

Automation Engine 21

AE SaaS Chapter

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1. SaaS Concept and Setups

SaaS versus On-Premises

- **Automation Engine On-Premises**

The Automation Engine server software is on-premises when it is installed on a computer of your organization, at a location that you chose. This Automation Engine can be used within the LAN it is installed in.

The company that purchased (or rents) the licenses of this Automation Engine typically also fully manages this setup. Their staff is trained by Esko in its configuration and usage.

This company, depending on its maintenance contract, can be assisted by Esko support staff (Esko direct or via a reseller).

- **Automation Engine SaaS**

Software as a Service is a software delivery model in which software is centrally hosted at a hosting company that is not a location of the end-user organization, often referred to a 'data center'. Esko decides the hosting company and manages the installation and maintenance of the software.

An Automation Engine SaaS setup is a single-tenant setup. It is dedicated to one Esko customer.

Your organization, based on an annual license subscription, configures and uses the attributed server(s). All access to it from applications within your organization (Pilot or browser client software, other Esko applications, devices) happens via the web in a secure way.

The files and central resources that an Automation Engine SaaS can process also need to be present at the hosting company, in that data center.

SaaS: Who does what?

- Initially, Esko's Platform Operations team ('Esko PlatOps') will have been closely involved with the customer and Esko sales to agree on the setup in the data center.
- Esko PlatOps takes care of the installation and main configuration of this agreed setup at the data center company.
- Esko Academy, especially when Automation Engine was not yet used before this SaaS setup, provides training of the (licensed) Esko software tools used in this setup.
- In a SaaS setup, the role of administrator is split in 2 levels:

- **System Admin**

Esko PlatOps + Esko Support team members.

The configuration tools they use are not available for non-Esko users.

- **Operational Manager**

The customer's administrator(s) of Automation Engine, responsible for daily configuration and customization. The operational manager may also provide application training of other (admin) users.

In the Configure tool of an AE SaaS setup, this operational manager will see a reduced list of topics to manage. The full list is only available to Esko PlatOps team members.

- **User**

The daily user of Automation Engine (client) tools.

The operational manager may have reduced it access rights.

1.1. Not available in SaaS (only in On-Premises)

Following features are not supported (not available) in a SaaS setup. The main reason is that they are technically impossible in a SaaS setup or that their use case is missing:

- RIP'ing (from AE SaaS data) on a local Imaging Engine.
 - RIP'ing with Imaging Engine needs to happen on the IE on board the AE SaaS server setup.
- (PS-)Printing to a local (office) printer: not possible via PS-print command/task from AE SaaS
 - but is possible via an Agent Folder - at least if the printer can pick up the file somehow (like a GMG proofer can)
- PantoneLIVE
- FlexRip
- Commercial Print (page workflow modes in Pilot)
- External Script Runners
- Standard Edition ArtiosCAD Servers
- Regular hot folders (Folder Access Point)
 - but replaceable with setup of 'Agent Folder'
- Shuttle integration with editors
 - replaced in AP+ and DP by its integration with My Workspace (browser client)
- External databases (no such access point & 'interact with external database' task)
- SAP connectivity (no such access point & no 'interact with SAP' task)
- Integration with foreign JDF enabled devices or systems (no 'interact using JDF/JMF' task).
- No support for LDAP user accounts.

1.2. FAQs

We refer to the section FAQs in the eLearning module "**AE SaaS - Concept and Technology Overview**"

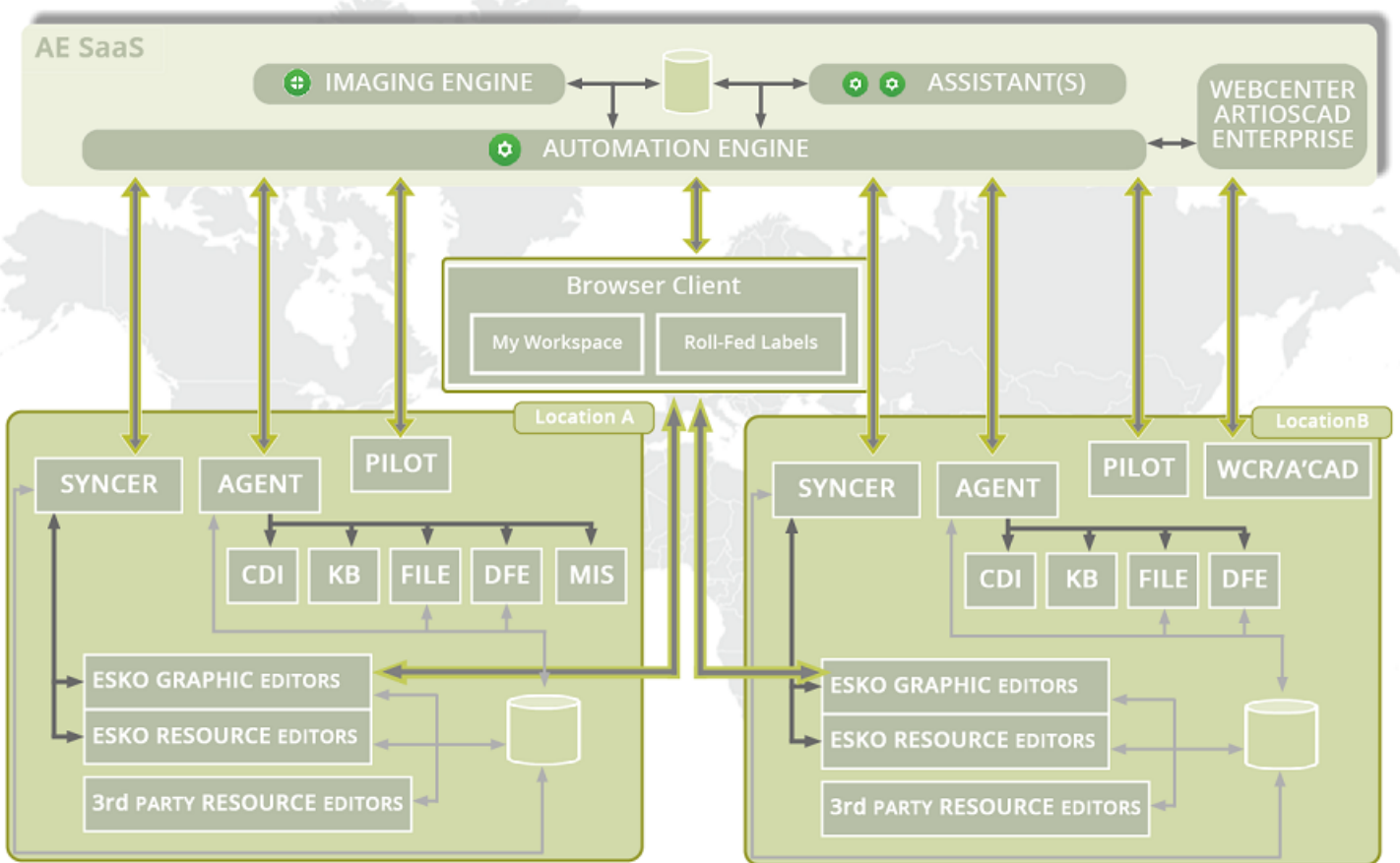
Note: All eLearning modules can be found on [the Esko Blended Learning platform](#).

