Argentis SAP E-Invoicing User Guide

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Solution

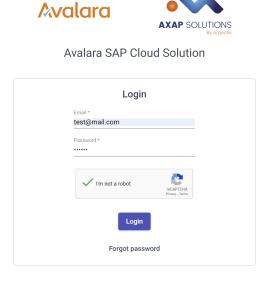
The E-Invoicing solution for SAP (E-Invoicing app) is an application interface to integrate with the Avalara E-Invoicing and Live Reporting (ELR) engine.

It's a cloud based web application, enabling you to connect to SAP for extracting invoices data, mapping to E-Invoicing mandates formats and submitting e-invoices to the Avalara E-Invoicing engine.

For SAP Business One, the E-Invoicing app will access data through SAP Service Layer. On the other side it will integrate to the Avalara ELR by using the official API endpoints provided by Avalara.

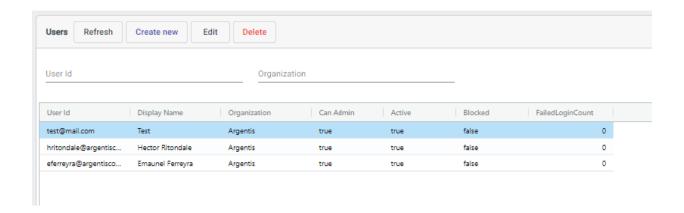
Accessing

Once you have a valid subscription for the E-Invoicing app, you will be provided with your initial User/Password combination, and can proceed to log into the application.



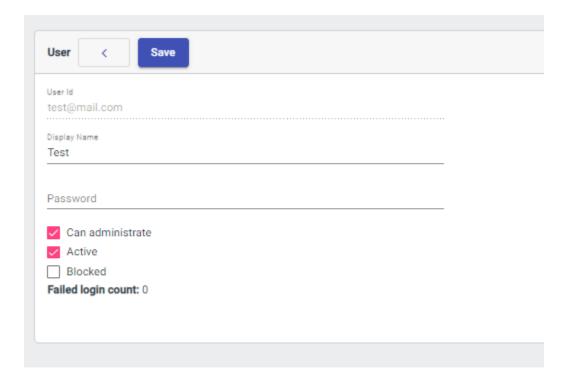
Users

From the users module you can create and manage users for your organization. The user quantity is limited by the license assigned to you.



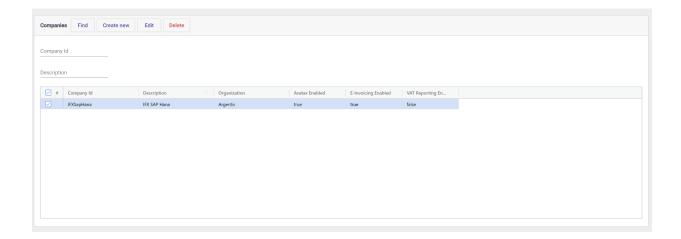
By editing a User you can perform some administrative tasks like:

- Changing a user password.
- Unlock a blocked user. That occurs when a user tries 3 failed logins.
- Deactivate a user, not allowing it to log in into the application.



Companies

A company represents a SAP Company and the configuration for the associated Avalara products, and particularly the Avalara E-Invoicing configuration.



You can define multiple companies for your organization, having for example a production and a test company, or several production and test companies.

The count of companies you can have is defined in your assigned license.

SAP Interface

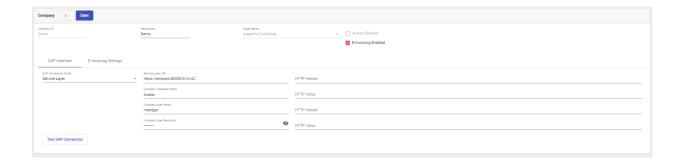
On the Company definition, the SAP Interface contains the fields to configure the SAP Service Layer parameters required for the connection.

The Service Layer URI must be completed in the form of:

https://{server}:{port}/b1s/b2/

Where you must replace {server} and {port} with your specific SAP Service Layer data.

