

Specifications Extraction – Quick Guide

Overview – Specifications Extraction

This quick guide explains how to use the specifications extraction feature in CMiC ECM Explorer to extract specification details from a project manual/specifications book to automatically generate a submittal log in CMiC Field.

Performing a Specifications Extraction

Step 1: Preparing a Specifications Document for Extraction

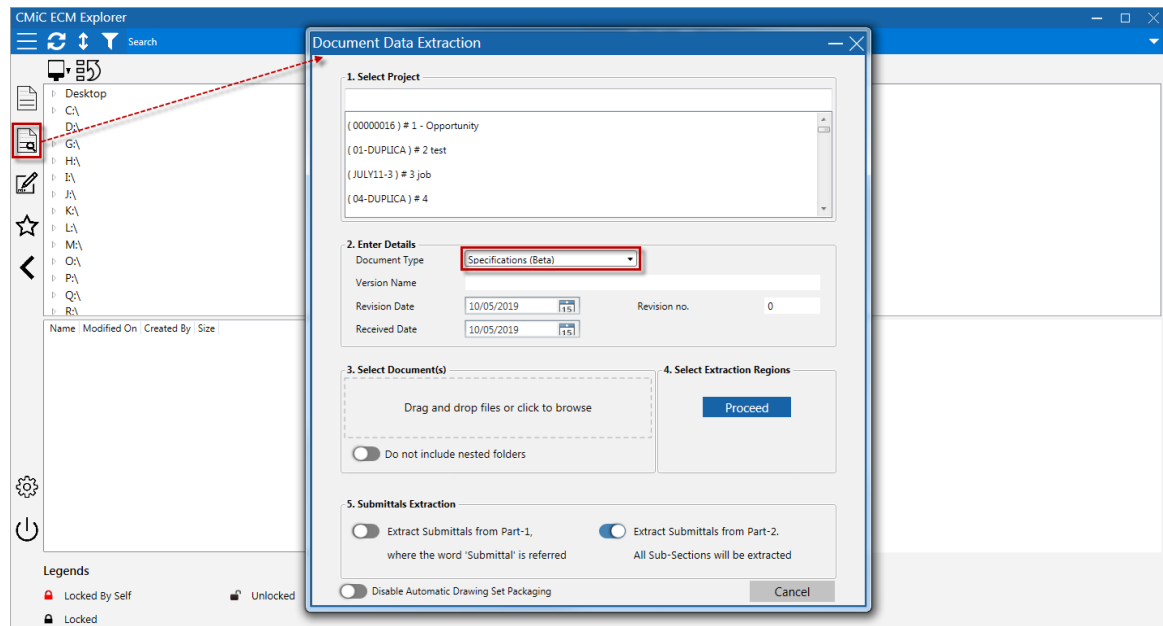
2.5 MORTAR AND GROUT MATERIALS	<p>A. <u>Portland Cement-Lime Mix</u>: Packaged blend of portland cement and hydrated lime containing no other ingredients.</p> <p>B. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C 979/C 979M. Use only pigments with a record of satisfactory performance in masonry mortar.</p> <p>1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:</p> <ul style="list-style-type: none">a. Davis Colors.b. Euclid Chemical Company (The); an RPM company.c. Lanxess Corporation.d. Solomon Colors, Inc. <p>C. Aggregate for Mortar: ASTM C 144.</p> <p>1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.</p> <p>2. For joints less than 1/4-inch thick, use aggregate graded with 100 percent passing the No. 16 sieve.</p> <p>3. White-Mortar Aggregates: Natural white sand or crushed white stone.</p> <p>4. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.</p> <p>D. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.</p> <p>1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:</p> <ul style="list-style-type: none">a. BASF Corp. - Construction Chemicals.b. Euclid Chemical Company (The); an RPM company.c. GCP Applied Technologies Inc. (formerly Grace Construction Products). <p>E. Water: Potable.</p>
2.6 REINFORCEMENT	<p>A. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A 996M, Grade 60.</p> <p>B. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.</p>
CONCRETE UNIT MASONRY	042200 - 6


Sample of a specifications document

Prepare a PDF file of the specifications document. This is the document from which specification details will be extracted to generate a submittals log. As shown in the above screenshot, the “Concrete Unit Masonry” on the bottom left of the page is the specification section, the “2.5 Mortar and Grout Materials” is the sub-specification section, and the “Portland Cement-Lime Mix” is the submittal. Each bullet point under the specification section will be uploaded as a submittal during the specifications extraction process.