2. SaaS Technology Components

See the AE SaaS eLearning module 'Concept & Technology'

Note: All eLearning modules can be found on [the Esko Blended Learning platform](#).

The eLearning module "AE SaaS - Concept and technology Overview" includes a step by step explanation of this schema:



Main Technical Components

- **Agent:** An Automation Engine Agent is a component in a local network that represents the AE SaaS server. It communicates to local devices and provides the necessary files and resources.



Attention: The local administrator needs to install this component on a chosen (Windows) computer and also take care of its updates.

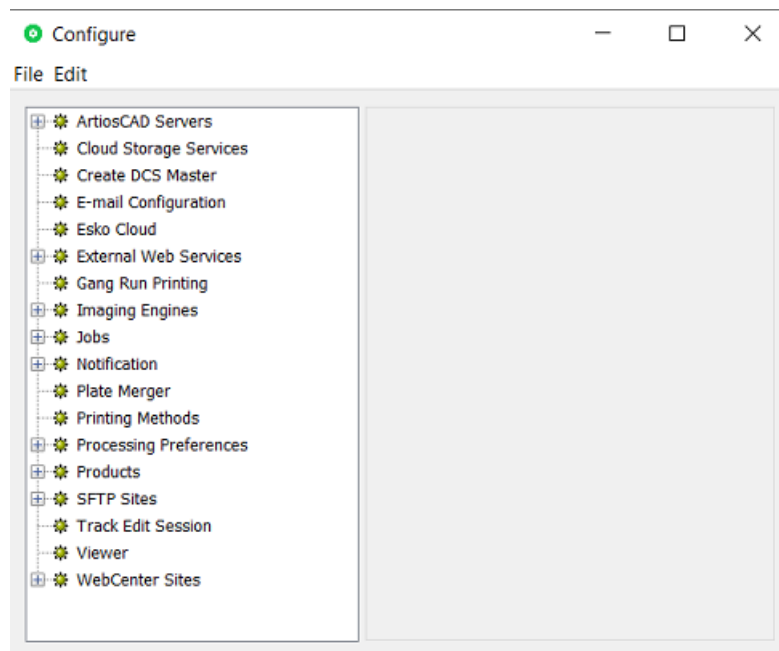
Learn more in [The Agent](#) on page 7.

- **Syncer:** When editing ArtPro+ or DeskPack files, this tool handles the data synchronisation between your local cache (of your local workstation) and the source data in the AE Container. Learn more in [The Syncer Tool](#) on page 12.
- **App Launcher:** When you ask to open a file in the AE browser client in some local application, this tool enables this and also helps to define which application you want to open for which file type. Learn more in [The App Launcher Tool](#).

2.1. How the Pilot client Adapts to a SaaS Connection

A Pilot client adapts to the type of server setup in these areas:

- **Connection protocol:** Depending on the chosen server, the Pilot adapts its connection protocol:
 - When the selected Automation Engine server is on-premises: the connection is done over TCP/IP and a classic version of the Pilot will open.
 - When the selected Automation Engine is a SaaS server in a data center, the connection is done over HTTPS (the 'Tunnel' protocol) and some functionality in the Pilot will not appear.
- **Configure tool**
 - **Full:** A Pilot using a TCP/IP connection will open a Configure tool with all topics available. This enables a full system configuration of an on-premises server, by its administrator or by Esko support staff
 - **Limited:** A Pilot using an HTTPS connection will open a Configure tool with a limited list of topics. The customer's Automation Engine administrator so only has access to topics on operational level.



Note: When Esko PlatOps staff is 'present' within the network of the hosting company and signed in to an AE SaaS server within that network, the connection will be TCP/IP and so they will have access to the full set of topics in the Configure tool.

2.2. The Agent

The Agent was introduced in [SaaS Technology Components](#) on page 5.

The Agent is a component that enables general communication between the local site and the AE SaaS server. It specifically enables these tools:

- Setting up a local Device, to output from the SaaS server to your local CDI , DFE, etc.
- Some classic communication via file exchange that is also wanted between a location and the SaaS server:
 - Extra Access Point: [Agent Folder Access Point](#) on page 17
 - Extra task: [Task 'Send File to Automation Engine Agent'](#) on page 21 task.

