

**precisely**

# EngageOne Enrichment

## Editor User Guide

Version 7.4.2



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# 1 - Installation

The EngageOne Enrichment Editor is a web-based rich user interface application that enables you to design and test Enrichment applications. It allows you to create control files without the need for a complete understanding of Enrichment scripting language syntax.

It provides a user interface to define fields, identify documents and pages, and complete common operations like adding barcodes. It can also be used to test these applications before pushing them into production environments.

This section describes defines the basic system requirements and how to install Enrichment Editor.

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# System Requirements

To install the Enrichment Editor, the following minimum system configuration is required.

## *Operating system*

One of the following:

- Windows 7 or Windows 10
- Windows Server 2008, Windows Server 2012, or Windows Server 2016

## *Libraries*

Visual C++ Redistributable for Visual Studio 2015  
(<https://www.microsoft.com/en-us/download/details.aspx?id=48145>)

## *Processing*

1.6 GHz CPU or higher

## *Free disk space*

The system needs a minimum of 500 MB of free disk space.

**Note:** The EngageOne Enrichment Editor requires the EngageOne Enrichment Engine 7.3.1.

Libraries

# Installing Enrichment Editor

This section describes how to install Enrichment Editor. By default it is only available to local users. However, you can configure **Internet Information Services (IIS) Manager** to allow access to users in the same domain. Access can be over an encrypted connection (HTTPS).

## Installation Steps

To install the Enrichment Editor on the local machine:

1. Download the `EO_EnrichmentEditor7.x.exe` installation file from the Precisely e-store for your region.

**Note:** The install file may be provided as an archive or zip file that you must extract before use.

2. Double-click the install file.
3. If a dialog is displayed prompting you to confirm that you want this application to make changes to your PC, click **OK**.

The **InstallShield Wizard** is displayed.

4. Click **Next**.
5. Select **I accept the terms in the license agreement**, and click **Next**.

The **Choose Destination Location** window is displayed.

6. Click **Change** if you wish to define a different installation folder from the default shown.
7. Leave the **Key Value** set to the default, the installation process obtains this value from the environment variable. However, you can change or override your existing key value if you need.
8. Click **Next** and then follow the on-screen prompts.
9. When prompted, click **OK** to restart your computer.

Once your computer has restarted, the Enrichment Editor is now installed and a shortcut icon is created on the desktop.

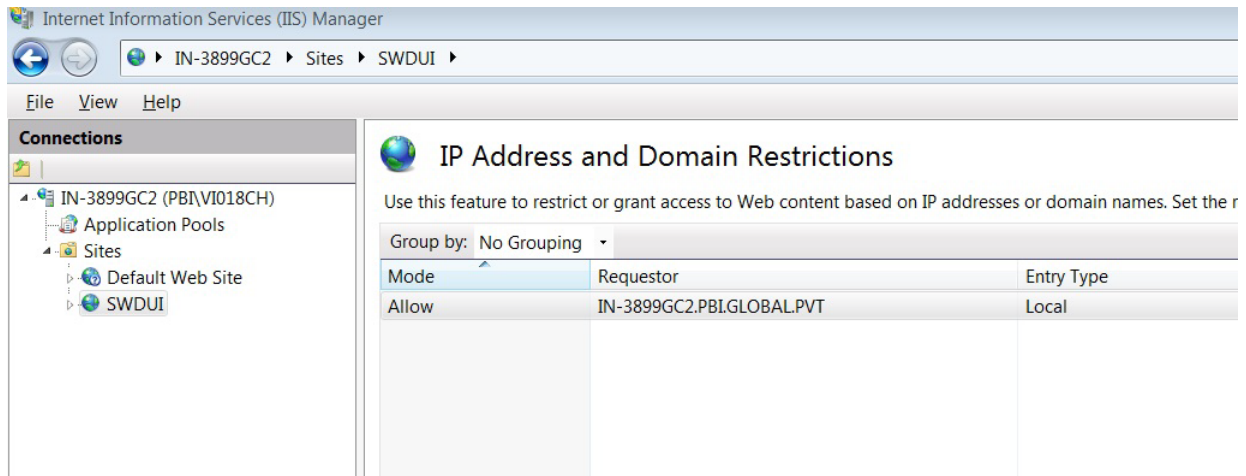
## Making Enrichment Editor Accessible to All Domain Users

By default Enrichment Editor is accessible only to the local machine. The following steps describe how to make it accessible to all users in the domain.

1. Use the **Windows Search** facility to find **Internet Information Services (IIS) Manager** and open it.
2. In the **Connections** pane, click your machine name to expand the hierarchy.
3. Click **Sites** to expand the hierarchy.
4. Click **SWDUI**.

The **SWDUI Home** page of the site opens.

- On **SWDUI Home**, double-click **IP Address and Domain Restrictions** to open the following:



- Select the current entry in the table and click **Remove**.
- From the **Actions** pane, click **Add Allow Entry**.
- In the new row, click in the **Requester** column and replace the machine name with an asterisk.

For example, if the Requester is given as:

**machine\_name.your\_company.pvt**

change this to:

\*.your\_company.pvt

The next step is to configure a secure connection (HTTPS) for accessing Enrichment Editor.

## Configuring a Secure Connection

Using Enrichment Editor over an HTTPS connection requires an SSL certificate. You can generate a self-signed SSL certificate in Internet Information Services (IIS) Manager. You must bind the SSL certificate to port 8085.

- On the **Start** menu, go to **Administrative Tools > Internet Information Services (IIS) Manager**.
- In the **Connections** pane, select your machine.

The **<MACHINE NAME> Home** page is displayed.

- Create the self-signed certificate:
  - On **<MACHINE NAME> Home**, double-click **Server Certificates**.
  - In the **Actions** pane, click **Create Self-Signed Certificate**.

The **Create Self-Signed Certificate** dialog opens.

- Enter any friendly name for the certificate and then click **OK**.

An IIS self-signed certificate is now listed in the **Server Certificates** pane. The certificate common name (Issued To) is the full name of the machine.

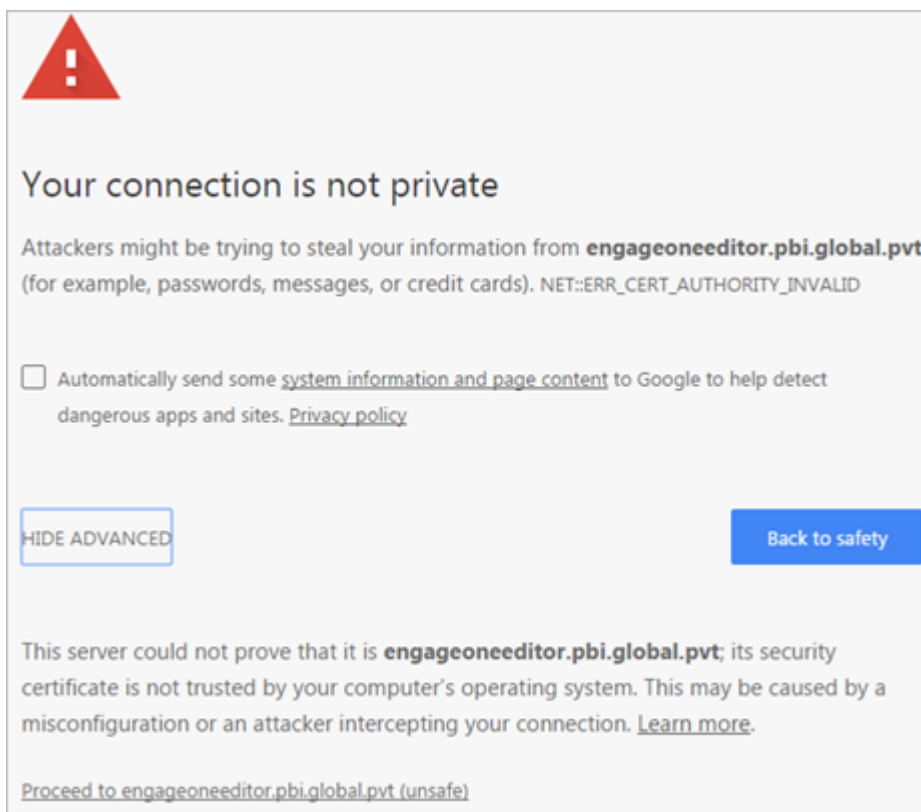
4. Bind the certificate to the IIS site:
  - a) In the **Connections** pane, select your server. This will be the name of the machine you installed on.
  - b) Expand **Sites** and select the server to which you want to bind the certificate.
  - c) In the **Actions** pane, click **Bindings**.
  - d) Click **Add**.

The **Add Site Binding** dialog opens. It shows that the server is currently using port 8080.

- e) Enter the following details and then click **OK**:

- **Type:** https
- **Port:** 8085
- **SSL certificate:** select the certificate you have just generated.

- f) The **Site Bindings** dialog now lists two ports: 8080 and 8085. If you want, you can delete the port binding for port 8080 as you do not need it. Click **Close**.
5. Test the HTTPS connection to the machine on which you installed Enrichment Editor:
    - a) In a browser go to `https://MachineFullName:8085`  
where *MachineFullName* is the name of the machine you installed on.
    - b) The first time you log in, you may see a warning that the SSL certificate is invalid or that there is a problem with the website. The warning appears because you are using a self-signed certificate. For example this is the message you see when using Chrome:



- c) To continue to Enrichment Editor, click the link to your server or click the Add Exception button (on Firefox).



## Suppress IIS Version information - optional

If you would like to hide the version number in IIS HTTP Headers, you will first need to install URL Rewrite; a Microsoft supported IIS plugin, currently available here: <https://www.iis.net/downloads/microsoft/url-rewrite>.

To suppress IIS version information add the following to:

```
<installation folder>\DocEnrichmentWcf\web.config
```

- and -

```
<installation folder>\DocEnrichmentUI\web.config
```

This text would be included in the `<system.webserver>` block.

```
<rewrite>
<outboundRules>
<rule name="Remove RESPONSE_Server" >
<match serverVariable="RESPONSE_Server" pattern="." />
<action type="Rewrite" value="" />
</rule>
<rule name="Remove RESPONSE_x-aspnet-version" >
<match serverVariable="RESPONSE_x-aspnet-version" pattern="." />
<action type="Rewrite" value="" />
</rule>
</outboundRules>
</rewrite>
```

You will need to restart IIS for the changes to take effect.

## Troubleshooting Connection Issues

This section explains what to do if remote users are unable to access Enrichment Editor.

### Step 1: Re-install Enrichment Editor

1. Uninstall Enrichment Editor using Programs and Feature under Control Panel.
2. Remove the entire installation folder and delete everything including the parent folder `EnrichmentEditor7.x`.
3. Restart your machine.
4. Right-click on the `EO_EnrichmentEditor7.x.exe` installer and select **Run as administrator**.

### Step 2: Check IIS dependencies

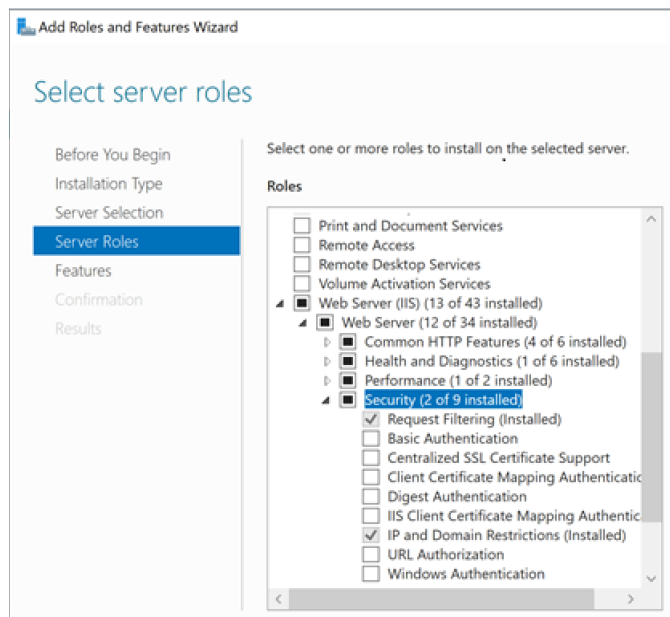
**Note:** The following steps will vary depending on the Windows version.

#### (Windows Server)

1. Go to **Control Panel -> Programs -> Turn Windows features on or off**.
2. Click **Turn Windows features on or off**.

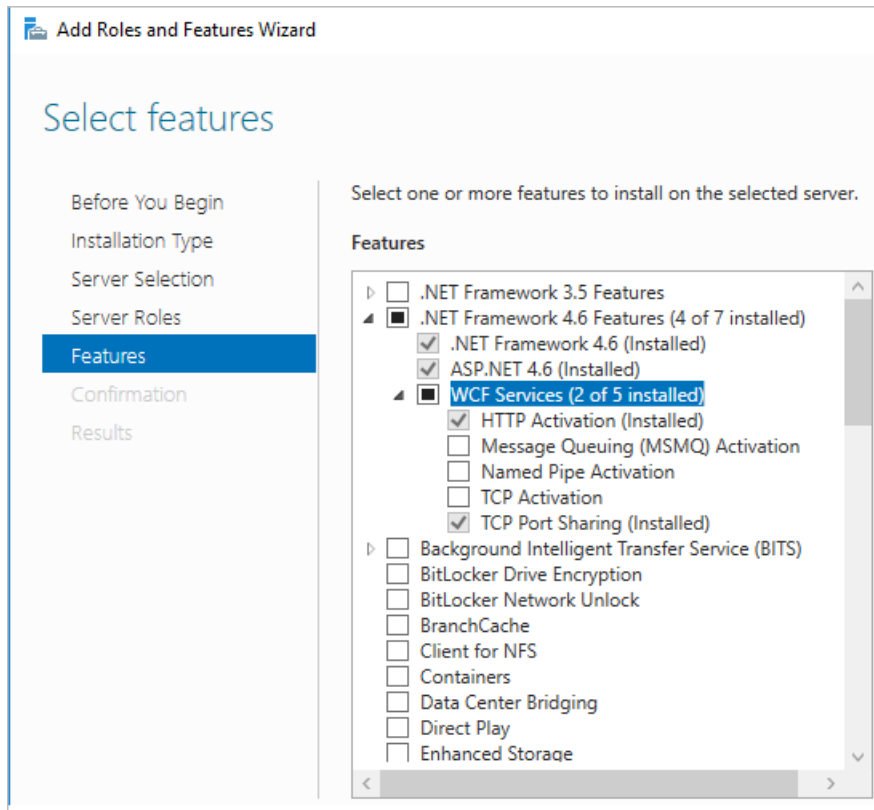
Depending on the Windows version, the **Add Roles and Features Wizard** is displayed. Click **Next** until the **Select features** page is displayed (see below).

