Software Requirements Specification

For

Document Management

Version 0.95

Cyrious Software

6/15/2011

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Revision History

Name	Date	Reason For Changes	Version
Scott	4/2011	User Comments on WIKI	
Scott	5/2	Internal Comment on Technical Notes	0.5
Scott	5/24	First Draft – Internal Review	0.8
Scott/Tisha	6/1	Second Draft – Meeting w Customers	0.9
Scott/Tisha	6/15	Third Draft ☑ Added Overview ☑ Added Description to Order Folder Names ☑ Added Restricted Folders ☑ Added Function to create historic folders ☑ Improved/Changed ODDM Interface ☑ Included Windows Thumbnail Enhancements	0.95

1. Introduction

1.1 Purpose

The purpose of this document is to outline features found in the **Document Management** portion of Cyrious Control. Document Management is a term meant to cover the broad aspects associated with file management associated with customers and orders. This includes artwork, but also PDFs, Word Document, checklists, and other documents from customers or generated in the production of orders and estimates.

> **Please Note**: These features are proposed for a *future* release of Control and though this specification is written as though the features exist – they do not. This is a planning document and as such, none or many of the ideas included here may not exist in the initial releases of document management or may never be released.

1.2 Intended Audience and Reading Suggestions

This document is written for Cyrious personnel and staff; however it is distributable *with management consent* to outside companies.

2. Overview of Document Management

2.1 What is Document Management

Some of the common questions Cyrious receives from new Control users are:

"Is there a way to attach a file to an order?"
"How can I organize my artwork
"Is there a good place to put the proof of company tax exemption?"
"How can I save email so that I can find it for an order?"

All of these are questions about documents (files) that have some relationship to orders or customers. Document Management refers to the system that each company has (implicitly or explicitly) to manage all of the documents associated with their business.

2.2 Why Should Control Handle Document Management

Every business has to manage the documents associated with its business processes. For most of our users, Control is the primary organizational tool for keeping track of customers, orders, estimates, and often purchase orders and bills.

Because it is already integrated into the company processes, Control provides a natural place to coordinate the documents associated with any particular order, estimate, company, etc. By providing a new "Documents" tab on each of these records (and others), and then managing the underlying folder structure, Control provide a simple framework that works for most businesses.

Sample documents that might be managed through Control:

- Artwork
- Photos
- Scanned Documents (like signed invoices, etc.)
- Tax Documents
- Word and Excel Documents
- Emails
- Checklists
- Purchase Order confirmations
- Bills
- Anything else you can think of!

Finally, you should understand that though Control will *manage* the documents, they are still stored as separate files in Windows on a common file-server. This will usually be the SSLIP computer, but does not necessarily need to be. Backing up the documents is

also a separate activity that is *not* handled by Control, so please be sure to read the section on backup carefully.

3. Document Management UI

3.1 The Document Tab

The document tab is the primary interface for working with managed documents within Control.[1]
The document tab exists on the following types of objects:

- Orders (and Service Tickets and Credit Memos)
- Estimates
- Companies
- Employees
- Purchase Orders
- Bills
- Receiving Documents
- Products
- Parts
- Store

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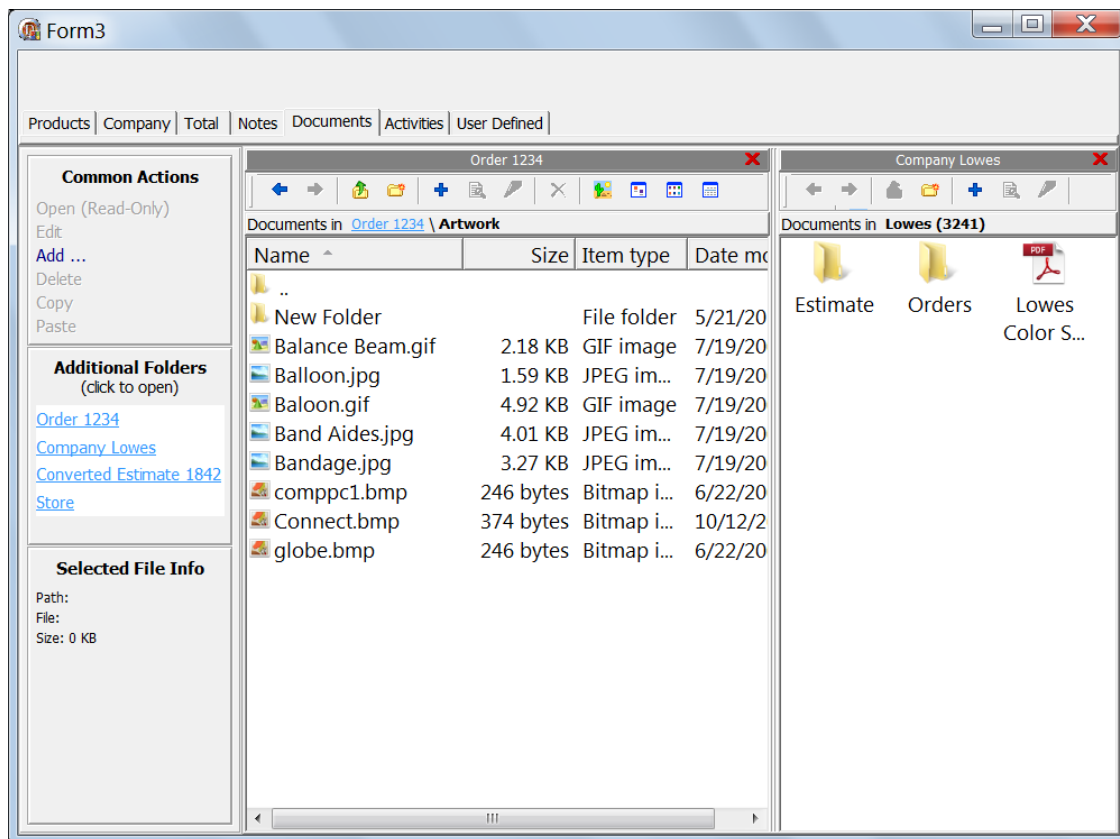
[1] The visual interface was implemented used components from jam-software.com to integrate the Windows shell explorer into the application.

The document tab on all objects look similar and works identically.

3.1.1 Document Explorers

The main body of the Documents tab consists of one or more Document Explorers. Document Explorers are functionally similar to Windows Explorer, but the actions often work in slightly different ways behind the scenes.

You may have one or more Document Explorers in the Document Explorer Panel. By default, each object will open the primary document explorer for that object. The Additional Folders panel will contain links to other document folders that are related to this object. See Section 3.1.3, Additional Folders, on page 5 for more information.

Each Document Explorer has a toolbar and supports the following navigation operations:
- Double click to Open[2]
- Drag and Drop to/from other Document Explorers
- Drag and Drop to/from Windows Explorer
- Right-click to open a Context menu including the following options (exact options may vary slightly based on the given selection):
    - Open (Read-Only)
    - Edit (Read-Write)
    - Print
    - Email Files[3]
    - Delete
    - Copy
    - Paste
    -

3.1.2 Common Actions Panel

The common actions panel displays commonly used actions for the selected items in the Document Explorer. Clicking these actions is equivalent to using the Document Explorer toolbar or right-clicking on the selected documents.

3.1.3 Additional Folders

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[2] Double-clicking to open a shortcut to a folder will open a new Document Explorer window with the referenced folder as the current folder of that Document Explorer. The top-level folder of the Document Explorer will be first folder beneath the Order, Estimate, Bill, etc.

[3] When emailing files from Documents tab for Company, Order, and Estimates, there should be two email options:
  Email Files
  Email Files To <<contact email address>

The primary DM folder will automatically display on the Documents tab, but shortcuts to other common folders are also displayed in the Additional Folders section. These additional folder links are common displayed:

- **Store**. This is a link to the store DM folder. A link to this folder is shown *on every Document tab*. The store DM folder is common used for company wide information (e.g., Employee Manuals, internal logos, common forms, …).

- **Employee Doe, John**. This is a link to the Employee DM folder for that employee. A link to this folder is shown *for the logged in employee* on every Document tab. This is a good place for the employee to store company documents for their own purposes.

- **Company aaaaaa**. This is a link to the specific company DM folder. This link is displayed:
    - For all orders for that Company,
    - For all estimates for that Company,
    - For all PO's, Bills, and RD's for that Company.
  A link to Company aaaaaa is also shown when viewing that Company so that you may open or reopen multiple Document Explorers.

- **Order xxxx** or **Converted To Order xxxx**. This is a link to the specific order DM folder. This link would be displayed when a single order is associated with another record, such as:
    - When an estimate was converted to Order xxxx,
    - When a purchase order is linked to Order xxxx,
    - Or a Bill is linked to Order xxxx.
  A link to Order xxxx is also shown when viewing that Order so that you may open or reopen multiple Document Explorers.

- **Estimate xxxx** or **Converted From Estimate xxxx**. This is a link to the specific estimate DM folder. This link would be displayed when a single estimate is associated with another record, such as:
    - When an order was converted from Estimate xxxx
  A link to Estimate xxxx is also shown when viewing that estimate so that you may open or reopen multiple Document Explorers.

3.1.4 Preview Panel

Information about the selected file (or files) is displayed in the Preview Panel. The preview image is displayed using the same Windows preview engine used with Windows Explorer, so any registered image should dispay.

3.2 Navigating

3.2.1 Subfolders

Cyrious' Document Management allows you to create an unlimited number of folders (and folders within folders) for each managed folder. To navigate down a folder, double-click on that folder. To navigate back up, double click on the folder with two periods (this is the universal reference for the parent folder).

When you have navigated into down one or more subfolders, Control also builds a **breadcrumb** path showing you the folders you have descended. You may instantly jump back up the hierarchy by clicking on any of the links to the higher folders in the chain.

3.2.2 Shortcuts to Folders

The Document Explorer handles shortcuts to folders in the following manner when it is opened or double-clicked:

- If the shortcut points to another *managed* folder, a **new** Document Explorer window is opened.
- If the shortcut points to a non-managed folder (one that does not lie beneath one of the root Document Management folders), a new instance of Windows Explorer is opened on top of Control with that path as the target.
- If the shortcut is deleted, the shortcut is deleted and *not* the referenced folder.
- Shortcut's may be copied, pasted, or dragged and dropped. A copy of the shortcut (pointing to the original referenced folder) is made.
- If the user tries to make a shortcut of/to a shortcut, the shortcut is copied instead so that it points to the referenced folder and not the shortcut.

3.2.3 Shortcuts to Files

For the most part, the Document Explorer handles shortcuts to *managed* files (one that does not lie beneath one of the root Document Management folders) as if it were the referenced file. Specifically, for shortcuts to *managed* files:

- Before any action is taken on the referenced file, the user's security is first checked to ensure the user has access to the file.[4] If they do not, a dialog explaining the security restriction is shown.
- If the shortcut if opened, edited, or printed, the referenced file is opened or edited as if it were opened or edited directly.
- If the shortcut is deleted, the shortcut is deleted and *not* the referenced file.
- Shortcut's may be copied, pasted, or dragged and dropped. A copy of the shortcut (pointing to the original referenced file) is made.
- If the user tries to make a shortcut of/to a shortcut, the shortcut is copied instead so that it points to the referenced file and not the shortcut.

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[4] The security check on files referenced in shortcuts is not made until an action is attempted. Therefore, the shortcut itself will be visible, even if the user does not have access to the underlying file.

Shortcuts to files not stored in document management are allowed, but (by definition) can not be managed within Control. Window's user security and file access rules will govern accessibility, though Control will still provide enhanced functionality as follows:

- Files may still be Opened in a Read-Only mode, in which case Control will copy the file to a local temp folder and open it from there, just as it would a managed document.
- If a file is edited, the user should be given the following message:

> This shortcut references a file that is not a managed document. Control will open the document directly with the assigned Windows permissions. There is no monitoring of the file. If you are unable to access the file, please consult your network administrator.
>
> Do you want to proceed and open this document outside of Control's Document Management features?
>
> [Yes – Open Anyway]   [No]

  The file is then opened *in-place* without copying it to the local drive or any other monitoring.
- If the shortcut is deleted, the shortcut is deleted and *not* the referenced file.
- Shortcut's may be copied, pasted, or dragged and dropped. A copy of the shortcut (pointing to the original referenced file) is made.
- If the user tries to make a shortcut of/to a shortcut, the shortcut is copied instead so that it points to the referenced file and not the shortcut.

