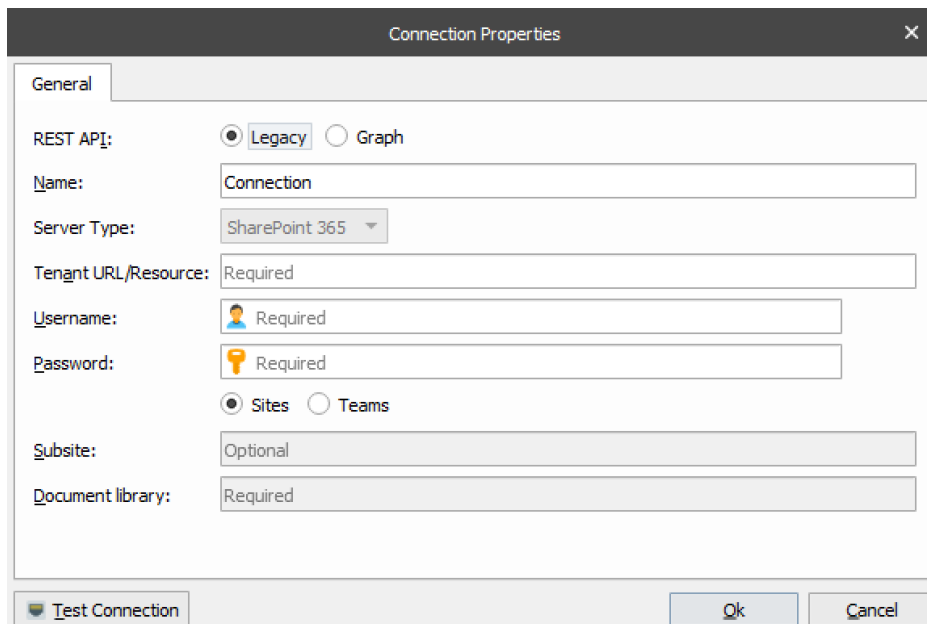
Click the **Test Connection** button to validate the connection between the Lasernet module and SharePoint.

Connection: REST API (Legacy)

Select between **Legacy** or **Graph** (latest) as your preferred **REST API** connection type.



Legacy

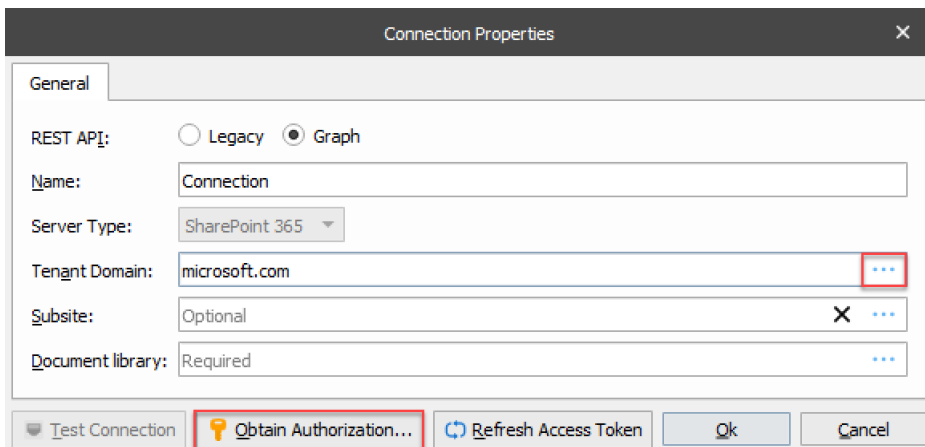


REST API	Legacy
Tenant URL/Resource	The tenant URL for your resource, like https://microsoft.sharepoint.com
Secure (HTTPS)	HTTP security can be activated for encrypted communication and secure identification.

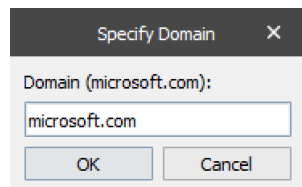
- Username** A SharePoint user with appropriate rights. The domain can be specified using the format: <domain>\<username>.
- Password** Password of the SharePoint user.
- Type of resource** Activate Teams if you want to connect to Teams instead of Sharepoint.
- Subsite** If SharePoint is set up with subsites, a subsite must be specified.
- Document library** (Optional) the library where insert/update is done. Library can be specified as part of the Destination path.