3. Check that under **Web Server (IIS) > Security**, the **IP and Domain Restriction** option is selected.



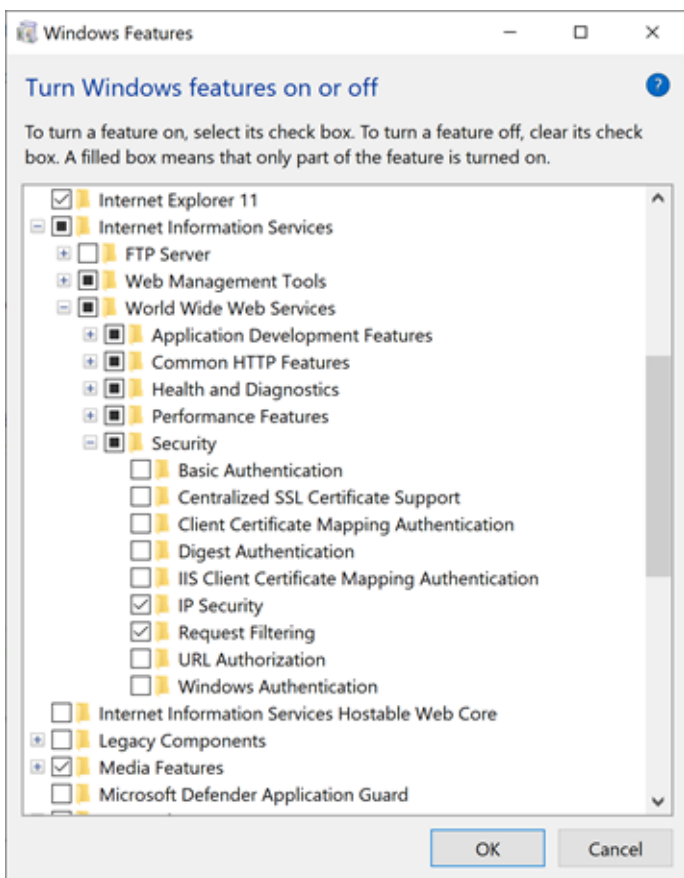
Depending on the Windows Server version, the **Add Roles and Features Wizard** is displayed. Click **Next** until the **Select features** page is displayed (see below).

4. Check that under **.NET Framework x Features > WCF Services**, the **HTTP Activation** option is selected.

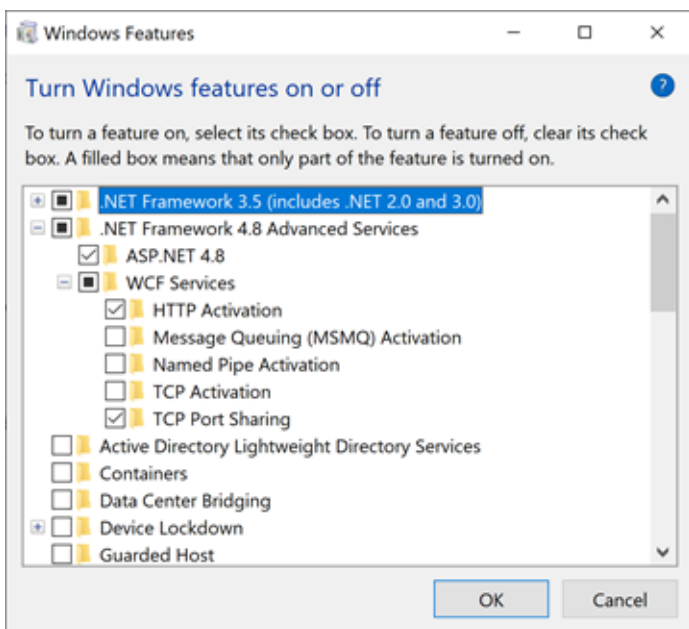


### (Windows 10)

1. Go to **Control Panel -> Programs and Features-> Turn Windows features on or off**.
2. Click **Turn Windows features on or off**.
3. Check that under **Internet Information Services > World Wide Web Services > Security**, the **IP Security** option is selected. This option enables IP and Domain restriction properties in IIS Manager.



4. Check that under **.NET Framework x Advanced Services > WCF Services**, the **HTTP Activation** option is selected.

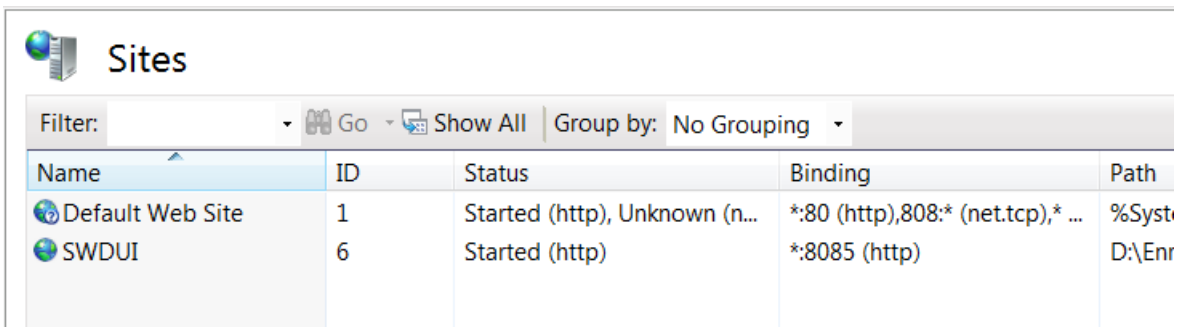


### Step 3: Check that IIS is set up correctly

1. Start Internet Information Services (IIS) Manager by using the Control Panel or by typing `inetmgr` in the **Run** dialog.
2. In the **Connections** pane, click **Application Pools**.
3. In the list of application pools, locate **SWD\_UI** and check its status.

The status should be **Started**. If the status is **Stopped**, right-click **SWD\_UI** and change it to **Started**.

4. In the **Connections** pane, click **Sites**.
5. In the list of sites, **SWD\_UI** should have **Started** status:



The screenshot shows the IIS Manager 'Sites' view. It features a table with columns for Name, ID, Status, Binding, and Path. Two sites are listed: 'Default Web Site' and 'SWDUI'. The 'SWDUI' site is highlighted, showing its status as 'Started (http)' and its binding as '\*:8085 (http)'.

Name	ID	Status	Binding	Path
Default Web Site	1	Started (http), Unknown (n...	*:80 (http),808:* (net.tcp),* ...	%Syste...
SWDUI	6	Started (http)	*:8085 (http)	D:\Enr...

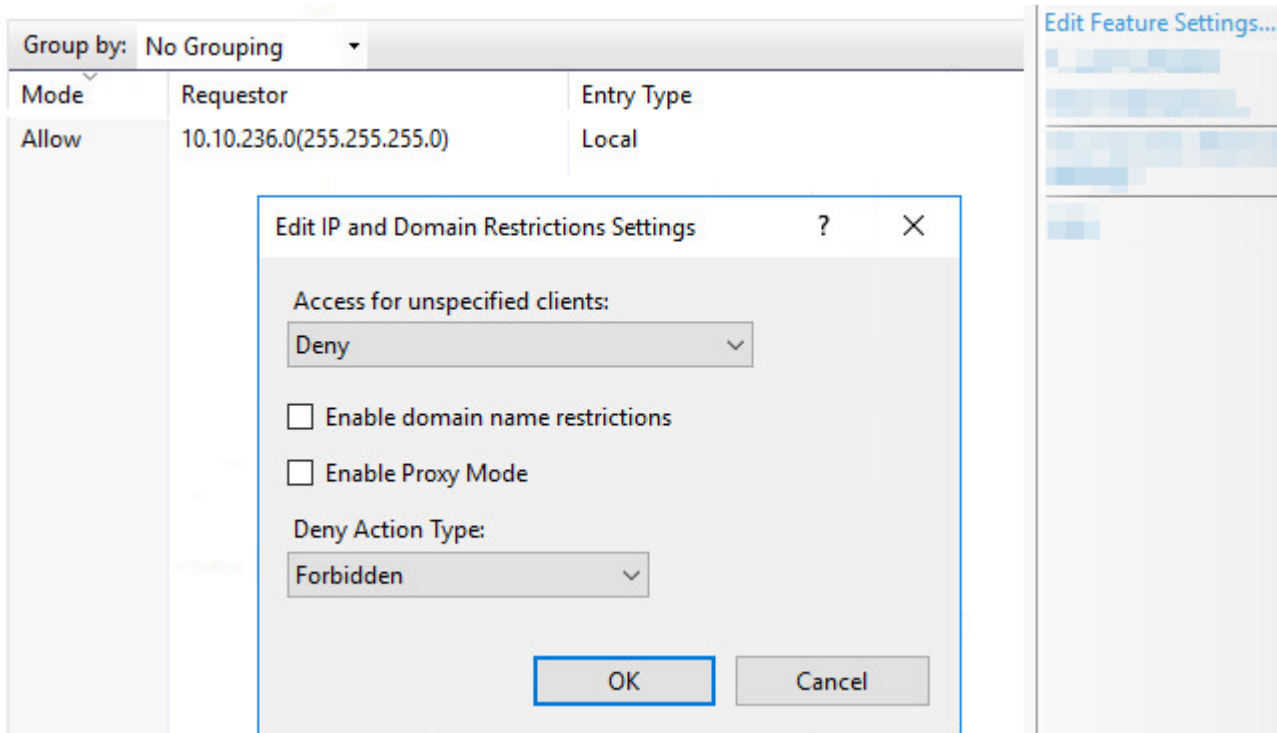
6. In the **Connections** pane, expand **Sites** and click **SWDUI**.
7. On the **SWDUI Home** page, double-click the **IP Address and Domain Restrictions** option, and check that **Mode** is set to **Allow**.



The screenshot shows the 'IP Address and Domain Restrictions' configuration page. It includes a 'Group by' dropdown set to 'No Grouping' and a table with columns for Mode, Requestor, and Entry Type. One entry is visible with 'Allow' mode, requestor 'EOEDITORTEST.pbi.global.pvt', and 'Local' entry type.

Mode	Requestor	Entry Type
Allow	EOEDITORTEST.pbi.global.pvt	Local

8. In the **Actions** pane, select **Edit Feature Settings...** and check that access for unspecified clients is set to **Allow**.



**Note:** On Windows Server 2016 with IIS 10 you may see the following error: HTTP Error 403.14 forbidden IIS 10

To address this, you can either enable Directory Browsing or add a default document:

1. In IIS Manager, expand server name, expand **Web sites**, and then select the website (SWDUI).
2. In the **Features** view, do one of the following:
  - Double-click **Directory Browsing**, and then in the **Actions** pane, click **Enable**.
  - Double-click **Default Document**, and then in the **Actions** pane, click **Enable**. In the **File Name** box, type the name of the default document, and then click **OK**.

#### Step 4: Restart IIS

1. In the **Connections** pane, select **Sites**.
2. In the **Actions** pane, click **Restart**.

Alternatively you can reset IIS from the command prompt using `iisreset` command.

3. Run Enrichment Editor by double-clicking the icon on the desktop.

### *Getting additional help*

If you have tried the steps given above and remote users are still unable to access Enrichment Editor then contact Support.

Please be ready to provide the following information:

- A screen shot showing the error message.
- The following Enrichment Editor log files:
  - C:\EnrichmentEditor7.x\DocEnrichmentWcf\Logs\log.txt
  - C:\EnrichmentEditor7.x\DocEnrichmentUI\app\app.js
  - C:\EnrichmentEditor7.x\DocEnrichmentWcf\Web.config
- The IIS log file:
  - C:\inetpub\logs\LogFiles (the exact path will depend on the ID assigned to the SWDUI in the IIS Manager)

# 2 - Getting Started

This section describes how to open the Enrichment Editor ready for use.

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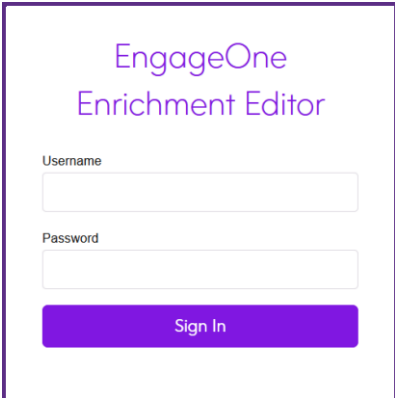


# Signing in

To open the EngageOne Enrichment Editor follow the procedure, below:

1. Either:
  - Double-click the Enrichment Editor icon on the Windows Desktop
  - Or, navigate to **EngageOne > EngageOne Enrichment Editor 7.x > EngageOne Enrichment Editor** from the Windows Start menu.

The **Sign In** page is displayed:



EngageOne  
Enrichment Editor

Username

Password

Sign In

2. Type in your user credentials.

By default the user name is **admin** and the password is **password**.

**Note:** You can log on using LDAP credentials.

3. Click **Sign In**.

Enrichment Editor is opened as shown below.

**Note:** Your user name is shown in the top right of the screen.

EngageOne Enrichment Editor ⚙️ 🔄 ? admin

5 Projects

[New](#) [Import](#)

<input type="checkbox"/> Name ^	Description	Input Name	Original File	
<input type="checkbox"/> Add_Barcode	Adding a QR Barcode	INPUT	address.pdf	🔒 📄 📁 🗑️
<input type="checkbox"/> Application	Demo application	INPUT	address.pdf	🔒 📄 📁 🗑️
<input type="checkbox"/> cloneApplication725	testing	INPUT	address.pdf	🔒 📄 📁 🗑️
<input type="checkbox"/> DemoApplication1	Test Application	INPUT	address.pdf	🔒 📄 📁 🗑️
<input type="checkbox"/> Direct_Debit-Dishonour	keystart Direct_Debit-Dishonour_Letter	INPUT	address.pdf	🔒 📄 📁 🗑️

## Session timeout

The session time-out is set to 30 minutes and represents the interval of inactivity after which you will be automatically signed out of the Enrichment editor.

### Session timeout warning

**Your session will expire automatically in 0 min 8 sec.**

Select "Continue Session" to extend your session.