NOTE: Ensure a colon is placed after the submittal name (as shown in the above screenshot) to separate it from the description during the specifications extraction process.

Step 2: Document Data Extraction



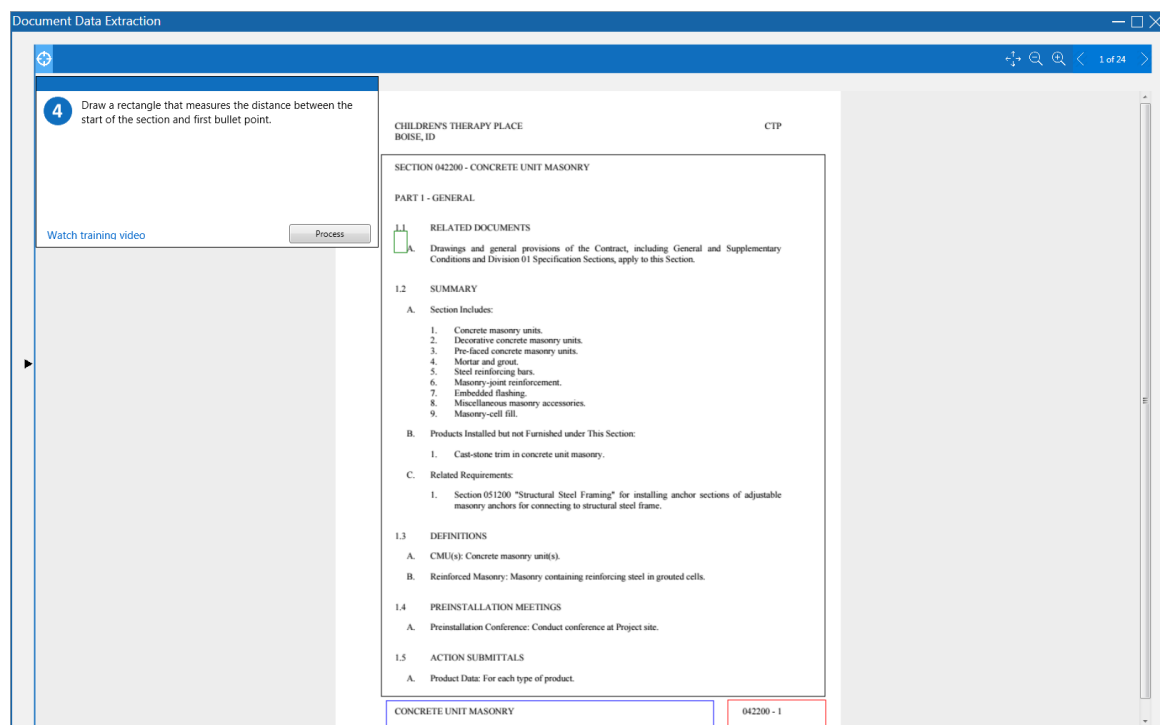
In CMiC ECM Explorer, click on the Data Extraction icon () to open the Document Data Extraction pop-up window. After selecting a project in the Select Project section, change the Document Type field in the Enter Details section to “Specifications (Beta)”, as shown in the above screenshot.

The Submittals Extraction section will then appear on the bottom of the window with two toggles, Extract Submittals From Part-1 and Extract Submittals From Part-2. By default, Extract Submittals From Part-2 toggle is enabled and the Extract Submittals From Part-1 toggle will be disabled.

In the Select Document(s) section, the user can drag and drop files into the region if Windows Explorer is already open, or click it to open the Windows Explorer window, where they can browse and select files.

Click the [**Proceed**] button under the Select Extraction Region section once a specification document has been selected.

Step 3: Select Extraction Regions



The user will be prompted to draw four boxes for the specification number, specification name, the content frame, and the distance between bullet points, as shown in the above screenshot. When drawing each box, make sure to draw it large enough to capture all of the text for each region.

NOTE: For each step in the selection process, there is a Watch Training Video link available that will display a video demonstrating the drawing/selection process.

Specification Number

A red box will be used to draw around the specification number.

Specification Name

A blue box will be used to draw around the specification name.