After setting or changing any values in the parameters, you need to **Save** changes before using the **Test SAP Connection** button, to ensure the application tests with the saved information.



E-Invoicing Settings

On the E-Invoicing settings tab you will find the specific settings for the E-Invoicing product.

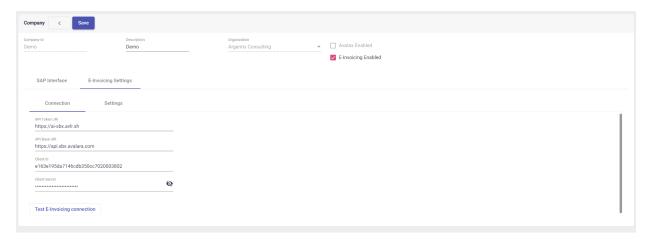
Connection

On the Connection tab you need to configure the parameter values provided by Avalara when signing for the E-Invoice service.

The parameters will include an API Token URI, an API URI, and your specific credentials: a Client ID and Client Secret.

Complete all of the fields, **Save**, and **Test E-Invoicing connection** with the provided button.

You will see a green Connection Succeed message on the screen if the data is valid.



Settings

At the E-Invoicing settings tab the following options are available:

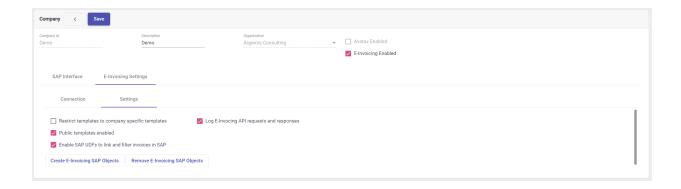
- Restrict templates to company specific templates: Mapping templates are linked
 to an Organization and can be linked to a Company. If this setting is enabled, you
 will restrict users to only select company specific templates. In disabled the user
 can select any template from the Organization.
- Public templates enabled. Public templates are provided in the solution as standard examples, and can be used in your company when this setting is enabled.
- Enable SAP UDFs to link and filter invoices in SAP: when enabling this, the application will save E-Invoicing data into the SAP document, on UDFs.
 In order to be able to use this UDFs you first need to create them, by using the Create E-Invoicing SAP Objects button.

This UDFs are:

- U_ARNGS_EInvId. The E-Invoice ID
- U_ARNGS_EInvStatus. The E-Invoice Status

UDF data will be automatically populated by the application during the submit and check status processes.

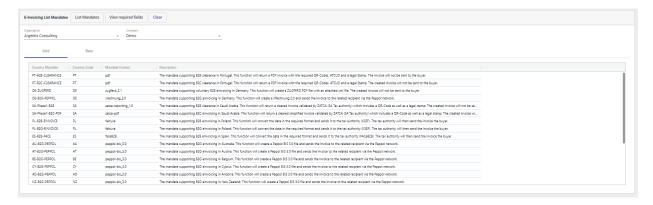
 Log E-Invoicing API request and responses. This setting enables recording the API request and response calls into the application log. This can be turned off, and enabled if required by Avalara or support to investigate any document.



Country Mandates

From the **List Mandates** module, you can view the E-Invoicing available mandates supported by the Avalara ELR platform.

This is an only-view module, detailing the Country Mandate code, country code and mandate format.

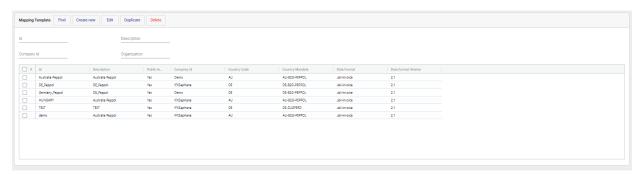


It's possible to view the mandate required fields definition. This can be used during the mapping templates edition, to get detailed information about specific fields in the country mandate.



Mapping Templates

This module will define how the E-Invoice documents are created, mapping from the source ERP system format to the E-Invoicing country mandate format.