Click the **Test Connection** button to validate the connection between the Lasernet module and SharePoint.

Connection: REST API (Graph)



- REST API** Graph
- Tenant Domain** First you must click the three dots ... to specify your domain, like microsoft.com



Click **Obtain Authorization** and login with a user to connect to an account in your organization.

- Subsite** (Optional) if SharePoint is set up with subsites, a subsite must be specified. Click the three dots ... to get a list of your available subsites.
- Document library** (Required) the library where insert/update is done. Library can be specified as part of the Destination path. Click the three dots ... to get a list of your available document libraries

Click the **Test Connection** button to validate the connection between the Lasetnet module and SharePoint. The button is activate when all the required fields are entered.

Command

The screenshot shows the 'SharePoint Properties' dialog box with the 'Command' tab selected. The dialog has a top toolbar with icons for various settings like General, Setup, Scheduling, Pause, Delivery, Destinations, Pre JobInfos, Post JobInfos, Connections, Enter Modifiers, Exit Modifiers, Data Written, Job Events, Job Tracking, and Security. The 'Command' tab contains the following fields and options:

- Paths:** A text box containing 'Separated by semi-colon'.
- Filename:** A text box containing '#Filename#'.
- Overwrite:** A checkbox labeled '(Only supported for SharePoint 365)'.
- Share publicly:** A checkbox labeled '(Only supported for SharePoint 365)'.
- Shared Link Expiration:** A group box containing radio buttons for 'Never' (selected) and 'Offset' (with a dropdown set to '7 day(s)').
- Doc. in:** Radio buttons for 'Fields only', 'Fields + JobData' (selected), and 'Fields + JobInfo'. A dropdown menu shows 'JobData'.
- Fields:** A table with the following content:

Field	Value	Data Type
MyText	#MyText#	Text

At the bottom of the 'Fields' section are three buttons: '+Add', 'Edit', and '-Remove'. Below the main dialog is a progress bar with tabs for 'Input Grab', 'Pause', 'Schedule', 'Pre JobInfos', 'Enter Modifiers', 'Processing' (highlighted in blue), 'Data Written', 'Post JobInfos', 'Exit Modifiers', 'Output Grab', 'Job Events', and 'Destinations'. At the very bottom, there is a 'Test Connection' button and 'Ok' and 'Cancel' buttons.

In the **Command** tab you must enter your **Insert** properties. Information about the properties are listed in the chapter about the insert command.

4.1.1.1 Insert Document

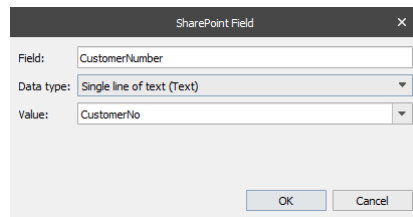
Documents can be inserted from JobData or another JobInfo.

Destination paths It is possible to insert the same document in multiple paths in SharePoint. To do this each path must be separated with a colon.

Data in Specifies where document data comes from.

- **Fields only** When set, no document is uploaded – only metadata.
- **JobData** The actual job is inserted (this is default)
- **JobInfo** The data to be inserted is taken from a specific JobInfo.

Fields A list of metadata to be inserted along the document. These fields must exist in the SharePoint library.



The data type of a field must match the data type of the field in SharePoint. The data type field is required for Web Services only and is therefore hidden for REST.

It is possible to use JobInfo substitution, as seen above, in the example with CustomerNumber JobInfo. See Lasernet Manual for more information on this.

4.1.1.2 Update Document or Folder

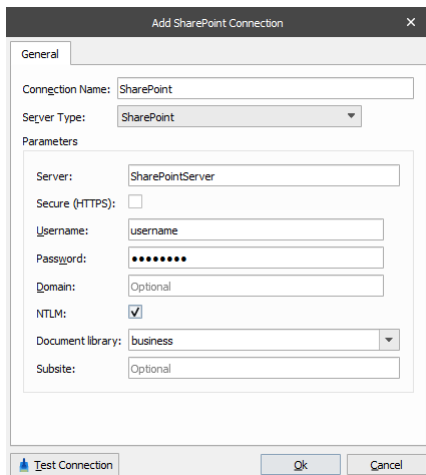
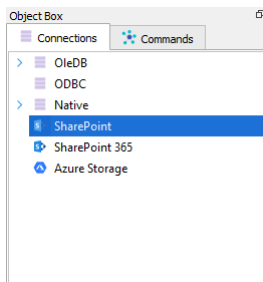
Metadata for an existing Document or Folder in SharePoint can be updated via the Data in “Fields only” option. When this option is set, no document is uploaded – only metadata.

