

File Writer Activity Overview

Last Modified on 02/21/2021 10:19 am EST

V9.3

Overview

Use the File Writer activity to create, edit, and save a file into the Cora SeQuence database as part of a workflow. After you create the file, you can access and use its data in other activities. You can also use the File Writer activity to generate a PDF file with data from forms.

Use cases

- Create a spreadsheet of all support tickets with a designated severity level.
- Create a file from large, unstructured data, and import it to Cora SeQuence.
- Create a file and use it as an attachment in File Activities.
- Create PDF files for archiving or printing purposes.

Configuration properties by file type

You can create three types of files: CSV, OpenXML, or PDF.

For all file types, you need to define the file's access mode:

File Writer Definition

File Name *
Name of the file you want to create (e.g. file.xls)

...

File Type *
Select Type

Access Mode *

Internal
Private
Internal
Public

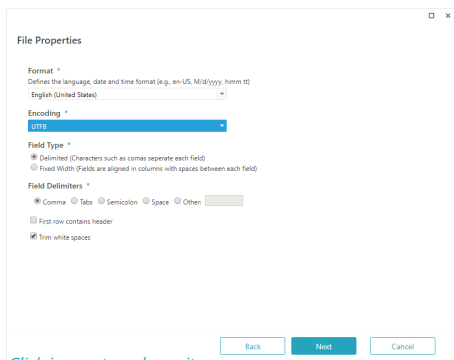
Back Next Cancel

- Internal (default): Allows the system to access the file and share it with a different workflow.
- Private: Only you can access the file.

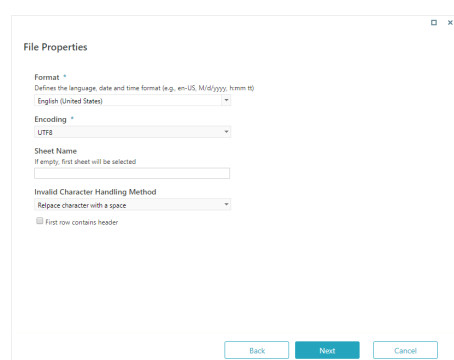
- Public: Anyone can access the file.

Each file type requires different properties.

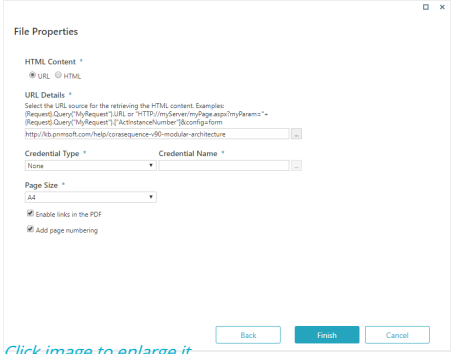
Main CSV file properties

Property	Description	Wizard
Encoding	Supported character encoding types: <ul style="list-style-type: none"> • Default • ASCII • Big-Endian Unicode • Unicode • UTF32 • UTF7 • UTF8 	 <p>Click image to enlarge it.</p>
First row contains header	Select this option, if the first row of the source file contains a header. In this case, the first row is skipped when the file is processed.	
Trim white spaces	Removes unnecessary spaces in cell values. This option is selected by default.	

Main OpenXML file properties

Property	Description	Wizard
Encoding	Supported character encoding types: <ul style="list-style-type: none"> • Default • ASCII • Big-Endian Unicode • Unicode • UTF32 • UTF7 • UTF8 	 <p>Click image to enlarge it.</p>
Sheet Name	If the source file contains more than one sheet, specify the name of the sheet that you want to process.	
First row contains header	Select this option, if the first row of the source file contains a header. In this case, the first row is skipped when the file is processed.	

Main PDF file properties

Property	Description	Wizard
HTML Content	URL: Enter the URL where the content for the PDF file is.	 <p>Click image to enlarge it.</p>
	HTML: Paste the HTML code from which to create the PDF file.	
Credential Type	Required only for URL sources. If the URL that you entered requires credentials, set the credential type and name.	
Page Size	If the PDF needs to be printed, select the required paper size.	
Enable links in the PDF	Select this option to activate hyperlinks from the source HTML in the PDF file.	
Add page numbering	Select this option to display page numbers in the PDF file.	

Best practices for creating PDF files

You can create PDF files for archiving or printing purposes. For example, you can create a PDF that includes all the sign-off forms of a workflow for future auditing procedures.