3.3 The Store Documents View

In addition to the Documents tab on the store record, the user can access a stand-alone implementation of the document tab for the **Store** documents without going into Store Setup. This is accessed from the **Actions | View Store Document Repository** menu.

The Store Document Repository is commonly a central repository for company-wide information. It's function is identical to the document tab for the Store object, but since many users may not have access to this area of set up Cyrious created an alternate way to access these files.

4. Folder Structure

4.1 Overview

All documents managed by Cyrious Document Management are stored inside of a single root folder, Documents[5].

…\Documents

Files are stored intact directly on the hard-drive and are not compressed, encrypted, or restricted except as those options may be automatically applied by Microsoft Windows.

Within Documents, all files are organized by the type of object they are associated with. Some examples of managed documents are:

Documents\Order\1xxx\10xx\o1000 Vehicle Wrap\Logo.jpg
Documents\Order\2xxx\23xx\ o2342 Menu Boards\Artwork 2342a.ai
Documents\Order\2xxx\23xx\o2342 Menu Boards\Restricted\Bid Pricing.xls

Documents\Estimate\1xxx\10xx\e1010 Mars Project\Bid Request.pdf
Documents\Estimate\1xxx\10xx\e1010 Mars Project\Restricted\Our Bid.xls

Documents\Company\L\Lowes (3422)\24x36 Logo at 300 dpi.eps
Documents\Company\L\Lowes (3422)\Negotiated Pricing.pdf
Documents\Company\W\Water Company (1232)\2012 Tax Certificate.pdf
Documents\Company\W\Water Company (1232)\Contact\Smith, John\Photo.jpg
Documents\Company\W\Water Company (1232)\Contact\Bohns, Mary\Photo.jpg
Documents\Purchase Order\1xxx\12xx\1242 (Purchase Order)\Confirmation.xps
Documents\Bill\1xxx\17xx\1798 (Bill)\June 2010 Water Bill.pdf

The following object types support managed documents in Cyrious Control:
- Orders (includes Orders, Service Tickets, and Credit Memos)
- Estimates
- Companies (includes Prospects, Clients, Vendors, and Other Companies)
- Contacts (managed as a part of Companies)
- Purchase Orders

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[5] The root folder can be named anything, though we will use the term Documents here and recommend the user do the same for familiarity in technical support scenarios.

- Bills
- Receiving Documents
- Products
- Parts
- Employee
- Store (used for internal and other common documents)

Files are organized according within each object type in a manner designed to make both manual navigation and automated searching practical.

> A few notes about special characters in the folder name:
>
> - Single or double quotes in the file name are replaced by tildes in the file and folder name.
> - Periods that would occur in the file name (except those the one that precedes the extension) are replaced by the underscore character.

4.2 Restricted Folders

Cyrious understands that some documents are more sensitive than others and, though the organization of such documents within Cyrious is advantageous, additional restrictions are needed for some documents.

To incorporate this, many of the items support the automatic creation of a "restricted" folder. For example, if restricted folders are enabled for Orders, when Order 1234 is created Control will create an additional subfolder called "Restricted", as in:

Documents\Order\1000\1200\o1234 Movie Banner**Restricted**\

Cyrious provides additional security on the Restricted Folders in two ways. Inside of Control, separate security rights are designated for access to the Restricted Folder. This limits navigation within Control to only authorized users.

Additionally, Control changes the security rights on the folder to **only** include a *Windows* security group. This means that users must be manually added to that security group from within Windows (a function most likely handled by your IT staff) in order to access the files. However, this restricted file access will apply even outside of Control, so that users browsing via Windows Explorer will also not be able to access the contents of restricted folders.

The following table shows the items that support restricted folders and the security group that is auto-created on these folders.

Item	Security Group Name
Order	Cyrious Restricted Orders
Estimate	Cyrious Restricted Estimates
Company	Cyrious Restricted Companies
Purchase Orders	Cyrious Restricted POs
Bills	Cyrious Restricted Bills
Store	Cyrious Restricted Store

Important Notes regarding Restricted Folders:

1. Cyrious restricts the folder permissions when the folder is created. If they have the appropriate Windows permissions, users may modify or change permissions on their own. Cyrious does not monitor the security settings on these folders to enforce continued compliance.

2. Internally in Control, Cyrious limits navigation to the subfolder called "Restricted". It is recommended that the name on this folder is not changed. If the folder is renamed, Control will not attempt to block access to that folder. The user will still be unable to access the files provided the Windows file permissions for the Security Group were properly set up, but even so Cyrious strongly recommend that users NOT rename the restricted folder.

4.3 Orders (includes Orders, Service Tickets, and Credit Memos)

Documents associated with orders, service tickets, and credit memos are stored under paths with this structure:

Documents\Order\Axxx\ABxx\ttABCD Description\

Where:

Documents	The root object for all managed documents.
Order	The folder for all managed documents associated with orders, service tickets, and credit memos.
Axxx	**A** = the thousands range for this block of orders. (e.g., Orders 1000-1999 would be stored in a folder structure starting \Documents\Order\1xxx). Breaking the orders into blocks of 1000 makes manual navigation easier and automated access faster.
ABxx	**B** = the hundreds range for this block of orders. (e.g. Orders 2300-2399 would be stored in a folder structure starting \Documents\Order\2xxx\23xx\ ). Breaking the orders into blocks of 100 makes manual navigation easier and automated access faster.

tt	**type** is one of the following:
	      o = Order
	      st = Service Ticket
	      cm = Credit Memo

ABCD	**ABCD** is the full order number
Description	The order description.

4.3.1 Folder Examples

Documents\Order\1xxx\10xx\o1000 Vehicle Wrap\

Documents\Order\1xxx\10xx\st1001 Service Pylon Sign\

Documents\Order\1xxx \10xx\o1002 Opening Banners\

..

4.3.2 Additional Folder Links

The following links to additional folder are shown[6] for orders, service tickets, and credit memos:

- Order #1234   opens the DM folder for this order.
- Lowes (3242)   opens the DM folder for the current company
- Converted Estimate #8473[7]   if applicable
- Cloned Order #8473   if applicable
- John Smith   opens the DM folder for the logged in employee
- Store   opens the DM folder for this business.

4.3.3 Default Shortcuts

When a new Order, Service Ticket, or Credit Memo is created in Cyrious (and Document Management is enabled for Orders), Cyrious will create the following shortcuts:

Name	Purpose
Lowes (3242).lnk	A link to the company documents folder.

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[6] Links to additional folders are only displayed if the currently logged in employee has access to those managed folders. If they do not, the link does not show.

[7] Links to cloned and converted folders show up only when the order was cloned or converted. Additionally, links are only created to the Public folder. By clicking through to the public folder the user can then access the restricted folder for that item.

Name	Purpose
Estimate #1234.lnk	A link to the estimate is created if this order was converted to an order from an estimate.
Cloned Order #3634.lnk	A link to the order (or estimate) this order was cloned from.

In the company folder in Cyrious, the following shortcuts will also be created:

Sub-Folder	Name	Purpose
Order	Order #1322 Vehicle Wrap.lnk	A link to each order for that company is created when the order is created if document management is enabled for orders.

4.4 Estimates

Documents associated with estimates are stored under a path with this structure:

Documents\Estimate\Axxx\ABxx\eABCD Description\

Where:

Documents	The root object for all managed documents.
Estimate	The folder for all managed documents associated with estimates.
Axxx	**A** = the thousands range for this block of estimates. (e.g., Estimates 1000-1999 would be stored in a folder structure starting \Documents\Estimate\1xxx). Breaking the estimates into blocks of 1000 makes manual navigation easier and automated access faster.
ABxx	**B** = the hundreds range for this block of estimates. (e.g. Estimates 2300-2399 would be stored in a folder structure starting \Documents\Estimate\2xxx\23xx\ ). Breaking the estimates into blocks of 100 makes manual navigation easier and automated access faster.
e	"e" for estimate (the type of item this DM is for).
ABCD	**ABCD** is the full estimate number
Description	The estimate description.

4.4.1 Folder Examples

Documents\Estimate\1xxx\10xx\1000 (Estimate)\
Documents\Estimate\1xxx\10xx\1000 (Estimate)\
Documents\Estimate\1xxx\10xx\1001 (Estimate)\
Documents\Estimate\1xxx\10xx\1001 (Estimate)\
..

4.4.2 Additional Folder Links

The following links to additional folder are shown[8] for orders, service tickets, and credit memos:

- Estimate #1234   opens the DM folder for this Estimate.
- Lowes (3242)   opens the DM folder for the current company
- Cloned Order#1005   if applicable
- John Smith   opens the DM folder for the logged in employee
- Store   opens the DM folder for this business.

4.4.3 Default Shortcuts

When a new Estimate is created in Cyrious (and Document Management is enabled for Estimates), Cyrious will create the following shortcuts:

Name	Purpose
Company - Lowes (3242).lnk	A link to the company documents folder.
Cloned Order #3634.lnk	A link to the order (or estimate) this order was cloned from.

In the company folder in Cyrious, the following shortcuts will also be created:

Sub-Folder	Name	Purpose
Estimate	Estimate #1322.lnk	A link to each estimate for that company is created when the estimate is created if document management is enabled for estimates.

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[8] Links to additional folders are only displayed if the currently logged in employee has access to those managed folders. If they do not, the link does not show.

4.5 Companies (includes Prospects, Clients, Vendors, and Other Companies)

Documents associated with prospects, clients, vendors, and other companies are stored under one of the two following paths:

Documents\Company\A\Name (number)\

Where:

Documents	The root object for all managed documents.
Company	The folder for all managed documents associated with companies.
A	**A** = the first letter of the company name. (e.g., Company Johnson Marine would be stored in a folder structure as \Documents\Company\J\Johnson Marine (7743)). Organizing the companies by their first letter makes manual navigation easier and automated access faster. Companies that start with numbers are placed in a folder \Documents\0-9\. Companies with any other name are placed in a folder \Documents\~Other\.
Name	**Name** = the name of the company.
number	**number** is the company number within Control. The company number (in parenthesis) is added to avoid conflicts with separate but identically named companies within Control.

4.5.1 Folder Examples

Documents\Company\0-9\1st Place Trophy (8323)\

…

Documents\Company\A\Alpha Dog (3323)\

Documents\Company\A\Arty Cleaners (1372)\

…

Documents\Company\Z\Zuit Suits (8342)\

…

Documents\Company\~Other\&mpersand Design (2373)\

4.5.2 Additional Folder Links

The following links to additional folder are shown[9] for orders, service tickets, and credit memos:

- John Smith   opens the DM folder for the logged in employee
- Store   opens the DM folder for this business.

4.5.3 Default Shortcuts

For each company in Cyrious, the following shortcuts will be created (when document management is enabled for Companies):

Sub-Folder	Name	Purpose
Estimate	Estimate #1523.lnk	A link to each estimate for that prospect or client is created when the estimate is created if document management is enabled for Estimates.
Order	Order #4921.lnk	A link to each order for that client is created when the order is created if document management is enabled for Orders.
Bill	Bill #9932.lnk	A link to each bill for that vendor is created when the bill is created if document management is enabled for Bills.
Purchase Order	Purchase Order #1322.lnk	A link to each PO for that vendor is created when the PO is created if document management is enabled for POs.
Receiving Document	Receiving Document #1521.lnk	A link to each PO for that vendor is created when the PO is created if document management is enabled for RDs.