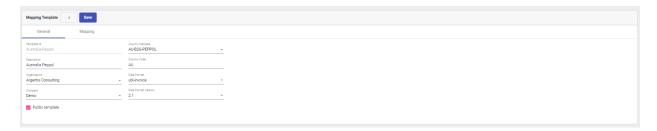
Template definition

When creating or editing an existing template, you will have a General tab.

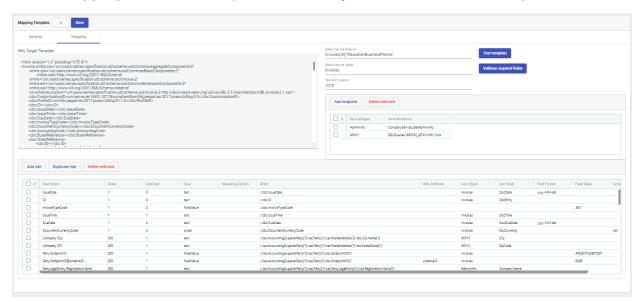
Here you need to define:

- TemplateID: it's a unique identifier for this mapping template.
- Description: a text description for the mapping template.
- Organization and Company: select here your Organization and the Company where the mapping template will be linked to. Linking a company will let you connect to the ERP for testing the template with real data.

 Country Mandate: select the country mandate from the dropdown list. The rest of the fields for the mandate are automatically populated based on the selected mandate.



On the **Mapping** tab for the template definition you will have the following:



XML Target Template

The **XML Target Template** is the E-Invoice xml document for the selected country mandate. The XML is the e-invoice document, with all the fields defined but with empty values.

The mapper works by using the template as target document and populating the field values with the ERP invoice values.

Paste here the XML template. You can use sample E-Invoicing documents as templates, or refer to the specific format samples, for example Peppol.

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XML Target Template
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Source data

On the right side, you need to define the SAP Service Layer endpoints to be used as a source for getting the invoice and other required objects.

In **Default Service Endpoint** and **Default Service Object** you define the main source Object to be used as a source, and the Service Layer URI for the object.

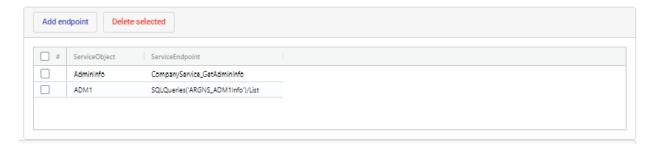
In this sample the URI is Invoices({0})?\$expand=BusinessPartner

{0} is a parameter that will be replaced with the SAP document DocEntry when getting the data from SAP.



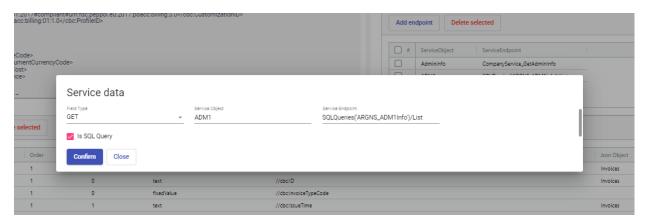
You can use additional Service Layer endpoints as source for the template.

In this example two additional ServiceObjects are added: AdminInfo an a custom SQLQuery.



To add a new Service Object use the **Add** button, and complete the fields.

Select the HTTP method, the ServiceObject name (that will be used as reference) and the Endpoint, that is the service layer URI for the service or object.



Mapping rules

To map each field from the source data to the target xml field you need to define a rule.

The final E-Invoice document will be created by executing all rules in order, mapping all of the fields.



Basic rules

Open each rule definition by double clicking it, or use the **Add Rule** button to create a new one.

In the mapping rule need to define:

Field Type:

- Text, Date, Decimal Number, Integer number. All of these have the same definition.
- Target XML XPath. This is the XPath value to match the target field to be set in the E-Invoice document format. This is where the source value will be copied to.
- Target XML Attribute name. If the value must be mapped to an attribute of the xml field, complete the attribute name here.
- Source Json Object. On this dropdown the configured source objects will appear.
 Select one of the defined objects.
- Source Json Field. The field in the SAP Service Layer Json object to be used.
- Field Format: If you need to apply a format to the field, like when using dates or numeric fields.
- Rule Order and Suborder. The Rules are executed in the configured order. Use this fields to setup the desired order.