[Continue Session](#)

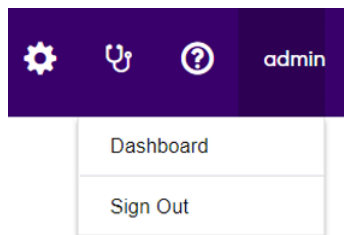
[End Session Now](#)

## Signing out

To sign out of Enrichment Editor, follow the procedure, below:

1. In the top right of the page, click your user name.

The following menu is opened:



2. Click **Sign Out**.

You are returned to the **Sign in** page.

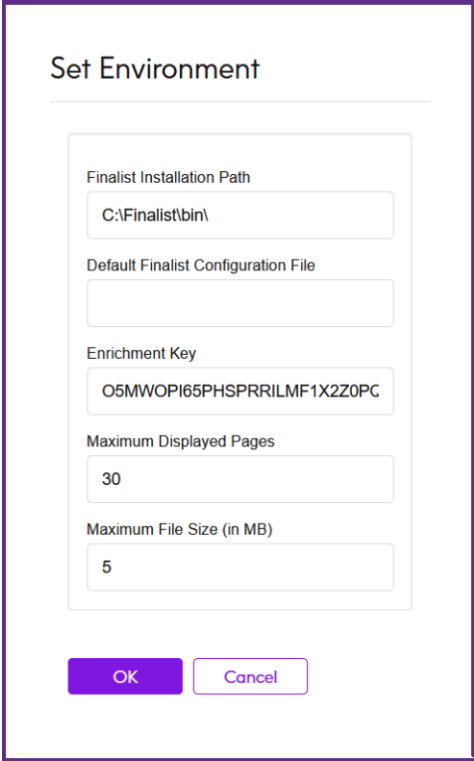
# Set Environment

Your environment settings are defined during installation. In the usual run of events, you will not need to change the settings; however, should you need to, follow the procedure, below.

**Warning:** Changing the values in these fields may cause Enrichment Editor to stop working.

1. In the top right corner of the Enrichment Editor page click .

The following dialog is displayed:



**Set Environment**

Finalist Installation Path  
C:\Finalist\bin\

Default Finalist Configuration File  
[Empty]

Enrichment Key  
O5MWOPi65PHSPRRILMF1X2Z0PG

Maximum Displayed Pages  
30

Maximum File Size (in MB)  
5

OK Cancel

2. Make the required changes and then click OK. The fields are described below:

Finalist Installation Path      The path to the Enrichment install folder.

Default Finalist Configuration File      The path to the Enrichment configuration file.

Enrichment Key      The license key for Enrichment.

Maximum Displayed Pages	The maximum number of document pages that may be viewed in the Enrichment Editor preview panel.
-------------------------	---

Maximum File Size	Specify the maximum file size (upload), in MB of an input file.
-------------------	---

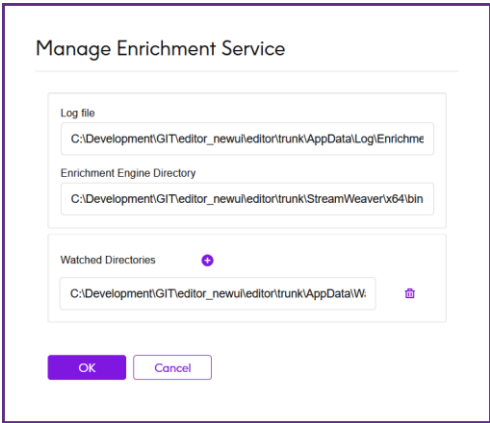
## Manage Enrichment Service

Your Enrichment Service setting are defined during installation. In the usual run of events, you will not need to change them; however, should you need to, follow the procedure, below.

**Warning:** Changing the values in these fields may cause Enrichment Editor to stop working.

1. In the top right corner of the Enrichment Editor page click .

The following dialog is displayed:



2. Make the required changes and then click **OK**. The fields are described below:

<b>Log file</b>	The path to the log file.
-----------------	---------------------------

<b>Enrichment Engine Directory</b>	The path to the Enrichment Engine.
------------------------------------	------------------------------------

<b>Watched Directories</b>	The directories Enrichment monitors for jobs. See <a href="#">Configuring Watched Directories</a> on page 22 for more information.
----------------------------	---

## Configuring Watched Directories

Watched directories are hot folders monitored by Enrichment. Once a PDF file is found in one of the defined directories it is automatically submitted to the Enrichment Engine for printing/fulfillment.

The Enrichment Watched directory Service does not support encrypted PDF files. PDFs are encrypted by Enrichment when they are submitted to the Enrichment Engine.

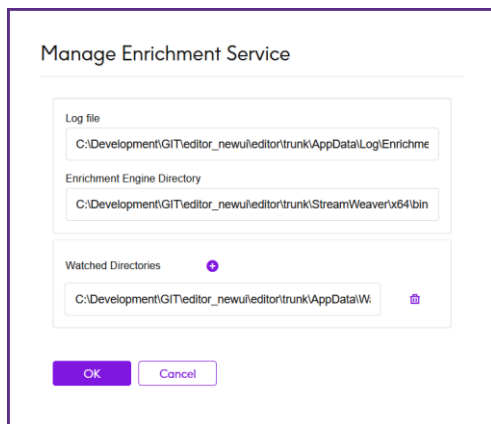
**Note:**

- It is the responsibility of the System Administrator/user of the system on which the Watched directories are created, to set up the required access rights and user permissions.
- UNC file paths are supported
- Only files with the extension `.pdf` are processed

To create a watched directory follow the procedure, below:

1. In the top right corner of the Enrichment Editor page click .

The following dialog is displayed:



2. In **Watched Directories** click .

The following is opened:

3. Type in the path to the required watched directory.
4. Repeat these steps to create further watched directories if required.
5. Once you have specified the required watched directories, click **OK**.

## Processing Multiple Input Files

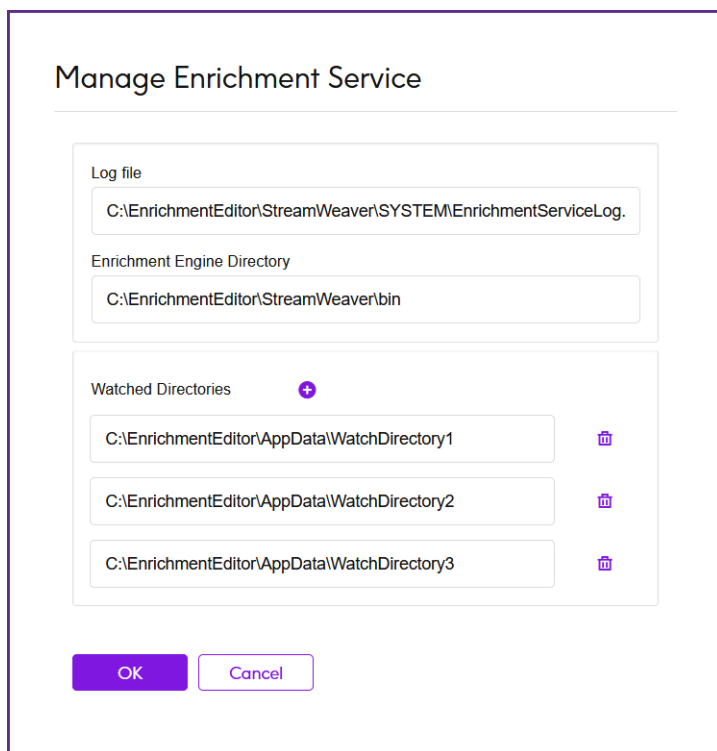
When a published control file is set to accept multiple input folders, the Enrichment service will only trigger an Enrichment run if the file `TriggerFile.txt` is present in the watched folder. After copying all the desired inputs into the hot folder, the file called `TriggerFile.txt` must be copied or created in the hot folder. Enrichment would then run using the control file in that folder.


## Deleting Watched Directories

To delete a watched directory follow the procedure, below:

1. In the top right corner of the Enrichment Editor page click .

The following dialog is displayed:



2. Click . The watched directory is removed.
3. Click **OK**.

## Custom parameters

When the service detects a job to be executed, it will read the file, **EnrichmentParms.txt** in the **job** directory. If present, it will read one line, and append those parameters to its command line when calling the engine.

## Troubleshooting the Enrichment Service

In the Enrichment service log, if you are seeing `Permission Denied` messages, be sure to enable full permissions for the watched directory and input files.



# 3 - Overview

This chapter gives an overview of the Enrichment Editor, its windows, tools and functions.

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# Enrichment Editor Dashboard

The Dashboard lists the all of the projects that have been created.

The screenshot shows the EngageOne Enrichment Editor dashboard. At the top, there is a dark purple header with the text "EngageOne Enrichment Editor" on the left and three icons (gear, refresh, help) and the username "admin" on the right. Below the header, the text "5 Projects" is displayed. Underneath, there are buttons for "New" and "Import", and a search bar with the placeholder text "Search". The main content is a table with the following columns: Name, Description, Input Name, and Original File. Each row represents a project and includes a checkbox on the left and a set of action icons (lock, refresh, help, delete) on the right. A preview window on the right side of the table is currently empty.

<input type="checkbox"/> Name	Description	Input Name	Original File	
<input type="checkbox"/> Add_Barcode	Adding a QR Barcode	INPUT	address.pdf	🔒 🔄 📄 🗑️
<input type="checkbox"/> Application	Demo application	INPUT	address.pdf	🔒 🔄 📄 🗑️
<input type="checkbox"/> cloneApplication725	testing	INPUT	address.pdf	🔒 🔄 📄 🗑️
<input type="checkbox"/> DemoApplication1	Test Application	INPUT	address.pdf	🔒 🔄 📄 🗑️
<input type="checkbox"/> Direct_Debit-Dishonour	keystart Direct_Debit-Dishonour_Letter	INPUT	address.pdf	🔒 🔄 📄 🗑️

**Note:** Once signed in your user name is shown in the top right corner.

In the example above, there are five projects:

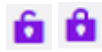
- Click a project to highlight it and display a preview on the right of the page.
- Click a project name to open it in the Designer.
- Select the check box for the project to enable [Delete](#).
- Click to open the **Set Environment** window.
- Click to open the **Manager Enrichment Service** window.
- Click your user name to open the user menu.
- Click to open this user guide.

If you have a large number of projects, you can search for the one required. In **Search Project** begin typing the project's name to filter those shown. Delete the search string to return to the full list view.

All of these functions are described in greater detail later in this guide.

## Dashboard Tools

The Dashboard has the following tools:

**Unlock/Lock Project**

Show the current status of the project, either unlocked or locked.  
See [Locking and Unlocking A Project](#) on page 75.

---

**Publish**

Publishes the currently selected project(s).  
See [Publishing a Project](#) on page 75.

---

**Edit**

Opens the currently selected project for editing.  
See [Editing a Project](#) on page 76.

---

**Export**

Export the currently selected project.

---

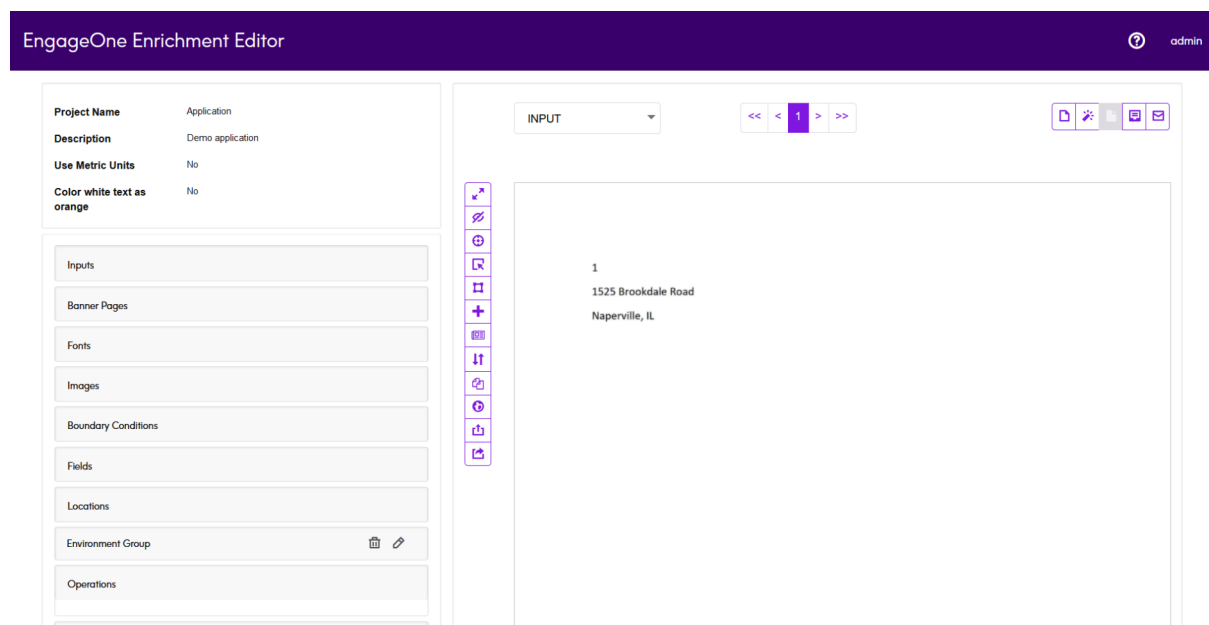
**Clone**

Create a replica of the currently selected project.

---

# Enrichment Editor Designer

Enrichment Editor Designer provides the tools with which to design your documents, an example is shown below:



The top left panel gives the **Project Name** and **Description**, both defined when creating a project.



The bottom left panel lists the project details, clicking on the name expands to show the details, for example, clicking **Inputs** expands to show the name of the original document.






The right panel gives a preview of the document in addition to the design tools, navigation and page controls. The names of the input files are given in the box at the top of the page, in the example above, this is "INPUT".

## Project Details

All application details are shown in the left hand pane of the **Designer screen**,

Project Details are given on the left of the Designer, these are populated as you create your project.










From here you can verify all operations defined in the project. Click  or  in any of the defined operations to delete or edit them.

<b>Inputs</b>	Input files, for example, the original file uploaded during project creation.
<b>Banner Pages</b>	Banner files, for example, the additional files uploaded at the time of project creation.
<b>Fonts</b>	Fonts used by text added to the project.
<b>Images</b>	Images added to the project.
<b>Boundary Conditions</b>	The means by which the start and end of mail pieces are defined.
<b>Fields</b>	Window of interest of a print stream and its associated action, defined by clicking  .
<b>Locations</b>	Locations defined using the  tool.
<b>CASS</b>	The USPS Coding Accuracy Support System and parameters for cleaning addresses defined by clicking  .
<b>Operations</b>	Operations added by clicking  .
<b>Outputs</b>	Print streams output(s) defined by the  tool.