4.6 Company Contacts

Documents associated with prospects, clients, vendors, and other companies are stored under a path with this structure:

Documents\Company\A\Name (number)\Contact\Lastname, FirstName\

Where:

Documents	The root object for all managed documents.
Company\A\Name	The folder for all managed documents associated with the particular

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[9] Links to additional folders are only displayed if the currently logged in employee has access to those managed folders. If they do not, the link does not show.

(number)\	company.
Contact	The Subfolder in the company under which all folders for that company's contacts are created.
LastName	**LastName** = the contacts last name.
FirstName	**FirstName** = the contacts first name.

Note: Control does *not* create or manage *restricted* document folders per contact.

4.6.1 Folder Examples

Documents\Company\0-9\9th Place Trophy (8323)\Contact\Wayne, Bruce\

…

Documents\Company\A\Alpha Dog (3323)\Contact\Lover, Fido\

Documents\Company\A\Alpha Dog (3323)\Contact\Smith, John\

…

4.6.2 Default Shortcuts

No default shortcuts are created associated with the contact.

4.7 Purchase Orders

Documents associated with Purchase Orders are stored under one of the following paths:

Documents\Purchase Order\Axxx\ABxx\poABCD Description\

Where:

Documents	The root object for all managed documents.
Purchase Order	The folder for all managed documents associated with purchase orders.
Axxx	**A** = the thousands range for this block of purchase orders. (e.g., Purchase Orders 1000-1999 would be stored in a folder structure starting \Documents\Purchase Order\1xxx). Breaking the POs into blocks of 1000 makes manual navigation easier and automated access faster.
ABxx	**B** = the hundreds range for this block of POs. (e.g. POs 2300-2399 would be stored in a folder structure starting \Documents\Purchase Order\2xxx\23xx\ ). Breaking the POs into blocks of 100 makes manual navigation easier and automated access faster.
po	refers to the type of item this DM folder is used for.

ABCD	**ABCD** is the full purchase order number
Purchase Order	The text Purchase Order (in parenthesis) is added so it is clear this number is for a PO.

4.7.1 Folder Examples

Documents\Purchase Order\1xxx\10xx\1000 (Purchase Order)\

..

Documents \Purchase Order \2xxx\23xx\2347 (Purchase Order)\

..

Documents \Purchase Order \4xxx\47xx\4722 (Purchase Order)\

4.7.2 Additional Folder Links

The following links to additional folder are shown[10] for orders, service tickets, and credit memos:

- PO #1234   opens the DM folder for this purchase order.
- East Sign Supply (1234)   opens the DM folder for the current company
- Converted Bill #8423   if applicable
- Cloned PO #1273   if applicable
- John Smith   opens the DM folder for the logged in employee
- Store   opens the DM folder for this business.

4.7.3 Default Shortcuts

When a new Purchase Order is created in Cyrious (and Document Management is enabled for POs), Cyrious will create the following shortcuts:

Name	Purpose
Company - Lowes .lnk	A link to the company documents folder.
Cloned Purchase Order 3634.lnk	A link to the purchase order (or bill) this PO was cloned from.
Receiving Document 2831.lnk	A link to any receiving document(s) associated with this PO. There may be more than one RD link for any PO.
Bill 2847.lnk	A link to any bill associated with this PO. There may be more than one bill link for any PO.

---

[10] Links to additional folders are only displayed if the currently logged in employee has access to those managed folders. If they do not, the link does not show.

In the company folder in Cyrious, the following shortcuts will also be created:

Sub-Folder	Name	Purpose
Purchase Order	Purchase Order #1322.lnk	A link to each PO for that vendor is created when the PO is created if document management is enabled for POs.

4.8 Bills

Documents associated with Bills are stored under a path with this structure:

Documents\Bill\Axxx\ABxx\ABCD (Bill)\

Where:

Documents	The root object for all managed documents.
Bill	The folder for all managed documents associated with bills.
Axxx	**A** = the thousands range for this block of bills. (e.g., Bills 1000-1999 would be stored in a folder structure starting \Documents\Bill\1xxx). Breaking the bills into blocks of 1000 makes manual navigation easier and automated access faster.
ABxx	**B** = the hundreds range for this block of bills. (e.g. Bills 2300-2399 would be stored in a folder structure starting \Documents\Bill\2xxx\23xx\ ). Breaking the bills into blocks of 100 makes manual navigation easier and automated access faster.
ABCD	**ABCD** is the full bill number
Bill	The text Bill (in parenthesis) is added so it is clear this number is for a Bill.

4.8.1 Folder Examples

Documents\Bill\1xxx\10xx\1000 (Bill)\
..
Documents \Bill \2xxx\23xx\2347 (Bill)\
..
Documents \Bill \4xxx\47xx\4722 (Bill)\

4.8.2 Default Shortcuts

When a new Bill is created in Cyrious (and Document Management is enabled for bills), Cyrious will create the following shortcuts:

Name	Purpose
Company - Lowes (3242).lnk	A link to the company documents folder.
Purchase Order 1382.lnk	A link to the purchase order this bill was converted from.
Cloned Bill 3634.lnk	A link to the bill (or PO) this bill was cloned from.
Receiving Document 2831.lnk	A link to any receiving document(s) associated with this bill. There may be more than one RD link for any bill.

In the company folder in Cyrious, the following shortcuts will also be created:

Sub-Folder	Name	Purpose
Bill	Bill #1322.lnk	A link to each bill for that vendor is created when the bill is created if document management is enabled for bills.

4.9 Receiving Documents

Documents associated with Bills are stored under a path with this structure:

Documents\Bill\Axxx\ABxx\ABCD (Bill)\

Where:

Documents	The root object for all managed documents.
Bill	The folder for all managed documents associated with bills.
Axxx	**A** = the thousands range for this block of bills. (e.g., Bills 1000-1999 would be stored in a folder structure starting \Documents\Bill\1xxx). Breaking the bills into blocks of 1000 makes manual navigation easier and automated access faster.
ABxx	**B** = the hundreds range for this block of bills. (e.g. Bills 2300-2399 would be stored in a folder structure starting \Documents\Bill\2xxx\23xx\ ). Breaking the bills into blocks of 100 makes manual navigation easier and automated access faster.
ABCD	**ABCD** is the full bill number
Bill	The text Bill (in parenthesis) is added so it is clear this number is for

	a Bill.

4.9.1 Folder Examples

Documents\Bill\1xxx\10xx\1000 (Bill)\

..

Documents \Bill \2xxx\23xx\2347 (Bill)\

..

Documents \Bill \4xxx\47xx\4722 (Bill)\

4.9.2 Default Shortcuts

When a new Receiving Document is created in Cyrious (and Document Management is enabled for Receiving Documents), Cyrious will create the following shortcuts:

Name	Purpose
Company - Lowes (3242).lnk	A link to the company documents folder.
Purchase Order 1382.lnk	A link to the purchase order this receiving document was converted from.
Bill 2831.lnk	A link to the bill associated with this receiving document.

In the company folder in Cyrious, the following shortcuts will also be created:

Sub-Folder	Name	Purpose
Receiving Document	Receiving Document #1322.lnk	A link to each receiving document for that vendor is created when the receiving document is created if document management is enabled for receiving documents.

4.10 Products

Documents associated with products are stored under a path with this structure:

Documents\Product\ProductCode\

Where:

Documents	The root object for all managed documents.
Product	The folder for all managed documents associated with products.
ProductCode	The name of the product.

4.10.1 Folder Examples

..
Documents\Product\Design
Documents\Product\Digital Printing - Banners
Documents\Product\Digital Printing - Roll Print
..

4.10.2 Default Shortcuts

No default shortcuts are created by Cyrious for products.

4.11 Parts

Documents associated with parts are stored under a path with this structure:

Documents\Part\PartCode\

Where:

Documents	The root object for all managed documents.
Part	The folder for all managed documents associated with parts.
PartCode	The name of the part.

4.11.1 Folder Examples

..
Documents\Part\Bond Paper – 48_
Documents\Part\Bond Paper – 52_
..
Documents\Part\Grommets
..

4.11.2 Default Shortcuts

No default shortcuts are created by Cyrious for parts.

4.12 Employee

Documents associated with employees are stored under a path with this structure:

Documents\Employee\LastName, FirstName\

Where:

Documents	The root object for all managed documents.
Employee	The folder for all managed documents associated with employees.
LastName	The employee's last name.
FirstName	The employee's first name.

4.12.1 Folder Examples

..
Documents\Employee\Jameson, Paul\
Documents\Employee\Jameson, Peter\
..
Documents\Employee\McKinsey, Bain\
..

4.12.2 Default Shortcuts

No default shortcuts are created by Cyrious for employees.

4.13 Store (used for internal and other common documents)

General purpose documents may be associated with Store and are stored under a path with this structure:

Documents\Store\

Where:

Documents	The root object for all managed documents.

Store	The folder for all managed documents associated with store.

4.13.1 Folder Examples

Documents\Store\

4.13.2 Default Shortcuts

No default shortcuts are created by Cyrious for the Store.

4.14 Accessing the Folders from Control

During setup, 2 separate shares are used to access the files as indicated:

Read-Write Documents share – Provides *read-write* access to the SSLIP. This may be a local path instead of a UNC path if the SSLIP is running on the same computer being used as the file server.
Read-Only Documents share – provides *read-only* access to Control clients and is used for users with access to the document management folders for a particular order, customer, etc.

The read-write share is used exclusively by the SSLIP. When a file needs to be added or updated, Control passes that file to the SSLIP which then creates or updates the file.

The read-only share is set up, as it sounds, so that the files may be read by not written. *This is the only share used by Control clients.* **Cyrious is designed so that Control clients do not need write access to the managed documents.** This design means that *unless you allow it separately*, Control users do not have permission to directly delete or modify managed documents. Since individual access permissions are set within Control for each user, you can decide who and what can edit and delete managed files.

Note: That while Cyrious Control limits access based on internal permissions, Windows will still allow direct access (via Windows Explorer) if the Windows permissions allow it. Cyrious strongly recommends that (a) you set up the client shares a read-only, and (b) you use Windows permissions to limit unwanted access to the restricted folder.

4.15 Accessing the Folders Externally

Accessing managed documents not through Cyrious is not recommended and should be done at the users own risk.

Even so, you may choose to give certain trusted employees direct access to some or all of the documents. For example, you may wish to give your designers direct access to the Orders and Estimates folders if you wish them to work directly with the files in those folders instead of use Cyrious. Here, Cyrious' biggest concern is that you understand the damage a rogue or careless employee can cause! See the next section on Backup!

In general, Cyrious will work fine with files being added and removed externally from the application. However, if a user is editing a file within Control and another user is editing the file directly on the drive (not through Control), there will be no coordination the two users. In that case, which results get saved is not predictable and Cyrious may not be aware of the conflict to notify the user.

4.16 Backup

Warning:	Cyrious Control's internal backup does **NOT** back up the managed documents. You are responsible for backing up these files using a reliable backup program. Cyrious Control does NOT maintain any of the file data in its own database so if the files are lost, Cyrious has no ability to help you recover them.

Please read the above warning. Please, please read it again. Cyrious' managed documents are an incredible tool for your business, but you are creating a single point of failure. It is very important that you set up and maintain a reliable backup plan for the managed documents. Please consult your local IT professional for assistance on this, and be sure to check the backup at least monthly to ensure you are getting a good backup!

4.17 Practical Limitations

Some of the practical limitations of Cyrious Document Management that the user needs to be aware of are:

- Until a record is initially saved and the DM folder is created for it, DM is not enabled on that object.

- When you copy a file or folder to the clipboard, Control (necessarily) makes a copy of that file on your local computer. Though usually negligible, for very large files or when selecting lots of files, the amount of time to complete this operation may be noticeable.