Content Frame

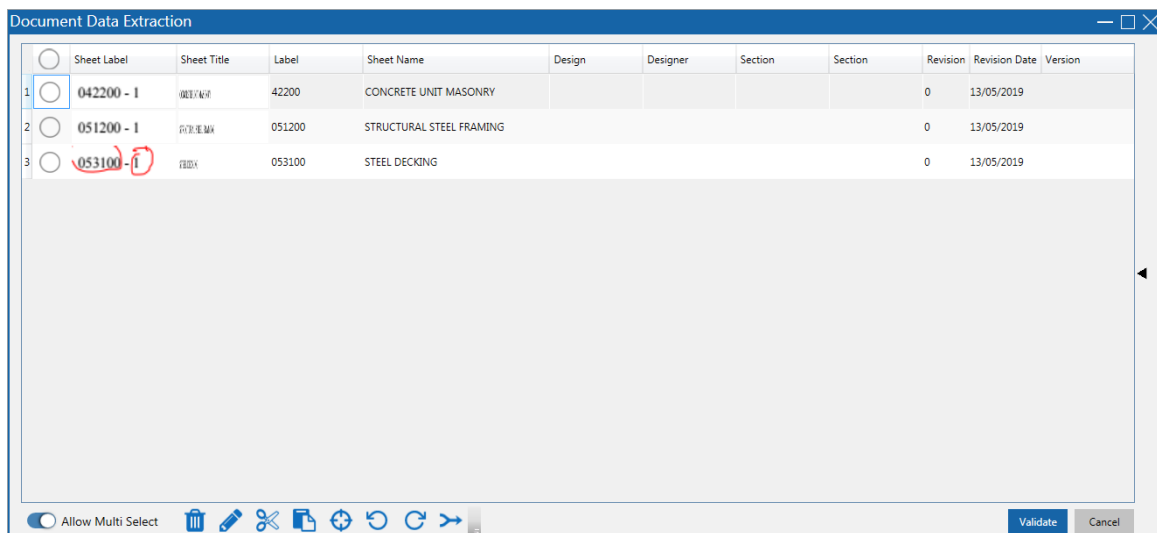
A black box will be used to draw around the content frame. This tells the tool where the main content is and ignores the header and footer of the document.

Distance Between Bullet Points

A green box will be used to specify the distance between each bullet point. This tells the system how much space there is between the main header and subsequent bullet points. It uses the spacing to grab each sub-bullet point as a new submittal.

NOTE: The green selection box needs to be touching the bullet point.

Step 4: Grid View



	Sheet Label	Sheet Title	Label	Sheet Name	Design	Designer	Section	Section	Revision	Revision Date	Version
1	<input type="radio"/> 042200 - 1	0022/14/1	42200	CONCRETE UNIT MASONRY					0	13/05/2019	
2	<input type="radio"/> 051200 - 1	01/12/18 MA	051200	STRUCTURAL STEEL FRAMING					0	13/05/2019	
3	<input checked="" type="radio"/> 053100 - 1	01/12/18	053100	STEEL DECKING					0	13/05/2019	

Once the extraction regions have been selected and processed, the Grid View shows that the pages have been separated and the user can edit each column like drawings. The first two columns are snapshots of the sheet name and label, while the rest of the columns can be edited.

Allow Multi-Select – Toggle

Switch this toggle on to enable multi-select. Once enabled, the following icons will become available:



– This icon will delete selected sheets.



– This will update the column text for the selected sheets.



– This will trim the column text for the selected sheets.



– This will append the column text for the selected sheets.



– This will allow the user to specify extraction regions for the selected sheets.



– Rotate the selected sheets left.