Click the detail title to expand the box, click again to collapse the box.






## Design Tools

The preview panel has the following design tools, which are used to add elements, such as images and barcodes, to your project:

Show/hide selections		Toggle the selection view
Location		Creates a fixed location
Field		Selects the window of interest of a print stream and its associated action, which defines what Enrichment does with the field information
Document boundary		Defines how to identify the first or last page of each document in an input print stream
Add operation		Specifies add operations to print on outputs
CASS		Defines the CASS program and parameters to use for cleaning addresses
SortMatch		Specifies whether or not to sort or match by fields on one or more inputs
Insert page		Specifies whether or not to insert pages into a document
Output		Creates one or more print streams output






## Page Navigation Controls

Document in the preview panel is navigated using the following tools:

	Move to the first page
	Move to the previous page
	Current page number
	Move to the next page
	Move to the last page

## View Controls

The following table describes each of the view control icons in detail:

Original view		Shows the print stream.
Enhance document		Allows you to see the print stream enhancements.
Banner page		Shows the banner print stream.
Control file		View the control file created in the background as you add elements to your project. In Expert Mode, you add elements directly to this file.
Message file		View the message file created in the background as you add elements to your project.

## Tags

Throughout this guide, descriptions of elements are given with their tags, for example, in [Creating a New Project](#) on page 34, the following is given:

**Note:** This includes the `<NAME>` tag.

This tag can be seen in the control file and can be used in Expert Mode to create your project. In a number of elements, for example, Fields, Operations and Outputs, sub-tabs may also be defined. In the following example, the tags and sub-tags are shown in triangular brackets:

```
<input>
  <name>input_document

  <file>'C:\EnrichmentEditor\AppData\Applications\Address_Cleanse\input_document\EditorDemo.PDF'

  <type>PDF
  <document>1
  <cleanse>Yes
  <address>
    <line>%%address_block[0]
    <line>%%address_block[1]
  </address>
  <field>%%address_block R2
    <window>1.003 1.515 3.061 1.976 IN
  </field>
</input>
<output>
  <name>output_file
  <file>'output_file'
  <duplex>No
</output>
<cass>
  <casstype>LPC
  <lpcfinal>'C:\Finalist\pbfm.cfg'
  <doublesort>No
</cass>
```

For more information on the available tags, see the *Enrichment Language Reference Guide*.



# 4 - Using Enrichment Editor

This section describes how to create a project.

A basic project is created within the Enrichment Editor Dashboard, part of which is to upload a print ready file of mail pieces. In Enrichment Editor Designer, define elements which add items to these documents, for example, images and barcodes.

The definition of all available elements is described, although the project may only require one or more.

## In this section

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# Creating a New Project

To create a new project, follow the procedure below:.

1. In the Dashboard, click **New**.


**Create Application** is opened:

Mandatory fields are in red.

**Note:** The **Original File** is also required.

2. In **Project Name** type in a unique name that identifies the project; failure to provide a unique name will result in an error.
3. Type in a description for the project.




**Note:** This includes the `<NAME>` tag.

4. You may choose to use metric units for this project. Any positioning or locations will use centimeters (CM) and any sizes (e.g. barcode bar sizes) will use millimeters (MM).
5. Select the input data file:
  - a) Select the required **File Format**. by default this is **PDF**.
  - b) Type in a name for the input file. The **Input Name** must not contain spaces.
  - c) Click  **Select File** to open the **Choose File to Upload** window. Navigate to and select the required file before clicking **Open**.

The selected file is shown in **Original File**.

**Note:** This is the <FILE> tag.

6. If required add multiple input files by clicking .

Reorder the input files using  and . Delete unwanted files by clicking . You may wish to do this, for example, when merging a statement file and an Explanation of Benefits file; they could be combined based on account number. The file listed first is printed first. So if the statement file is listed first, but you want it to be printed second, arrange the files as you would prefer.

7. If required add **Fonts** or **Images** by opening the relevant tab and repeating step #5.

**Note:**


- Font files must be in ttf format
- Image files must be in bmp, jpg, png, gif or tif format

8. When you are finished click **Save**.

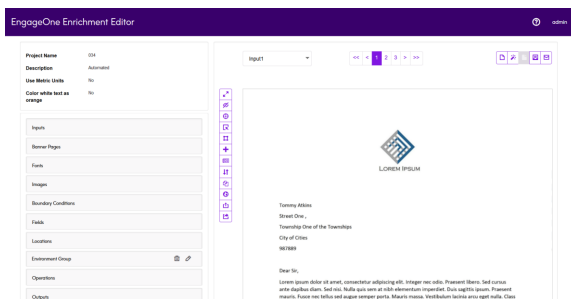
This saves the application details and opens the Designer. All projects, input and output files are saved on the server.

Define the required elements to add to your project, these are described in the remainder of this chapter.

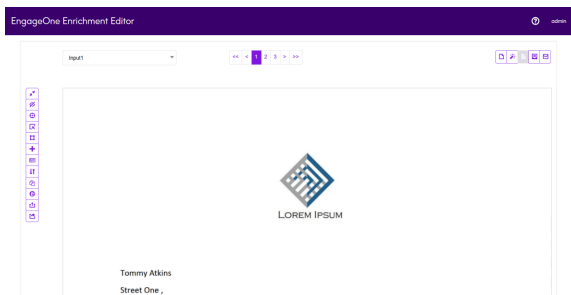
# Changing the View

To expand or collapse the left most panels in the application view, click (  ). This will expand or collapse the left most panels as seen here:

Normal view:




Collapsed view:

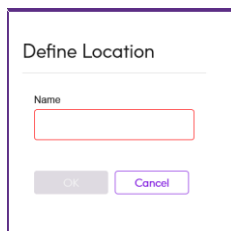


# Defining a Location

The following procedure defines a location at which to add text, barcodes, etc, to the document.

1. In Designer, click  in the toolbar.
2. Select the required point on the document and click.

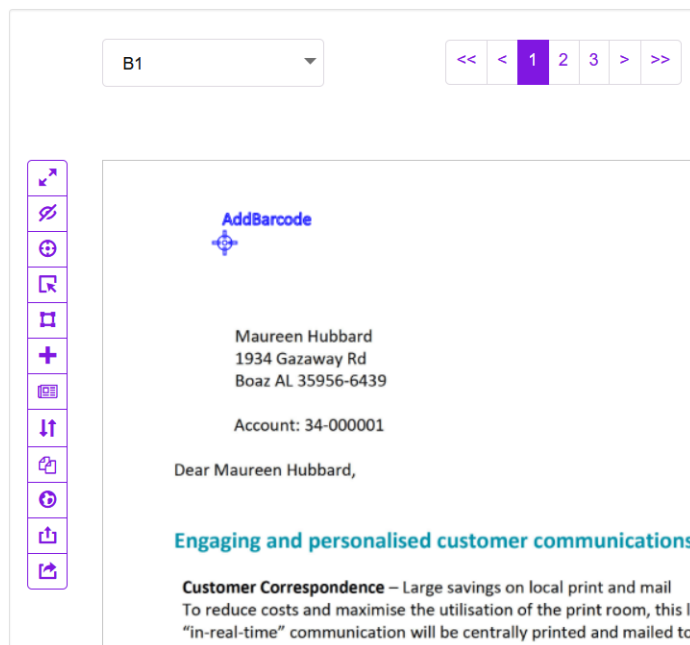
The **Define Location** dialog is opened:



The dialog box titled "Define Location" contains a text input field labeled "Name" and two buttons: "OK" and "Cancel".

3. Type in a **Name** for this location.
4. Click **OK**.

The location is shown on the document, labeled with the name given in step #3. In addition, it is added to **Locations** in the left panel:



The screenshot shows the Enrichment Editor interface. At the top, there is a dropdown menu showing "B1" and a navigation bar with buttons for page navigation (1, 2, 3). On the left, there is a vertical toolbar with various icons, including the "Define Location" icon. The main content area shows a document layout with a blue "AddBarcode" label and a location marker. Below the marker, the following text is displayed:

Maureen Hubbard  
1934 Gazaway Rd  
Boaz AL 35956-6439

Account: 34-000001

Dear Maureen Hubbard,

**Engaging and personalised customer communications**

**Customer Correspondence** – Large savings on local print and mail  
To reduce costs and maximise the utilisation of the print room, this lo  
"in-real-time" communication will be centrally printed and mailed to

**Note:** In the above example the location is labeled `AddBarcode`.

# Defining Fields


Fields may be defined to perform the following functions:

- Extract data for elsewhere
- Delete data which is no longer required
- Delete a page with a field, by creating a window of interest to define a page which can then be deleted.
- Replace data, by taking existing data from the page and replacing it with your preferred data

These are described in greater detail next:

**Note:** This is the `<WINDOW>` tag.

The following procedure describes the minimum steps to defining a window of interest on the document.

1. In Designer, click  in the toolbar.
2. Select the required point in the document and click and drag to create the field.

The **Define Field** dialog is displayed.

Define Field

Name  
Select or Specify Field

Type  
Select Type

Charset

Occurrence  
First Line  Use Reference Field

Add TextUntil Information +

/\* Define Additional SubTags \*/

OK Cancel

Mandatory fields are in red.

3. Type in a **Name** for this field.
4. From **Type** select the one required.
5. Click **OK**.

The field is shown on the document, labeled with the name given in step #3. In addition, it is added to **Fields** in the left hand panel:

B1

<< < 1 2 3 > >>

Maureen Hubbard  
1934 Gazaway Rd  
Boaz AL 35956-6439

Account: 34-000001

**DocumentBoundary**

Dear Maureen Hubbard,


**Engaging and personalised customer communications**

**Customer Correspondence** – Large savings on local print and mail  
To reduce costs and maximise the utilisation of the print room, this lo  
“in-real-time” communication will be centrally printed and mailed to

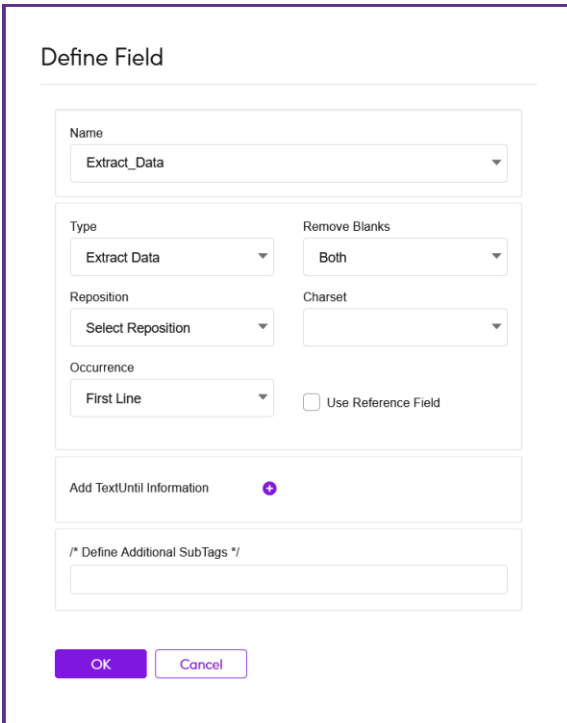


## Defining an Extract Data Field

The following procedure defines a window of interest on the document from which to extract data.

1. In Designer, click  in the toolbar.
2. Select the required point in the document; click and drag to create the field from which to extract text.

The **Define Field** dialog is displayed.

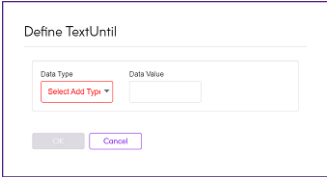


3. Type in a **Name** for this field.
4. From **Type** select **Extract Data**.  
At this point you can click **OK** and your field is shown on the document, however, you can add more definition to the field by continuing.
5. **Remove Blanks** removed the white space from the field, select the required option.  
The default is **Both** which removes space from the left and right (leading and trailing) of the text in the field.
6. From **Occurrence**, select where the extract occurs.
  - First Line
  - All Lines
  - First Line per Page
  - No of Lines

7. Select **Use Reference Field** if you want to define a field that only exists conditionally, based on whether another field exists. For example, you might define an account number to exist only if the text "Page 1" exists at a particular location on the page.

8. In **Add TextUntil Information** click 

The following is opened:



The image shows a dialog box titled "Define TextUntil". It contains two input fields: "Data Type" with a dropdown menu showing "Select Add Type" and "Data Value" with an empty text box. Below the fields are two buttons: "OK" and "Cancel".

- a) Click **Select Add Type** and select the one required.
  - b) In **Data Value** type the text to add.
  - c) Click **OK** to close the dialog.
9. In */\* Define Additional SubTags \*/* type those required.


For more information on the available tags, see the *Enrichment Language Reference Guide*.

10. Click **OK**.

The field is shown on the document, labeled with the name given in step #3. In addition, it is added to **Fields** in the left hand panel.

## Moving a Block of Text

The following procedure defines a window of interest on the document which describes a section of text to move, for example, to move an address block left by 1 inch.

1. In Designer, click  in the toolbar.
2. Select the required point in the document; click and drag to create a window of interest around the text to be moved.

The **Define Field** dialog is displayed.

### Define Field

---

Name

Extract\_Data ▼

<p>Type</p> <p>Extract Data ▼</p>	<p>Remove Blanks</p> <p>Both ▼</p>
<p>Reposition</p> <p>Select Reposition ▼</p>	<p>Charset</p> <p>▼</p>
<p>Occurrence</p> <p>First Line ▼</p>	<p><input type="checkbox"/> Use Reference Field</p>

Add TextUntil Information +

/\* Define Additional SubTags \*/


OK
Cancel

3. Type in a **Name** for this field.
4. From **Type**, select **Extract Data**.
5. To move the text, select the new location from the **Reposition** list.
6. From **Occurrence**, select where the extract occurs.
  - First Line
  - All Lines
  - First Line per Page
  - No of Lines
7. Click **OK**.