When you create a PDF file, you can either specify a URL that contains the required HTML content, or write your own HTML using a code editor.

When you specify a URL, make sure that:

- All the external resources, such as CSS, JS, and image files, referenced in the HTML can be accessed.
- Do not use any JavaScript that dynamically changes the HTML DOM as the changes may not be reflected in the generated PDF document.

When designing your own HTML:

- Take into consideration the target paper size dimensions (width and height) and use the correct units of measurement when placing controls on the page.
- If the PDF file does not need to be printed, select a larger paper size for complex forms. For example, select A3 instead of A4.
- Use a simple page layout.
- Reduce image size and avoid embedded objects and JavaScript.
- Design the HTML code to fit a PDF output, and not as a regular HTML page.

Configure the File Writer activity

1. Add the File Writer activity to your workflow.
 - a. In the Properties screen, enter a name for the activity, then click **Next**.
2. Define the file type.
 - a. In the Definition screen, enter a name for the file that you want to create, including file extension.
 - b. Select a file type: **CSV**, **OpenXML**, or **PDF**.

IMPORTANT

After you select a file type and click **Next**, you cannot change the file type. To change the file type, cancel the activity wizard and start a new activity wizard.

3. Define the file properties.

For details, see the *Configuration properties by file type* section above.

4. Do one of the following:

- If you are creating a PDF file, click **Finish**.
- If you are creating CSV and OpenXML files, you need to map the fields in the file with values from a source file.

For more details, see the *Define field properties* section below.

Click **Next**.

Define field properties

When configuring CSV and OpenXML files, you need to map the fields in the file with values retrieved from the source file.

You can set up advanced formatting properties for Date, Time, DateTime, and Boolean values.

1. In the File Field Properties screen, set the source file used to create the CSV or OpenXML file.

File Field Properties

Source Query * Example: {Request}.Query("MyRequest")

Name *	Value *	Field Type *	Advanced Options
Name	{Form1}.CreatedBy.Disp ...	String	
Date	{Form1}.CreatedAt ...	Date	
Priority	{Form1}.Status ...	Int32	

+ Add Field

Back Finish Cancel

2. Define the field properties:

- Under Name, define the name of the property in the target file.
- Under Value, click the ellipsis button to define the relevant value in the Expression Wizard.
- Under Field Type, select a relevant type for each field.

3. If additional fields are required, click **Add Field**.

4. (Optional) For Date, Time, DateTime, and Boolean fields, you can define additional options.

Click **Advanced Options**, and select the required format:

Date, Time, DateTime

Advanced Options - DateTime

- Use default settings
e.g. 9/24/2017
- Use standard format
dddd, MMMM d, yyyy (Sunday, September 24, 2017)
- Define custom format
e.g. yyyy/MM/dd hh:mm:ss

OK Cancel

- Use default settings: the format defined for your system.
- Use standard format: select one of the available standards.
- Define custom format: set up your own format.

Boolean

Advanced Options - Boolean

- Use default options
- Define custom values

True

False

OK Cancel

- Use default options: the format defined for your system.
- Define custom values: enter the values to use instead of true and false.

NOTE

To make sure that the output files can be easily shared, starting with V9.2, new files created with the File Writer activity are set to public access mode *by default*.

Starting from V9.5, for OpenXML files, the date, time, and numeric fields are mapped to the relevant data types per the source file, and calculation can be done on these using specific data functions.

For example, numeric field mapped to Int32 field type appears with General data type in the OpenXML file, and all calculations can be done on it using numeric functions.

Access and use the file's data

After you create the file, you can access its data through the File Writer activity's metadata.

For example, if you want to use data from the created file in a Put File activity, you can set the created file as the file source.

File Source Expression ?

Use the panel below to build your expression (or type it manually) using fields and functions.

+ - * / () AND OR NOT = > >= <> < <= NULL

Fields

- FileWriter1
 - <> (metadata)
 - ActivityAlias
 - ActivityId
 - ActivityInstanceId
 - ActivityName
 - CompletedAt
 - Content
 - CreatedAt
 - CreatedBy
 - FileId
 - FileName
 - Result
 - SourceActivityInstanceId

Functions

- <> Convert
- <> Date & Time
- <> JSON
- <> Mathematic
- <> Mathematic Advanced
- <> String
- <> Users & Groups
- <> XPath

Clear Validate OK Cancel

V9.2

Overview

Use the File Writer activity to create, edit, and save a file into the Cora SeSequence database as part of a workflow. After you create the file, you can access and use its data in other activities. You can also use the File Writer activity to generate a PDF file with data from forms.