Note. Only one document or folder can be updated whereas inserting can be done in multiple paths.

See above for a description of the settings.

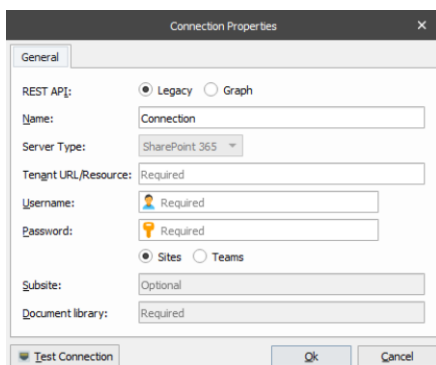
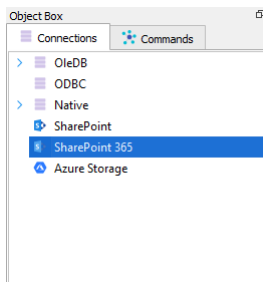
4.2 SharePoint Connections

SharePoint connections are added through the Databases menu in Lasernet. Select SharePoint to use Web Service as connection type.



In addition to testing the connection, Test Connection fetches the list of libraries from the SharePoint server. These can then be accessed via the drop down list of the Document library setting.

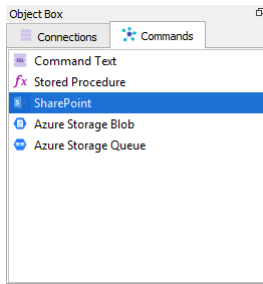
Select SharePoint 365 to use REST API with Legacy or Graph communication.



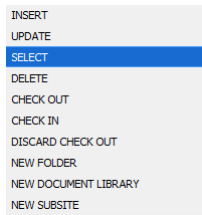
Click the **Test Connection** button to validate the connection between the Lascript module and SharePoint.

4.3 SharePoint Commands

SharePoint commands are added through the Databases menu in Lasernet.