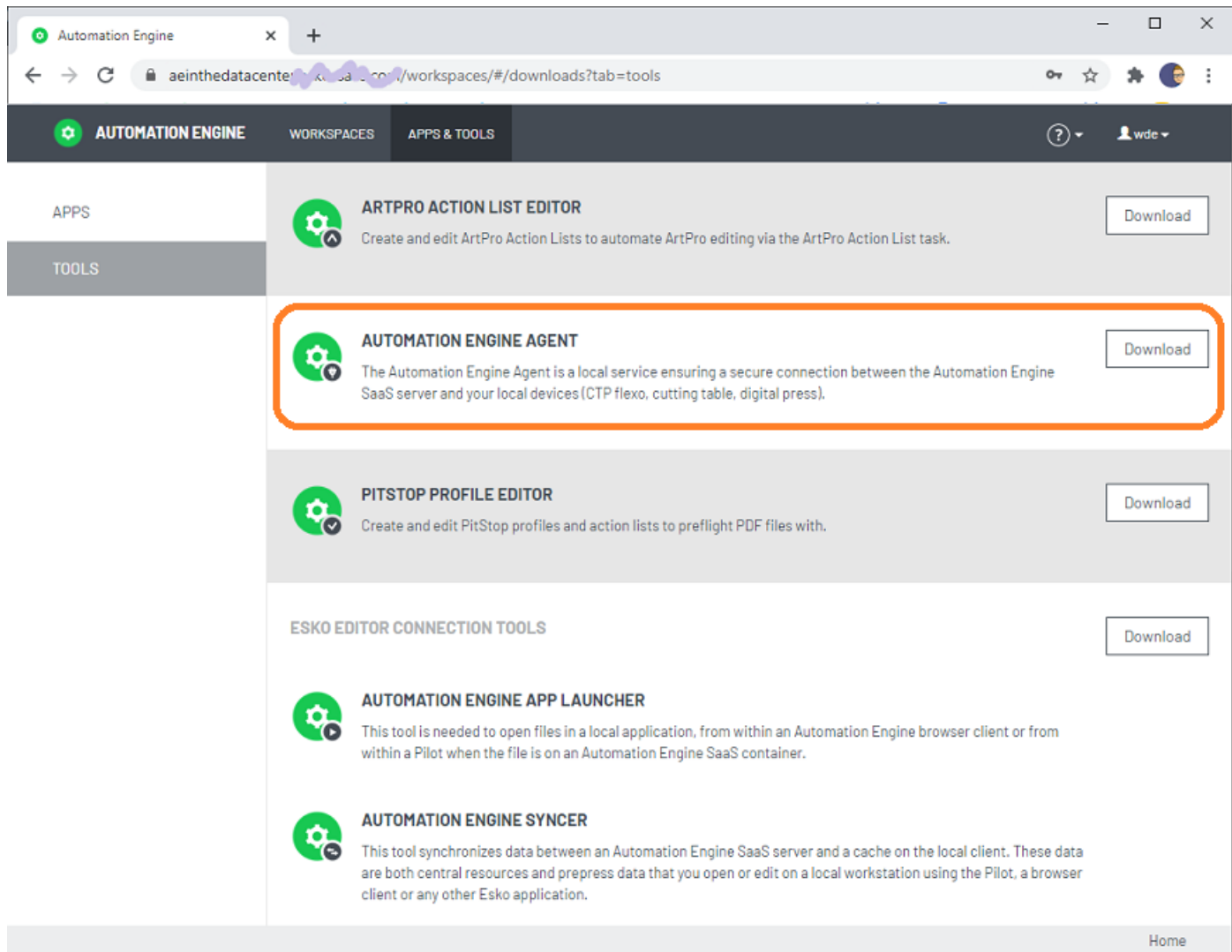
The local administrator needs to [install this Agent](#) on a chosen (Windows) computer and also take care of its updates.

2.2.1. Agent Installation

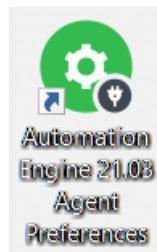
Installing an Agent is also done from browser client's home page. Follow these steps:

On the computer in the location where you want to install an Agent:

- Make sure the computer meets its requirements to serve as an Agent. See a special page under [the system requirements page of Automation Engine](#).
- In a browser, go to `http://<AESaaSserverName>:9000/`
- Click on the AE icon and in the left slide-out click on '**Home**'.
- Go to **Apps & Tools** > > **Tools**.
- For the tool **Automation Engine Agent**, click **Download**.



- Follow the installation instructions.
- When finished, you will have this extra desktop shortcut:



- Double click it open the [Agent Preferences web pages](#).

2.2.2. Agent Preferences web pages

Important: Find a valuable instruction video about this configuration in the course "AE SaaS - Agent Configuration for Administrators" on [Esko Blended Learning platform](#).

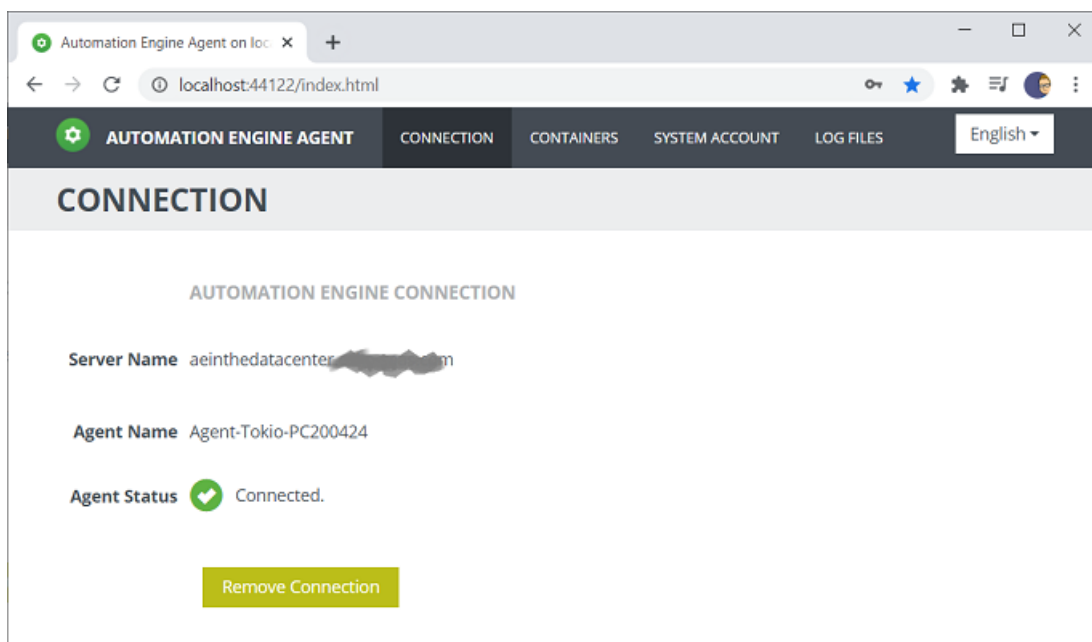
To open the web pages to configure and set preferences for your local Agent, go to the computer where you installed the Agent and

- open the URL `http://localhost:44122`.
- or double click the desktop icon for these pages.



Attention: To make any changes, you need an administrator account to the AE SaaS server.

Note: To support live updates, your browser needs to minimally this version: Chrome v 61, Safari v30, Firefox v 55, Edge v 14).



Note: For most of below actions, you will be asked to authenticate (again) as an Automation Engine administrator user.

Connection

When signing in here for the first time, the Agent Status will mention that the Agent is running but that it is not connected to an Automation Engine server.

- **Server Name:** Enter the name of your AE SaaS server.
- **Agent Name:** Enter a name for this local Agent. This name will be picked up in task tickets or other tools that users might see.

