

## Using Colligo Contributor to Migrate Lotus Notes Applications to SharePoint

Many organizations are considering or have already made the move from IBM Lotus Notes to the Microsoft platform. MS Outlook is generally used to migrate email while MS SharePoint is often recommended for application migration, however simply substituting SharePoint for Notes/Domino out-of-the box can be problematic. SharePoint lacks the equivalent of the Notes Client, namely rich application integration into an email client.

The lack of a client for SharePoint creates three distinct issues for organizations wishing to migrate from Lotus Notes:

- 1) The need to access SharePoint through a browser means users have to switch frequently between the email client (MS Outlook) and Internet Explorer (IE). This requires them to keep track of content and presentation through two interfaces which were previously integrated in the Notes environment;
- 2) SharePoint does not support a drag-and-drop, point and click interface integrated with a users' desktop. This means additional steps are required to achieve operations that were previously simple in Notes. There is also little integration between content authoring applications and SharePoint. For example, emails cannot easily be saved in SharePoint while SharePoint files cannot easily be attached to emails;
- 3) Since SharePoint is only available when users have access to their network, mobile workers cannot easily access and edit content or move through workflows when they are working out of the office. In addition, latency introduced by slow network connections can make for a very frustrating user experience.

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### Intended Audience

This white paper is intended for IT professionals in organizations that are considering or have already made the transition from IBM Lotus Notes® to the Microsoft platform, including MS Office Outlook® and Microsoft Office SharePoint®.

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### Colligo Background in Lotus Notes

In 2001, Colligo released Workgroup Edition for Lotus Notes (WELN) – a peer-to-peer collaboration platform that enables field teams to share information directly over ad hoc Wi-Fi connections. In addition to file transfer and instant messaging capabilities, WELN enables users to replicate Lotus Notes applications peer-to-peer through laptop wireless connections. WELN uses patented peer-to-peer replication technology to enable users to replicate Lotus Notes databases on-the-fly without the need to connect to the Domino server, removing workflow bottlenecks, increasing end user satisfaction and, most importantly, increasing adoption of the collaboration platform.

Colligo was successful at selling WELN into many professional services firms including PWC, KPMG and Crowe Chizek and other large organizations including General Motors and Deutsche Bundesbank. PWC alone has deployed over 50,000 seats of WELN in over 60 countries.

In 2006, Colligo introduced a new product line - Colligo for SharePoint - that features Colligo Contributor, the market-leading client solution for SharePoint.

### Requirements for a SharePoint Client to Migrate Lotus Notes Applications

Lotus Notes is an application suite that integrates a messaging client, databases and a set of tools that can be used to develop custom applications - such as collaboration, document management, and workflow. In a Notes migration project, the functions of the messaging client (such as email, calendaring, contacts and tasks) would be ported directly to Microsoft Outlook. As a flexible collaboration platform, SharePoint is well suited to custom and collaborative applications developed in Notes. If the applications being ported only need to be available online through a browser, then SharePoint out-of-the-box will satisfy the requirements. However, many Lotus Notes users have come to rely on the rich

client interface to access these applications - because of the point and click interface, desktop integration, and offline availability. In these cases, it is therefore critical to look at providing a rich client interface to SharePoint.

To determine the requirements for a SharePoint client suitable for Lotus Notes migrations, one approach is to look at the common features of Notes applications, map them to SharePoint features, then write the requirements to ensure these elements are faithfully represented by the SharePoint client. The following is a list of common SharePoint elements that are used to emulate Lotus Notes applications. The chosen client solution would ideally support as many of these elements as possible to ensure maximum flexibility during application porting and for making changes and additions thereafter:

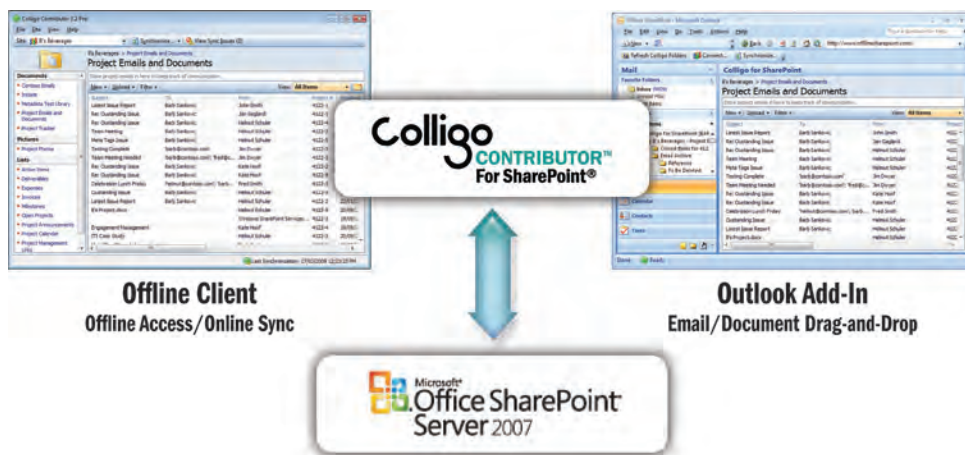
- Support for content types, including custom properties and document templates
- Rich support for metadata of every type, including default metadata, calculated columns, hidden properties, and lookups to other lists (necessary to build applications in SharePoint)
- Creation of new documents from document templates
- Ability to fill out forms from form templates
- Store, edit, and access content in Document Libraries
- Store, access and edit content in Custom Lists
- Ability to create, access and delete folders and sub-folders
- Sort and filter content in Document Libraries and Lists
- Rich support for Views, including View variables (such as [Me] and [Today])

While it may be possible to represent SharePoint elements through several desktop applications, users prefer as few interfaces as possible. In fact, a single user interface that enables them to access both messaging functions as well as SharePoint document collaboration and workflow applications would most closely resemble the Notes environment. A single user interface, therefore, reduces an important barrier of migration. Since Microsoft Outlook is the obvious messaging client, it follows that the SharePoint client technology would ideally **operate within the Outlook UI**. In this case, users would naturally expect tight integration between SharePoint and Outlook email.

Finally, one of the major features of the Notes client is the ability to **work the same way online and offline**, therefore a local cache and associated sync engine is required. This would need to support **sophisticated conflict resolution** to ensure that users cannot inadvertently overwrite changes of other users. Ideally the local datastore **preserves the relationship between documents** in the same way SharePoint does (i.e. links to other documents work as commonly used in Excel). While the local data store should be encrypted, it needs to be flexible and, ideally, searchable so content can be easily located.

## Colligo Contributor – A Rich Client Platform for SharePoint

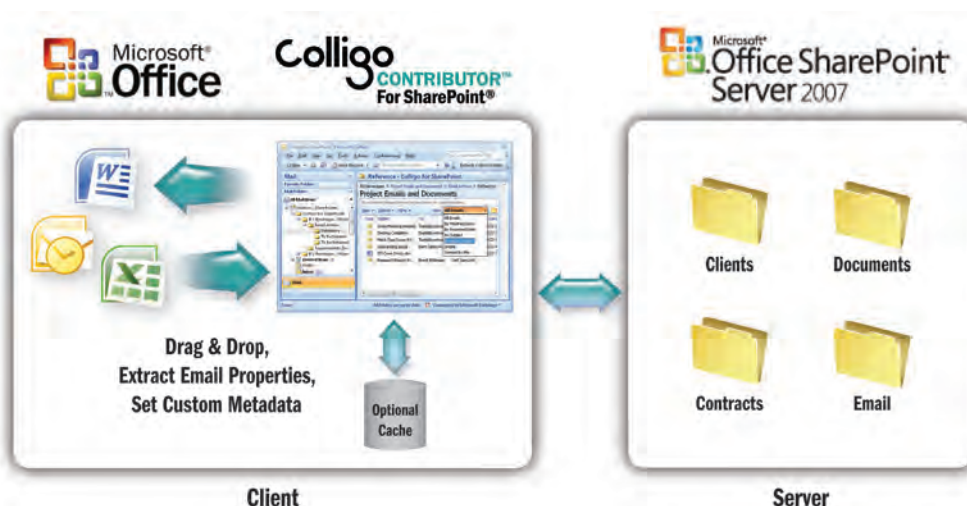
Colligo Contributor is a family of products that is built on a common .NET run-time engine. The Contributor platform provides the synchronization logic, interface to Microsoft SharePoint Services, local data repository (for caching) and a metadata and item management database. Two standard user interfaces are available: a standalone desktop client and a Microsoft Office Outlook® Add-in.