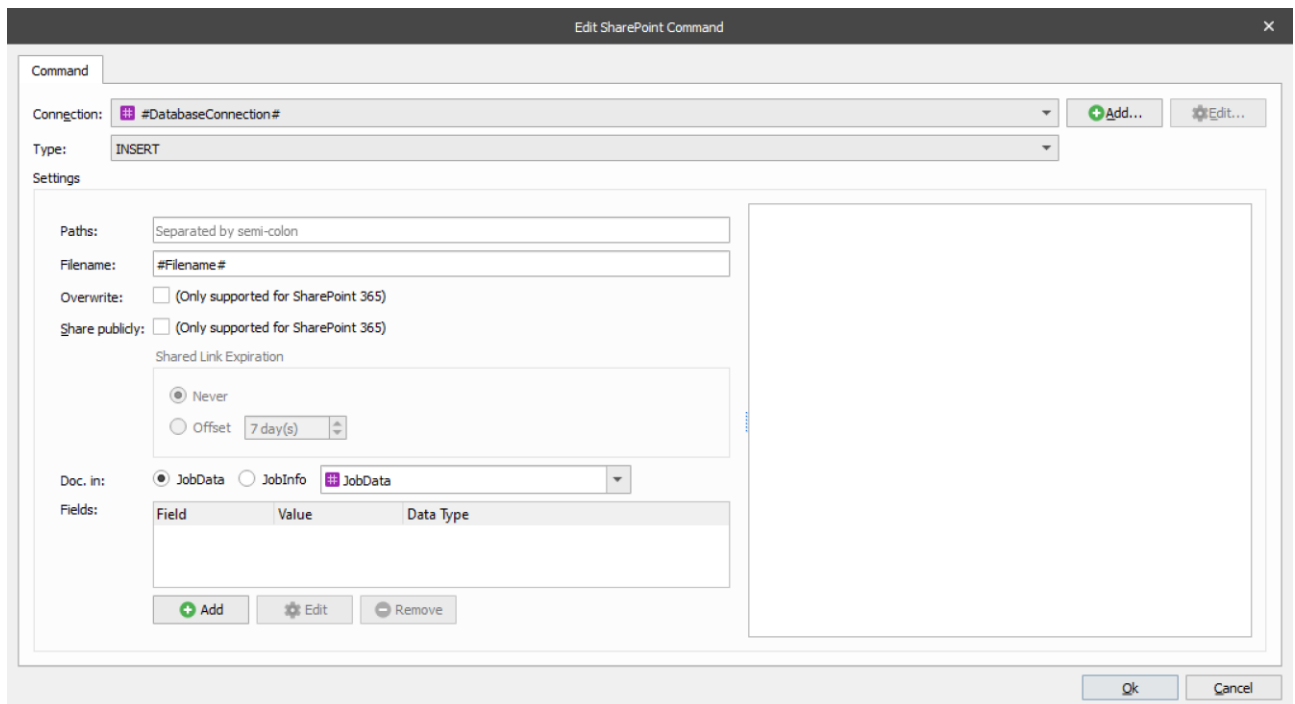


There are 10 different command types for REST API but only 5 for Graph API to choose from. They will be listed in the following sections.



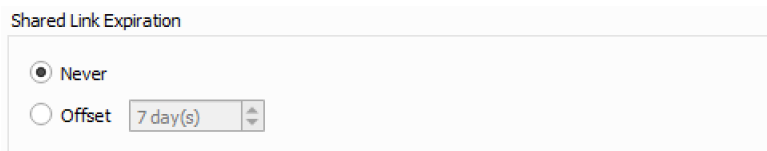
4.3.1.1 INSERT and UPDATE

These command types work exactly like the SharePoint output module, but are split in two different command types.



Overwrite Activate to allow an Insert command to overwrite an already existing document. This setting is only supported for the SharePoint 365 modifier module.

Share publicly Activate to share the inserted file publicly with or without shared link expiration. This setting is only supported for the SharePoint 365 with REST Graph API.



The offset can be set from 1 to 999 days, where 7 is the default value.

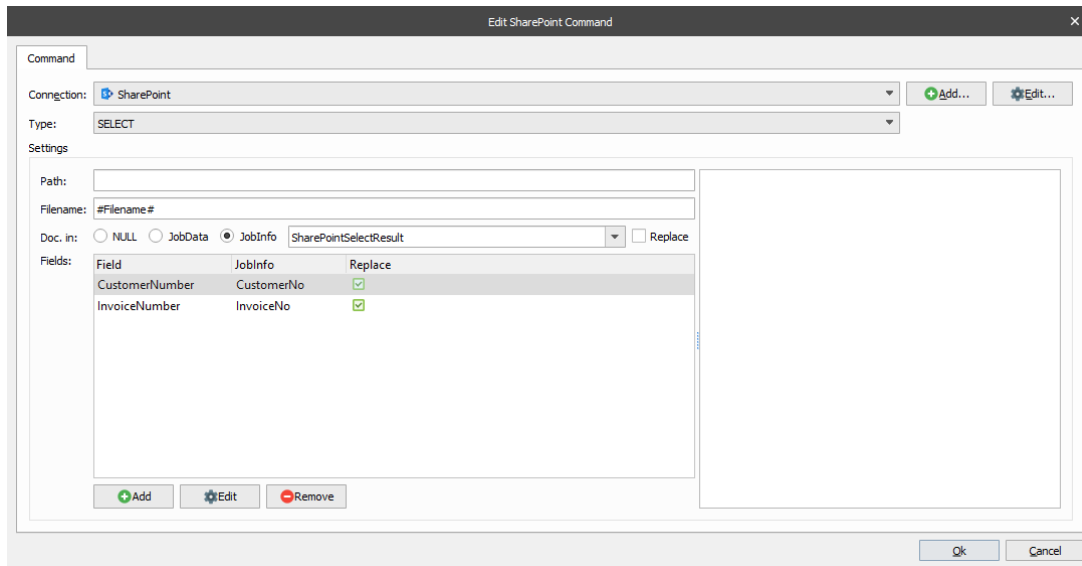
Doc in Describes from where Lasernet should read the actual document data.