You only need one Agent per location, so we advise to refer to this location in its name. You can also add the actual name of the computer, but be aware that many users might not know that name. A good example: AE-Agent-Tokio-PC375877.

Note: The URL encoded version of this name should be smaller than 36 characters.

- **Agent Status** and subsequent action button:
 - "Running, not connected to an Automation Engine server" - button **Connect:**
Status when there is no configuration yet. Click **Connect** to connect and test the link between your local Agent and the SaaS server.
 - "Connected" - button **Remove Connection:**
Click **Remove Connection** to remove the connection.

Note: This does not remove the Agent service or any of its configuration, only its connection to AE.

- "Automation Engine is up and running. The agent could not connect to Automation Engine" - button **Connect Again:**
The connection is invalid. Click **Connect Again** to try again.
- "Could not connect to Automation Engine. Please verify whether Automation Engine is up and running." - button **Modify Connection:**
The above specified AE SaaS server can't be reached.
 - Check if the server is indeed running. As soon as the server is back up and running again, the connection will automatically be re-established.
 - Click **Modify Connection** to change a field before trying again.

Containers

You can set up local **Agent Containers**. These are data zones within your local network that you want to use in some connection to the AE Server.

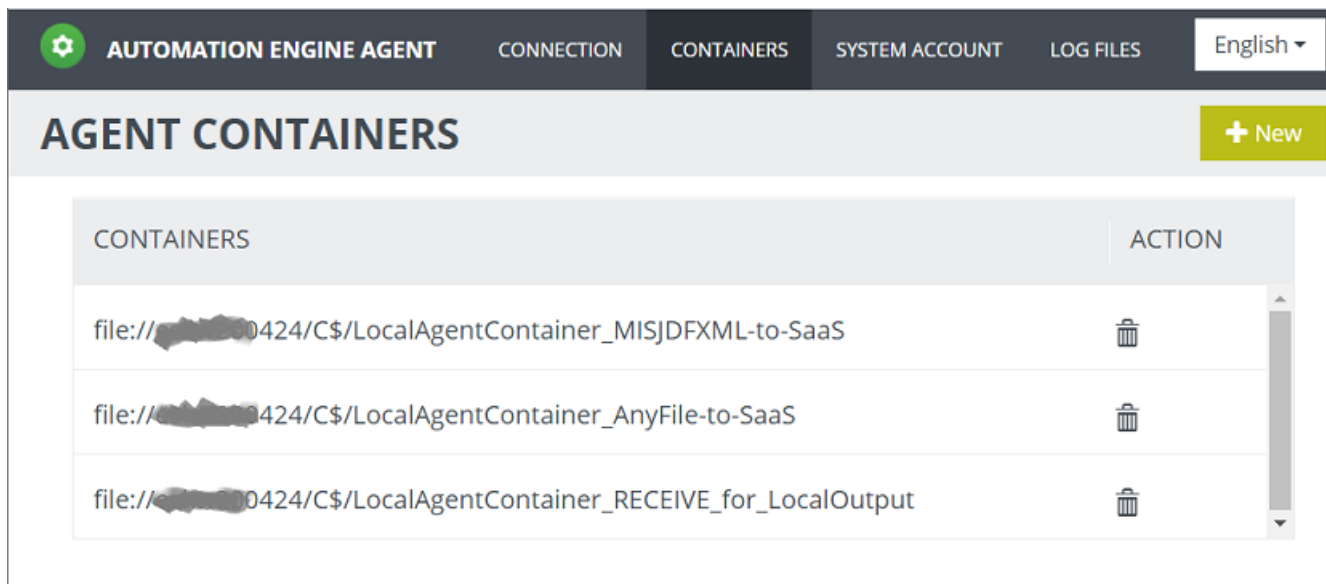
There are 2 main use cases for such Agent Containers:

- **To send files** to the AE SaaS server ; to serve as local "hot folder". For example
 - to trigger an action.
 - to send JDF files from your local MIS to the AE SaaS server.

These Agent Containers are used in an [Agent Folder Access Point](#).

- **To receive files** from the AE SaaS server, typically data that should be output locally (proof, plate, press). Local devices can then pick up incoming jobs from such a folder (when they support such a basic 'hot folder' type of input).

These Agent Containers are used in the [Task 'Send File to Automation Engine Agent'](#) on page 21



Click **+ New** to add an Agent Container.

- The folder URL can be set by
 - browsing to an existing folder within the local disks of the client computer you are working from
 - or by typing in a path to a share in the local network. For example: `file://computername/foldername.`

An error message will be shown when the entry is not valid.

- You can add multiple Agent Containers.
- To remove any from this configuration, click the trash can icon and confirm with **Yes**.

System Account

Agent technology is a Windows service ('EG Devices Agent') that is run by a system account that you define here.

Log Files

Displays the Agent log files.

Typically, Esko support staff will check these type of files when needed.

Use he **Refresh** button to see live updates.

3. Editor Connection Tools

3.1. The App Launcher Tool (SaaS + On-Premises)

Opening files from within a browser client is possible both in SaaS as in on-premises setup. To the user, its functionality is identical.

See its description in the chapter on the browser client, in [Opening Files from the Browser Client](#).

Note: App Launcher communicates with Syncer: When a user requests to open a file,

- the App Launcher first informs the Syncer that that file is not yet in the local cache of the user's workstation and so that the syncer needs to copy it over from the AE SaaS Container.
- Right after that it asks the user which local application should be used, or immediately opens the file in the default local app (as soon as the sync is done).

3.2. The Syncer Tool

Concept

The Automation Engine Syncer tool allows users to work with a local synced copy of files and folders that are located in a SaaS data center, aka a mirror data set. When you open such a file on your local workstation, the Syncer will first sync the file from the data center to a local cache folder and only then that cached file will open in your local application.

When the user modifies the contents of the local mirror (i.e. adding, removing or modifying files and folders), the same modification is applied to the corresponding files and folders in the data center.

Note: When both the local file and the version in the data center has changed, a conflict is detected and a warning shown. Learn more below.

The Syncer is only aware it has do something when the opening of the file is done via any of these tools:

- **Clients:** AE client (Pilot or browser client)
- **Editors:** ArtPro+ and DeskPack (Adobe Illustrator + Esko plug-in)
- **Resource editors:** Color Pilot, Curve Pilot, PitStop Profile editor.