### Colligo Contributor Add-In for Outlook

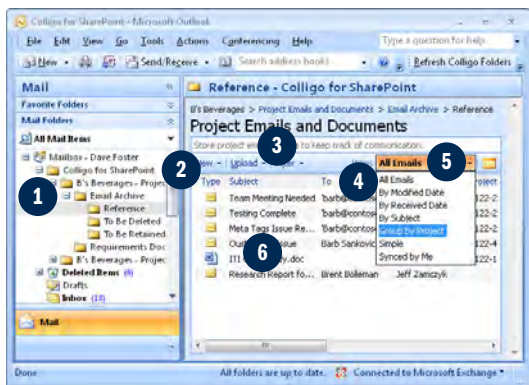
As stated earlier, organizations wishing to migrate from the Notes client to Microsoft Office will likely prefer to access SharePoint from within the Outlook interface. Therefore, this white paper will focus on the capabilities of the Add-In. However, since it is based on the same platform, the Colligo Contributor Client is often a good solution for organizations that plan to migrate their applications to SharePoint prior to migrating their messaging infrastructure from Notes/Domino to Outlook/Exchange. The Client will be discussed later in this white paper.

Colligo Contributor Add-In integrates many SharePoint elements into the Outlook (2003 or 2007) interface including document libraries, lists, metadata, views and content types. It also includes special support for Outlook emails (discussed later). It is a small .NET application that is installed either by the user or, in an enterprise deployment, by IT using a silent install. There are a number of configuration options available that can be applied on the .msi during installation or updated using a login script. The Contributor Add-In does not require server installations or configuration other than conventional SharePoint (WSS or MOSS)



Colligo Contributor Add-In for Outlook

As a rich client interface, Contributor Add-In enables users to simply drag-and-drop files and emails into SharePoint document libraries linked into the Outlook folder tree. Emails can also be moved or copied into SharePoint automatically using Outlook rules. Typical functions that users expect in Outlook such as right click to set properties or double click to open files are available through the Contributor interface. Depending on the sync configuration and whether users are connected to the network, files and emails are immediately uploaded to the server or cached for automatic synchronization the next time users are online.



SharePoint Document Libraries, Lists, and Sub-folders in the Outlook Interface

- 1) SharePoint Document Libraries and Lists in Outlook Folder Tree
- 2) Creation of new documents and forms from templates
- 3) Filtering and sorting
- 4) Full support for Metadata (columns)
- 5) Full access to Views
- 6) Content available online and offline

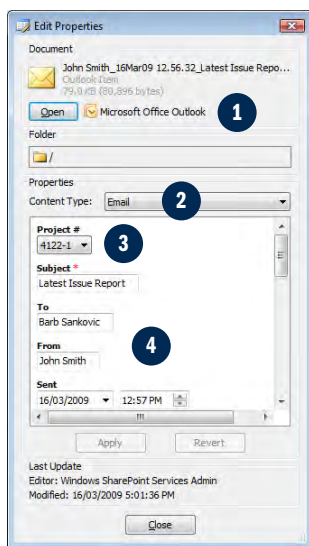
SharePoint libraries and lists are added using the “Connect” button in the Outlook toolbar. This enables users to create a SharePoint folder in Outlook in a self-serve fashion with no IT administration required. IT administrators can also push out a configuration file to the client that automatically links a set of document libraries, folders and lists to Outlook without user intervention. This file can also be used to manage a number of configuration options including default metadata for individual folders. Note that the content available to the user is security trimmed so they can only access and modify content to which they have permissions, much like ACLs in Lotus Notes.

Contributor not only syncs document libraries but custom lists as well. Custom lists are often used to replace Notes databases and tables during migration. Custom lists (for example, a list of projects or clients) can drive dropdown selections in other lists and libraries or can be used to create dynamic applications in SharePoint.

Document libraries and lists can be synced into the Contributor Add-In as either online-only or offline (cached locally). Caching can improve user productivity by providing instant access to content when travelling or working over slow connections. Contributor’s encrypted datastore also preserves the folder hierarchy from the SharePoint site, ensuring that relative links (such as those used in Excel spreadsheets) between documents are preserved. Since files are stored on the file systems, they can be located using Windows Desktop Search. This architecture differs from other offline SharePoint implementations which store both the SharePoint site structure and files in a database on the client.

Another critical requirement for migrating Notes applications is the ability to create content from templates stored on the server. When Colligo Contributor syncs with SharePoint, it automatically downloads multiple content types and their associated document and form templates to the user’s cache so they can be used to create documents online or offline.