5. Document Actions

As a general rule, the actions that can be performed on Attached Documents are the same regardless of the type of document or what type of item it is attached to. The actions, arrange in categories, are:

- Actions to Open Files
  - Edit
  - Open Read-Only
- Actions to Add, Remove, or Update Files
  - Add
  - Create Shortcut
  - Copy File
  - Copy Folder
  - Delete File
  - Delete Folder
  - Rename File
  - Update File
- Information Actions
  - Refresh
  - Get Thumbnail
  - Set Thumbnail
- Clipboard and Drag-and-Drop Actions
  - Copy to Clipboard
  - Paste from Clipboard
  - Drag
  - Drop

6. All document actions are handled by the Document Action Command Managers. For more information on document actions, refer to Section 18, Setup

6.1 Options in Cyrious Control

Document Management setup options are found under System Setup and include the following options:

[ ] Enabled Document Management

[x]	for Orders, Service Tickets, and Credit Memos	Create Open Order Folders Now
[x]	for Estimates	Create Pending Estimate Folders Now
[x]	for Companies	Create Active Client Folders Now
[x]	for Contacts	
[x]	for Purchase Orders	Create Open PO Folders Now
[ ]	for Receiving Documents	
[x]	for Bills and Vendor Credit Memos	Create Open Bill Folders Now
[ ]	for Products	Create All Product Folders Now
[ ]	for Parts	Create All Part Folders Now
[ ]	for Employees	Create All Employee Folders Now
[x]	for the Store	Create Store Folder Now

[x] Enable Restricted Document Folders

[x]	For Orders, …	Security Group: Cyrious Restricted Orders explain
[x]	For Estimates	Security Group: Cyrious Restricted Estimates explain
[x]	For Companies	Security Group: Cyrious Restricted Companies explain
[x]	For POs	Security Group: Cyrious Restricted POs explain
[x]	For Bills	Security Group: Cyrious Restricted Bills explain

Share Folder for Client (Read-Only) Access to Documents root folder
[_____]   [**Browse**]

Path/Share for SSLIP (Read-Write) Access to Documents root folder
[_____]   [**Browse**]

[ ]   Create a Log Entry for all adds, updates, or deletes of managed files in Control. (Note: This does not log direct file access done

outside of Control.)

The default options are indicated as checked or unchecked above. Document Management may not be enabled (saved in an enabled state) unless valid shares/paths are provided. One enabled, the SSLIP may need to be restarted for it to take effect. If this is required, the user should be notified with a dialog upon saving.

6.2 File System Setup

6.3 Backup

Warning:	Cyrious Control's internal backup does **NOT** back up the managed documents. You are responsible for backing up these files using a reliable backup program. Cyrious Control does NOT maintain any of the file data in its own database so if the files are lost, Cyrious has no ability to help you recover them.

You are responsible to install and operate a back system that backs up every file and folder contained under your Documents path.

Documents*.*

Since Cyrious Control always copies the files locally and never opens those files directly from managed documents storage, the managed documents storage can safely be backed up without shutting down Cyrious Control.

However, if have employees directly accessing the files in the managed documents storage (such as a graphic designer), all open files in the managed documents storage must be closed before backing up or the files that are opened may not be backed up.

Cyrious recommends a minimum backup plan that meets these conditions:
- All changes in the Documents folder are backed up daily to another computer on the network. Either a backup program (preferred) that can track changes or a program such as Allway Sync that can do the same thing manually should be used.
- A full, new of the Documents folder contents should be created monthly and taken offsite. This could also be accomplished using a backup program (preferred) or something as simple as zipping up the root folder and copying this to a thumb drive. Cyrious recommends having a full, separate copy of the Documents folder so that in the event the incremental daily backups have a problem (as we have often seen) you still have a fairly recent copy.
- Use an Internet backup service if you like, but at least makes a monthly local copy also. Cyrious Technical Support has seen many customers with Internet backup configurations

that did not copy or could not reconstruct the essential data … and it isn't pretty when that happens!
- Keep the last 3 monthly backups.
- Keep December's monthly backup from every year as an additional safeguard.
- Use an Internet backup service if you like, but at least makes a monthly local copy also.

Cyrious' managed documents are an incredible tool for your business, but you are creating a single point of failure. It is very important that you set up and maintain a reliable backup plan for the managed documents. Please consult your local IT professional for assistance on this, and be sure to check the backup at least monthly to ensure you are getting a good backup!

6.4 Registered File Types

Cyrious Control uses Windows' file type registration system (just like Windows Explorer) to determine what to open any particular file type in. Normally, when you install software it automatically registers for the types of files it can handle. (e.g., Microsoft Word automatically registers to handle file extensions DOC, DOCX, RTF, and a number of others.)

If no handler program is registered for a particular file type, the user will be presented with a dialog box such as:

From this screen you can manually choose a program to open the file with (the second option) or ask Windows to look on the web and identify possible programs you could buy/obtain to open it. If you receive this screen and choose the second option (select a program) you get another screen which suggests possible programs to open it with:

Select the appropriate application or locate it on the computer by clicking Browse. If you don't see or can't find the write application, click Cancel and consult with your local IT staff. Cyrious support does not provide or install software on your local computer that is not directly related to Cyrious Control.

Checking the "Always use the selected program to open this kind of file" will instruct Windows to register this program to always open that file type so that next time you can avoid these prompts. However, do not check this unless you are sure the application is correct. Cyrious recommend you do not check this box the first time, and then if the file opens correctly you can select this option the second time you open such a file to save the settings permanently.

7. Enhance Windows Ability to Display Thumbnails (optional)

The Document Management interface includes a thumbnail preview of the selected file. The features uses the built in Window thumbnail viewer. Previewing the following file types are automatically included in Windows:

- Bitmap (*.bmp)
- Jpeg (*.jpg, *.jpeg)
- Tiff (*.tiff)
- PNG (*.png)

Additionally, most users already have software installed to handle the following types of files:

- Adobe PDF (*.pdf)

During installation of the server or client, Control adds thumbnail preview capabilities for common graphic file types, such as:

- Adobe Illustrator (*.AI)
- Encapsulated PostScript (*.EPS)
- Photoshop (*.PSD)
- Corel Draw (*.CDR)

This is accomplished as an option during the installation where the user is given a choice to install third-party thumbnail preview software as part of the installation. More information about the particular third-party software installed in this process can be found on the Control WIKI.

8. Email Integration (optional)

[Under Consideration]

Control's Managed Folders support drag-and-drop and copy-and-paste functionality to easily copy email attachments from Outlook to Control. Installing the Control's Outlook macro for Document Management makes this process even easier and also provides a way for the bodies of emails to be saved in the managed document folder too.

The Outlook Document Management Macro (ODMM) provides an interface that allows an email and/or email attachments to be saved to the appropriate managed folder.
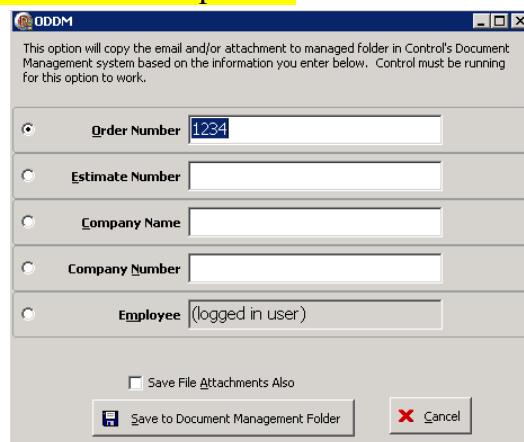
8.1 Invoking the ODMM

The ODMM may be invoked in any of the following ways:

- **By right-clicking on the email**. In the context pop-up menu for all emails, the options to "Send to a Managed Folder…" will appear.
- **By right-clicking on an email attachment**. In the context pop-up menu for all email attachments, the options to "Send to a Managed Folder…" will appear.
- **By clicking the "Send to Managed Folder" Button**. On the main toolbar, ODMM adds a button to Send to Managed Folder that is context sensitive.

8.2 The ODMM Interface

When invoked by the ODMM, Control pops up a screen (in front of Outlook) that allows the user to identify the DM folder the files should be copied to.

This interface may be expanded to include browse capability and allow the user to indicate what subfolders the files should be saved in.

By default, the following logic is used to set the default for the ODMM screen:
- The email description is parsed for the words "Order" and an integer number. If both are found, the Order Number is set to the retrieved number and that option is selected by default.
- Next (assuming the last items was not successful), the email description is parsed for the words "Estimate" and an integer number. If found, the Estimate Number is set to the retrieved number and that option is selected by default.
- Next, the Senders email address is looked up in the contacts record. If it is found, the Company Name is filled in and selected but the lookup continues. Open orders are then searched for that contact. If any found, the newest order is set and selected. If not found, open estimates are searched. If any are found, the newest estimate is set and selected.
- Next, the currently active tab inside of Control is checked. If it is an order, estimate, or company that item is entered and selected.

If none of the above match, no default is entered and no selection is selected.

8.3 How the ODMM Works

The ODMM communicated with a copy of Control running on the same system using OLE/DDE. When ODMM is initially invoked, it registers itself with Control and obtains the location of a temporary folder to place the saved documents in.

When invoked, the ODMM macro does the following:
- Saves the currently selected email to a new folder within the temp folder Control identified.
- Saves any attached files on that email to the same folder.
- Saves a text file with the following information:
  - Sender email address
  - Recipient email address
  - Email description
- Invokes an external call into Cyrious Control passing the folder path.

If Control is unable to complete the request, Control displays an error message otherwise it displays a completed toast (pop-over, non-modal message visible for ~ 2 seconds) when the copy is successful.

The security implemented by Control is no different for users accessing the Managed Folders via ODMM or from within the program. A user must have the appropriate security rights to add a document to the specified folder of the attempt will fail.

8.4 How the ODMM Setup

There are no user-configurable option for ODMM. Control will register its access point automatically when started up if document management is enabled.

The user simply must install the macro and enable it within Outlook. The installation can be invoked from within Control, by clicking Setup | Install Outlook Document Management Macro. This will copy the installation to a local drive (from the server) and then run the installation.

Document Actions Command Manager (DACM), on page 57.

9. Orders & Estimates

If Document Management is enabled for orders, a document management folder is created for each order, service ticket, or credit memo created by Control. Likewise, Control will create a document management folder for each estimate created when DM is enabled for estimates.[11]

Cyrious recommends that you place artwork and other associated documents in the order's or estimate's individual document management folder. The company's DM folder, however, is a good place for common information and correspondence and documentation that may not have to do with a specific order (e.g., company logos, tax exemption form).

9.1 Documents Tab

The **Documents** tab on the Order or Estimate record is where you will interact with managed document for that company. By default, the Documents tab will initially open with a single view of the managed document folder (top-level) for that orders or estimate.

For information on opening other windows, adding and copying files, and more on the documents tab refer to Section 3, Document Management UI, on page 4.

9.2 File Structure

Within the folder for a specific company, users are free to create subfolders and copy, move, or delete files as they would with Windows Explorer.

For a detailed description of how files are organized on the document storage drive, refer to Section 4, Folder Structure, on page 9.

9.3 Default Files and Folders

Cyrious recognizes that users may want to create templates and standard files that are automatically included whenever a new folder is created. To facilitate this, Cyrious allows users to create a default folder for each object type. The contents of this default folder are then copied into the new folder when it is created[12].

For orders, service tickets, and credit memos, all files inside the default folder located at

---

[11] If document management is enabled after the record is created in Control, the document management folder will not be created at that time. However, it may be automatically created at a later time by Control when it is needed. For example, if DM for companies is not initially enabled when a company record is created, Control will still create a folder when an estimate or order for that company is created.

[12] Note: Changes made to the default folder are NOT automatically applied to existing folders. The default folder is only applied by Cyrious when it creates new folders.

       Documents\Order\Default

are copied into each document management folder when it is created.

For estimates, all files inside the default folder located at
       Documents\Estimate\Default
are copied into each document management folder when it is created.

Sample default files and folders might be:
       Documents\Estimate\Default\Artwork\
       Documents\Order\Default\Artwork\
       Documents\Order\Default\Packing Slips\

9.4 Auto-Created Shortcuts

When DM is enabled for orders and companies, Control will automatically create the following shortcuts when a *new order* is created:

- A link to the Company DM folder is placed in the top level Order DM folder. The shortcut is named "Company xxxxxx.lnk".

- A link to the Order DM folder is placed in the ..\Orders\ subfolder in the Company DM folder. The subfolder is created if it does not already exist. The shortcut is named "Order xxxx.lnk".