Note: Learn more below on what happens when the local applications are Esko classic editors (PackEdge, ArtPro, Plato / i-cut) or non-Esko applications (Acrobat, Photoshop, ...).

Also resource files are being sync'ed. Calibration resources (CMS, DGC, screens, profiles) consist of multiple files and to avoid data corruption, any edit and upload action is protected by locking flags. There is no automatic upload of modifications, the upload is under control of the editing application.

When starting up (and signing in to AE SaaS), the syncer already syncs these resource files ; there is no reason to wait until the user opens a first PDF file.

Cache Folder Location and Warning

This is the default (and automatically created) location of a local cache is on the client, in the users' home directory:

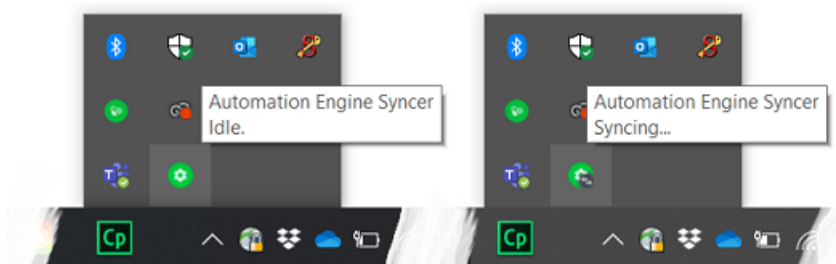
- ~/AESYNC (macOS)
- %USERDIR%\AESYNC (Windows)

Note: This is a folder on each local workstation. This is not one folder for all workstations.

Danger: It is strongly dis-advised to make any manual changes to these folders. There are no foreseen reasons to do this. For example:

- Any manual deleting of data in this cache automatically triggers the deletion of the equivalent data in the data center!
- If someone opens a file directly from the local cache, then it is quite possible that you open an outdated file. For example: Applications that are not integrated with the Syncer and that show a list of 'Recent files' that you opened: Mind that to that application those are files in the local cache, not the source files in the AE SaaS data center! (example: PackEdge, ArtPro, Photoshop, Acrobat)

The Syncer Tray icon



Very similar to the tray icons of OneDrive or Dropbox, you can see what the Syncer is doing when you hover over its tray icon.

Note: The Syncer tray icon is invisible until the syncer gets a first synchronization request.

Note: The Syncer has no entry in the task bar (Windows) or dock (macOS).

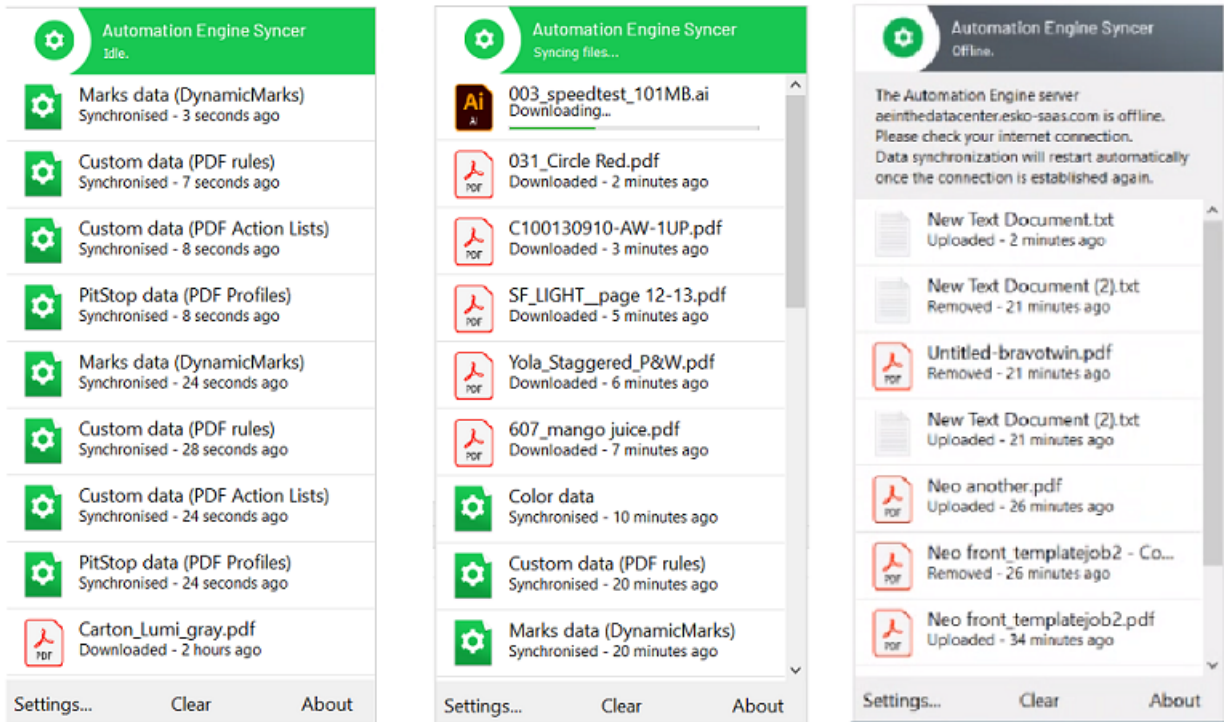
The system tray icon reflects the state of the syncer through different icons:

- **Idle:** All data is synchronized.
- **Syncing...:** Syncer is busy synchronizing data.
- **Waiting:** Syncer is waiting till the user signs in to Automation Engine.
- **Offline:** Syncer is not able to contact the Automation Engine server.

The syncer also pops up an alert dialog when there is a problem. Some ask the user what to do / which file to keep (learn more below).

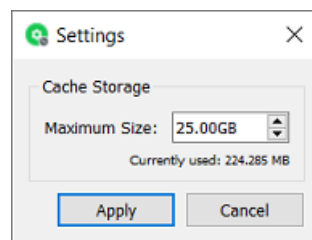
The Syncer dialog

Click on the tray icon to open the Syncer dialog. Some examples:



In normal circumstances, there is no need to check this dialog. However, it can serve these purposes:

- to see that something is happening.
- to see that resources are also involved in the current syncing
- to see that there is some problem. However, any issues will also appear as pop-up messages.
- **Settings**



- **Cache Storage**
 - When the user downloads more Container data files than the **Maximum Size** of the cache, the Syncer will automatically remove files that have not been used for a while (i.e. not accessed since 3 days).
 - It does this until the size of the cache data again drops under the here defined Maximum Size.
 - The maximum cache size (default 50 GB) cannot be set lower than 5 GB.
- **Clear**: Click here to manually clear all finished (failed and successful) synchronization messages in this dialog.