Content types also define required and optional metadata. With Colligo Contributor, users can choose content type and set metadata at the time they create or move content to SharePoint. Rich metadata support including lookups to lists and calculated columns enables fairly sophisticated Notes applications to be migrated to SharePoint and then synced down to the Contributor Add-In. This capability is particularly important for migrating workflow applications since changes in metadata often initiate a workflow on the server.



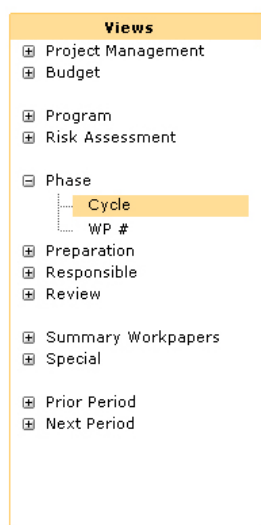
- 1) Integration with MS Office document properties
- 2) Selection of Content Type – instantly modifies available Metadata fields
- 3) Rich support for Metadata, including calculated fields, date picker, dropdowns etc.
- 4) Support for lookups to other lists

#### Colligo Contributor Metadata Editor

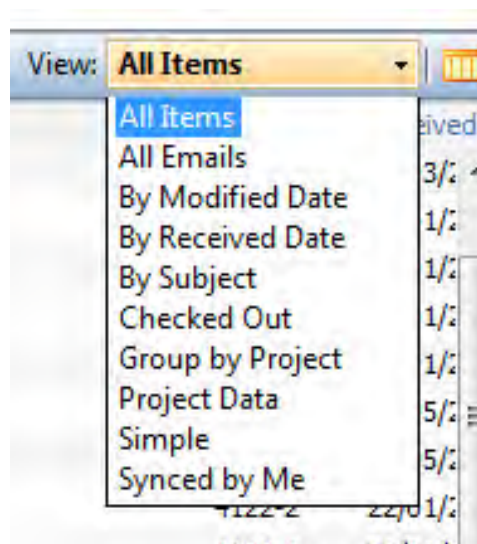
Folder-level metadata support fills in a SharePoint gap by enabling users (or IT through the configuration file mentioned earlier) to set default metadata properties at the folder or list level. Metadata prompting can then be turned off so users need only drop content into a folder to automatically upload and set default metadata. Another feature, Office 2007 metadata support, enables users to set metadata through the “Document Properties” pane in Office 2007 as an alternative to the Contributor “New Item” dialog. New metadata values set within Office 2007 documents show up instantly in the Contributor interface even if the user is working offline.

As mentioned, Colligo Contributor has special capabilities to handle Outlook emails and attachments. When an email is dragged from a folder in the user’s mailbox onto a SharePoint document library configured for email, an event handler on the client extracts the message fields and automatically populates the corresponding metadata fields before the file is stored in the document library. Users can also set the content type and add custom metadata at that time or later. The email, attachments and metadata are immediately uploaded to SharePoint as a .msg file with an automatically generated unique name. Attachments can also be dragged and dropped directly into and out of document libraries.

Views are the driving force behind many Notes applications and SharePoint views can often be used to emulate these. Contributor supports SharePoint views of many types including ordered, filtered and “group-by”. Because it dynamically updates views depending on content and the current value of metadata (including variables such as [Today]), users can immediately see changes to the business process whether they are working online or offline.