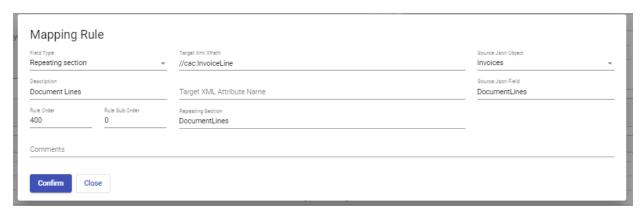


Repeating sections

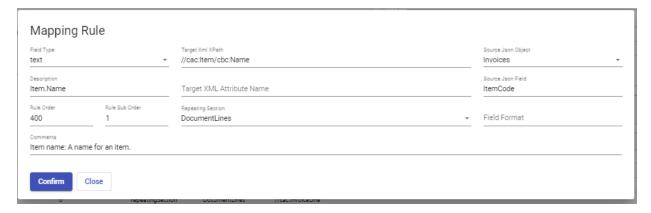
A special type of rule is the **Repeating Section**. This rule is to define sections in the format that needs to be repeated, like invoice lines.

For example, to map the SAP invoice lines, use an example like the one displayed below.

The **DocumentLines** is the array of lines in the Invoice document. In this definition we are indicating the rule that for each item in the **DocumentLines** Json Field a new item must be created in **//cac:InvoiceLine**

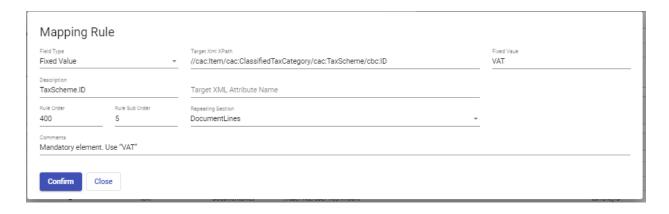


Then when a RepeatingSection is defined, you can create rules to map fields in the repeating section. In this sample, see how the **Invoices.ItemCode** from SAP is mapped to the **//cac:Item/cbc:Name** in the xml e-invoice format. For this it is required to select the desired RepatingSection in the dropdown.



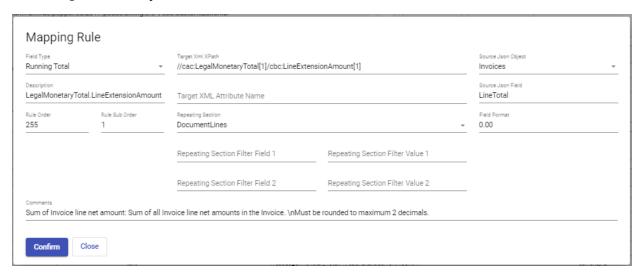
Fixed rules

This rule let you set fixed values to a target field



Running Total rules

If you need to summarize a field from a RepeatingSection you can use this kind of rule. In this example, the rule will add each LineTotal from the DocumentLines repeating section, setting the total the target xml //cac:LegalMonetaryTotal[1]/cbc:LineExtensionAmount[1]



Script rules

An advanced type of rule is available when some logic is required to produce the target value. For example here is a script to produce a DocumentCurrency formatted.

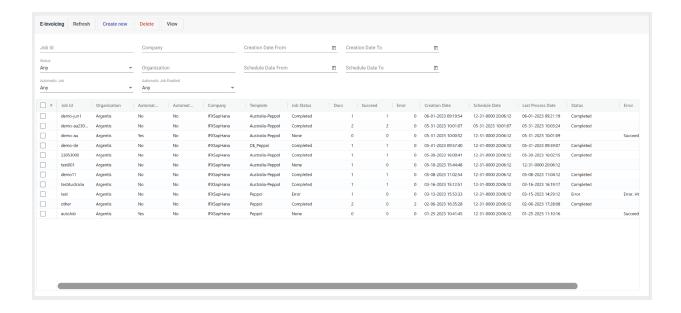
The code allows to use basic C# scripting to produce the output. Here because the source DocCurrency in SAP is defined with the \$ symbol, it needs to be transformed to an ISO code representation of it.