When DM is enabled for estimates and companies, Control will automatically create the following shortcuts when a *new estimate* is created:

- A link to the Company DM folder is placed in the top level Estimate DM folder. The shortcut is named "Company xxxxxx.lnk".

- A link to the Estimate DM folder is placed in the ..\Estimates\ subfolder in the Company DM folder. The subfolder is created if it does not already exist. The shortcut is named "Estimate xxxxxx.lnk".

When DM is enabled for estimates and orders, Control will automatically create the following shortcuts when an *estimate is converted to an order*:

- A link to the Estimate DM folder is placed in the top level Order DM folder. The shortcut is named "Converted Estimate xxxx.lnk."

- A link to the Order DM folder is placed in the top level Estimate DM folder. The shortcut is named "Converted to Order xxxx.lnk."

9.5 Security Rights

In order to access managed documents associated with Orders and Estimates, the user must have (at a minimum) the following security rights:

Security Right	Purpose
Can Access Document Management	This security right is required to view the files and folders in document management. Disabling this security right removes the user's access to all DM functions.
Can Access Order Documents	This security right is required to allow the user to access managed documents for orders, service tickets, and credit memos.
Can Access Estimate Documents	This security right is required to allow the user to access managed documents for estimates.

The ability to do more than just view the managed documents (edit, print, save, etc.) require additional security rights. See Section 16, Security Rights, on Page 53 for more information.

10. Company and Contact

When documents apply to specific orders or estimates, Cyrious recommends that you place those documents in the order's or estimate's individual document management folder. The company repository, however, is a good place for common information and correspondence and documentation that may not have to do with a specific order (e.g., company logos, tax exemption form).

Inside the Company, Cyrious automatically creates a Contact subfolder. In this subfolder, Cyrious creates a folder for each Contact on the Company. These folders are a good place to put any information specific to that individual contact.

10.1 Documents Tab

The **Documents** tab on the Company record is where you will interact with managed document for that company. By default, the Documents tab will initially open with a single view of the managed document folder (top-level) for that company.

For information on opening other windows, adding and copying files, and more on the documents tab refer to Section 3, Document Management UI, on page 4.

10.2 File Structure

Within the folder for a specific company, users are free to create subfolders and copy, move, or delete files as they would with Windows Explorer.

For a detailed description of how files are organized on the document storage drive, refer to Section 4, Folder Structure, on page 9.

10.3 Contact Sub-Folders

Inside the Company, Cyrious automatically creates a Contact subfolder. In this subfolder, Cyrious creates a folder for each Contact on the Company. These folders are a good place to put any information specific to that individual contact.

Examples:	Documents\Company\A\Alpha Nuts and Bolts\Contact\Smith, John\
	Documents\Company\A\Alpha Nuts and Bolts\Contact\Zeto, Max\
	…
	Documents\Company\G\Gamma Industries\Contact\Banner, Bruce
	…

10.4 Renaming Companies

When a company is renamed, the top level managed document folder for that company is renamed appropriately. Control must then go back to all existing orders, estimates, POs, RDs, and Bills and replace the current shortcut (assuming it exists) with a shortcut to the renamed Customer folder.

The process of renaming a company requires Cyrious to rename the managed documents folder for that company. In order to rename it, Windows requires that no files in that folder be open. This is not a problem for access through Cyrious Control, since the file is always copied locally and never opened from DM storage. However, if any files in the company folder or any subfolder are being viewed or edited directly (i.e., outside of Cyrious Control) those files will prevent the renaming process from continuing.

The process of renaming a company folder in Control is executed as follows:
- The user renames the Company.
- A working dialog tells the user "Cyrious Control is attempting to rename the managed document folder from xxxx to yyyy."
- Control executes a rename command on the folder, which is passed on to the SSLIP.
- The SSLIP attempt to rename the folder. It then replied to the Control client with successful or returns the error message.
- If the rename is unsuccessful, the Control client displays the following prompt:

> Cyrious Control was unable to rename the document folder from xxxx to yyyy.
> The error message that was returned is: zzzzzzzzzzzzzzzzzzzzzz
>
> Do you want to rename the Company anyway? If you choose yes, you may have to manually rename the document folder or you may end up with two document folders for the same company.
>
>   [Yes, Rename Anyway]   [No, I'll try again later.]

- If the rename is successful, or the user clicks Yes, update the Company record.
- If the rename is successful, the SSLIP spins up a background thread to recreate all the links for existing orders, estimates, bills, POs, and RDs. If no link currently exists (for an order that predates document management, for instance), a new link is not created.

10.5 Renaming Contacts

When a contact is renamed, the Contacts subfolder should also be renamed. However, since documents are only really managed at the Company level, a failure to rename this folder should not be considered a major alarm.

The process of renaming a contact folder in Control is executed as follows:

- The user renames the contact.
- A working dialog tells the user "Cyrious Control is attempting to rename the managed document folder for Contact 'Jen Gladwell'."
- Control executes a rename command on the folder, which is passed on to the SSLIP.
- The SSLIP attempt to rename the folder. It then replied to the Control client with successful or returns the error message.
- If the rename is unsuccessful, the Control client displays the following prompt:

> Cyrious Control was unable to rename the document folder from xxxx to yyyy. The error message that was returned is: zzzzzzzzzzzzzzzzzzzzz
>
> The updated contact name was changed anyway. You may have to manually rename or move the documents from the old folder to the new folder.
>
>
> [OK]

10.6 Default Files and Folders

Cyrious recognizes that users may want to create templates and standard files that are automatically included whenever a new folder is created. To facilitate this, Cyrious allows users to create a default folder for each object type. The contents of this default folder are then copied into the new folder when it is created[13].

For companies, all files inside the default folder located at
        Documents\Company\Default
are copied into each new company folder when it is created.

For contacts, all files inside the default folder located at
        Documents\Company\Contacts\Default
are copied into each new contact folder (inside of the Company\Contact\ContactName folder) when it is created. Notice that in this case, the location of the default Contact folder is not inside the Company folder though the copied information is within.

Sample default files and folders might be:
        Documents\Company\Default\Logos\
        Documents\Company\Default\Correspondence\

---

[13] Note: Changes made to the default folder are NOT automatically applied to existing folders. The default folder is only applied by Cyrious when it creates new folders.

Documents\Company\Contacts\Default\Files\

10.7 Security Rights

In order to access managed documents associated with Companies, the user must have the following security rights:

Security Right	Purpose
Can Access Document Management	This security right is required to view the files and folders in document management. Disabling this security right removes the user's access to all DM functions.
Can Access Company Documents	This security right is required to allow the user to access managed documents for prospects, clients, vendors, and other customers.

11. Store

The store wide document management is meant to be a repository for items that may be used across companies, orders, or just as a convenient place to put files that many users need access to.

Warning:	Cyrious Control gives you easy and secure means to limit access to sensitive data to only those who should have it. However, if you provide individuals direct access to the files (i.e., access not through Cyrious) you must be careful to restrict their access using Windows security or not use Cyrious' document management features for sensitive information.

11.1 Opening the Store Documents Tab

The store documents can be accessed from every document tab, but are accessed in a stand-alone screen by clicking on Actions | Access Store Documents.

For information on opening other windows, adding and copying files, and more on the documents tab refer to Section 3, Document Management UI, on page 4.

11.2 File Structure

Within the folder for a specific company, users are free to create subfolders and copy, move, or delete files as they would with Windows Explorer.

For a detailed description of how files are organized on the document storage drive, refer to Section 4, Folder Structure, on page 9.

11.3 Default Files and Folders

Since new stores are never created, there is no default folder for the Store option.

11.4 Auto-Created Shortcuts

There are no auto-created shortcuts associated with employees.

11.5 Security Rights

In order to access managed documents associated with Employees, the user must have (at a minimum) the following security rights:

Security Right	Purpose
Can Access Document Management	This security right is required to view the files and folders in document management. Disabling this security right removes the user's access to all DM functions.
Can Access Employee Documents	This security right is required to allow the user to access managed documents for employees.

The ability to do more than just view the managed documents (edit, print, save, etc.) require additional security rights. See Section 16, Security Rights, on Page 53 for more information.

12. Purchase Orders, Bills, & Receiving Documents

If Document Management is enabled for purchase orders, bills, and receiving documents a document management folder is created for each of those records created by Control.[14]

Cyrious recommends that you place associated documents in the POs and Bills individual DM folder. The company's DM folder, however, is a good place for common vendor information and correspondence and documentation that may not have to do with a specific bill or PO (e.g., tax exemption form, PDF catalogs, etc.).

12.1 Documents Tab

The **Documents** tab on the Purchase Order, Bill, or Receiving Document is where you will interact with managed document for that record. By default, the Documents tab will initially open with a single view of the managed document folder (top-level) for that record.

For information on opening other windows, adding and copying files, and more on the documents tab refer to Section 3, Document Management UI, on page 4.

12.2 File Structure

Within the folder for a specific company, users are free to create subfolders and copy, move, or delete files as they would with Windows Explorer.

For a detailed description of how files are organized on the document storage drive, refer to Section 4, Folder Structure, on page 9.

12.3 Default Files and Folders

Cyrious recognizes that users may want to create templates and standard files that are automatically included whenever a new folder is created. To facilitate this, Cyrious allows users to create a default folder for each object type. The contents of this default folder are then copied into the new folder when it is created[15].

For purchase orders, all files inside the default folder located at
> Documents\Purchase Order\Default

---

[14] If document management is enabled after the record is created in Control, the document management folder will not be created at that time. However, it may be automatically created at a later time by Control when it is needed. For example, if DM for companies is not initially enabled when a company record is created, Control will still create a folder when an estimate or order for that company is created.

[15] Note: Changes made to the default folder are NOT automatically applied to existing folders. The default folder is only applied by Cyrious when it creates new folders.

are copied into the document management folder when each PO is created.

For bills, all files inside the default folder located at
> Documents\Bill\Default

are copied into the document management folder when each bill is created.

For receiving documents, all files inside the default folder located at
> Documents\Receiving Document\Default\

are copied into the document management folder when each RD is created.

Sample default files and folders might be:
> Documents\PO\Default\Confirmation\
> Documents\Bill\Default\Scanned Bill\
> Documents\Bill\Default\Correspondence\

12.4 Auto-Created Shortcuts

When DM is enabled for purchase orders *and* companies, Control will automatically create the following shortcuts when a *new purchase order* is created:

- A link to the Company DM folder is placed in the top level Purchase Order DM folder. The shortcut is named "Company xxxxxx.lnk".

- A link to the Purchase Order DM folder is placed in the ..\Purchase Orders\ subfolder in the Company DM folder. The subfolder is created if it does not already exist. The shortcut is named "Purchase Order xxxx.lnk".

When DM is enabled for purchase orders *and* bills, Control will automatically create the following shortcuts when a *purchase order is converted to a bill*:

- A link to the Purchase Order DM folder is placed in the top level Bill DM folder. The shortcut is named "Converted Purchase Order xxxx.lnk."

- A link to the Bill DM folder is placed in the top level Purchase Order DM folder. The shortcut is named "Converted to Bill xxxx.lnk."

When DM is enabled for bills *and* companies, Control will automatically create the following shortcuts when a *new bill* is created:

- A link to the Company DM folder is placed in the top level Bill DM folder. The shortcut is named "Company xxxxxx.lnk".

- A link to the Purchase Order DM folder is placed in the ..\Bills\ subfolder in the Company DM folder. The subfolder is created if it does not already exist. The shortcut is named "Bill xxxx.lnk".

12.5 Security Rights

In order to access managed documents associated with Purchase Orders, Bills, and Receiving Documents, the user must have (at a minimum) the following security rights:

Security Right	Purpose
Can Access Document Management	This security right is required to view the files and folders in document management. Disabling this security right removes the user's access to all DM functions.
Can Access Purchase Order Documents	This security right is required to allow the user to access managed documents for purchase orders.
Can Access Receiving Document Documents	This security right is required to allow the user to access managed documents for receiving documents.
Can Access Bill Documents	This security right is required to allow the user to access managed documents for bills.