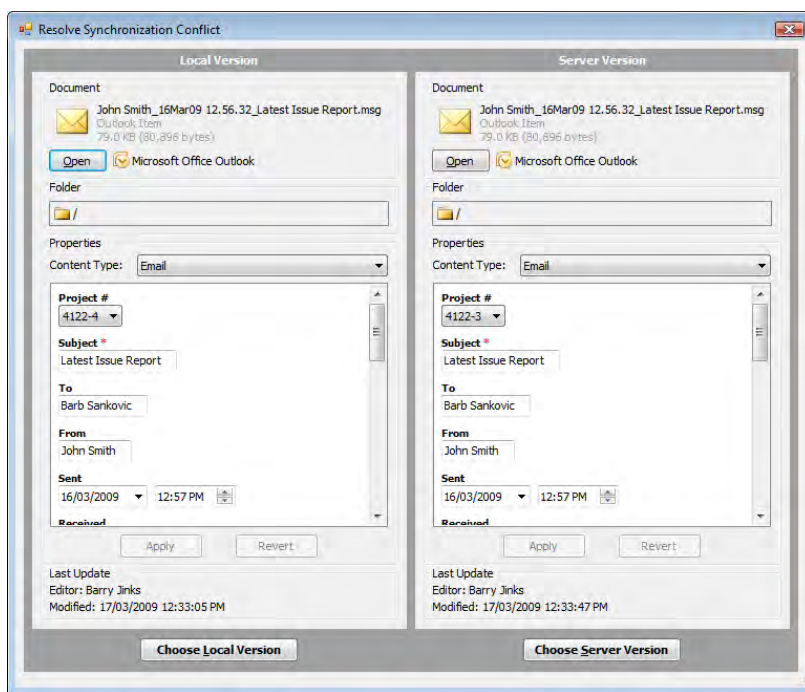


**Colligo Contributor Metadata Editor**



**Colligo Contributor Metadata Editor**

Colligo Contributor supports document check-in and check-out. Like the Notes client, Colligo Contributor also provides conflict resolution, so that users do not inadvertently write over the changes of other users. This includes an easy to use conflict resolution engine that interfaces directly with the MS Word compare and merge function.



**Colligo Contributor Conflict Resolution Dialog**

### Other Members of the Colligo Contributor Product Family

As previously mentioned, the Colligo product family offers a standalone client user interface, in addition to the Add-In for Outlook. Contributor Client is a rich desktop application that provides a consistent SharePoint experience online and offline and is targeted at mobile and remote professionals. Colligo Contributor Pro includes both the Client and Outlook Add-In.

### Colligo Contributor Pro Rich Client Interface Showing Email Document Library

In cases where customers need further integration into their desktop, elements of Contributors' configuration schema and internal operations can be customized through a Software Development Kit (SDK). This capability can be particularly useful for migrating Lotus Notes users to SharePoint for example, Colligo customers have used the SDK to build a SharePoint "drop box" that enables Lotus Notes emails to be dragged and dropped directly to SharePoint Document Libraries.

### Advantages of Colligo Contributor for Notes Migration

Colligo Contributor is uniquely positioned to replace the Lotus Notes client when migrating applications to SharePoint. Firstly, it provides a familiar desktop interface similar to that which many Notes users are accustomed to. The easy to use drag-and-drop and right-click interface will reduce the barriers to adoption post-migration.

Colligo Contributor also supports many of the SharePoint elements necessary to move Notes applications to SharePoint such as document libraries, custom lists, folders, content types, document and form templates, metadata, lookups, sorting and filtering of content and rich support for views. These capabilities are critical to create flexible applications during the migration process and thereafter.

The ability to access SharePoint applications from within Microsoft Outlook is a benefit to users since they can continue to work in a single interface. There are other advantages to Outlook integration as well; Outlook rules can be leveraged to move content automatically to SharePoint and since Colligo for SharePoint folders become part of the users Exchange profile, they can move content to SharePoint through other Exchange interfaces such as Outlook Web Access, Windows Mobile, and Blackberry Enterprise Server. Items added in this way are

automatically uploaded to SharePoint when the user's laptop is next online. Contributor's automatic extraction of email metadata gives users full access to this information for sorting messages after they have been stored in SharePoint.

The final critical feature is local caching and synchronization, which provides users the ability to work offline and improves the user experience over slow or high latency connections. The architecture of the local store ensures that links between documents (critical for applications involving spreadsheets) are preserved on the client. Contributor's sophisticated sync engine incorporates a user friendly approach to conflict resolution. Coupled with a software development kit (SDK) to develop custom SharePoint desktop applications if required, Colligo Contributor is a powerful platform for migrating Lotus Notes client applications.

### Comparison with "Out of the Box" SharePoint Client Solutions

Microsoft Office 2007 was a tremendous step forward and now provides a number of client interface points and local caching options for SharePoint - particularly through Outlook 2007 and Groove 2007. This may be sufficient for simple or highly targeted Notes migration projects.