The script will convert \$ to USD, otherwise it will output the DocCurrency value.



E-Invoice Submission

This module allows to create, view and process E-Invoicing submit jobs. On the main screen of the module, you will have all of your previous jobs listed, and can use the filters in the top to look for specific jobs.

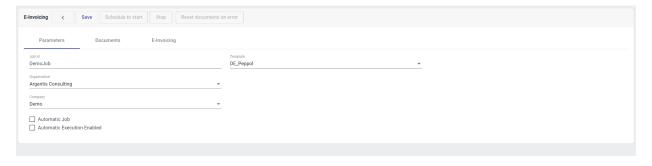


Jobs

Any document submission is done with a job.

When creating a new job, you need to define on the **Parameters** tab some data:

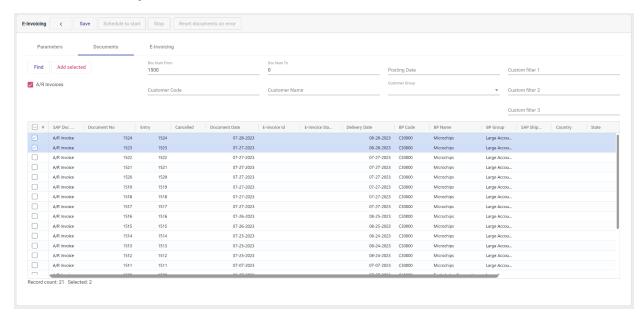
- Job Id: Is the job identifier, must be unique.
- Organization: Select your organization from the dropdown list.
- Company: Select the desired company from the dropdown list. This will indicate
 the application which is the SAP Company where the job will be connecting to.
- Template: Select from the dropdown the desired Mapping Template to be used for this job. This will determine how the e-invoice document is created, based on the mapping template definition.



On the **Documents** tab you will find and select the documents to be included in the jog for submission.

You can use the filters in the top to filter the results by specific conditions like the document number, customer code, dates, or also custom filters. Custom filters provide the option to filter by UDFs in the SAP document.

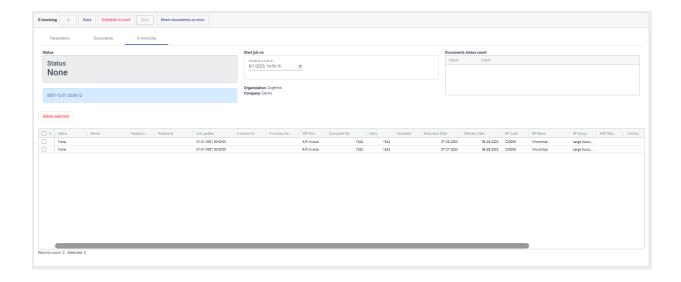
Select the desired documents, and use the **Add Selected** button to include the documents in the job.



On the **E-Invoicing** tab you will see the documents selected for submission.

You can delete documents from the list by selecting rows and clicking on **Delete** selected.

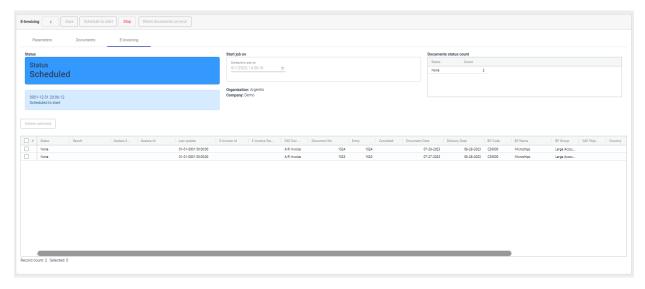
To start the job execution you must schedule it, selecting the desired start date and time, and then clicking on **Schedule to start**.