The ability to do more than just view the managed documents (edit, print, save, etc.) require additional security rights. See Section 16, Security Rights, on Page 53 for more information.

13. Employees

If Document Management is enabled for employees a document management folder is created for each of new employee created by Control.[16]

Warning:	Cyrious Control gives you easy and secure means to limit access to sensitive data to only those who should have it. However, if you provide individuals direct access to the files (i.e., access not through Cyrious) you must be careful to restrict their access using Windows security or not use Cyrious' document management features for sensitive employee information.

13.1 Documents Tab

The **Documents** tab on the employee record is where you will interact with managed document for that employee. By default, the Documents tab will initially open with a single view of the managed document folder (top-level) for that record.

For information on opening other windows, adding and copying files, and more on the documents tab refer to Section 3, Document Management UI, on page 4.

13.2 File Structure

Within the folder for a specific company, users are free to create subfolders and copy, move, or delete files as they would with Windows Explorer.

For a detailed description of how files are organized on the document storage drive, refer to Section 4, Folder Structure, on page 9.

13.3 Default Files and Folders

Cyrious recognizes that users may want to create templates and standard files that are automatically included whenever a new folder is created. To facilitate this, Cyrious allows users to create a default folder for each object type. The contents of this default folder are then copied into the new folder when it is created[17].

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[16] If document management is enabled after the record is created in Control, the document management folder will not be created at that time. However, it may be automatically created at a later time by Control when it is needed. For example, if DM for companies is not initially enabled when a company record is created, Control will still create a folder when an estimate or order for that company is created.

[17] Note: Changes made to the default folder are NOT automatically applied to existing folders. The default folder is only applied by Cyrious when it creates new folders.

For employees, all files inside the default folder located at

    Documents\Employee\Default\

are copied into the document management folder when each employee is created.

Sample default files and folders might be:

    Documents\Employee\Default\Insurance Forms\
    Documents\Employee\Default\Employment Verification\

13.4 Auto-Created Shortcuts

There are no auto-created shortcuts associated with employees.

13.5 Security Rights

In order to access managed documents associated with Employees, the user must have (at a minimum) the following security rights:

Security Right	Purpose
Can Access Document Management	This security right is required to view the files and folders in document management. Disabling this security right removes the user's access to all DM functions.
Can Access Employee Documents	This security right is required to allow the user to access managed documents for employees.

The ability to do more than just view the managed documents (edit, print, save, etc.) require additional security rights. See Section 16, Security Rights, on Page 53 for more information.

14. Products & Parts

If Document Management is enabled for products or parts a document management folder is created for each of new record created by Control.[18]

14.1 Documents Tab

The **Documents** tab on the product or parts record is where you will interact with managed document for that item. By default, the Documents tab will initially open with a single view of the managed document folder (top-level) for that record.

For information on opening other windows, adding and copying files, and more on the documents tab refer to Section 3, Document Management UI, on page 4.

14.2 File Structure

Within the folder for a specific company, users are free to create subfolders and copy, move, or delete files as they would with Windows Explorer.

For a detailed description of how files are organized on the document storage drive, refer to Section 4, Folder Structure, on page 9.

14.3 Default Files and Folders

Cyrious recognizes that users may want to create templates and standard files that are automatically included whenever a new part or product is created. To facilitate this, Cyrious allows users to create a default folder for each object type. The contents of this default folder are then copied into the new folder when it is created[19].

For products, all files inside the default folder located at
Documents\Product\Default
are copied into the document management folder when each product is created.

For Parts, all files inside the default folder located at
Documents\Part\Default

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[18] If document management is enabled after the record is created in Control, the document management folder will not be created at that time. However, it may be automatically created at a later time by Control when it is needed. For example, if DM for companies is not initially enabled when a company record is created, Control will still create a folder when an estimate or order for that company is created.

[19] Note: Changes made to the default folder are NOT automatically applied to existing folders. The default folder is only applied by Cyrious when it creates new folders.

are copied into the document management folder when each part is created.

Sample default files and folders might be:
        Documents\Product\Default\Artwork\
        Documents\Part\Default\Images\

14.4 Auto-Created Shortcuts

There are no auto-created shortcuts associated with products or parts.

14.5 Security Rights

In order to access managed documents associated with Products and Parts, the user must have (at a minimum) the following security rights:

Security Right	Purpose
Can Access Document Management	This security right is required to view the files and folders in document management. Disabling this security right removes the user's access to all DM functions.
Can Access Product Documents	This security right is required to allow the user to access managed documents for products.
Can Access Part Documents	This security right is required to allow the user to access managed documents for parts.

The ability to do more than just view the managed documents (edit, print, save, etc.) require additional security rights. See Section 16, Security Rights, on Page 53 for more information.

15. Using and Referencing Managed Documents

15.1 In Email Activities

Currently, email activities support the ability to attach a local file to the email. This functionality will also support attaching one or more managed documents to the email, using the convention

ObjectType(Identifier=Value)\ [subpath\ ] filename.ext

When the email is sent, the managed documents are copied into temporary local storage and attached to the email directly.

15.2 In Emailed Reports

Currently, in the email options for reports users to attach a local file to the email. This functionality will also support attaching one or more managed documents to the email, using the convention

ObjectType(Identifier=Value)\ [subpath\ ] filename.ext

When the report is emailed, the managed documents are copied into temporary local storage and attached to the email directly.

15.3 Document Management Log Activities

If the option is enabled, Control will log any adds, deletes, updates, renames, or other actions *within* Control which change the managed documents. The activity will contain the following information:

- Date and Time
- User
- Action performed
- Source Document (if applicable)
- Target Document (if applicable)
- Command Line
- Results or Error Messages

Note:	Cyrious Control can only log changes that happen from within Cyrious Control. Use caution when giving employee's direct read-write access to the folders since that bypasses all of Cyrious' tracking capabilities.

16. Security Rights

Warning:	Cyrious Control's security rights only apply to access *within* Cyrious Control. Use caution when giving employees direct read-write access to the folders since that bypasses all of Cyrious' security methods and only Windows access controls apply then.

Cyrious allows you to granularly control the access to managed documents within Cyrious Control. The following table of security rights control what access a logged in user has:

Security Right	Purpose
Can Access Document Management	This security right is required to view the files and folders in document management. Disabling this security right removes the user's access to all DM functions.
Can Open Read-Only	This security right allows a user to open a managed document in read-only mode.
Can Add, Edit & Update	This security right allows a user to edit a managed document, add a new document, rename a document, and transfer an updated copy.
Can Delete a Single File	This security right allows a user to delete a single file or an *empty* folder.
Can Delete Multiple Files at Once	This security right allows a user to delete a selection of files. It also allows a cascade delete of folders where all their content is deleted recursively.
Can Print, Save, Email	This security right enabled to Print, Save, and Email actions. **Note:** A clever user with the ability to open a document could access the file from a temporary folder, so this option is only a deterrent.
Can Access Order Documents	This security right is required to allow the user to access managed documents for orders, service tickets, and credit memos.
Can Access Estimate Documents	This security right is required to allow the user to access managed documents for estimates.

Security Right	Purpose
Can Access Company Documents	This security right is required to allow the user to access managed documents for prospects, clients, vendors, and other customers.
Can Access Purchase Order Documents	This security right is required to allow the user to access managed documents for purchase orders.
Can Access Receiving Document Documents	This security right is required to allow the user to access managed documents for receiving documents.
Can Access Bill Documents	This security right is required to allow the user to access managed documents for bills.
Can Access Employee Documents	This security right is required to allow the user to access managed documents for employees.
Can Access Product Documents	This security right is required to allow the user to access managed documents for products.
Can Access Part Documents	This security right is required to allow the user to access managed documents for parts.
Can Access Store Documents	This security right is required to allow the user to access managed documents for the common store.

By default, the security rights are enabled for the following security groups:

Security Right	Admin	Standard User	Adv. User	Prod'n	Owner / Manager	Sales
Can Access Document Management	☑	☑	☑	☑	☑	☑
Can Open Read-Only	☑	☑	☑	☑	☑	☑
Can Add, Edit & Update	☑	☑	☑		☑	☑
Can Delete a Single File	☑	☑	☑		☑	☑
Can Delete Multiple Files at Once	☑		☑		☑	
Can Print, Save, Email	☑	☑	☑	☑	☑	☑
Can Access Order Documents	☑	☑	☑	☑	☑	☑

Security Right	Admin	Standard User	Adv. User	Prod'n	Owner / Manager	Sales
Can Access Estimate Documents	☑	☑	☑		☑	☑
Can Access Company Documents	☑	☑	☑	☑	☑	☑
Can Access Purchase Order Documents	☑	☑	☑	☑	☑	☑
Can Access Receiving Document Documents	☑		☑	☑	☑	
Can Access Bill Documents	☑		☑		☑	
Can Access Employee Documents	☑				☑	
Can Access Product Documents	☑	☑	☑	☑	☑	☑
Can Access Part Documents	☑	☑	☑	☑	☑	☑
Can Access Store Documents	☑	☑	☑	☑	☑	☑

17. Create Historic Folders

By default, Control will only create folders for new orders, estimates, etc. It will also create folders for the existing Companies only whenever a new order, estimate, bill, or PO is created for that company.

Optionally, you may instruct Control to create folders for a range of previous orders, companies, etc. To create the missing folders, perform the following steps:

- Open Explorer for that Item (Order, Company, Estimate, etc.).
- Run a query (simple or advanced) that retrieves the items you want to create folder for.
- If you did not use an Advanced Query, click on the Group button. You must be in the Group or Advanced mode to create the folders.
- Select all items by clicking the "Select All" button.
- In the main menu, click on **Action | Create Document Management Folders**.

This will create folders for all of the items in Explorer.

For example, to create folders for all open orders you would follow the following steps:
1. Open Order Explorer
2. Clear all Filters and make sure only WIP, Built, and Sale statuses are checked.
3. Make sure you are viewing *all* the orders by changing the quantity next to Viewing to 9999 and hitting the enter key.
4. Click the "Group" button so you can execute these on the entire group.
5. Click the "Select All" button.
6. In the main menu, click on **Action | Create Document Management Folders**.

This process will take between 1-3 seconds per selected items. Depending on how many orders you have, this creation process may take a short or long time.

18. Setup

18.1 Options in Cyrious Control

Document Management setup options are found under System Setup and include the following options:

[ ] Enabled Document Management

[x]	for Orders, Service Tickets, and Credit Memos	Create Open Order Folders Now
[x]	for Estimates	Create Pending Estimate Folders Now
[x]	for Companies	Create Active Client Folders Now
[x]	for Contacts	
[x]	for Purchase Orders	Create Open PO Folders Now
[ ]	for Receiving Documents	
[x]	for Bills and Vendor Credit Memos	Create Open Bill Folders Now
[ ]	for Products	Create All Product Folders Now
[ ]	for Parts	Create All Part Folders Now
[ ]	for Employees	Create All Employee Folders Now
[x]	for the Store	Create Store Folder Now

[x] Enable Restricted Document Folders

[x]	For Orders, …	Security Group: Cyrious Restricted Orders explain
[x]	For Estimates	Security Group: Cyrious Restricted Estimates explain
[x]	For Companies	Security Group: Cyrious Restricted Companies explain
[x]	For POs	Security Group: Cyrious Restricted POs explain
[x]	For Bills	Security Group: Cyrious Restricted Bills explain

Share Folder for Client (Read-Only) Access to Documents root folder
[_____] [**Browse**]

Path/Share for SSLIP (Read-Write) Access to Documents root folder
[_____] [**Browse**]

[ ] Create a Log Entry for all adds, updates, or deletes of managed files in Control. (Note: This does not log direct file access done outside of Control.)

The default options are indicated as checked or unchecked above. Document Management may not be enabled (saved in an enabled state) unless valid shares/paths are provided. One enabled, the SSLIP may need to be restarted for it to take effect. If this is required, the user should be notified with a dialog upon saving.