Use cases

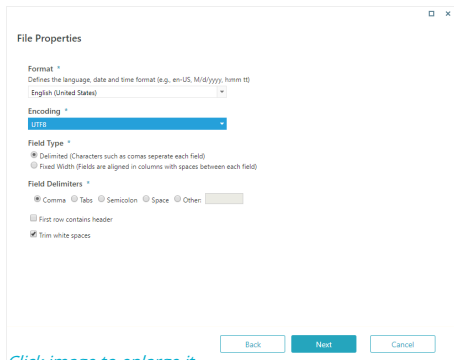
- Create a spreadsheet of all support tickets with a designated severity level.
- Create a file from large, unstructured data, and import it to Cora SeSequence.
- Create a file and use it as an attachment in File Activities.
- Create PDF files for archiving or printing purposes.

Configuration properties by file type

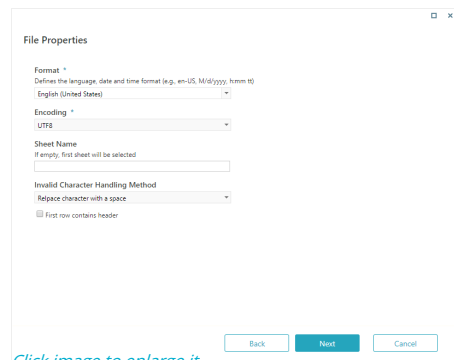
You can create three types of files: CSV, OpenXML, or PDF. Each file type requires different properties.

Main CSV file properties

Property	Description	Wizard
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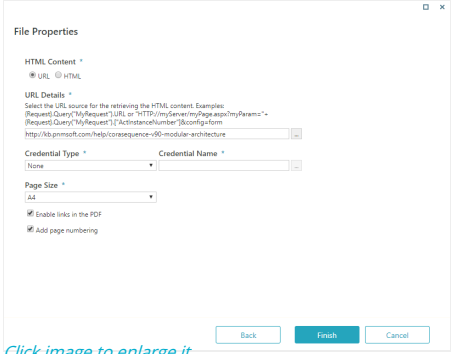
Property	Description	Wizard
Encoding	Supported character encoding types: <ul style="list-style-type: none"> • Default • ASCII • Big-Endian Unicode • Unicode • UTF32 • UTF7 • UTF8 	 <p>Click image to enlarge it.</p>
First row contains header	Select this option, if the first row of the source file contains a header. In this case, the first row is skipped when the file is processed.	
Trim white spaces	Removes unnecessary spaces in cell values. This option is selected by default.	

Main OpenXML file properties

Property	Description	Wizard
Encoding	Supported character encoding types: <ul style="list-style-type: none"> • Default • ASCII • Big-Endian Unicode • Unicode • UTF32 • UTF7 • UTF8 	 <p>Click image to enlarge it.</p>
Sheet Name	If the source file contains more than one sheet, specify the name of the sheet that you want to process.	
First row contains header	Select this option, if the first row of the source file contains a header. In this case, the first row is skipped when the file is processed.	

Main PDF file properties

Property	Description	Wizard
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Property	Description	Wizard
HTML Content	URL: Enter the URL where the content for the PDF file is.	 <p>Click image to enlarge it.</p>
	HTML: Paste the HTML code from which to create the PDF file.	
Credential Type	Required only for URL sources. If the URL that you entered requires credentials, set the credential type and name.	
Page Size	If the PDF needs to be printed, select the required paper size.	
Enable links in the PDF	Select this option to activate hyperlinks from the source HTML in the PDF file.	
Add page numbering	Select this option to display page numbers in the PDF file.	

Best practices for creating PDF files

You can create PDF files for archiving or printing purposes. For example, you can create a PDF that includes all the sign-off forms of a workflow for future auditing procedures.

When you create a PDF file, you can either specify a URL that contains the required HTML content, or write your own HTML using a code editor.

When you specify a URL, make sure that:

- All the external resources, such as CSS, JS, and image files, referenced in the HTML can be accessed.
- Do not use any JavaScript that dynamically changes the HTML DOM as the changes may not be reflected in the generated PDF document.