Note: When this list has grown to 5000 entries, it auto-deletes the oldest 1000 entries.

- **About:** Shows the software version and build number.

What about other Esko and Non-Esko Editors?

Interactive applications (editors) that are not integrated with the Syncer tool can only be incorporated in this syncing in a limited way or not at all.

- **Basic Syncing is possible with non-Esko editors:**

When the data that such an application opens is inside an AE SaaS Container (in the data center), then that file will also be synchronized to the local cache folder. For example: Photoshop opening a PSD file, Acrobat opening a PDF file.

- **Esko Classic Editors AP/PE/PL/i-cut are not supported in a SaaS setup:**

With Esko classic editors, we mean (all versions of) ArtPro, PackEdge, Plato / i-cut, FastImpose.

Typical of Esko's graphical editors is that they work with central resources (color book data, fonts, marks...) and also that they can contain links to external files (images, one-ups, CAD files...).

This smart working with external data is crucial for them to work.

However, the Esko classic editors were not and will not be updated to be aware of the Syncer tool.

That is why these editors are not supported in an AE SaaS setup.

Conflicts

When the Syncer detects a conflict, he will ask you what should be done:

- A file is updated in the local cache but it was also modified in the data center after its last sync operation.
- A file is updated in the local cache but it got removed in the data center after its last sync operation.
- A file gets removed from the local cache but it was modified in the data center after its last sync operation.

In these rare situations, a detailed dialog appears mentioning this conflict.

- When a file has updated both in the local cache and in the data center, a dialog appears where the user can choose to keep the local cache file or the data center file or both.
 - When the user chooses to keep the local cache version, this version is uploaded to the data center.
 - When the user chooses to keep the data center version, the data center version is downloaded into the local cache/
 - When the user chooses to keep both:
 - the file in the data center gets renamed by adding a suffix to the file and this file gets downloaded to the local cache/
 - the updated file in the local cache gets uploaded to the data center/
- When a file is updated in the local cache but it was removed in the data center after its last synchronization operation, a dialog appears where the user can choose to:
 - OR upload the updated file from the local cache to the data center
 - OR remove the file in the local cache
- When a file is removed from the local cache while it was modified in the data center after its last synchronization operation, a dialog appears where the use can choose to:

- OR remove the file in the data center
- OR download the updated file from the data center to the local cache

FAQs

• **Q: What with linked files / placed art?**

- A: When a file is opened in ArtPro+, then ArtPro+ checks if the embedded data is still in sync with the placed art. When that file is opened from the a SaaS data center, it will be avoided when there is no need to download that placed art (again).

• **Q: What if 2 users both open, change and save a same file?**

- A: The last one that saves overwrites the previous version. No message will pop-up. There is no locking technology in place.

• **Q: What if 2 users work on the same file and their saving crosses the syncing?**

- A: If a user works on a file in AP+ saves the file AND there is someone else also working on that file and has already saved a newer version on the data center, then there will be a conflict. The syncer dialog will pop up a message and make the user choose an option: replace - cancel - keep both (see details above).

• **Q: Can I open more than 1 file at once?**

- A: Yes.

•

• **Q: Can we have only one local cache in our location, in stead of one for each workstation?**

- A: No.

• **Q: What happens when the network temporarily goes offline?**

- A: The Syncer reacts actively when there is any change to local machine's network.

As soon as the network connection with the Automation Engine server is established again, the Syncer automatically resumes its work. Also when this network problem occurs in the middle of an upload, the Syncer will be aware and, as soon as he can, start that upload again from zero.

There is no way (and no need) to start the Syncer again manually.

4. Extra Functionality in SaaS

Because the client and the SaaS server are in different networks, these tools have been developed to re-enable functionality that otherwise would not be possible (or not secure).

4.1. Agent Folder Access Point

When your Automation Engine server is a SaaS server (has that license), the type 'Folder Access Point' is replaced by a different one: **Agent Folder** Access Point.

Find a valuable instruction video in the course "AE SaaS - Agent Configuration for Administrators" on [Esko Blended Learning platform](#).

Concept: Sending local files to the SaaS network

When data are already within the AE Containers on the AE SaaS server, you can use many other tools to have AE actions done on those data.

The specific reason for this tool is that there are data on your local network that need some action on AE SaaS, which is not in your local network.

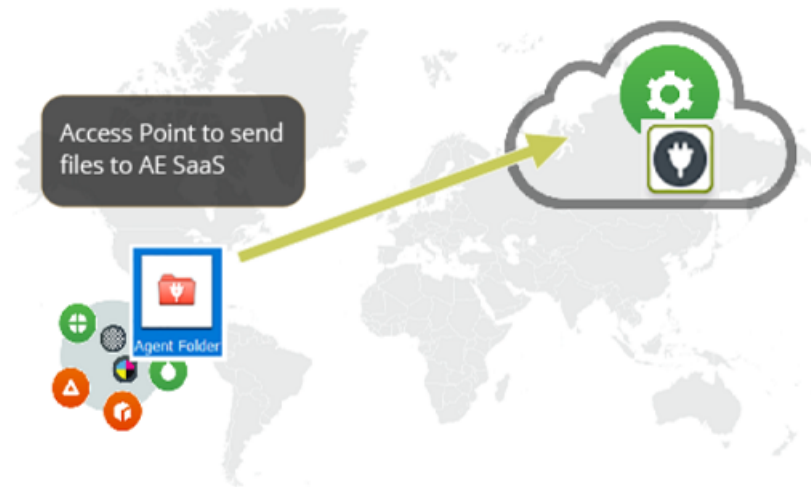
Typical examples:

- Some **data is created at your location**: A local system, for example the MIS system in your location, needs to transfer file data to AE SaaS. JDF or XML files can so create Jobs on your AE SaaS.
- Other **data arrives at your location**: For example customers send you files on your local FTP server, or via some physical medium arrives on your computer desktop, etc.). And these files also need to end up somewhere within the Containers of your AE SaaS server.

Note: An Access Point picks up files, not complete folders.

Note: Part of this use case can also be managed by using the [Drop File](#) functionality in My Workspace (browser client).