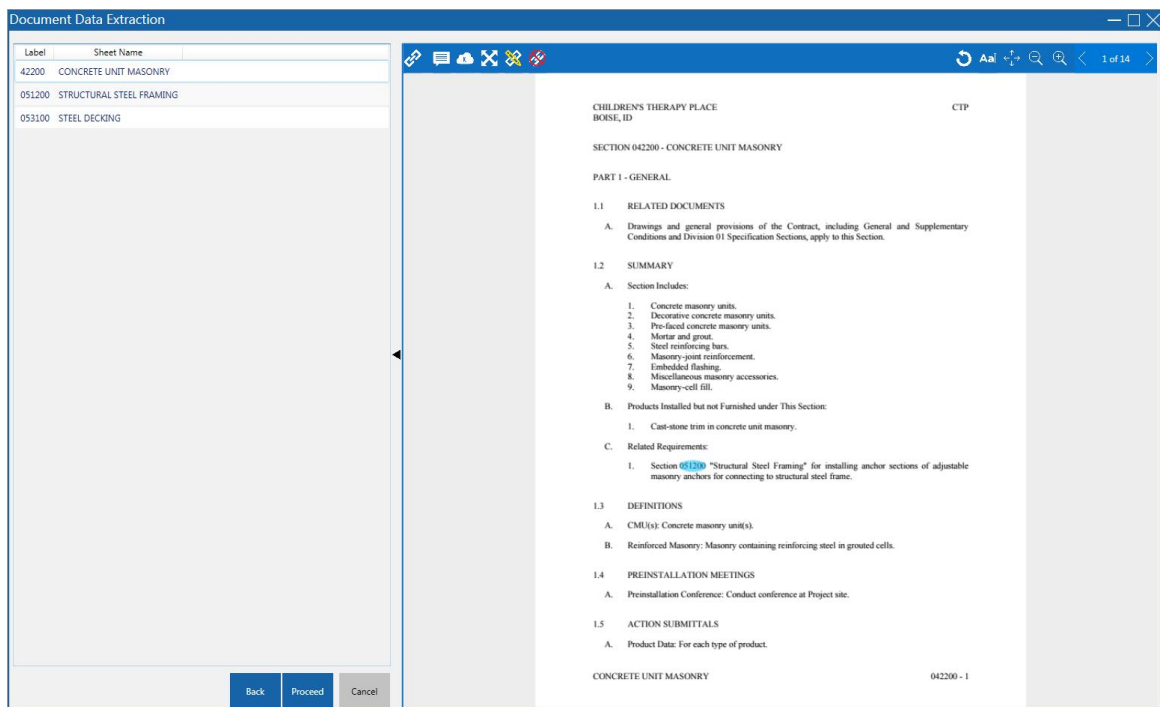
– Rotate the selected sheets right.



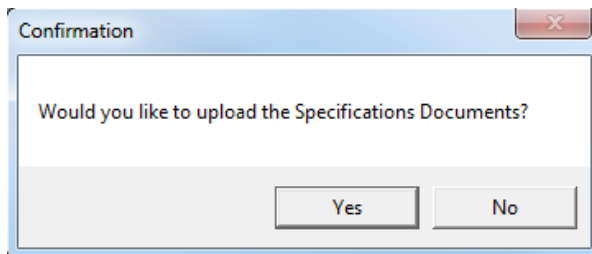
– Combine the selected sections.

Click [**Validate**] when editing is complete. Once the data has been validated, the [**Link Files**] button will appear. Click this button to place hyperlinks on matching sheet labels.

Step 5: Linked Files



Once the hyperlinks have been processed, a list of labels will appear on the left-side panel and the user can click each label to view the sheets available on the right-side panel, as shown in the above screenshot. When the **[Proceed]** button has been clicked, the following Confirmation pop-up window will appear.



It is recommended to click **[No]** to open up edit mode after processing, as clicking **[Yes]** will auto-create the submittals for the user.

Step 6: Editing Submittals for the Specification

Document Data Extraction

Select a Specification
42200 - CONCRETE UNIT MASONRY

Submittals for the selected Specification

Name	Description	Type
2.1 MANUFACTURERS (2)		
1 Source Limitations for Masonry Units	Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.	
2 Source Limitations for Mortar Materials	Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.	
2.2 PERFORMANCE REQUIREMENTS (1)		
1 Provide unit masonry that develops indicated net-area compressive strengths at 28 days. 1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry.		
2.3 UNIT MASONRY, GENERAL (3)		
4 Masonry Standard	Comply with TMS 602/ACI 530.1/ASCE 6 except as modified by requirements in the Contract Documents.	
5 Defective Units	Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work.	
6 Fire-Resistance Ratings	Comply with requirements for fire-resistance-rated assembly designs indicated. 1. Where fire-resistance-rated construction is indicated, units shall be listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction.	
2.4 CONCRETE MASONRY UNITS (3)		
7 Shapes	Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated. 1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions. 2. Provide square-edged units for outside corners unless otherwise indicated.	
8 Integral Water Repellent	Provide units made with integral water repellent for exposed units. 1. Integral Water Repellent Liquid polymeric, integral water-repellent admixture that does not reduce flexural bond strength. Units made with integral water repellent, when tested according to ASTM E 514/E 514M as a wall assembly made with mortar containing integral water-repellent manufacturer's mortar additive, with test period extended to 24 hours, shall show no visible water or leaks on the back of test specimens. 2. Manufacturers Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following: 3) ACM Chemistries; 2) BASF Corp. - Construction Chemicals; 3) Euclid Chemical Company (The); an RPM company; 4) GCP Applied Technologies Inc. (formerly Grace Construction Products); 5) Mowat International.	