- JobData The document will overwrite the data of the primary job.
- JobInfo The document will be stored in a specific JobInfo. The default is SharePointSelectResult.

Fields As a document in SharePoint can have a lot of metadata stored, it is possible to choose which fields that should be stored and in which JobInfos in Lasetnet.

4.3.1.2 SELECT

This command type is used to retrieve documents or metadata.



Doc in

Describes in where Lasernet should store the actual document data.

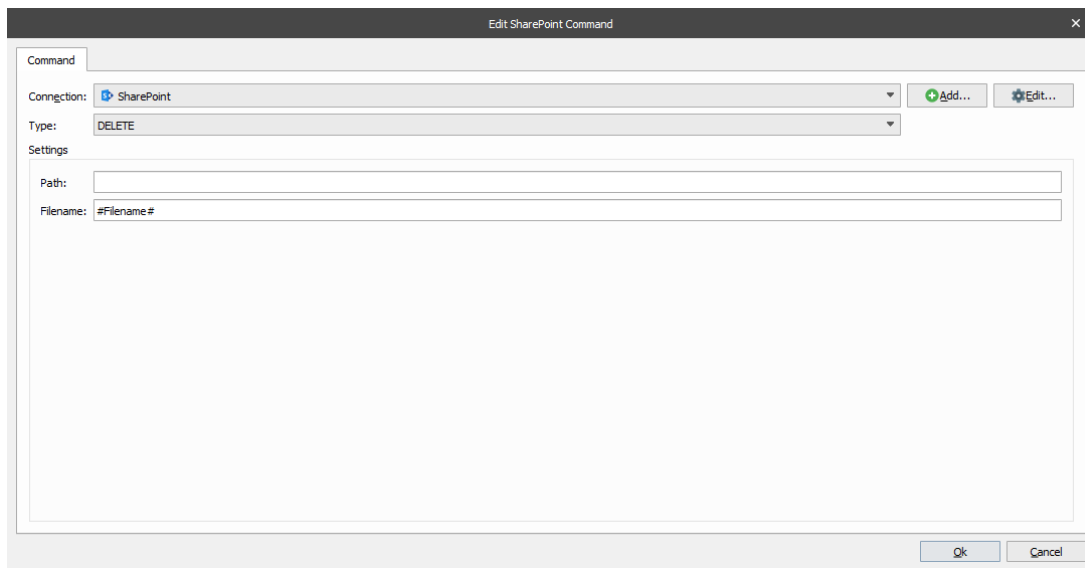
- NULL The document will not be stored. Use this to only load fields.
- JobData The document will overwrite the data of the primary job.
- JobInfo The document will be stored in a specific JobInfo. The default is SharePointSelectResult.

Fields

As a document in SharePoint can have a lot of metadata stored, it is possible to choose which fields that should be stored and in which JobInfos in Lasetnet.

4.3.1.3 DELETE

This command type is used to delete specific documents or whole folders of documents.