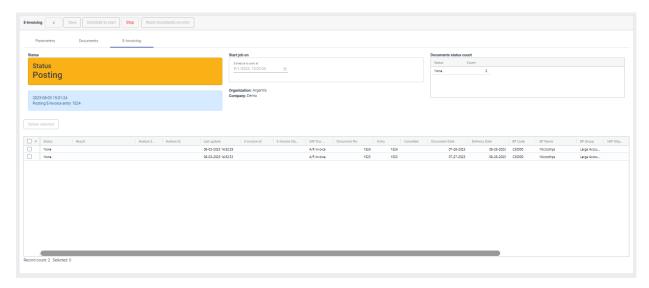
The execution is performed by an asynchronous processor.

You don't need to keep the browser window open in the application. The job is totally executed in the cloud. You can close the browser and open the job anytime later to view the current status.

After you **Schedule to start** you will see the Job status changing to Scheduled. The job processing will start shortly after the scheduled starting date and time is reached. Setting s starting time in the past will produce the job to be processed a few seconds after the job is scheduled.

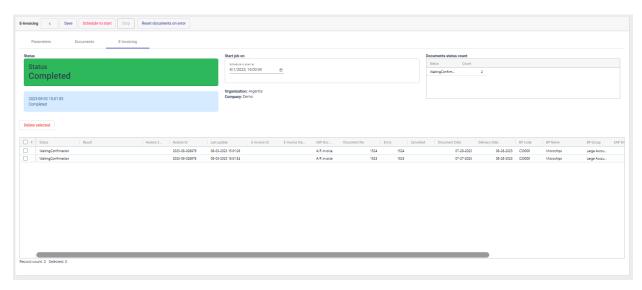


When the processing starts, you will see the status changing to **Posting**.



After the **Posting** phase is completed, you will see on each document row information the specific status for each document.

If the document was posted also an Avalarra ID will be shown for the document. This is the ID generated by Avalara when receiving the E-Invoice, and it's used for tracking the document status.



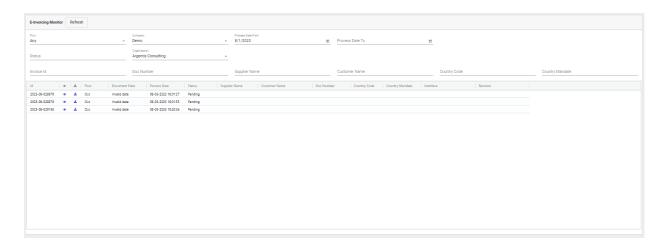
When a document is successfully posted to the Avalara ELR engine, the initial status will be Pending, as the document needs to be processed. While it's in process, the

E-Invoicing app will show a WaitingConfirmation status, and the app will be checking the document status until a final status is available. When that occurs, the status will be automatically updated.

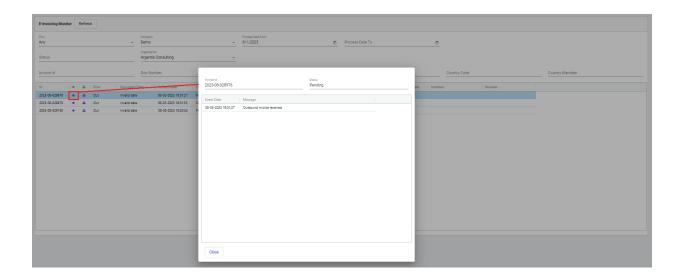
E-Invoice Monitor

The monitor is a module to view all E-invoices associated with your Avalara ELR account (linked to your company).

Outbound (invoices sent by you) and Inbound (invoices received) documents can be listed, and several filters are provided.



The eye icon is a button that can be used to popup the specific document status, refreshed at the moment directly from the Avalara ELR API.



The download link gives the popup menu to download the e-invoice file. The available formats to download depends on the country mandate format and the Avalara ELR engine API capabilities.