Allow Multi Select + Upload Cancel

CHILDREN'S THERAPY PLACE CTP
BOISE, ID

- Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
- Protect sills, ledges, and projections from mortar droppings.
- Protect surfaces of windows and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
- Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.

D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.

E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602/ACI 530.1/ASCE 6.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

B. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

2.2 PERFORMANCE REQUIREMENTS

A. Provide unit masonry that develops indicated net-area compressive strengths at 28 days.

- Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) according to TMS 602/ACI 530.1/ASCE 6.
- Determine net-area compressive strength of masonry by testing masonry prisms according to ASTM C 1314.

2.3 UNIT MASONRY, GENERAL

A. Masonry Standard: Comply with TMS 602/ACI 530.1/ASCE 6 except as modified by requirements in the Contract Documents.

CONCRETE UNIT MASONRY 042200 - 4

This screen allows the user to edit the Name, Description, and Type fields for the submittals. The Add New Submittal icon (+), found near the bottom left corner of the window, allows the user to create a new submittal and add it to the specification section under any of the sub-specification sections. Each sub-specification section shows how many submittals it contains in brackets. Once editing is complete, click the [Upload] button. The submittals will appear in CMiC Field > Document Management > Submittals and can be found using the Spec. Section column.

Step 7: Submittals

CMiC FIELD Add Submittal Import Show Filter Send To Spec

CMiC Field Menu

Project: NFL Stadium - Los Angeles (1600)

- My Actions
- Project Calendar
- Project Scheduling
- Project Maintenance
- Dashboard
- Communication Management
- Document Management
- Submittals (1)
 - Packages
 - Transmittals
 - Responsibility Log
 - Procurement Log
 - Collaborator Submittals
 - 042200-005
 - 042200-004
 - 16-002
 - 097713-003
 - 097713-002
 - 097713-001
 - 097700-004

Status	Submittal No.	Spec. Section	Name	Current Cycle	Start Date	Send Due Date	Send Date	Return Due Date	Returned Date	Forward Due Date
Open	042200-003	042200	Concrete Unit Masonry	1	2016-11-17	2016-10-20		2016-10-27		2016-10-27
Open	042200-002	042200	Concrete Unit Masonry	1	2016-11-16	2016-10-19		2016-10-26		2016-10-26
Open	042200-001	042119	Concrete Unit Masonry	1	2016-11-15	2016-10-18		2016-10-25		2016-10-25
Open	042119-005	042119	Terra Cotta Clay Tile and Baguette Rain Screen System	1	2016-11-14	2016-10-17		2016-10-24		2016-10-24
Open	042119-004	042119	Terra Cotta Clay Tile and Baguette Rain Screen System	1	2016-11-13	2016-10-17		2016-10-24		2016-10-24
Open	042119-003	042119	Terra Cotta Clay Tile and Baguette Rain Screen System	1	2016-11-12	2016-10-17		2016-10-24		2016-10-24
Open	042119-002	042119	Terra Cotta Clay Tile and Baguette Rain Screen System	1	2016-11-11	2016-10-14		2016-10-21		2016-10-21
Open	042119-001	040523	Terra Cotta Clay Tile and Baguette Rain Screen System	1	2016-11-10	2016-10-13		2016-10-20		2016-10-20
Open	040523-004	040523	Masonry Accessories	1	2016-11-09	2016-10-12		2016-10-19		2016-10-19
Open	040523-003	040523	Masonry Accessories	1	2016-11-08	2016-10-11		2016-10-18		2016-10-18
Open	040523-002	040523	Masonry Accessories	1	2016-11-07	2016-10-10		2016-10-17		2016-10-17
Open	040523-001	040513	Masonry Accessories	1	2016-11-06	2016-10-10		2016-10-17		2016-10-17
Open	040513-005	040513	Masonry Mortaring and grouting	1	2016-11-05	2016-10-10		2016-10-17		2016-10-17
Open	040513-004	040513	Masonry Mortaring and grouting	1	2016-11-04	2016-10-07		2016-10-14		2016-10-14
Open	040513-003	040513	Masonry Mortaring and grouting	1	2016-11-03	2016-10-06		2016-10-13		2016-10-13
Open	040513-002	040513	Masonry Mortaring and grouting	1	2016-11-02	2016-10-05		2016-10-12		2016-10-12
Open	040513-001	034500	Masonry Mortaring and grouting	1	2016-11-01	2016-10-04		2016-10-11		2016-10-11
Open	034500-001	034500	Precast Architectural Concrete -	1	2016-10-31	2016-10-03		2016-10-10		2016-10-10