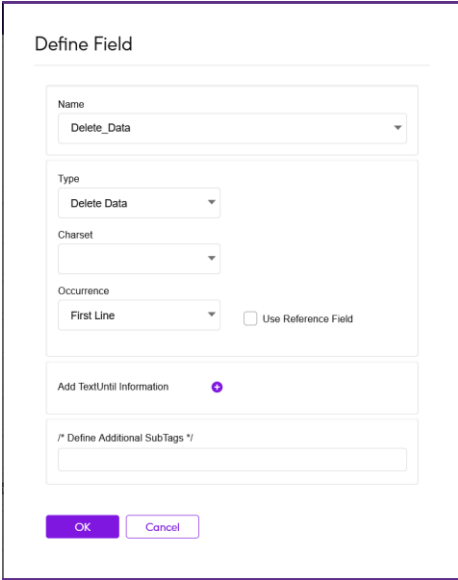
The field is shown on the document, labeled with the name given in step #3. In addition, it is added to **Fields** in the left hand panel.

## Defining a Delete Data/Page field

The following procedure defines a window of interest on the document from which to delete data or an entire page.


1. In Designer, click  in the toolbar.
2. Select the required point in the document and click and drag to create the field around the data you wish to delete.

The **Define Field** dialog is displayed.

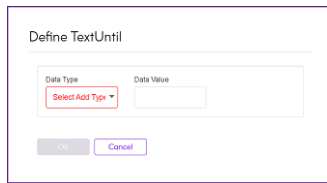


3. Type in a **Name** for this field.
4. From **Type** select either **Delete Data** or **Delete Data With Field**.

At this point you can click **OK** and your field is shown on the document, however, you can add more definition to the field by continuing.

5. From **Occurrence**, select where the extract occurs.
  - First Line
  - All Lines
  - First Line per Page
  - No of Lines
6. Select **Use Reference Field** if you want to define a field that only exists conditionally, based on whether another field exists. For example, you might define an account number to exist only if the text "Page 1" exists at a particular location on the page.
7. In **Add TextUntil Information** click .

The following is opened:



- a) Click **Select Add Type** and select the one required.
  - b) In **Data Value** type the text to add.
  - c) Click **OK** to close the dialog.
8. In */\* Define Additional SubTags \*/* type those required.


For more information on the available tags, see the *Enrichment Language Reference Guide*.

9. Click **OK**.

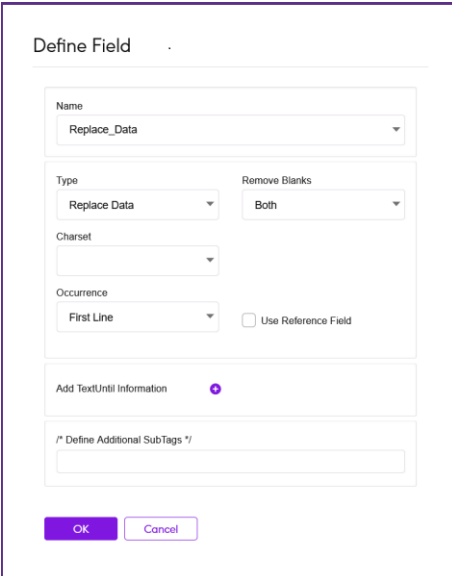
The field is shown on the document, labeled with the name given in step #3. In addition, it is added to **Fields** in the left hand panel.

## Defining a Replace Data field

The following procedure defines a window of interest on the document in which to replace data.

1. In Designer, click  in the toolbar.
2. Select the required point in the document and click and drag to create the field from which to extract text.

The **Define Field** dialog is displayed.



3. Type in a **Name** for this field.
4. From **Type** select **Extract Data**.

At this point you can click **OK** and your field is shown on the document, however, you can add more definition to the field by continuing.

5. **Remove Blanks** removed the white space from the field, select the required option.

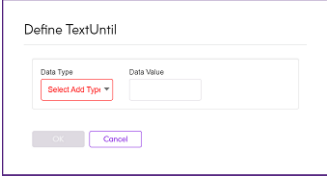
The default is **Both** which removes space from the left and right (leading and trailing) of the text in the field.

6. From **Occurrence**, select where the extract occurs.
  - First Line
  - All Lines
  - First Line per Page
  - No of Lines

7. Select **Use Reference Field** if you want to define a field that only exists conditionally, based on whether another field exists. For example, you might define an account number to exist only if the text "Page 1" exists at a particular location on the page.

8. In **Add TextUntil Information** click 

The following is opened:

A dialog box titled "Define TextUntil" is shown. It contains two input fields: "Data Type" with a dropdown menu labeled "Select Add Type" and "Data Value" with a text input field. At the bottom, there are two buttons: "OK" and "Cancel".

- a) Click **Select Add Type** and select the one required.
- b) In **Data Value** type the text to add.
- c) Click **OK** to close the dialog.

9. In */\* Define Additional SubTags \*/* type those required.

For more information on the available tags, see the *Enrichment Language Reference Guide*.

10. Click **OK**.

The field is shown on the document, labeled with the name given in step #3. In addition, it is added to **Fields** in the left hand panel.

# Defining a Document Boundary

A document boundary identifies where documents in the input print stream begin or end, therefore identifying each document. Boundaries can be defined in one of three ways:

- Where there is only one document
- Where the number of pages is the same in each document
- Using a field which appears on the same page of each document

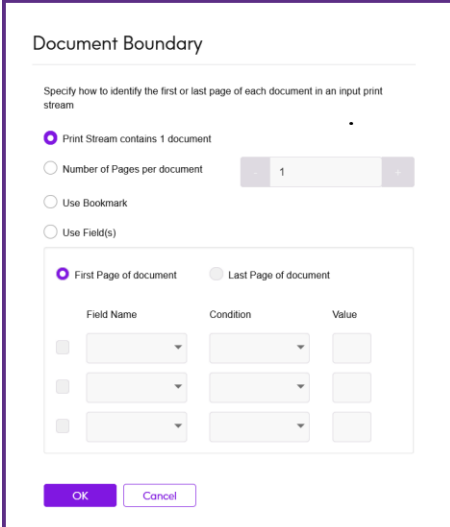
Each method is described in this section.

**Note:** This is the <DOCUMENT> tag.

The following procedure identifies either the first or last page of a document in an input print stream containing only one document.

1. In Designer, click  in the toolbar.

The **Document Boundary** dialog is displayed. Mandatory fields are in red.



2. Select **Print Stream contains 1 document**.
3. Select either:
  - First Page of document
  - Last Page of document
4. Click **OK**.



A call-out is shown on the document. In addition, it is added to **Document Boundary** in the left panel.

The screenshot displays the EngageOne Enrichment Editor interface. The top header is purple with the text "EngageOne Enrichment Editor" and a user profile icon labeled "admin".

On the left side, there is a configuration panel with the following details:

- Project Name: B1
- Description: B1
- Use Metric Units: No
- Color white text as orange: No

Below these details are several expandable sections: Inputs, Banner Pages, Fonts, Images, Boundary Conditions, Fields, Locations, Environment Group, and Operations. The "Operations" section is expanded, showing a "DocumentBoundary" entry with a trash and edit icon.

The main workspace shows a document preview for "B1". At the top of the preview, there is a dropdown menu set to "B1" and a navigation bar with page numbers 1, 2, and 3. The document content includes:

- Maureen Hubbard  
1934 Gazaway Rd  
Boaz AL 35956-6439
- Account: 34-000001
- [DocumentBoundary](#)
- Dear Maureen Hubbard,
- Engaging and personalised customer communications with reduced costs**
- Customer Correspondence** – Large savings on local print and mail. To reduce costs and maximise the utilisation of the print room, this locally created "in-real-time" communication will be centrally printed and mailed to you.
- Customer Self-service** – reducing call centre costs, and delivering customer choice. This letter, the email and the SMS have been digitally stored for easy reference by the customer or organisation at any time. And it provides an audit trail for compliance too!
- Truly personalised** – for real engagement. Provide tailored messages based on the individual for truly personalised

A vertical toolbar on the left side of the preview area contains various editing tools such as zoom, pan, and selection tools.

## Defining a Document Boundary number of pages

The following procedure identifies either the first or last page of each document in an input print stream by specifying the number of pages in the documents.

**Note:** This procedure can only be used where the documents have the same number of pages.

1. In Designer, click  in the toolbar.

The **Document Boundary** dialog is displayed.

2. Select **Number of Pages per document**.
3. Type in the number of pages.
4. Click **OK**.

A call-out is displayed on the document. In addition, it is added to **Boundary Conditions** in the left panel.

## Defining a Document Boundary using fields

The following procedure identifies document boundaries using fields defined as described in [Defining Fields](#) on page 38. For example, a customer's account number may appear on the first page of each document, create an account field for this text. in an input print stream by specifying field(s) which appear on a page.

**Note:** This applies to documents that have the same field which appears once only.

1. In Designer, click  in the toolbar.

The **Document Boundary** dialog is displayed.

2. Select **Use Field(s)**.
3. Select either:
  - First page of document
  - Last page of document
4. Click **Select Field** and select a previously defined fields.  
For example, **Account\_Number**.
5. Click **Select Condition** and select the one required.

For example, **Equals**.

6. In **Value** type the text you wish to find in the field.

For example, **Account**.

7. If required, repeat steps #4 through #6 to define more fields.
8. Ensure that a check-mark appears in the box adjacent to the fields to use.
9. Click **OK**.

A call-out is displayed on the document. In addition, it is added to **Boundary Conditions** in the left panel.

# Defining an Add Operation

The following objects can be added to print on outputs:

- Text
- Barcode
- Image
- Hyperlink

The procedure requires that the following have previously been defined:

- Location, as described in [Defining a Location](#) on page 37
- Output File, as described in [Defining Output Settings](#) on page 62
- Fields, as described in [Defining Fields](#) on page 38

**Note:** This is the <ADD> tag group.

The procedures for defining the Add Operations are very similar, the procedure for adding text is given, the differences for each type are identified after the procedure.

**Note:** All fields in red are required.

1. In Designer, click  in the toolbar.

The **Add Operation** dialog is displayed.

2. Type in a **Name**.
3. In **Add Type** select **Text**

The Add Operation window is shown, as follows:

Mandatory fields are in red.

4. From **Font** select the one required.
5. From **Output File**.
6. From **Page** select the required page or page range.
7. From **Location** select the one required.
8. From **Side** select the side on which the text will appear.
9. From **Orientation** select the one required.
10. In **Condition** type the required condition.


This is an expert mode feature to access the `<SWITCH>` tag. For example, specifying the condition `%%MyState = "NJ"` will apply this Add Object only if the condition is satisfied.

11. From **Direction** select the one required.

The default is **Forward**.

12. To add a constant, from **Add Object** select **Add Constant** and type in the required **Constant Data**.
13. To add a variable, from **Add Object** select **Add Variable**.
  - a) From **Field Name** select or specify the required field.
  - b) In **Length** type in the length of the field.
  - c) In **Pad Char** type in the number of required padding characters.
  - d) From **Justify** select how you wish the text to be justified.

**Note:** If required, both Constant and Variable data may be added.

14. If required add further Constant and Variable data fields by clicking .
15. In `/* Define Additional SubTags */` type those required.

For more information on the available tags, see the *Enrichment Language Reference Guide*.

16. Click **OK**.

The added item is shown on the document, labeled with the name given in step #3. In addition, it is added to **Operations** in the left hand panel.

## Defining an Add Barcode Operation

When defining an Add Barcode Operation:

- **Add Type** is **Barcode**
- Select the required **Barcode Type**
- There are no **Font** or **Direction** options
- You need to specify the objects to populate the barcode, for example a variable, constant, or a mixture or the two.

## Defining an Add Image Operation

When defining an Add Image Operation:

- The **Add Type** is **Image**
- There is no **Font** or **Direction** options

## Defining an Add Hyperlink Operation

A constant hyperlink is always the same, for example, <https://www.precisely.com>.

When defining an Add Constant Hyperlink Operation:

- The **Add Type** is **Constant Hyperlink**
- Select a **Color** for the hyperlink text
- Select the hyperlink type either constant or variable hyperlink
- Select whether you wish to **Underline Hyperlink**
- There are no **Direction** options

# Defining a CASS Operation

The Coding Accuracy Support System, or CASS is used by the United States Postal Service for US address cleansing.

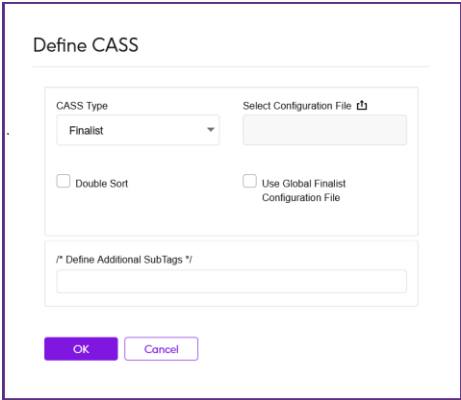
**Note:** This can only be used to cleanse US addresses.

The following procedure defines a CASS operation for an application. Use this operation to cleanse addresses in the print stream.

**Note:** This is the <CASS> tag.


1. In Designer, click  in the toolbar.

The **Define CASS** dialog is displayed.



The image shows the 'Define CASS' dialog box. It has a title bar 'Define CASS'. Inside, there is a 'CASS Type' dropdown menu with 'Finalist' selected. To its right is a 'Select Configuration File' button with a folder icon. Below these are two checkboxes: 'Double Sort' and 'Use Global Finalist Configuration File', both of which are currently unchecked. At the bottom, there is a text area labeled '/ Define Additional SubTags /' and two buttons: 'OK' and 'Cancel'.

Mandatory fields are in red.

2. Select the **CASS Type**.
3. In **Configuration File** click  .  
This opens the **Choose File to Open** dialog.
4. Navigate to and select the required Configuration File before clicking **OK**.
5. If required click **Double Sort** to resequence the input in ascending Zip Code order before CASS cleansing.
6. If required click **Use Global Finalist Configuration File** .

This is the configuration file used by Finalist to perform address cleansing and should have been set up by your System Administrator. You would only use this if you wanted to use Finalist options that were not the system defaults.

7. Click **OK**.



8. In */* **Define Additional SubTags** */* type those required.

For more information on the available tags, see the *Enrichment Language Reference Guide*.

9. Click **OK**.

The operation is added to **Overlays** in the left hand panel.

# Defining a SortMatch Operation

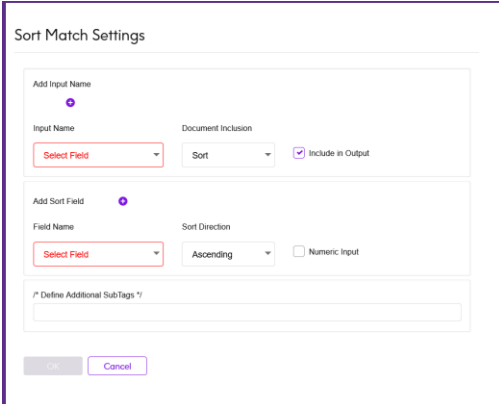
The following procedure defines a SortMatch operation for one or more project inputs. Sorting reorders all documents across all inputs. Matching combines related documents so that barcoding, page counts and other configurations take place as if the combined entities are a single document. Matching requires that the documents are sorted.