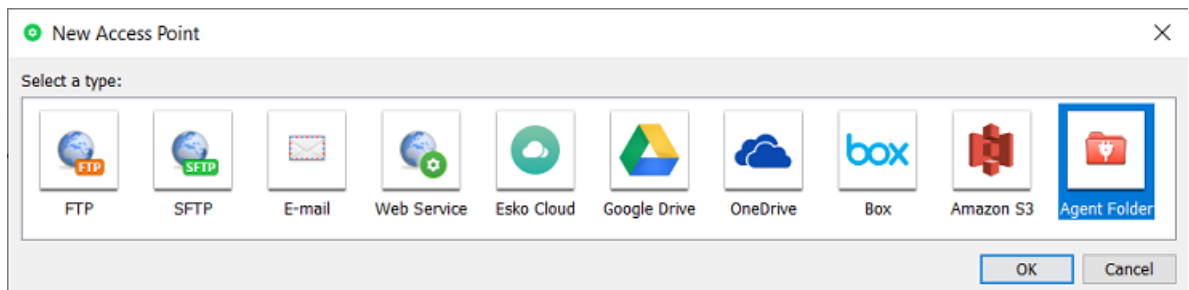
Note: In a Pilot client of an AE SaaS, the functionality to drop files onto folders in the Pilot or to use 'Explore' is not available.



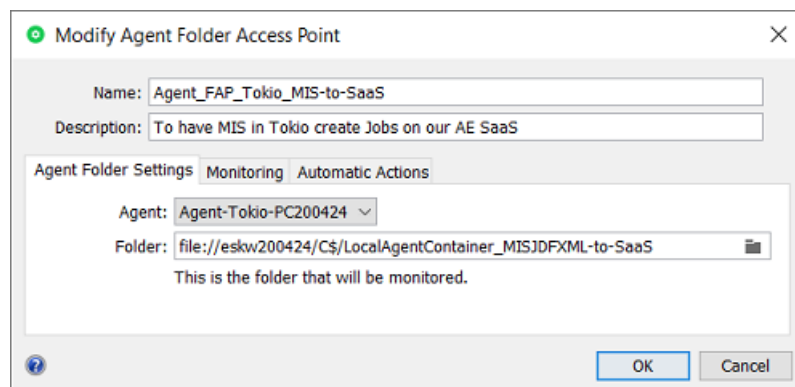
Setup

Note: First make sure you have [set up](#) a local Agent and one or more Agent Containers.

- In the **Pilot** go to the **Access Points** view. Alternatively, choose **Tools > Access Points**.
- Click on . Alternatively, choose **File > New**.
- In the list of types, select **Agent Folder** and click **OK**.

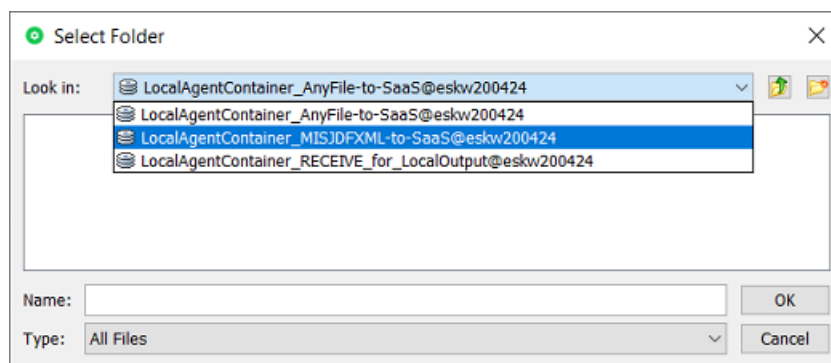


- The **New Agent Folder Access Point** dialog opens. An example:



- Enter a **Name** for the **Folder Access Point**.
- Optionally, enter a **Description**. This helps to identify this Access Point without having to read all its settings.
- In the tab **Agent Folder Settings**:
 - **Agent**: Select your local Agent.
 - **Folder**: Define which local folder will be the actual Access Point that will be monitored by your Automation Engine SaaS (through use of the local Agent).

Use the browse button to select a folder (within one) of the configured local [Agent Containers](#).



Note: This folder may not be used for any other Access Point.

- In the tab **Monitoring**:
 - **Check Every**. Enter the time interval with which Automation Engine should check if any new files came in. Think of the time interval as the *maximum* time it takes for the new files to be picked up.
 - **Schedule**. If you want this Access Point to be inactive during a part of the day, then activate this option and indicate the start and end time of that period.

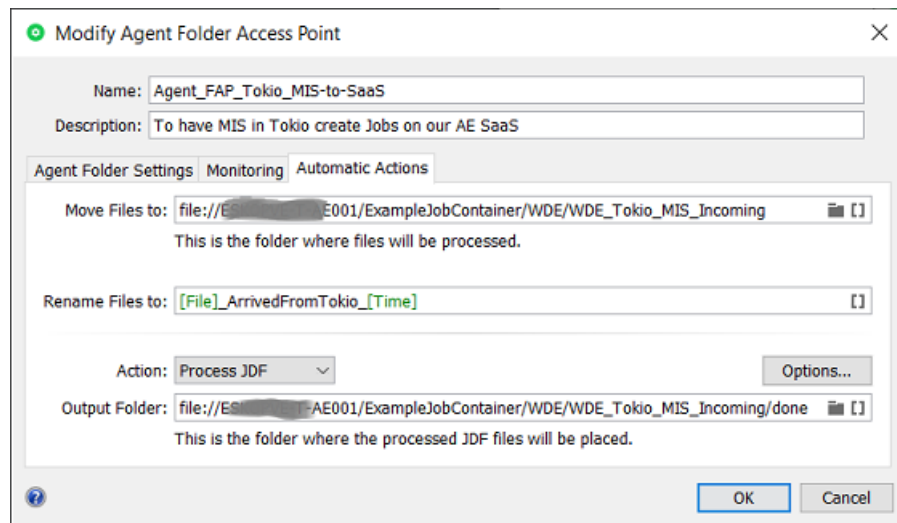
Note: Such a temporary inactive state will not be shown in the general Access Points View. In that View, the column 'Active' shows its *general* status.

- In the tab **Automatic Actions**:
Define what needs to happen when a file is detected.

- **Move Files to**: This is the folder where the files will be processed. These files have to be moved to avoid that the **Access Point** would process the same files again and again.

Important: If this destination folder is part of a Job Folder, the workflow that this access point launches will run in the context of that Job.