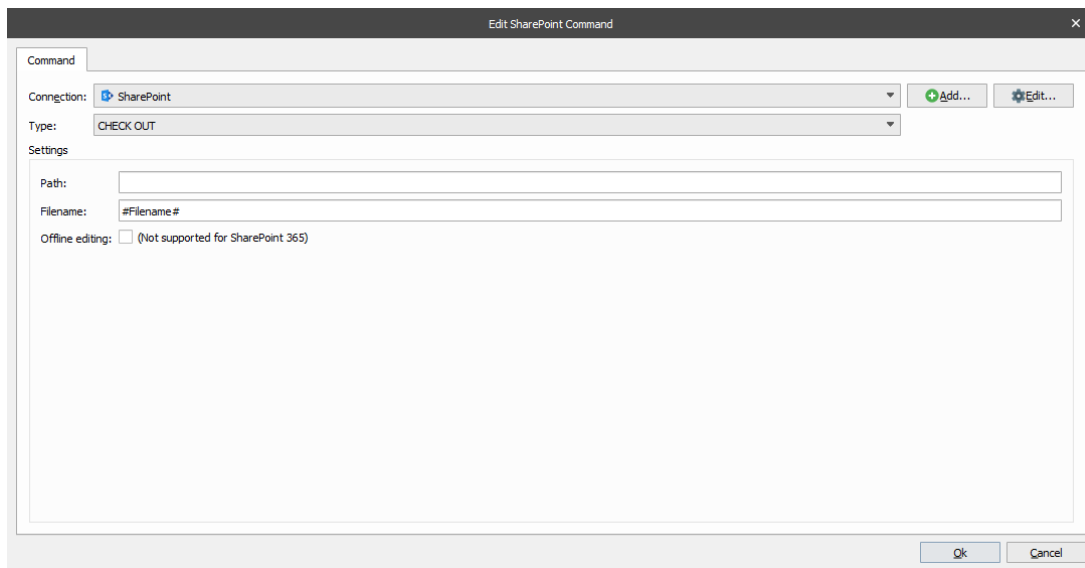


The screenshot shows a dialog box titled "Edit SharePoint Command". It has a "Command" tab. The "Connection" is set to "SharePoint" with "Add..." and "Edit..." buttons. The "Type" is set to "DELETE". Under "Settings", there is a "Path:" field and a "Filename:" field containing "#Filename#". "Ok" and "Cancel" buttons are at the bottom right.

If no filename is specified then the folder specified by path setting will be deleted.

4.3.1.4 CHECK OUT

This command is used for checking out documents for editing (not supported by Graph API).



Offline editing is used to edit documents when you are not connected to the SharePoint server.

4.3.1.5 CHECK IN

This command type is used for checking in documents that were previously checked out (not supported by Graph API)

The screenshot shows a dialog box titled "Edit SharePoint Command". It has a "Command" tab selected. The "Connection" is set to "SharePoint". The "Type" is set to "CHECK IN". Under "Settings", there is a "Path" field, a "Filename" field with a placeholder "#Filename#", and a "Type" section with three radio buttons: "Minor (1.x)" (selected), "Major (x.0)", and "Overwrite file". The "Comment" text area contains the text "Checked in by Lasernet". The "Ok" and "Cancel" buttons are at the bottom right.

Type When checking in documents it is possible to update revision number of the document in three ways (if enabled in SharePoint).

- Minor (1.x) (The minor part of the version number is incremented).
- Major (x.0) (The major part of the version number is incremented).
- Overwrite file (The version number is not incremented).

Comment Optional comment for check in.

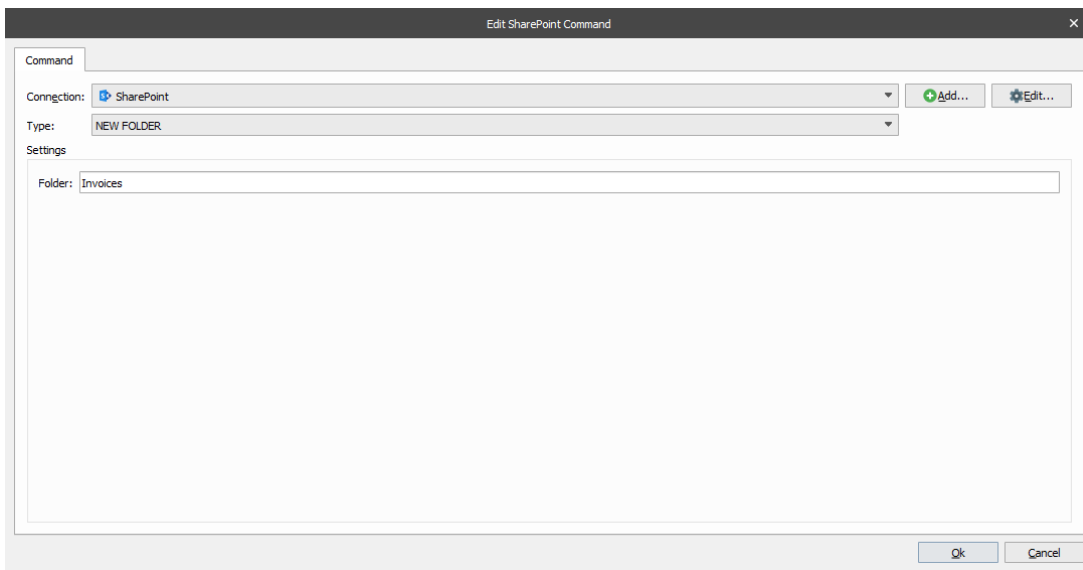
4.3.1.6 DISCARD CHECK OUT

This command type is used to rollback any changes done since document was checked out (not supported by Graph API).