**Note:** This procedure requires that Fields have previously been defined. This is described in [Defining Fields](#) on page 38.

**Note:** This is the <SORTMATCH> tag.

1. In Designer, click the **SortMatch** icon  in the toolbar.

The **Define SortMatch** dialog is opened.



Mandatory fields are in red.

2. Select an **Input Name**.
3. From **Document Inclusion** select one of the following:
  - **Always** - to always perform a sort and a match.
  - **Sort** - to perform only a sort.
  - **Match** - to perform only a match.
4. If required select **Include in Output** if you are using an input file from which you are extracting data, but do not want to print.
5. Define the **Field Name** and **Sort Direction**.
6. Select the **Sort Direction**.
7. If required select **Numeric Input** if the **Field Name** specified in step #5 is numeric.

For example, an account number without leading zeroes.

8. In */\* Define Additional SubTags \*/* type those required.

For more information on the available tags, see the *Enrichment Language Reference Guide*.

9. Click **OK**.

The operation is added to **Operations** in the left hand panel.

# Defining an Insert Page Operation

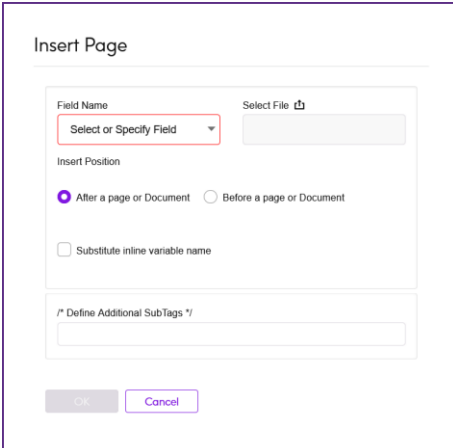
The following procedure defines an insert page operation, which inserts page(s) into a document where a specified variable name exists. The inserted pages are added either before or after the page on which Enrichment finds this operation, or before or after the entire document. The pages to be inserted are a pre-existing PDF file.

**Note:** This is the <INSERTPAGE> tag.


**Note:** The procedure requires that a field, as described in [Defining Fields](#) on page 38, has previously been defined.

1. In Designer, click  in the toolbar.

The **Define InsertPage** dialog is displayed.



Mandatory fields are in red.

2. From **Field Name** select the one to use.
3. In **Select File** click  .  
This opens the **Choose File to Open** dialog.
4. Navigate to and select the required PDF file before clicking **OK**.
5. From **Insert Position** select where the page is to be inserted, either:
  - After a page or Document
  - Before a page or Document

6. Select **Substitute inline variable name** to substitute field values into the input file. For example, if the input document contains the text %%Name and you have specified a field called Name, the value of the Name field replaces %%Name text in the document.
7. In */\* Define Additional SubTags \*/* type those required.  
For more information on the available tags, see the *Enrichment Language Reference Guide*.
8. Click **OK**.

The added page(s) is shown on the document. In addition, it is added to **Operations** in the left hand panel.

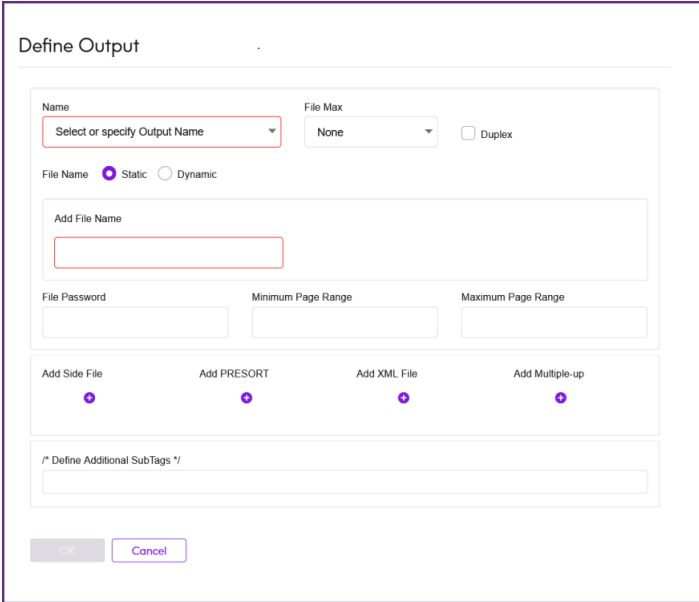
# Defining Output Settings

The following procedure defines one or more print streams, (output) for Enrichment to create. Each project must contain at least one output but you can specify as many as necessary.

**Note:** This is the <OUTPUT> tag.

1. In Designer, click  in the toolbar.

The **Define Output** dialog is displayed.



The image shows the 'Define Output' dialog box. It contains several fields and options:
 

- Name:** A dropdown menu with the text 'Select or specify Output Name'. This field is highlighted with a red border.
- File Max:** A dropdown menu with the text 'None'.
- Duplex:** A checkbox that is currently unchecked.
- File Name:** Radio buttons for 'Static' (selected) and 'Dynamic'.
- Add File Name:** A text input field with a red border.
- File Password:** A text input field.
- Minimum Page Range:** A text input field.
- Maximum Page Range:** A text input field.
- Add Side File:** A button with a plus sign.
- Add PRESORT:** A button with a plus sign.
- Add XML File:** A button with a plus sign.
- Add Multiple-up:** A button with a plus sign.
- /\* Define Additional SubTags \*/:** A text area for additional settings.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

Mandatory fields are in red.

2. In **Name** type a name for this output.

**Note:** Where outputs have been previously created, they can be selected from this box.

3. From **File Max**, select how the maximum size for an output is measured.
  - Pages
  - Documents, or
  - None

If **None** is selected, there is no maximum file size.

4. In **Add File Name** type a name for the output file.

- If you are using multiple output files, split documents into those files based on the number of pages in each document. Type in a **Minimum Page Range** and **Maximum Page Range**.

For example, to split documents into three different outputs: the first containing documents with 1 to 3 pages; the second containing documents with 4 to 10 pages and the third containing documents with 11 or more pages.

- Add a **Side File**, as described in [Defining a Side File](#) on page 64.

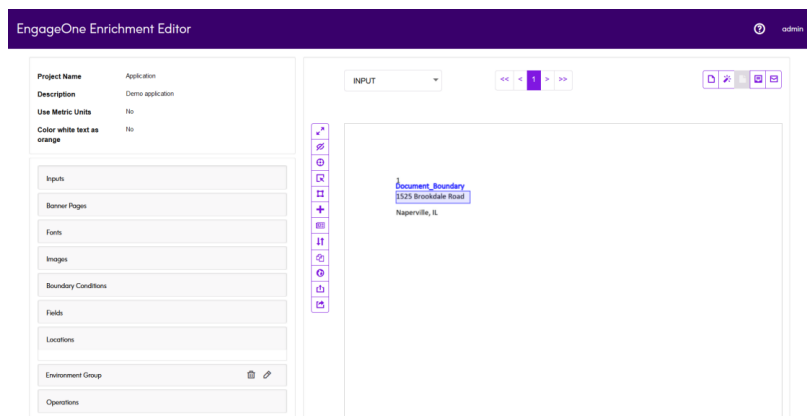
A side file is a text file containing information about the print file. If a side file is defined, one line will be generated in the side file for each document based on the side parts specified in [Defining a Side File](#) on page 64. For example, you may want to list the account number and page count for each document that was processed.

- Add a **Presort** operation, as described in [Defining a Presort Program](#) on page 66.
- In `/* Define Additional SubTags */` type those required.

For more information on the available tags, see the *Enrichment Language Reference Guide*.

- Click **OK**.

The document is displayed. In addition, it is added to **Outputs** in the left hand panel.




## Defining a Side File

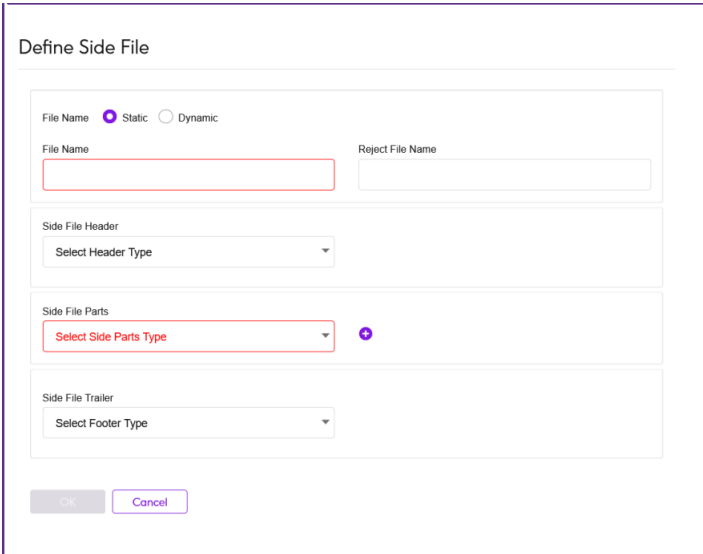
The following procedure defines a Side File for an output, which creates a flat file containing extracted data for reporting. One record is written to the side file for each document placed in the output. Multiple Side Files may be defined for one output.

**Note:** If using a Field, this must have been previously defined, as described in [Defining Fields](#) on page 38

**Note:** This is the <SIDEFILE> tag.

1. From within the **Define Output** dialog, click  next to **Add Side File**.

The **Define Side File** dialog is displayed.



Mandatory fields are in red.

2. Type in a **File Name**.
3. Type in a **Reject File Name** which specifies where documents that failed PAVE (United States presorting) will be placed.

This can only be used with United States presorting.


4. To add a constant, from **Side File Header** select **Add Constant** and type in the required **Constant Data**.
5. To add a variable, from **Side File Header** select **Add Variable**.
  - a) From **Field Name** select or specify the required field.
  - b) In **Length** type in the length of the field.
  - c) In **Pad Char** type in the number of required padding characters.



d) From **Justify** select how you wish the text to be justified.

**Note:** If required, both Constant and Variable data may be added.

6. Define **Side File Parts** in the same way as adding a **Side File Header**.

**Note:** If required, add further Constant and Variable data fields by clicking .


7. Define **Side File Trailer** in the same way as adding a **Side File Header**.

8. Click **OK**.

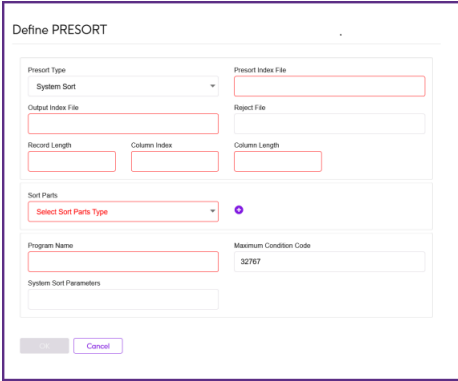
## Defining a Presort Program

The following procedure defines a Presort program for an output. Enrichment uses presort to sort output documents according to postal regulations. Each output can contain one Presort operation.

**Note:** This is the <PRESORT> tag.


1. From within the **Define Output** dialog, click  next to **Add Presort**.

The **Define Presort** dialog is displayed.



Mandatory fields are in red.

2. From **Define Presort** select the required Presort Program.
3. In **Presort Index File** type the name of the required index file.
4. In **Output Index File** type the name of the required index file.
5. In **Record Length**, type the length of the records in the index file.
6. To specify where in the PRESORT output file the document index will be placed, type the required location in **Column Index**.
7. In **Column Length**, type the length of the columns in the index file.
8. Type in a name for the **Reject File**.
9. To add a constant, from **Side File Header** select **Add Constant** and type in the required **Constant Data**.
10. To add a variable, from **Sort Parts** select **Add Variable**.
  - a) From **Field Name** select or specify the required field.
  - b) In **Length** type in the length of the field.
  - c) In **Pad Char** type in the number of required padding characters.
  - d) From **Justify** select how you wish the text to be justified.


**Note:** If required, both Constant and Variable data may be added. You can also add further Constant and Variable data fields by clicking .

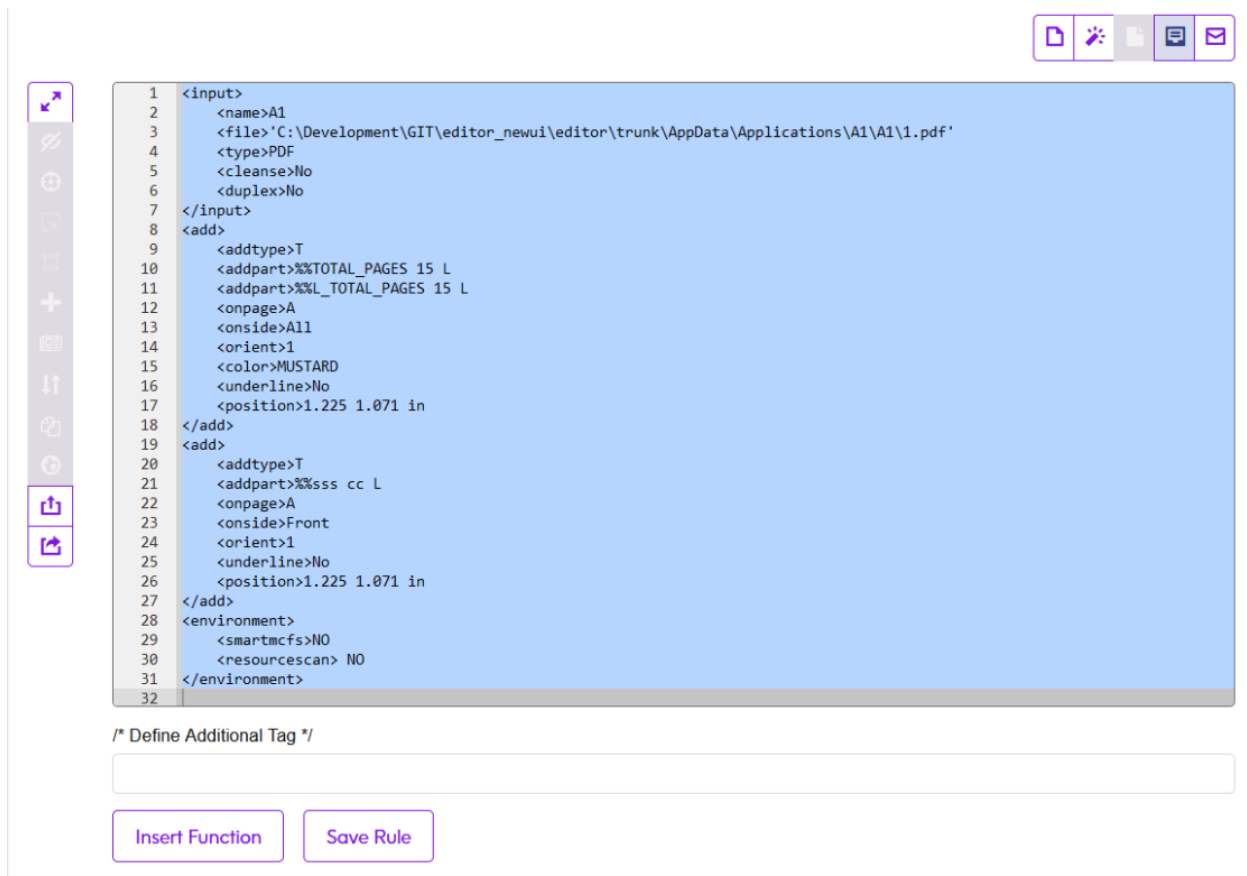
11. Type in a **Program Name**.
12. Type in the required **System Sort Parameters**.
13. Type in a **Maximum Condition Code**, the default is 32767.