18.2 File System Setup

18.3 Backup

Warning:	Cyrious Control's internal backup does **NOT** back up the managed documents. You are responsible for backing up these files using a reliable backup program. Cyrious Control does NOT maintain any of the file data in its own database so if the files are lost, Cyrious has no ability to help you recover them.

You are responsible to install and operate a back system that backs up every file and folder contained under your Documents path.

Documents*.*

Since Cyrious Control always copies the files locally and never opens those files directly from managed documents storage, <u>the managed documents storage can safely be backed up without shutting down Cyrious Control</u>.

However, if have employees directly accessing the files in the managed documents storage (such as a graphic designer), all open files in the managed documents storage must be closed before backing up or the files that are opened may not be backed up.

Cyrious recommends a minimum backup plan that meets these conditions:
- All changes in the Documents folder are backed up daily to another computer on the network. Either a backup program (preferred) that can track changes or a program such as Allway Sync that can do the same thing manually should be used.
- A full, new of the Documents folder contents should be created monthly and taken offsite. This could also be accomplished using a backup program (preferred) or something as simple as zipping up the root folder and copying this to a thumb drive. Cyrious recommends having a full, separate copy of the Documents folder so that in the event the incremental daily backups have a problem (as we have often seen) you still have a fairly recent copy.
- Use an Internet backup service if you like, but at least makes a monthly local copy also. Cyrious Technical Support has seen many customers with Internet backup configurations that did not copy or could not reconstruct the essential data … and it isn't pretty when that happens!

- Keep the last 3 monthly backups.
- Keep December's monthly backup from every year as an additional safeguard.
- Use an Internet backup service if you like, but at least makes a monthly local copy also.

Cyrious' managed documents are an incredible tool for your business, but you are creating a single point of failure. It is very important that you set up and maintain a reliable backup plan for the managed documents. Please consult your local IT professional for assistance on this, and be sure to check the backup at least monthly to ensure you are getting a good backup!
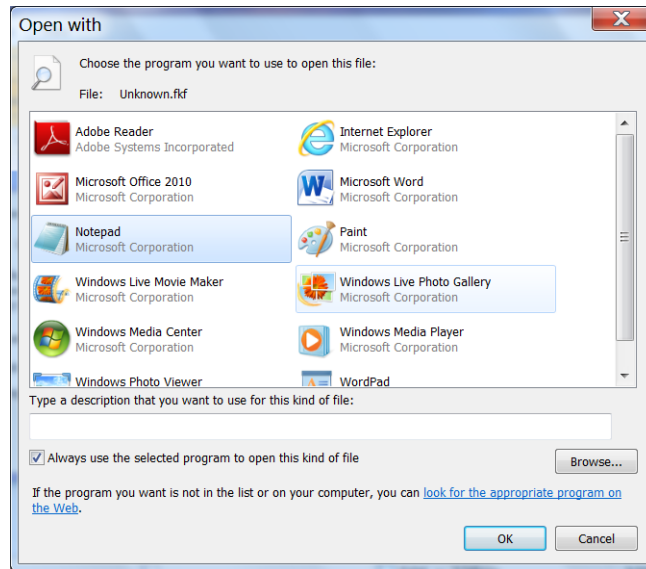
18.4 Registered File Types

Cyrious Control uses Windows' file type registration system (just like Windows Explorer) to determine what to open any particular file type in. Normally, when you install software it automatically registers for the types of files it can handle. (e.g., Microsoft Word automatically registers to handle file extensions DOC, DOCX, RTF, and a number of others.)

If no handler program is registered for a particular file type, the user will be presented with a dialog box such as[20]:
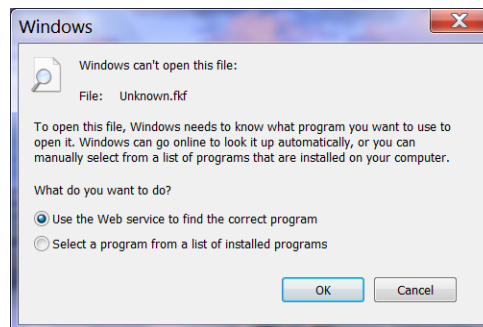
From this screen you can manually choose a program to open the file with (the second option) or ask Windows to look on the web and identify possible programs you could buy/obtain to open it. If you receive this screen and choose the second option (select a program) you get another screen which suggests possible programs to open it with:

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[20] The actual dialog box may vary slightly based on the version of Windows you are running, but the contents will be similar.

Select the appropriate application or locate it on the computer by clicking Browse. If you don't see or can't find the write application, click Cancel and consult with your local IT staff. Cyrious support does not provide or install software on your local computer that is not directly related to Cyrious Control.

Checking the "Always use the selected program to open this kind of file" will instruct Windows to register this program to always open that file type so that next time you can avoid these prompts. However, do not check this unless you are sure the application is correct. Cyrious recommend you do not check this box the first time, and then if the file opens correctly you can select this option the second time you open such a file to save the settings permanently.

19. Enhance Windows Ability to Display Thumbnails (optional)

The Document Management interface includes a thumbnail preview of the selected file. The features uses the built in Window thumbnail viewer. Previewing the following file types are automatically included in Windows:

- Bitmap (*.bmp)
- Jpeg (*.jpg, *.jpeg)
- Tiff (*.tiff)
- PNG (*.png)

Additionally, most users already have software installed to handle the following types of files:

- Adobe PDF (*.pdf)

During installation of the server or client, Control adds thumbnail preview capabilities for common graphic file types, such as:

- Adobe Illustrator (*.AI)
- Encapsulated PostScript (*.EPS)
- Photoshop (*.PSD)
- Corel Draw (*.CDR)

This is accomplished as an option during the installation where the user is given a choice to install third-party thumbnail preview software as part of the installation. More information about the particular third-party software installed in this process can be found on the Control WIKI.

20. Email Integration (optional)

[Under Consideration]

Control's Managed Folders support drag-and-drop and copy-and-paste functionality to easily copy email attachments from Outlook to Control. Installing the Control's Outlook macro for Document Management makes this process even easier and also provides a way for the bodies of emails to be saved in the managed document folder too.

The Outlook Document Management Macro (ODMM) provides an interface that allows an email and/or email attachments to be saved to the appropriate managed folder.
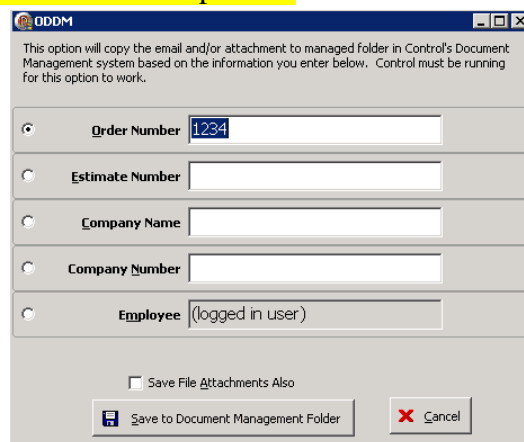
20.1 Invoking the ODMM

The ODMM may be invoked in any of the following ways:

- **By right-clicking on the email**. In the context pop-up menu for all emails, the options to "Send to a Managed Folder…" will appear.
- **By right-clicking on an email attachment**. In the context pop-up menu for all email attachments, the options to "Send to a Managed Folder…" will appear.
- **By clicking the "Send to Managed Folder" Button**. On the main toolbar, ODMM adds a button to Send to Managed Folder that is context sensitive.

20.2 The ODMM Interface

When invoked by the ODMM, Control pops up a screen (in front of Outlook) that allows the user to identify the DM folder the files should be copied to.

This interface may be expanded to include browse capability and allow the user to indicate what subfolders the files should be saved in.

By default, the following logic is used to set the default for the ODMM screen:
- The email description is parsed for the words "Order" and an integer number. If both are found, the Order Number is set to the retrieved number and that option is selected by default.
- Next (assuming the last items was not successful), the email description is parsed for the words "Estimate" and an integer number. If found, the Estimate Number is set to the retrieved number and that option is selected by default.
- Next, the Senders email address is looked up in the contacts record. If it is found, the Company Name is filled in and selected but the lookup continues. Open orders are then searched for that contact. If any found, the newest order is set and selected. If not found, open estimates are searched. If any are found, the newest estimate is set and selected.
- Next, the currently active tab inside of Control is checked. If it is an order, estimate, or company that item is entered and selected.

If none of the above match, no default is entered and no selection is selected.

20.3 How the ODMM Works

The ODMM communicated with a copy of Control running on the same system using OLE/DDE. When ODMM is initially invoked, it registers itself with Control and obtains the location of a temporary folder to place the saved documents in.

When invoked, the ODMM macro does the following:
- Saves the currently selected email to a new folder within the temp folder Control identified.
- Saves any attached files on that email to the same folder.
- Saves a text file with the following information:
  - Sender email address
  - Recipient email address
  - Email description
- Invokes an external call into Cyrious Control passing the folder path.

If Control is unable to complete the request, Control displays an error message otherwise it displays a completed toast (pop-over, non-modal message visible for ~ 2 seconds) when the copy is successful.

The security implemented by Control is no different for users accessing the Managed Folders via ODMM or from within the program. A user must have the appropriate security rights to add a document to the specified folder of the attempt will fail.

20.4 How the ODMM Setup

There are no user-configurable option for ODMM. Control will register its access point automatically when started up if document management is enabled.

The user simply must install the macro and enable it within Outlook. The installation can be invoked from within Control, by clicking Setup | Install Outlook Document Management Macro. This will copy the installation to a local drive (from the server) and then run the installation.

21. Document Actions Command Manager (DACM)

The document actions command manager (DACM, pronounced dac-em) is a text (command line) processor responsible for implementing all of the actions associated with Document Management. Text commands are sent to the DACM, parsed, and executed.

There are, in fact, two separate but related DACM objects, one at the client (DACM-Client) and one at the server/SSLIP (DACM-Server). Functionally, these provide the same interface though the DACM-Client passes most commands to the DACM-Server for the actual execution.

Both the DACM-Client and DACM-Server are functionally independent components with no dependencies on Control of the SSLIP. Communication between the two is routed by Control via events on those objects.

The actions supported by the DACM, arrange in categories, are:
- Actions to Open Files
    - Edit
    - Open Read-Only
- Actions to Add, Remove, or Update Files
    - Add
    - Create Shortcut
    - Copy File
    - Copy Folder
    - Delete File
    - Delete Folder
    - Rename File
    - Update File
- Information Actions
    - Refresh
    - Get Thumbnail
    - Set Thumbnail
- Clipboard and Drag-and-Drop Actions
    - Copy to Clipboard
    - Paste from Clipboard
    - Drag
    - Drop

The detailed command syntax follows.

21.1 Command Syntax

Though the User Interface is the chief point of interaction for users, the underlying document management engine was intentionally created with a command line interface. This facilitates easier testing, batch operations, and additional flexibility compared to a hard-coded interface structure.

The general syntax of a document management command is:

> Command: dm:Verb [[SourceObjectType(Identifier=Value)\] [subpath\] source]
>   [[TargetObjectType(Identifier=Value)\] [subpath\] target]

Where:

dm:	dm: identifies this as a command targeted to the document manager.
Verb	verb is the action to be performed, such as open, edit, copy, etc.
SourceObjectType	[optional] Is supplied, the source (and subpath) are relative to the top managed document folder for the identified Source Object.
Identifier=Value	Provides the logic to identify the specific instance of the SourceObjectType or TargetObjectType. Valid identifiers vary by type of object, but the following are commonly used: - ID=xxxxx Matches the database ID for any type. - Number=yyyyy Matches the order, estimate, company, bill, PO, or RD number. - Name="ssssss" Matches the product code, part code, or employee name (last, first).
Subpath	[optional] Identifies the subfolder path under the top managed document folder for the identified Source or Target Object.
Source	[optional] Source refers to the location of the source file or folder the verb acts with.
TargetObjectType	[optional] Is supplied, the source (and subpath) are relative to the top managed document folder for the identified Target Object. If not supplied, the same object as the Source Object is usually assumed.
Target	[optional] Source refers to the location of the source file or folder the verb acts upon.