When designing your own HTML:

- Take into consideration the target paper size dimensions (width and height) and use the correct units of measurement when placing controls on the page.
- If the PDF file does not need to be printed, select a larger paper size for complex forms. For example, select A3 instead of A4.
- Use a simple page layout.
- Reduce image size and avoid embedded objects and JavaScript.
- Design the HTML code to fit a PDF output, and not as a regular HTML page.

Configure the File Writer activity

1. Add the File Writer activity to your workflow.
 - a. In the Properties screen, enter a name for the activity, and then click **Next**.
2. Define the file type.
 - a. In the Definition screen, enter a name for the file that you want to create, including file extension.
 - b. Select a file type: **CSV**, **OpenXML**, or **PDF**.

IMPORTANT

After you select a file type and click **Next**, you cannot change the file type. To change the file type, cancel the activity wizard and start a new activity wizard.

3. Define the file properties.

For details, see the *Configuration properties by file type* section above.

4. Do one of the following:

- If you are creating a PDF file, click **Finish**.
- If you are creating CSV and OpenXML files, you need to map the fields in the file with values from a source file.

For more details, see the *Define field properties* section below.

Click **Next**.

Define field properties

When configuring CSV and OpenXML files, you need to map the fields in the file with values retrieved from the source file.

You can set up advanced formatting properties for Date, Time, and DateTime values.

1. In the File Field Properties screen, set the source file used to create the CSV or OpenXML file.

File Field Properties

Source Query * Example: {Request}.Query("MyRequest")

Name *	Value *	Field Type *	Advanced Options
Name	{Form1}.CreatedBy.Disp ...	String	
Date	{Form1}.CreatedAt ...	Date	
Priority	{Form1}.Status ...	Int32	

+ Add Field

Back Finish Cancel

2. Define the field properties:

- Under Name, define the name of the property in the target file.
- Under Value, click the ellipsis button to define the relevant value in the Expression Wizard.
- For each field, select a relevant type.

3. If additional fields are required, click **Add Field**.

4. (Optional) For date, dateTime, time, and Boolean fields, you can define additional options.

Click **Advanced Options**, and select the required format:

Date, Time, DateTime

Advanced Options - DateTime

Use default settings
e.g. 9/24/2017

Use standard format
dddd, MMMM d, yyyy (Sunday, September 24, 2017)

Define custom format
e.g. yyyy/MM/dd hh:mm:ss

OK Cancel

- Use default settings: the format defined for your system.
- Use standard format: select one of the available standards.
- Define custom format: set up your own format.

Boolean

Advanced Options - Boolean

Use default options

Define custom values

True

False

OK Cancel

- Use default options: the format defined for your system.
- Define custom values: enter the values to use instead of true and false.

NOTE

To make sure that the output files can be easily shared, starting with V9.2, new files created with the File Writer activity are set to public access mode *by default*.

Access and use the file's data

After you create the file, you can access its data through the File Writer activity's metadata.

For example, if you want to use data from the created file in a Put File activity, you can set the created file as the file source.

File Source Expression ?

Use the panel below to build your expression (or type it manually) using fields and functions.

+ - * / () AND OR NOT = > >= <> < <= NULL

Fields	Functions
<ul style="list-style-type: none"> FileWriter1 <ul style="list-style-type: none"> <> (metadata) ActivityAlias ActivityId ActivityInstanceId ActivityName CompletedAt Content CreatedAt CreatedBy FileId FileName Result SourceActivityInstanceId 	<ul style="list-style-type: none"> Convert Date & Time JSON Mathematic Mathematic Advanced String Users & Groups XPath

Clear Validate OK Cancel

V9.1 and earlier

Context

Use the File Writer Activity to create a file, write (edit) to the file, and save the file to the Cora SeSequence database as part of a workflow. After you create the file, you can access and use the file's data in other activities.

Use Cases

- Create a spreadsheet of all support tickets with a designated severity level.
- Create a file from large, unstructured data that you import to .
- Create a file and use it as an attachment in File Activities.
- File enrichment.

Define the File

- Type a file name including the file extension.
- Select a file type: CSV or OpenXML

IMPORTANT: After you select a file type and click Next, you cannot change the file type (even if you click back). If you need to change the file type, cancel the activity wizard and start a new activity wizard. See the

screenshot below.

File Writer Definition

File Name *

Name of the file you want to create (e.g. file.xls)

ServiceRequests.xml

File Type *

CSV

Back

Next

Cancel

File Writer Definition

File Name *

Name of the file you want to create (e.g. file.xls)

ServiceRequests.xml

File Type *

CSV

Cannot change file type after clicking Next, then Back.