The screenshot shows a dialog box titled "Edit SharePoint Command". It has a "Command" tab and a close button (X) in the top right corner. The "Connection" is set to "SharePoint" with an "Add..." button. The "Type" is set to "DISCARD CHECK OUT" with an "Edit..." button. Under the "Settings" section, there are two input fields: "Path:" and "Filename:". The "Filename:" field contains the text "#Filename#". At the bottom right, there are "Ok" and "Cancel" buttons.

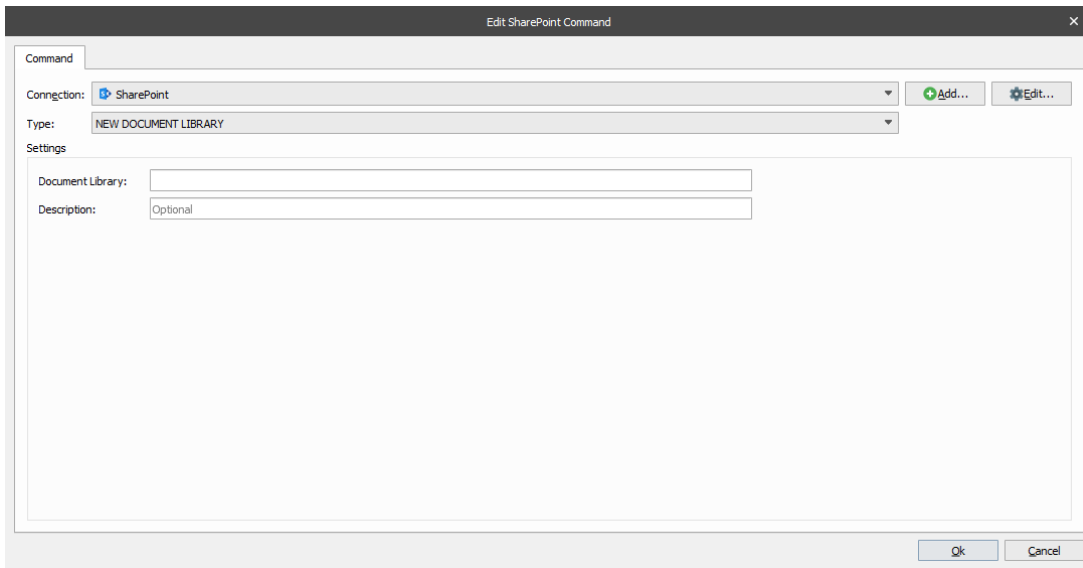
4.3.1.7 NEW FOLDER

This command type is used to create a new folder in the document library.