For a more comprehensive solution, Colligo Contributor may be a better alternative as it is capable of covering a broader range of scenarios and applications. The following table compares the out of the box capabilities of Outlook 2007 and Groove 2007 with Colligo Contributor.

| Requirement                                 | Microsoft Outlook 2007 | Microsoft Groove 2007 | Colligo Contributor |
|---|------------------------|-----------------------|---------------------|
| Rich Client Interface                       | ✓                      | ✓                     | ✓                   |
| Common SharePoint Elements:                 |                        |                       |                     |
| - Support for content types                 |                        | ✓                     |                     |
| - Rich support for metadata                 |                        | ✓                     |                     |
| - Creation of new documents from templates  |                        |                       | ✓                   |
| - Ability to fill out forms                 |                        |                       | ✓                   |
| - Document Libraries                        | ✓                      | ✓                     | ✓                   |
| - Custom Lists                              |                        |                       | ✓                   |
| - Folders and sub-folders                   |                        | ✓                     | ✓                   |
| - Sort and filter content                   |                        |                       | ✓                   |
| - Rich support for Views                    |                        |                       | ✓                   |
| Integrated with Microsoft Outlook           |                        |                       | ✓                   |
| Drag and drop emails to SharePoint          |                        | ✓                     | ✓                   |
| Automatic extraction of email metadata      |                        |                       | ✓                   |
| Works online and offline (local caching)    | ✓                      | ✓                     | ✓                   |
| Local data store preserves document links   |                        |                       | ✓                   |
| SDK to build custom SharePoint applications |                        |                       | ✓                   |

## Summary

Microsoft Outlook is generally used to migrate Lotus Notes email while Microsoft SharePoint is often recommended for application migration, however simply substituting SharePoint for Notes/Domino out-of-the box can be problematic for the following reasons:

- a) Users have to switch frequently between Microsoft Outlook and Internet Explorer;
- b) Unlike Notes, SharePoint does not support a drag-and-drop, point and click interface integrated with a users' email client; and
- c) Mobile workers cannot easily access and edit content or move through workflows when they are working offline.

To overcome these issues, organizations migrating from Notes to SharePoint should consider deploying a SharePoint client. To determine the requirements for such a client, one must look at the features of Notes applications to be migrated, map them to SharePoint features, then write the requirements to ensure these elements are faithfully represented by the SharePoint client.

Requirements for a SharePoint client often include rich support for content types, metadata, lookups, document templates & forms, document libraries, custom lists, folders and views. In addition, a solution that enables users to access both messaging functions as well as SharePoint applications through the same user interface most closely resembles the Notes environment and reduces context switching.

Colligo Contributor Add-In for Outlook is uniquely positioned to replace the Lotus Notes client when migrating applications to SharePoint. The ability to access SharePoint applications from within Microsoft Outlook is an important benefit to users and significantly increases their productivity. The Contributor Add-In's easy to use drag-and-drop and right-click features reduce the barriers to adoption.

Colligo Contributor supports many of the SharePoint elements necessary to move Notes applications to SharePoint, such as document libraries, custom lists, folders, content types, document and form templates, metadata, lookups, sorting and filtering of content and rich support for views. Contributor's automatic extraction of email metadata and support for content types gives organizations the ability to specify hold periods and easily find content stored in SharePoint. Finally, local caching and synchronization provides users with the ability to work offline and improves the user experience over slow or high latency connections.

While Microsoft Office 2007 provides a number of client interface points and local caching options for SharePoint, Colligo Contributor may be a better alternative as it is capable of covering a broader range of scenarios and applications.

## About Colligo Networks Inc.

Colligo is a leader in client collaboration software, helping organizations drive SharePoint adoption by providing an intuitive user experience that better integrates SharePoint into the way users work on their desktops. Information workers can easily access, modify, and create SharePoint documents, forms, lists, and metadata through familiar desktop interfaces. Contributor Client delivers instant access, online and offline, for mobile and remote workers. Contributor Add-In integrates Outlook with SharePoint for better email and document management. Colligo is Microsoft Gold Certified. Learn more at [www.colligo.com](http://www.colligo.com) When SharePoint is combined with Colligo Contributor, users capitalize on the same Outlook folder tree integration and drag-and-drop capabilities offered by Managed Folders, but are moving the email content to SharePoint, where it can be better managed as a record and shared across the organization. Colligo Contributor has been deployed by thousands of organizations worldwide to provide seamless Outlook to SharePoint integration for effective email records management in SharePoint.

## To Learn More

For more information or to obtain a trial of Colligo Contributor, go to [www.colligo.com](http://www.colligo.com). For pricing information or to request a quote, please contact [sales@colligo.com](mailto:sales@colligo.com) or call +1 (866) 685-7962.