Back

Next

Cancel

CSV Files

CSV Files Configuration Parameters

Parameter	Description
Encoding	<ul style="list-style-type: none">• ASCII• Big-Endian Unicode• Unicode• UTF32• UTF7• UTF8
First row contains header	Select if the first row of the source file contains a header. This row is skipped when the file is processed.
Has fields enclosed in quotes	Fields contain quotations when they are used to count separator symbols as part of the field value. For example, if a field value is 52,345 and comma is a defined separator, the entire field is wrapped in quotations "52,345". Cases in which a field is wrapped in quotations for other reasons, and the Has fields enclosed in quotes checkbox is selected, the quotations are removed from the field.
Trim white spaces	Removes unnecessary spaces in cell values. This option is selected by default.

File Properties

Format *

Defines the language, date and time format (e.g., en-US, M/d/yyyy, h:mm tt)

English (United Kingdom) ▼

Encoding *

UTF8 ▼

Field Type *

- Delimited (Characters such as comas separate each field)
 Fixed Width (Fields are aligned in columns with spaces between each field)

Field Delimiters *

Comma Tabs Semicolon Space Other:

Comment Tokens

If the line starts with these characters, the line will be considered a comment (e.g. "//")

- First row contains header
 Has fields enclosed in quotes
 Trim white spaces

Back

Next

Cancel

OpenXML Files

OpenXML Files Configuration Parameters

Parameter	Description
Encoding	<ul style="list-style-type: none">• ASCII• Big-Endian Unicode• Unicode• UTF32• UTF7• UTF8
Sheet Name	If the file contains more than one sheet, specify the sheet name that you want to process. If this field is empty, the first sheet in the file is selected.
First row contains header	Select if the first row of the source file contains a header. This row is skipped when the file is processed.

File Properties

Format *

Defines the language, date and time format (e.g., en-US, M/d/yyyy, h:mm tt)

English (United Kingdom) ▾

Encoding *

UTF8 ▾

Sheet Name

If empty, first sheet will be selected

First row contains header

Back

Next

Cancel

Define Field Properties - All File Types

This window depends on previous configurations. In this example, we selected a CSV file with fixed width.

File Field Properties Configuration Parameters

Parameter	Description
Source Query	The source of the data that you want to include in the file.
Name	Field name that you enter.
Value	Field value.
Field Type	Determines the valid values for the property.
Advanced Options	See the Advanced Options section.

File Field Properties

Source Query * Example: {Request}.Query("MyRequest")

{Service Request Details} ...

Name *	Value *	Field Type *	Advanced Options
Name	{Service Request Details} ...	String	
Date	{Service Request Details} ...	String	
Priority	{Service Request Details} ...	String	

+ [Add Field](#)

Back

Finish

Cancel

Define Advanced Options - All Files (optional)

Date/Time Configuration

Advanced Options - Date/Time - Web page Dialogue

Advanced Options - Date/Time

Use default settings
e.g. 24/09/2017

Use standard format
dd MMMM yyyy (24 September 2017)

Define custom format
e.g. yyyy/MM/dd h:mm:ss

OK Cancel

Time Configuration

Advanced Options - Time-- Web page Dialogue

Advanced Options - Time

Use default settings
e.g. 16:02:21:20

Use standard format
d':'hh':'mm':'ss.ffffff (16:02:21:20.0000000)

Define custom format
e.g. h:mm:ss tt

OK Cancel

Access and Use the File's Data

After you create the file, you can access the file's data from the activity's metadata. For example, if you want to use data from the created file in a Put File Activity, you can use the created file when defining the file source.

File Source Expression

Use the panel below to build your expression (or type it manually) using fields and functions.

{FileWriter1}.Result

+ - * / () AND OR NOT = > >= <> < <= NULL

Fields

- FileWriter1
 - <> (metadata)
 - ActivityAlias
 - ActivityId
 - ActivityInstanceId
 - ActivityName
 - CompletedAt
 - Content
 - CreatedAt
 - CreatedBy
 - FileId
 - FileName
 - Result
 - SourceActivityInstanceId
 - Status

Functions

- <> Convert
- <> Date & Time
- <> JSON
- <> Mathematic
- <> Mathematic Advanced
- <> String
- <> Users & Groups
- <> XPath

Clear Validate OK Cancel