Additional notes on commands and file names:
- File names or paths containing spaces it must be enclosed in quotes.
- Single and double quotes in the document name are replaced by tildes in the file and folder name.
- Periods in the document name (except for the one preceding the extension) are replaced by the underscore character.
- All commands are <u>case insensitive</u>.

21.2 Opening Files

In addition to organized storage, one of the primary uses of any document management system is to provide a convenient way to access and view information associated with those documents. When a document is opened, Cyrious Control invokes the default application that Windows has registered for that file type. (For information on how to change the default registered application, see Section 18.4 Registered File Types, on page 59.)

Cyrious Control provides two modes for opening files, **read-only** and for **edit**.

21.2.1 Edit

Command: dm:Edit ObjectType(Identifier=Value)\[subfolderpath\]filename.ext

Example(s):   dm:Edit Order(Number=3222)\Artwork\Pinklet1234-001.eps
dm:Edit "Customer(Number=2322)\Correspondence\2012 Tax Form.pdf"
dm:Edit "Product(Name=Service Call)\Install Forms\Install.docx"

Editing is similar to Open Read-Only. All editing is done on a local copy of the file to minimize the risk of corruption and to ensure that Control users *never* need direct read-write access to the managed documents. Editing is the default behavior when a document is double-clicked in Control.

When you edit, however, it is very easy to automatically transfer files back up to the server and update the server version when changes are made. When a file is opened for edit, Control executes the following sequence of events:

- Control checks to see if another user is editing the file. If the file is already locked, the following dialog is displayed:

> The file "Checklist Visitors.docx" is already being edited
> by Hannibal Lector. Would you like to open this file read-only?
>
> [No, do not Open]   [Yes, Open Read-Only]

- The SSLIP places an internal lock on the file so that no other Control client can edit it.
- The file is copied from the server to a temporary file location on the local computer.
- Control actively monitors the files **modified date** for changes that reflect that the file has been updated. While monitoring, Control will display a "monitoring band" indicating that a particular file (or files) are being monitored.
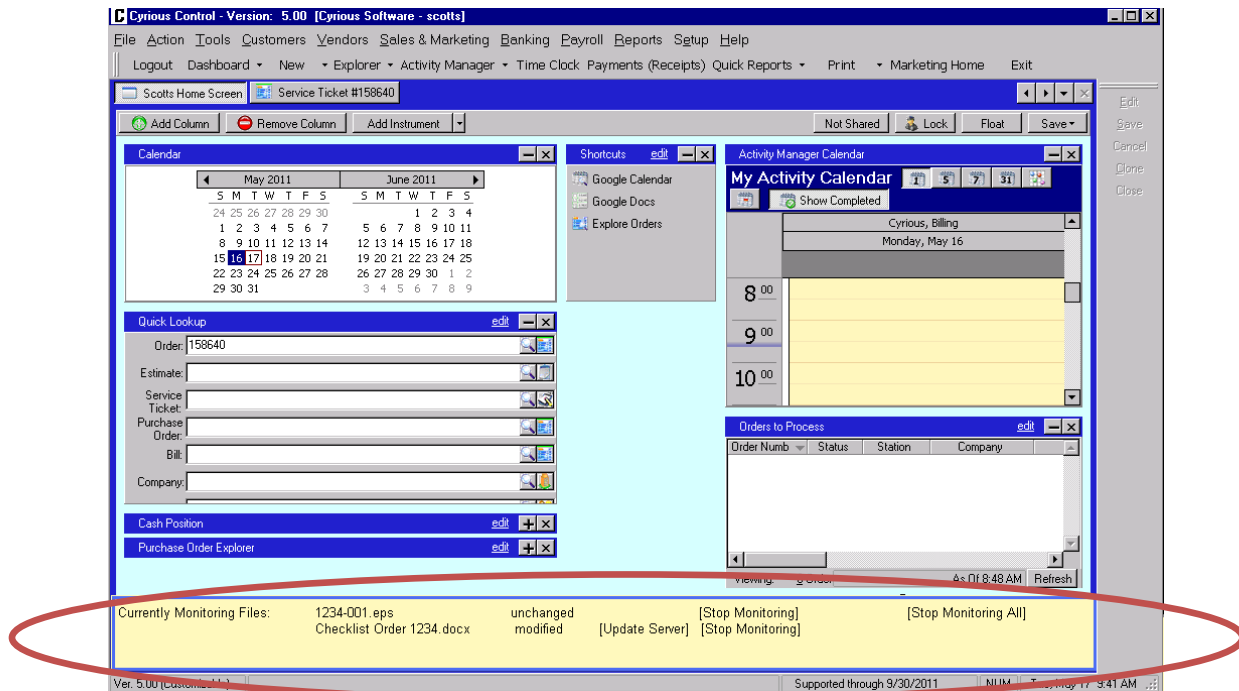
- The file is "executed" in Windows (this is the same as double-clicking on it in Windows Explorer), which causes Windows to look up the registered application for that type and open the program. If no application is registered for that file type, Windows will display a dialog to find or select the viewer application to launch.
- When Control detects a change in the Modified Date of the file, it updates the monitoring band and enables the **[Update Server]** button. Clicking this button transfers the saved file to the server and replaces the previous copy.
- Control continues to monitor the file for changes until the **[Stop Monitoring]** button is clicked. When this button is clicked, monitoring of the file stops and any subsequent changes to the file are not observed by Control.

21.2.2 Open Read Only

Command:	dm:open ObjectType(Identifier=Value)\[subfolderpath\]filename.ext
Example(s):	dm:Open Order(ID=1234)\Artwork\Pinklet1234-001.eps dm:Open "Customer(Number=2322)\Correspondence\2012 Tax Form.pdf" dm:Open "Product(Name=Coro)\Install Forms\Install.docx"

As you have probably guessed, read-only mode is used when the person accessing the file does not have security rights or when the document is not going to be edited. It is the only option available for files that are locked because another user has them open in edit mode.

When a file is opened read-only, Control executes the following sequence of events:
- The file is copied from the server to a temporary file location on the local computer.
- The local file is marked as read-only.
- The file is "executed" in Windows (this is the same as double-clicking on it in Windows Explorer), which causes Windows to look up the registered application for that type and

open the program. If no application is registered for that file type, Windows will display a dialog to find or select the viewer application to launch.

For information on how to change the default registered application, see Section 18.4 Registered File Types, on page 59.

When a file is opened read-only, any changes made to the file are NOT automatically transferred back to the server. In order to transfer changes back to the server, the user would have to:

- Save the changed copy in a location they can access.
- Locate the original copy of the document within Control.
- Right-click and choose Update on the copy.
- Browse to and choose the revised copy.

21.3 Adding, Removing and Updating Files

Control provides the tools to add, remove, and update files on the server. Doing this in Control ensures that user never needs direct read-write access to the managed documents.

21.3.1 Add

Command:	dm:Add "localpath\filename.ext" ObjectType(Identifier=Value)\ [subfolderpath\ ][newfilename.ext]
Example(s):	dm:Add "My Documents\Files\Artwork\1234-001.eps" Order(Number=1234)\Artwork\ dm: Add "C:\Art\Logs\Lowes\18x24 Art.jpg" "Customer(Number=2322)\Logos\Standard Logo.jpg"

This action adds a new file to the managed documents folder. The file is transferred to the SSLIP and then added to managed document storage by the SSLIP.

21.3.2 Create Shortcut

Command:	dm:CreateShortcut SourceType(Identifier=Value)\ [subfolderpath\ ][filename.ext] DestType(Identifier=Value)\ [subfolderpath\ ][shortcutname.lnk]
Example(s):	dm:CreateShortcut "Company(ID=332)\Artwork\Standard Logo.eps" "Order(Number=1234)\Artwork\" dm:CreateShortcut "Order(Number=332)\" "Company(Number=7473)\Orders with Errors\"

This action creates a shortcut in one managed document location to a file or folder in another document management location. The both the source and destination file or folder must be in managed document storage.

21.3.3 Copy File

Command:	dm:Copy SourceType(Identifier=Value)\ [subfolderpath\ ] filename.ext DestType(Identifier=Value)\ [subfolderpath\ ][destfilename.ext]
Example(s):	dm:Copy "Company(ID=332)\Artwork\Standard Logo.eps" "Order(Number=1234)\Artwork\" dm:Copy "Order(Number=332)\Correspondence\Checklist.pdf" "Company(Number=7473)\Confirmed Checklists\Order 332 Checklist.pdf"

This action copies a *file* in managed document storage to another location in managed document storage.

- If the destination file name is not specified, the original file name is maintained.
- Both the source and destination path, if specified, must already exist or an error is raised.
- If the target file already exists, an error is raised.

21.3.4 Copy Folder

Command:	dm:Copy SourceType(Identifier=Value)\ [subfolderpath\ ] DestType(Identifier=Value)\ [subfolderpath\ ]
Example(s):	dm:Copy "Company(ID=332)\Artwork\" "Order(Number=1234)\" dm:Copy "Order(Number=332)\Correspondence\" "Company(Number=7473)\Order 332\"

This action copies a *folder* in managed document storage to another location in managed document storage.

- If the destination file name is not specified, the copy is created in the top managed document folder for the destination object
- The source path must already exist or an error is raised.
- The last folder in the destination path must not exist or an error is raised.
- If any higher folders (i.e., not the last) in the destination path do not exist, they are created automatically.

21.3.5 Delete File

Command:	dm:delete Order(Number=1234)\ [subfolderpath\ ]

This action permanently deletes the file from managed document storage.

21.3.6 Delete Folder

Command:	dm:delete Order(Number=1234)\subfolderpath\

This action permanently deletes a folder and all of its contents from managed document storage.

21.3.7 Rename File

Command:	dm:Rename SourceType(Identifier=Value)\ [subfolderpath\ ] oldfilename.ext newfilename.ext
Example(s):	dm:Rename "Company(ID=332)\Artwork\Logo.eps" oldLogo.eps
	dm:Rename "Order(Number=332)\Correspondence\Checklist.pdf" "Original Checklist 2012-01.pdf"

This action renames an individual file in managed document storage.

21.3.8 Rename Folder

Command:	dm:Rename SourceType(Identifier=Value)\subfolderpath newfoldername
Example(s):	dm:Rename "Company(ID=332)\Artwork\Current" OldStuff
	dm:Rename "Order(Number=332)\Correspondence" "2011 Correspondence"

This action renames a folder in managed document storage. The trailing backslash on the folder name is optional.

21.3.9 Update

Command:	dm:update Order(Number=1234) "[subfolderpath/]oldfilename.ext" "localpath/newfilename.ext"
Command:	dm:Update "localpath\filename.ext" ObjectType(Identifier=Value)\ [subfolderpath\ ] filename.ext
Example(s):	dm:Add "My Documents\Files\Artwork\1234-001.eps" Order(Number=1234)\Artwork\
	dm: Add "C:\Art\Logs\Lowes\18x24 Art.jpg" "Customer(Number=2322)\Logos\Standard Logo.jpg"

This action adds a new file to the managed documents folder. The file is transferred to the SSLIP and then added to managed document storage by the SSLIP.

When updating, the target filename must be specified, even if it is the same as the source file name.

21.4 Information Actions

21.4.1 Refresh

21.4.2 Get Thumbnail

Command: dm:GetThumbnail SourceType(Identifier=Value)

This action retrieves the path and file name of the current thumbnail for the specified object.

21.4.3 Set As Thumbnail

Command: dm:SetThumbnail SourceType(Identifier=Value)\ [path\] filename.ext

This action sets the current thumbnail of the specified item. The Thumbnail must be a file within the managed document folder or subfolder of that object.

21.5 Clipboard and Drag Actions

21.5.1 Copy to Clipboard

Command:

This action ..

21.5.2 Paste from Clipboard

Command:

This action ..

21.5.3 Drag (Start)

Command:

This action ..

21.5.4 Drop

Command:

This action ..

22. Test Use Cases