- **Rename Files to**: If you want you can choose to rename these files too. Typically, SmartNames are used here to help indicate in their name *when* they were processed or *where* they came from.
- **Action**:



- **None:** Choose this option when you only want to use this Access Point to *move* the files to somewhere in an AE SaaS Container.
- **Launch Workflow:** Choose this option when you want a workflow to start. Select the workflow ticket from the offered list. The new accessed files will be used as input files for this workflow. If these files are inside a Job Folder, the workflow will be run in the context of that Job.



Attention: Make sure your workflow **can** start with the type of files that will arrive.

Options:

- **Operator:** Choose the operator that will be shown as operator for the workflow task.

Tip: If you do not want to assign one specific person, you could create an operator named "Access Points" or "Automatic" and assign that one here. Also remember that the Access Points Task Monitor shows you the tasks launched by the selected Access Point.

Note: If you leave this option blank, a system user "UPLC" will be used (referring to *UPLoad Client*).

- **Priority:** Choose the priority for this workflow: Low, Normal or High. The default priority is 'Normal'.
- **Process JDF:** Choose this option when this Access Point will be used to process incoming JDF files.
- **Output Folder:** Define where the JDF files should be placed once they were processed.

Note: Do not use this for XML files ; the JDF server behind this option will not process them. For XML files, select 'Launch workflow' and use the [Create Job task](#).

For more info on JDF, read this section: [What about JDF?](#)

4.2. Task 'Send File to Automation Engine Agent'

Find a valuable instruction video in the course "AE SaaS - Agent Configuration for Administrators" on [Esko Blended Learning platform](#).

Concept

Use this task to have Automation Engine SaaS send files (and folders) to a client location that has installed and configured an Agent.

Important: The data is copied, not moved.

Important: At the destination folder, identical files will be overwritten without warning.

Use this task for example at the end of a workflow by sending the (RIP'ed) output files to the location where they will be produced. i.e. being picked up by a proofer or CTP or press (some device that you could not configure as a local Device in the Pilot).



Task Settings

- **Agent:** Select the Agent in the target location.
- **Destination:** Select the folder, in one of the [local Agent Containers](#).

Note: It's possible to cancel the task while files are already transferring, however, their transfer will complete in the background anyway.

4.3. Adding a Local Device


Concept


Adding a Device (CTP Flexo, Digital Press, Kongsberg) is very similar to adding them as described for an on-premises Automation Engine.

Main extra is that you have to assign the name of the local Agent that will do the communication with the SaaS server.

Find valuable instruction videos in the course "AE SaaS - Agent Configuration for Administrators" on [Esko Blended Learning platform](#).

Specifics for Local Devices in a SaaS setup

1. First make sure that your location has set up [a local Agent](#).
2. In the Views bar, in the group **Setup**, open the view **Devices**.
3. Click , select the device category and click **OK**.
4. In the **New Device** dialog:

- **Agent:** Click  and select your local Agent.
- **Server:** Type a name you will give to this local device.

After having clicked 'Add', open the info dialog of the device, in the field for **Server**, make sure to type in the name or the IP address of the front end computer controlling that local device.

5. Click **Add** to confirm. The colored status box of the newly created device appears.
6. Double click its status box to see or change any attributes.

Learn much more detail in the main pages on adding specific devices:

- Flexo CTP device: [Devices \(CDI\)](#) or [Devices \(TIFF\)](#)
- Cutting Table device: [Devices \(Kongsberg\)](#)
- Digital press (DFE) device: [Devices \(Digital Presses\)](#).

Outputting on the local Device

For a user, outputting on a local device is not different in a SaaS setup.

In the output tasks ('Submit to ...',), select the **Device** that you added here, set its parameters and launch.

The task will also show you the feedback it gets from that local device.

4.4. Workflow 'Upload Fonts'

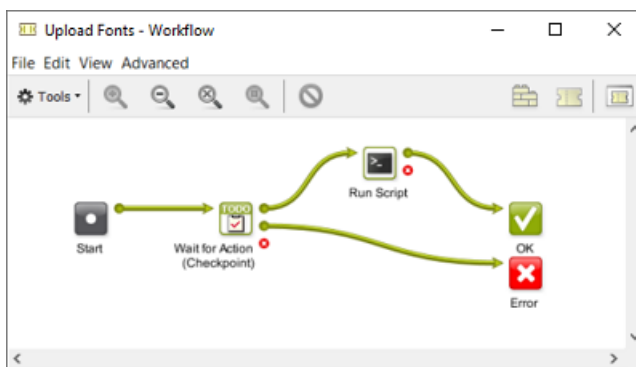
Concept

In a SaaS environment, a predefined (read-only) workflow was created to allow fonts to be uploaded and installed as system fonts on your AE SaaS server in the data center.

Such fonts are for example used in Dynamic Marks and so need to be installed on the server.

Workflow

This Esko-delivered workflow runs a special script to do this, but first wants to hear that your are not infringing any copyright rules: It therefore consists of two steps:



- The **Wait for Action (Checkpoint)** step will ask your consent.

Note: Your answer is logged in specific log files.

- When you approve, the upload script (made by Esko) will run and upload the input files to the central list of fonts on the AE SaaS server.

Supported Font Types

- **Supported:** Open Type and True Type (collection) font files are supported for upload. In detail:
 - single file: <name>.ttf (TrueType)
 - single file: <name>.ttc (TrueType Collection)
 - single file: <name>.otf (OpenType)
 - single file: <name>.otc (OpenType Collection)
- **Pre-release Support** for Type 1 fonts, in the form of a pair of .pfm and .pfb files. Both files should be inputted at the same time and should have the same file name without extension. In detail:
 - pair of files: <name>.pfm and <name>.pfb (Type 1)
- **Not Supported:** CID Type 1 fonts are not supported for the moment.

It is possible to either upload a single font of a specific font format, or multiple fonts of various font formats.

5. Local Editing Applications in a SaaS workflow

What happens when local editors open and save files is described in the above page about the [The Syncer Tool](#) on page 12.

6. Migrating from On-Premises to SaaS

As mentioned in the eLearning Module introducing the SaaS setup, Esko offers dedicated personnel and tools to advise and assist you in migrating from a single or multiple on-premises server(s) to a SaaS setup.

Note: It is possible to sign in to multiple Automation Engine (master) servers. Administrators may need this functionality in special cases, like during migrating the on-premises server to the SaaS setup. To do this, sign in to the Pilot of server 1, and in the resulting Pilot's File menu, ask a **New Connection**. This will open an extra sign-in dialog where you can sign in to an other AE master server.