Submittals; standard Treeview path: CMiC Field > Document Management > Submittals

Once the upload process is complete, navigate to the Submittals screen found in CMiC Field > Document Management. The submittals that were processed can be found in the Spec. Section column, framed in red above.

Setup

RTI Settings

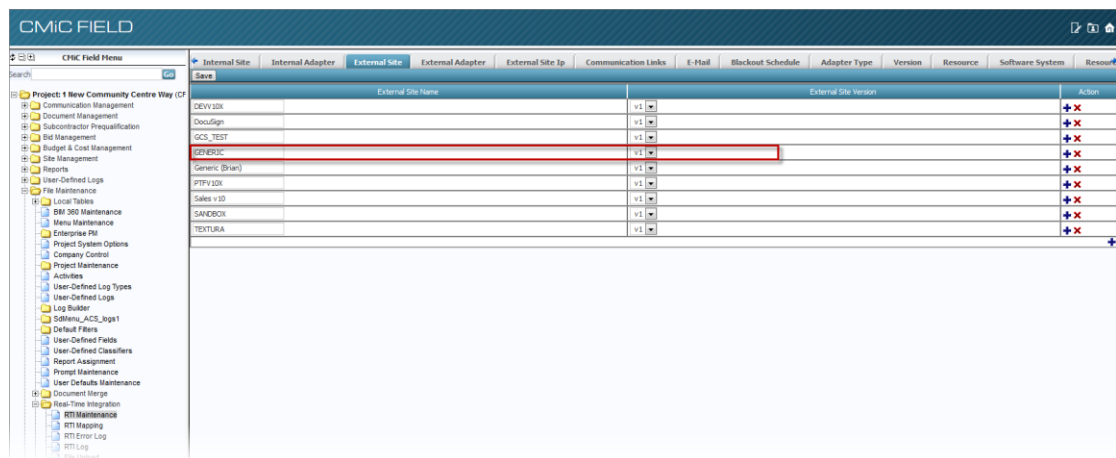
The following RTI setup is required on the RTI Maintenance screen in CMiC Field and on the General tab of the ECM Explorer Settings screen.

CMiC Field

1. Navigate to CMiC Field > File Maintenance > Real-Time Integration > RTI Maintenance.
2. In the Internal Site tab, add a new item called “CMIC”, as shown in the screenshot below.



3. In the External Site tab, add a new item called “GENERIC”.



RTI Maintenance; standard Treeview path: File Maintenance > Real-Time Integration > RTI Maintenance – External Site tab

4. In the Internal Adapter tab, set the following for each adapter type:
 - Http Receive Adapter for Generic: GENERICRA
 - Http Transmit Adapter for Generic: GENERICTA

NOTE: If the “CMIC” option is missing from the Internal Site drop-down list and there is no option to add a new row, click the [Save] button.