This is the maximum allowable condition code from the previous step. If the previous step had a higher condition code, Enrichment generates an error message and does not run subsequent steps.

14. Click **OK**.

# Using Expert Mode

Expert Mode allows more confident users to add functions and/or tags not available in Enrichment Editor. Open Expert Mode by clicking  in the top right of the window to display the control file, as shown below:



```

1 <input>
2   <name>A1
3   <file>'C:\Development\GIT\editor_newui\editor\trunk\AppData\Applications\A1\A1\1.pdf'
4   <type>PDF
5   <<cleanse>No
6   <<duplex>No
7 </input>
8 <add>
9   <addtype>T
10  <addpart>%%TOTAL_PAGES 15 L
11  <addpart>%%L_TOTAL_PAGES 15 L
12  <onpage>A
13  <onside>All
14  <orient>1
15  <color>MUSTARD
16  <underline>No
17  <position>1.225 1.071 in
18 </add>
19 <add>
20  <addtype>T
21  <addpart>%%sss cc L
22  <onpage>A
23  <onside>Front
24  <orient>1
25  <underline>No
26  <position>1.225 1.071 in
27 </add>
28 <environment>
29   <smartmcf>NO
30   <resourcescan> NO
31 </environment>
32

```

/\* Define Additional Tag \*/

Expert Mode allows you to:

- Add major tags, not available in the user interface,
- Add minor tags specific to a major tag which are not available in the user interface, you can use tag specific free form text editor at the bottom of each tag's dialog.
- Add functions.

**Note:** You cannot add tags directly in to the text, as you would a text editor, **insert functions** and save the rule as described in the following section.

See [Function Quick Reference](#) on page 83 for a list of available functions.

## Inserting a Function

In this procedure we are using the **FORMAT** function as an example; the syntax for this function is:

```
FORMAT (string, [width, digits, implied, format,
position, symbol, separator, decimal])
```

We will need to specify the **FORMAT** function and values for the parameters. This returns a specified string formatted as a currency amount.

Refer to the *Enrichment Language Reference Guide* for more information on the functions.

**Note:** Other functions have different arguments for which values must be specified.

To insert a **FORMAT** function follow the procedure below:

1. From within Expert Mode click **Insert Function**.
2. From the **Function** list select **FORMAT** and click **OK**.

Refer to the *Functions* section of the *Enrichment Language Reference Guide* for more information.

The following is opened:

Parameter Values

Returns a specified string formatted as a currency amount

String  
Select or Specify Parameter Value

Width  
Select or Specify Parameter Value

Digits  
Select or Specify Parameter Value

Implied  
Select or Specify Parameter Value

Format  
Select or Specify Parameter Value

Select or Specify Parameter Value

OK Cancel

3. In **String**, select the required parameter value from the list, or type in the required parameter value.

This is an input string containing a numeric value to format. It string must not contain more than 16 significant digits and must be in the format:

```
[spaces] [sign] [value] [.decimalvalue]
```

- In **Width**, select the required parameter value from the list, or type in the required parameter value.

This is the total width for the return, including negative signs, separators, and digits. For all position values except C (compact), Enrichment provides space for negative symbols even if the amount is not negative. This allows for proper decimal alignment. The default is 10.

- In **Digits**, select the required parameter value from the list, or type in the required parameter value.

This is the number of digits after the decimal to include in the return. The default is 2.

- In **Implied**, select the required parameter value from the list, or type in the required parameter value.

Whether or not digits are implied; set this to N (no) if the string contains a decimal character.

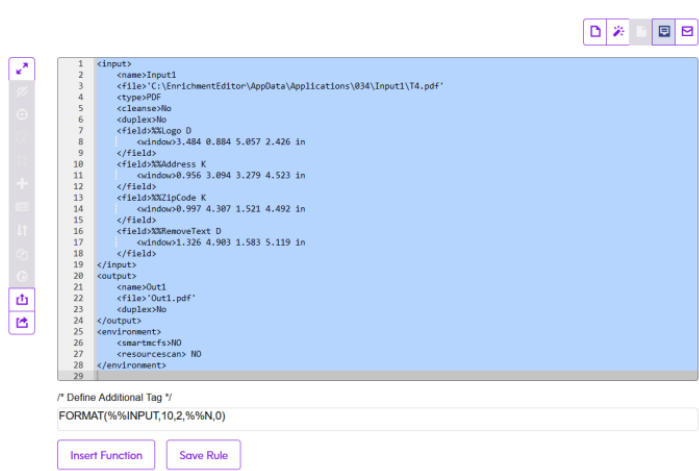
- In **Format**, select the required parameter value from the list, or type in the required parameter value.

Indicate the currency format to use.

Refer to the FORMAT function in the *Enrichment Language Reference Guide* for the available formats.

- Click **OK**.

You are returned to the original view, the function and selected parameters are shown as follows:



```

1 <input>
2 <name>Input1
3 <file>'C:\EnrichmentEditor\AppData\Applications\034\Input1\T4.pdf'
4 <type>PDF
5 <cleanse>No
6 <duplex>No
7 <filed>$$$Logo D
8   <window>3,484 0,884 5,857 2,426 in
9 </filed>
10 <filed>$$$Address K
11   <window>8,956 3,894 3,279 4,523 in
12 </filed>
13 <filed>$$$ZipCode K
14   <window>8,997 4,387 1,521 4,492 in
15 </filed>
16 <filed>$$$RemoveText D
17   <window>1,326 4,983 1,583 5,119 in
18 </filed>
19 </input>
20 <output>
21 <name>Out1
22 <file>'Out1.pdf'
23 <duplex>No
24 </output>
25 <environment>
26 <smartcdfs>NO
27 <resourcescan> NO
28 </environment>
29
/* Define Additional Tag */
FORMAT(%INPUT,10,2,%N,0)

```

Insert Function Save Rule

Note line 28 and the text in the **/\* Define Additional Tag \*/** box.

**Note:** You can also edit the function in the **/\* Define Additional Tag \*/** box.


While using Expert Mode, each time a function is added which causes an error, this is shown in a table below the Project Details. An example is shown below:

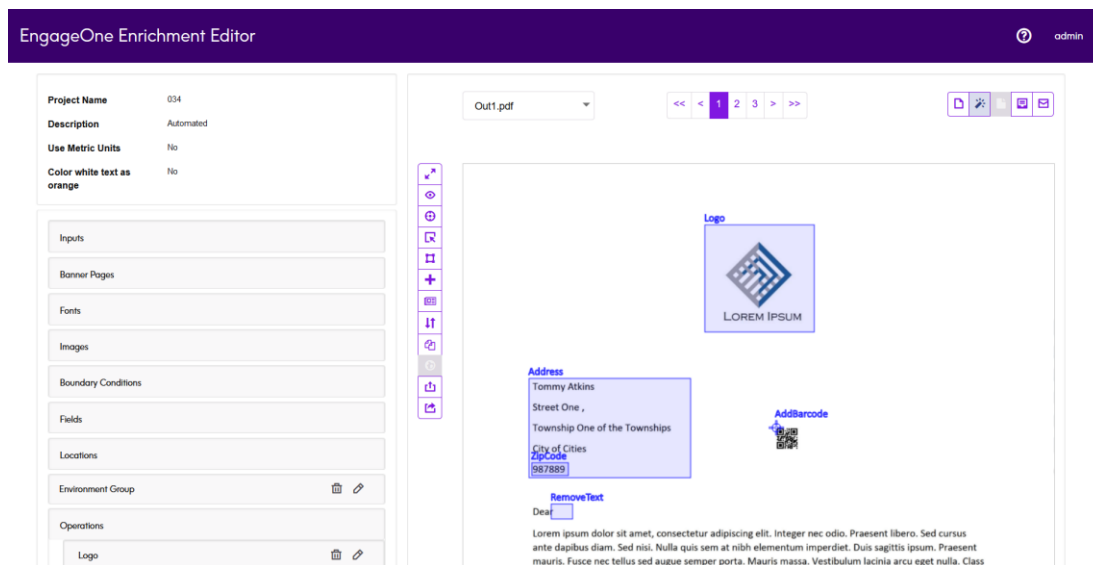
Line	Column	Code	Message
1	0	PDR1901S	No <OUTPUT> tag defined in control file.

Resolve the errors as they occur to avoid them causing jobs to terminate during processing.

9. Repeat the steps to add as many functions as are required.
10. Once you have added all required functions click **Save Rule**.

# Viewing Your Enhanced Document


You can run your Enrichment project to test its accuracy by clicking  in the top right of the window. This is a final quality assurance step in the project creation and testing process before moving the application into production. You can modify your project and rerun the test. The print stream enrichments you have applied can be viewed to ensure that the results are as required.



Any errors are displayed in the **Project Details** on page 29 panel, as shown below:


Line	Column	Code	Message
1	0	PDR1901S	No <OUTPUT> tag defined in control file.

Refer to the *Enrichment Message Reference Guide* for more information on these messages and how to resolve them.

Return to the original view by clicking .



# Viewing the Message File


To view your Message file, click  to see the content of the Message file generated by Enrichment Editor.



```

1 .....
2 ..*.. EngageOne Enrichment Version 7.4.1 ..*..
3 .....
4
5 Copyright (c) 1993, 2020 Precisely. All rights reserved
6 | Year 2000 Compliant
7 01/12/2021
8 06:49:16
9
10 WINNT 64 bit version
11 CPU ID: 871896
12
13 .....
14 | ***** WARNING -- License Expires Within 30 Days *****
15 | .....
16
17
18 Customer ID: 00NEX7SVA Licensed to: 00NEX7SVA Modules Included: PIP AFPDS
19 AFP_LINE/MIXED Metacode DJDE Postal Sortmatch Insert JES2 PCL Reprint PostScript
20 PDF Drawn Barcode Add Lookup Functions Misc. Add User Functions <BANNER> <COLOR>
21 <DUPLICATE> Filesplit <MUP> <REORDER>
22
23 *** Site License - For Use at One Site Only *** Expiration Date:
24 01/31/2021
25
26
27 .....
28 ..*.. Enrichment Processing Options Specified ..*..
29 .....
30 01/12/2021 06:49:16
31
32 Copyright (c) 1993, 2020 Precisely.
33
34 | | | | | ..*.. INPUTS ..*..
35
36 Input Name: Input1 Validate: Yes
37 | File: C:\EnrichmentEditor\AppData\Applications\034\Input1\T4.
38 | Type: PDF (Native Processing)
39
40 Page: Standard
41 Document: Entire file is one document.
42 Layout: Portrait
43 Density (PELS/IN): 72

```

Return to the original view by clicking .

# 5 - Maintaining Enrichment Editor Projects

This section described how to manage your Enrichment Editor projects.

## In this section

---

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Publishing a Project.....	75
Deleting a Project.....	76
Editing a Project.....	76



# Locking and Unlocking A Project

A project is either unlocked as indicated by , or locked as indicated by .

Project are locked while being edited and are unlocked when you return to the dashboard. It remains locked if you close the browser without returning to the dashboard.

Clicking  unlocks the project.

In addition, if the Enrichment Editor you are using is available to users besides yourself, projects are locked while being edited by other users and remain locked until that user returns to the dashboard. You are not able to unlock a project which is being edited by another user.

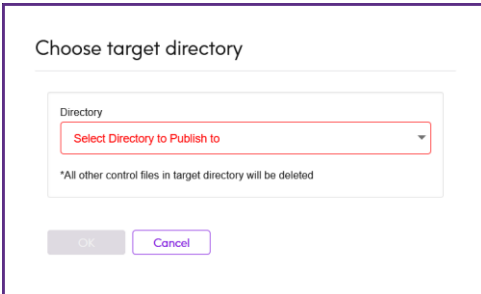
# Publishing a Project

Enrichment facilitates the creation of scripts and uploads resources (primarily images) using the Enrichment Engine. Once the project is configured with associated elements and resources, the project needs to be published to a watched folder, from which it is picked up and processed by the Enrichment Engine.

The directories to which projects are published are defined as described in [Configuring Watched Directories](#) on page 22.

1. In the Dashboard, click  for the required project.

The following is opened:




2. Select the required **Directory** from the list.
3. Click **OK**.

# Deleting a Project

**Note:** Unlocked projects cannot be deleted as these may be in use by another user. See [Locking and Unlocking A Project](#) on page 75.

Projects can only be deleted from the Dashboard.

To delete a project follow the procedure below:

1. On the Dashboard, select the required project.
2. Either click  on the same line as the project, or click **Delete** in the top left of the page.
3. When prompted, click **Yes** to delete the project.

# Editing a Project

You can edit a project by clicking its name in the Dashboard to open it and modifying the settings. However, to change the name, description or to add or remove elements, follow the procedure below:

1. In the Dashboard, click  for the required project.

The Edit Project page is opened. For details of this page, see [Creating a New Project](#) on page 34.

2. Modify the fields required.
3. Click **Save**.

The project is then opened in which you can modify, add or delete project elements.