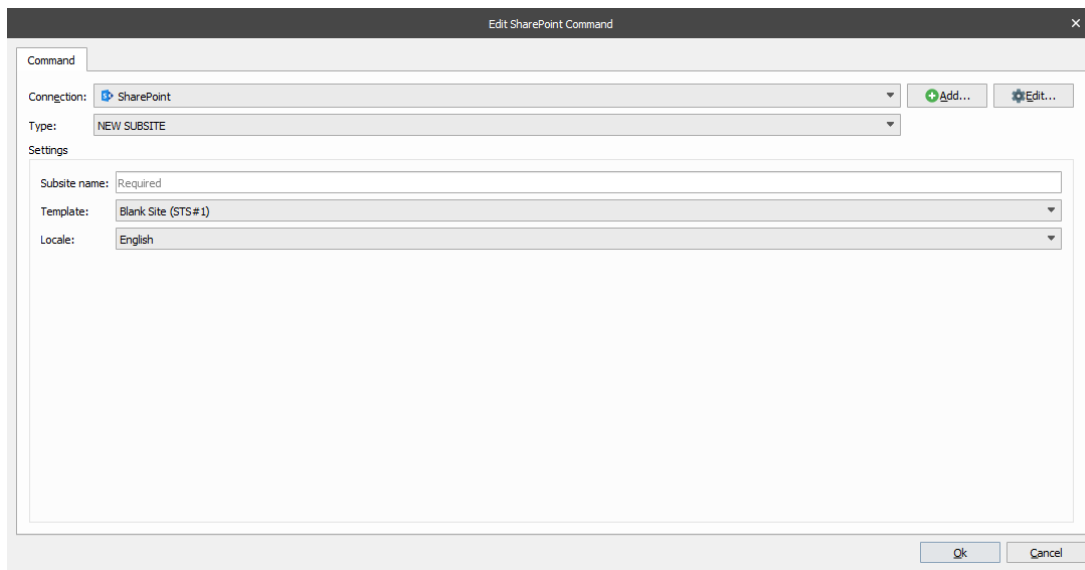
4.3.1.8 NEW DOCUMENT LIBRARY

This command type is used to create a new document library (not supported by Graph API).



4.3.1.9 NEW SUBSITE

This command type is used to create a new subsite (not supported by Graph API).



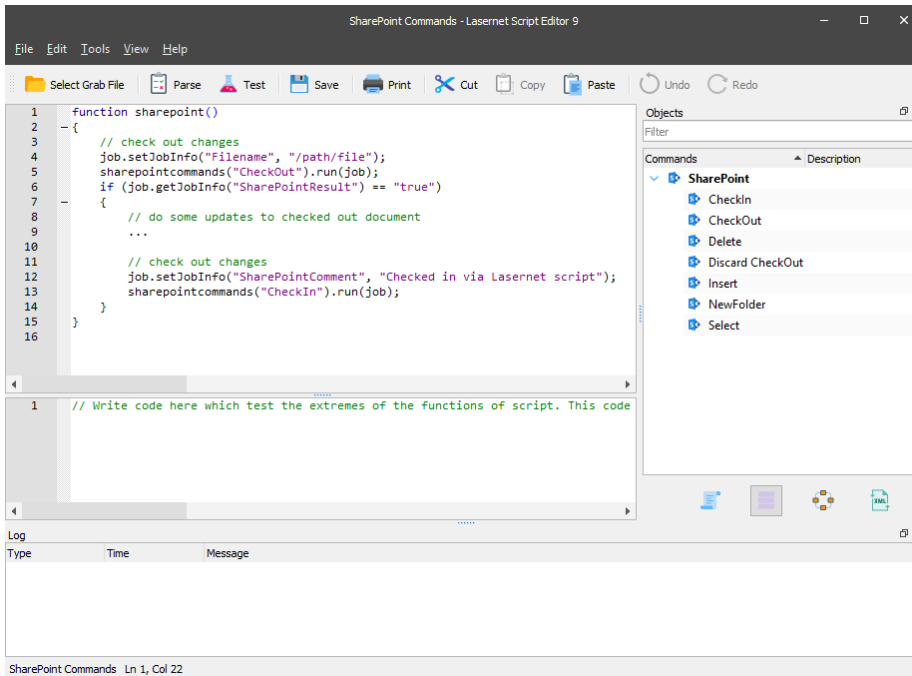
The screenshot shows a dialog box titled "Edit SharePoint Command". It has a "Command" tab and a "Connection" dropdown set to "SharePoint". There are "Add..." and "Edit..." buttons next to the connection. The "Type" dropdown is set to "NEW SUBSITE". Under the "Settings" section, there are three fields: "Subsite name" with a "Required" label, "Template" set to "Blank Site (STS#1)", and "Locale" set to "English". At the bottom right, there are "Ok" and "Cancel" buttons.

NB: This command is not supported by REST interface (SharePoint 365).



4.4 SharePoint Scripting

You can execute SharePoint commands directly via scripting in Lasernet, just like modifiers. This is done via a new array called “**sharepointcommands**”. In order to retrieve a specific command use the index operator “[]” and a string with the name of the command as an argument. You can then use the “run” function to invoke the command.



Tip: You can drag any SharePoint Command added to the configuration into the editor window and the script command, for running SharePoint Commands including value and parameter, will automatically be inserted.