CMIC FIELD

CMIC Field Menu

Internal Site: CMIC Version: v1

Adapter Type	Adapter Name	Adapter ID	JMS Queue Connection Factory	JMS Queue Name	Adapter Protocol	Message Type
Http Receive Adapter for CMIC Software	test	test			HTTP	REST
Http Receive Adapter for CMIC Software	TESTV10X Receive Adapter	TST-AD-RIT			HTTP	REST
Http Receive Adapter for DocuSign	DOCSIGNRA	DOCSIGNRA			HTTP	REST
Http Receive Adapter for DX	DWRA	DWRA			HTTP	REST
Http Receive Adapter for GCS	GCSR	GCSR			HTTP	REST
Http Receive Adapter for Generic	GENERICRA	GENERICRA			HTTP	REST
Http Receive Adapter for Generic	GR1	GR1			HTTP	REST
Http Receive Adapter for Textura	TXR	TXR			HTTP	REST
Http Transmit Adapter for CMIC Software	TESTV10X Transmit Adapter	TST-AD-TX			HTTP	REST
Http Transmit Adapter for DocuSign	DOCSIGNETA	DOCSIGNETA			HTTP	REST
Http Transmit Adapter for DX	DXTA	DXTA			HTTP	REST
Http Transmit Adapter for GCS	GCEST	GCEST			HTTP	REST
Http Transmit Adapter for Generic	GENERICTA	GENERICTA			HTTP	REST
Http Transmit Adapter for Generic	GT1	GT1			HTTP	REST
Http Transmit Adapter for Textura	TXT	TXT			HTTP	REST

RTI Maintenance; standard Treeview path: File Maintenance > Real-Time Integration > RTI Maintenance – Internal Adapter tab

5. In the External Adapter tab, set the following for each adapter type:

- Http Receive Adapter for Generic: GENERICRA
- Http Transmit Adapter for Generic: GENERICTA

Internal Site Internal Adapter External Site External Adapter External Site Ip Communication Links E-Mail Blackout Schedule

External Site: GENERIC Version: v1

Adapter Type	Adapter Name	Adapter ID	External Client ID
Http Receive Adapter for Generic	GENERICRA	GENERICRA	
Http Transmit Adapter for Generic	GENERICTA	GENERICTA	

RTI Maintenance; standard Treeview path: File Maintenance > Real-Time Integration > RTI Maintenance – External Adapter tab

6. In the Communication Links tab, make the following changes to each field:

- Change Software System to “Generic”
- Link: GENERICL1
- Link Identify Code: GENERICL1
- Internal Site: CMIC
- Internal Receive Adapter: GENERICRA
- Internal Transmit Adapter: GENERICTA
- External Site: GENERIC
- External Receive Adapter: GENERICRA
- External Transmit Adapter: GENERICTA
- Validate IP Address: No

Internal Site	Internal Adapter	External Site	External Adapter	External Site Ip	Communication Links	E-Mail	Blackout Schedule	Adapter Type	Version	Resource	Software System
Software System	Generic										Save
Link	Link Identity Code	Internal Site	Internal Receive Adapter	Internal Transmit Adapter	External Site	External Receive Adapter	External Transmit Adapter	Validate IP Address	Action		
GENERICL1	GENERICL1	CMIC	GENERICRA	GENERICTA	GENERIC	GENERICRA	GENERICTA	No	+ -		

RTI Maintenance; standard Treeview path: File Maintenance > Real-Time Integration > RTI Maintenance – Communication Links tab

ECM Explorer

In the ECM Explorer Settings' General tab, navigate to the RTI Configuration section.

1. RTI WS Base URL: [https://\[environment\]/](https://[environment]/)
e.g. <https://v10xsandboxwls.cmicglobal.com/cmiproduct/>
2. Link Identity Code: GENERICL1
3. Receive Adapter Identity Code: GENERICRA
4. Transmit Adapter Identity Code: GENERICTA

The screenshot shows the 'Settings' window with the 'General' tab selected. The 'RTI Configuration' section is highlighted with a red box. It contains the following fields:

- RTI WS Base URL: <https://v10xsandboxwls.cmicglobal.com/cmiproduct/>
- Link Identity Code: GENERICL1
- Receive Adapter Identity Code: GENERICRA
- Transmit Adapter Identity Code: GENERICTA

Other visible settings include:

- Synchronization:** Auto-Synchronize Files Frequency (30 Min), Retry failed Synchronization Frequency (15 Min), Pull Notifications Frequency (0 Min).
- Lock:** ☐ Lock all downloaded files, ☒ Ask before downloading files, ☐ No Lock on downloaded files.
- Revisions:** ☐ Synchronize latest revisions only, ☒ Synchronize all revisions, ☐ Enable server auto renaming.
- Document Extraction Output Folder:** C:\ECM Extraction, with 'Set Default' and 'Browse' buttons.
- Drawing Data Extraction:** ☐ Extract Designer Ref. Value.
- Application Version:** 5.1.43.0

Buttons at the bottom right: Save, Cancel.