4. Once you have finished editing, click **Save Project**.

# 6 - Creating a Sample Project

This chapter describes how to create a sample project, providing examples on using the functions provided by Enrichment Editor. This covers:

- Creating a project which identifies different documents from a print stream.
- Adding and removing barcodes on the first page of every mail piece.
- Writing address information to the Side File.
- Sorting the documents by zip code.

## In this section

---

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---	----

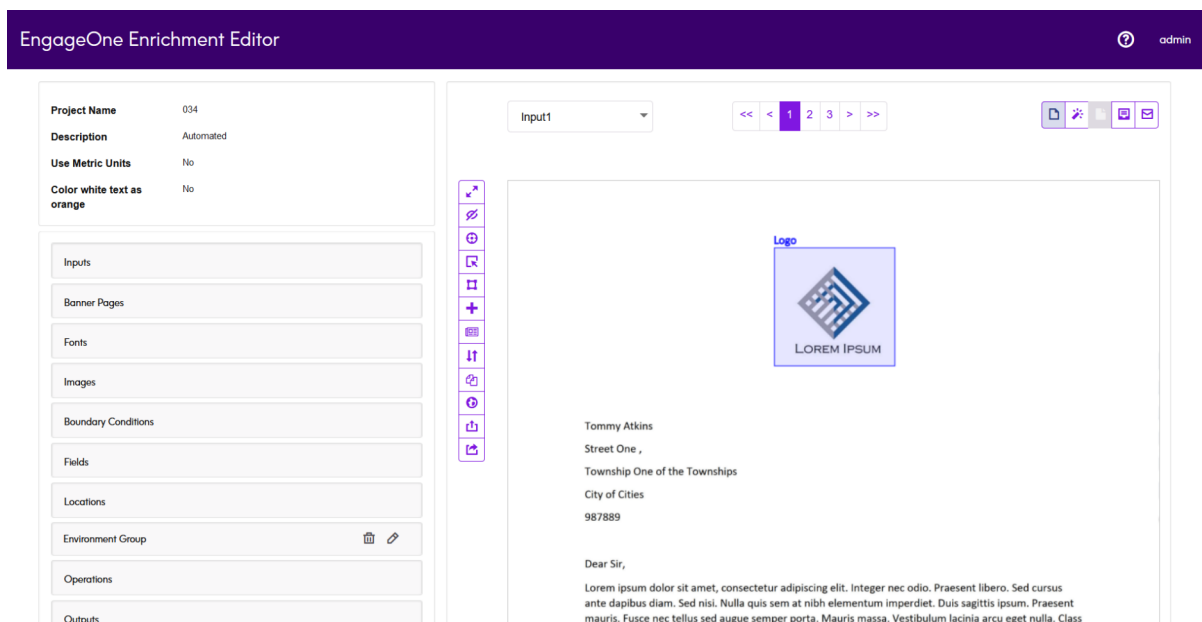



# Steps to Create the Sample Project

The steps for creating the sample project are as follows:


1. Create a new project. See [Creating a New Project](#) on page 34.
2. Define the **DetectBoundary** field and create a document boundary. See [Defining a Document Boundary](#) on page 48.

This should look similar to the window shown below:




3. Add a Location, as follows:
  - a) In Designer, click  in the toolbar.
  - b) Select the required location for the barcode on the document and click.

The **Define Location** dialog is opened:

- c) Type in a **Name** for this location.
  - d) Click **OK**.
4. Add a barcode to the application, as follows:
    - a) Click  in the tool bar.

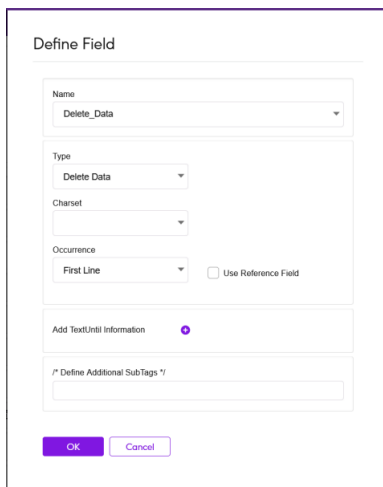
The **Add Operation** dialog is displayed.

- b) From **Add Type** select **Barcode**.
- c) Select the required **Barcode Type**, for example, **QR Code**.
- d) From **Location**, select the location defined in step #3.
- e) Define the rest of the parameters for the barcode type.
- f) Click **OK**.

You can view the details of the operation in the left hand pane. In addition, you can view the enriched document by clicking .

5. To remove a barcode, perform these steps:

- a) Define a field with a **Type** of **Delete Data**.




- b) Click **OK**.

The remove barcode information is displayed in the left hand panel under **Operations** and a field named **RemoveBarcode** is added under **Fields**.

6. To write address information to the external file, perform these steps:

- a) Define a field named **Address** to extract address lines from the document.

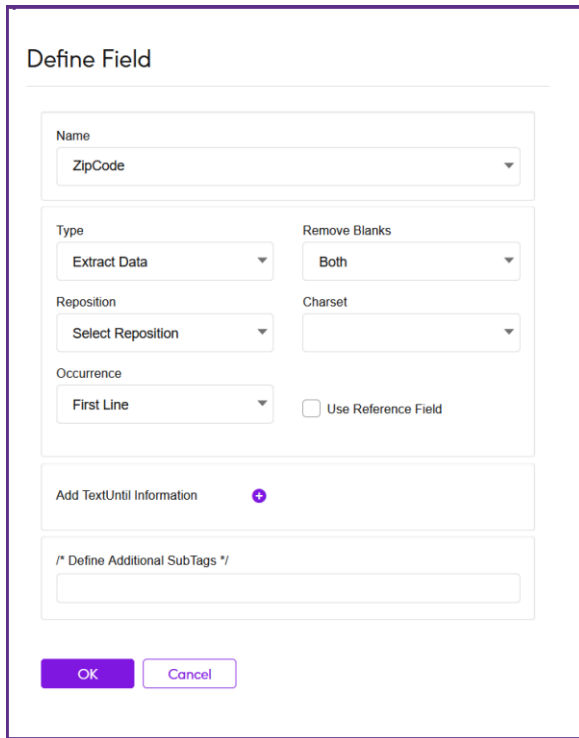
- b) Open the project document in Expert Mode by clicking .
- c) Define a rule section to capture address lines from the **Address** field and write all addresses to a file.

The rule for this case will look like this:

```
<rule>
  <content>
    %%size = ARRAYSIZE(%%Address)
    for %%ndx = 0 to %%size - 1
      WRITE("write.txt", "%Address[%%ndx] = " | %%Address[%%ndx])
    next %%ndx
  </content>
</rule>
```

- d) Click **Save Rule**.
7. To sort the document based on **ZipCode**, perform these steps:
    - a) Define a Field to extract data, naming it **ZipCode**, similar to that shown below:





**Define Field**

Name

Type

Remove Blanks

Reposition

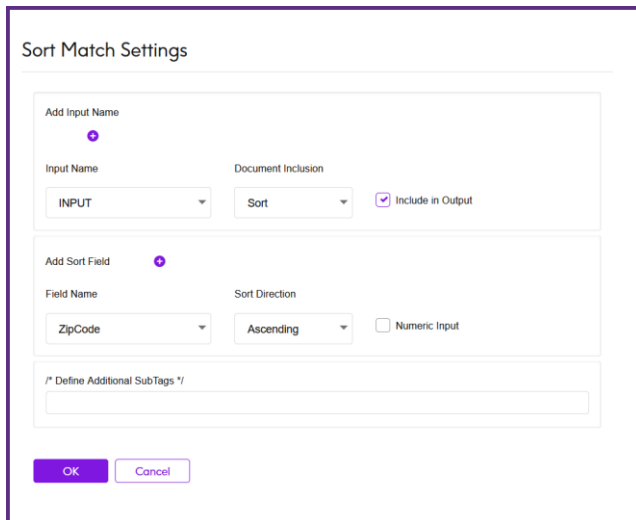
Charset

Occurrence  
  Use Reference Field

Add TextUntil Information +

/\* Define Additional SubTags \*/

- b) Click  to define the sort using the field **ZipCode**. See [Defining a SortMatch Operation](#) on page 58.



**Sort Match Settings**

Add Input Name +

Input Name

Document Inclusion  
  Include in Output

Add Sort Field +

Field Name

Sort Direction  
  Numeric Input

/\* Define Additional SubTags \*/

The following shows the above operations:

EngageOne Enrichment Editor admin

<b>Project Name</b>	034
<b>Description</b>	Automated
<b>Use Metric Units</b>	No
<b>Color white text as orange</b>	No

Inputs

Banner Pages

Fonts

Images

Boundary Conditions

Fields

Locations


Environment Group 🗑️ ✎

Operations

Outputs

Input1
<< < 1 2 3 > >>
🔍 🗑️ 📄 📁

Logo



**Address**

Tommy Atkins

Street One ,


Township One of the Townships

City of Cities

📍📍

📍7883

AddBarcode



**RemoveText**

Dear Sir,

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer nec odio. Praesent libero. Sed cursus ante dapibus diam. Sed nisi. Nulla quis sem at nibh elementum imperdiet. Duis sagittis ipsum. Praesent mauris. Fusce nec tellus sed augue semper porta. Mauris massa. Vestibulum lacinia arcu eget nulla. Class

# A - Function Quick Reference

This section lists basic information on the functions available in the Enrichment Editor.

## In this section

---

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# Functions

Enrichment includes an extensive set of functions that allow you to manipulate data from your inputs and return the result as a variable value. Enrichment also allows calls to user-written functions.

There are four types of functions:

- Logical functions return `TRUE` (1) or `FALSE` (0).
- String functions return a string of characters.
- Numeric functions return a numeric value.
- Command functions are used to reference Enrichment functions that do not return a value. The following example shows the `WRITE` function which returns no value:

```
WRITE (DD:EXCEPTIO, %%RECORD, F, 132)
```

For compatibility with previous releases of Enrichment, function statements can also be referenced in a set statement. For example:

```
%%X = WRITE (DD:EXCEPTIO, %%RECORD, F, 132)
```

The variable on the left side is set to a null string.

The most commonly used functions include:

CHANGED	Indicates whether a variable value has changed from the previous document to the current one.
FOUND	Indicates whether a particular field was found in the document during Enrichment processing.
JUSTIFY	Returns a string aligned within a specified number of characters.
LOOKUP	Returns the record that satisfied the lookup criteria.
SUBSTR	Returns a portion of a string.

## Parameters

The data and options passed to a function are called arguments. Generally, arguments are numeric values, strings, or logical expressions. There are only two functions for which this is not the case: CHANGED and FOUND. These functions' arguments must be a variable because these functions supply information about the status of a variable.

The syntax for each Enrichment function is:

```
FUNCTION(arg1, [arg2, arg3, arg4, arg5, arg6, arg7])
```

In this example, FUNCTION has seven arguments. Arguments within brackets are optional. Enrichment uses the default value for optional arguments left unspecified.

**Note:** Do not include brackets when specifying functions in a rule file.

Some arguments have default values that Enrichment uses if you do not explicitly specify the argument. For example, if a function call is made as follows:

```
%%answer = FUNCTION(arg1, , arg3)
```

Enrichment sets the value for *arg2* to its default. Note that no value was entered for *arg2*. Likewise, *arg2* and *arg3* could be set to their default values as follows:

```
%%answer = FUNCTION(arg1)
```

No separators (that is, commas) are required since only the first argument is specified.

If a function is called using all default argument values or if there are no arguments, the parentheses are still required. For example:

```
%%answer = FUNCTION()
```

# Quick Reference

Function	Type	Description
A2E	String	Performs ASCII to EBCDIC conversion.
CHANGED	Logical	Returns TRUE if a variable has changed since the last invocation of this function.
CHECKSUM	String	Calculates a checksum for a specified string.
CLOSE	String	Closes a file that was previously opened by the READ or WRITE function.
COMPARE	Numeric	Evaluates characters from two strings to determine if they are the same.
COPIES	String	Returns a specified number of copies of a string.
DATE	String	Returns the system date in the specified format.
DAY	String	Returns the system day (for example, "Monday") in the specified format.
DECLARE	String	Declares either a global variable (a variable independent of any document) or an array.
E2A	String	Performs EBCDIC to ASCII conversion.
EXISTS	Logical	Tests to see if files exists.
FINALIST	Numeric	Runs the Finalist application with the address passed as parameters to the function.
FINDWORD	String	Locates a specified word within a string.
FINDZIP	String	Returns the ZIP Code™ from a specified string.
FORMAT	String	Returns a currency-formatted string from a specified integer value.

Function	Type	Description
FOUND	Logical	Returns TRUE if a variable was found in the current document.
FOURSTATE	String	Returns a string of digits, each digit from 0 to 3, representing the bars in the 4-State bar code, including any start/stop characters and characters for error detection or correction.
GETFONT	String	Returns the AFPDS font whose local ID in the MCF record for the page matches the requested font number.
IMB	String	Returns a string of digits representing the bars in the Intelligent Mail Barcode.
INITCAP	String	Capitalizes the first letter of each blank-delimited word in a string.
JUSTIFY	String	Left- or right-justifies or centers a specified string.
LENGTH	Numeric	Returns the length of a specified string.
LOOKUP	String	Returns a record from a file that contains a specified string at a particular position.
LOWER	String	Returns a specified string in lowercase letters.
MESSAGE	Command	Writes a user-defined message to the Enrichment message file.
PATTERN	String	Returns a substring that matches a specified pattern from a string.
POSITION	Numeric	Returns the position of a specified substring within a string.
READ	String	Returns a record from a file.
REVERSE	String	Returns a specified string in reverse order.
RGET	String	Returns the value of a portion of a record converted to its numeric value.
RPUT	String	Returns the modified value of a record after being overlaid with a specified string.
STRIP	String	Strips specified characters from a string.
SUBSTR	String	Returns a specified substring from a string.

Function	Type	Description
TIME	String	Returns the time (in the specified order and format) that Enrichment began running the application (current or runtime).
TRANSLATE	String	Translates the specified characters within a string to specified output.
UPDATE	Command	Rewrites the most recently matched record in a LOOKUP file.
UPPER	String	Returns a specified string in uppercase letters.
WORDPOS	Numeric	Returns the position of a specified word within a string.
WORDS	Numeric	Returns the number of blank-delimited words in a specified string.
WRITE	Command	Writes a specified record to a sequential file, deleting the existing contents.
WRITEA	Command	Appends a record to a specified file.



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1700 District Ave Ste 300  
Burlington MA 01803-5231  
USA

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