



Cost Import – Antura Integration Standard

Version 8.0

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Background

Since 2017, Antura has been offering its customers to import costs into Antura using Integration Standard. The Integration Standard are a kind of add-on products that are continuously updated, in a similar way to Antura, where customers who license them can choose when they want to upgrade to a new version. Unlike custom integrations, the Antura Integration Standard are offered to the entire Antura customer base and thus also driven forward by the same.

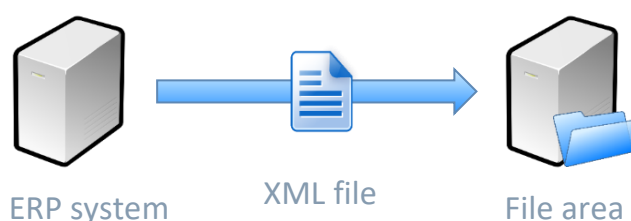
Antura offers one standard solution per cost perspective; Budget, Actual, Forecast and Optional.

Technical description

Data is transferred from the customer's ERP system to Antura via XML files. The files have a fixed format that is described in this document. The file is delivered to a file area which Antura monitors. Antura will read the file(s) that is available each day. The file must be uploaded to the file area before a specific time each day to be imported. The time is configurable in the Antura Integration Standard configuration file. By default, the import starts at 01:00 every night.

Files can either be uploaded manually or automatically to the file area. Multiple files per day is supported but it is usually unnecessary as the integrations include a step to clear previously imported costs for the current cost perspective (see more under the section *Deletion Strategy*).

In the case where Antura is hosted by Antura, an FTPS (or SFTP) account is set up to enable customer access to the file area.



The customer decides how extensive the export file should be, i.e. how far back in time that costs should be imported. However, Antura does not recommend that the file contain more than three historical periods (three months).

File format

The input to the imports is read from **XML files**. Antura provides the customer with XML examples and associated XSD files. XSD customization is not allowed.

The names of the files do not matter; as long as the files follow the current XSD for integration, and use "UTF-8" as character encoding.

The file should be delivered to Antura according to the following example (.xml):

```

<?xml version="1.0" encoding="UTF-8"?>
<costImportFile>
  <costItem>
    <projectNumber>12345</projectNumber>
    <taskReferenceKey/>
    <taskReferenceValue/>
    <costCategoryReference>ABCDE</costCategoryReference>
    <costCategoryName>ABCDE</costCategoryName>
    <costCenterReference>ABCDE</costCenterReference>
    <costCenterName>ABCDE</costCenterName>
    <name>Cost item name</name>
    <url>http://url.to.invoice/</url>
    <amount>2075.75</amount>
    <date>2025-05-01</date>
    <investmentExpenditure>E</investmentExpenditure>
    <costProperties>
      <costProperty>
        <key>Vendor</key>
        <value>3456</value>
        <translation>3456 - ASSA ABLOY</translation>
      </costProperty>
      <costProperty>
        <key>Purchase order</key>
        <value>4563789</value>
      </costProperty>
      <costProperty>
        <key>Supplier invoice number</key>
        <value>98765432</value>
      </costProperty>
      <costProperty>
        <key>Voucher number</key>
        <value>5465433</value>
      </costProperty>
    </costProperties>
    <metadata>
      <metadataRow>
        <heading>Vendor name</heading>
        <value>ASSA ABLOY</value>
      </metadataRow>
      <metadataRow>
        <heading>Purchase order</heading>
        <value>123456cvbd</value>
      </metadataRow>
      <metadataRow>
        <heading>Voucher number</heading>
        <value>5465433</value>
      </metadataRow>
    </metadata>
    <customFields>
      <customField>
        <key>Object No</key>
        <value>123456</value>
      </customField>
    </customFields>
  </costItem>
</costImportFile>

```

Comment: Each cost item should start with <costItem> and end with </costItem>.

Mapping fields in the file

See attachment “1”

Project matching

Costs can be imported to projects with any status; however, deleted projects will be ignored. Costs are linked to projects through one of the following matches (set as configuration) when imported:

Project number (standard)

Matching is done against the project number specified in the project number field in Antura.

Matching is not case-sensitive (makes no difference between upper- and lower-case letters).

Multiple project numbers

Corresponding to "Project number (default)" above but with the difference that several project numbers can be specified with semicolon (;) as separator. For example, "87236; 12378; 9872".

Project property

Matching is done against a custom project property.

Task reference

Matching is done against the task reference (*taskReferenceKey* and *taskReferenceValue*) and then uses the project to which that task belongs.

Costs are only imported if the cost can be linked to exactly one project. In case no project is found, or several projects refer to the same project number, the cost is not imported, and an error is reported (see *Error management* below).

Task matching

Cost items can be added at any level in the WBS tree. This is controlled by the *taskReferenceKey* and *taskReferenceValue* fields. If the fields are left blank for a cost item, the cost item is placed on the project global task.

The integrations can be configured to not allow costs to be added to the project global task. An error will then be reported (see *Error management* below). Cost import supports task property type: Text, List, Numeric and Numeric list.

Cost item properties

Cost item properties can be used to tag cost items. Cost item properties work similarly to task properties, where cost item columns can be added, filtered, and sorted by, in the *Project place – Costs* view.

In the example, the following cost item properties have been used, and they must then be present in Antura in order to be used by the import.

Name (<key>) in the XML file	Name of the property in Antura*	Type	Comment
Verification number	Verification number	String	
Verification date	Verification date	Date	YYYY-MM-DD

* Matching is made with the name/key specified for the cost item property in the Administration - System - System properties view (the property can be displayed with another name in the system if it is changed in the Administration - System - Language settings view).

If a property of the **list** (text) type is used, the list options will be updated automatically by the integration if the list value from the import file is not available as an option in Antura. The list options

will also be sorted in alphabetical order. Cost item property values must not exceed 100 characters in the import file.

Format in the xml file

In order for values to be filled in for an import of actuals, each cost item property must have a <costProperty> in the xml file as shown below (the example is for Vendor):

```
<costProperties>
  <costProperty>
    <key>Vendor</key>
    <value>3456</value>
    <translation>3456 - ASSA ABL0Y</translation>
  </costProperty>
  ...
</costProperties>
```

Note that <key> in the xml file should correspond to the Antura name of the cost item property and the value is stated in <value>.

<translation> is optional to use and gives the opportunity to set a translation in the default language of Antura.

Wrong cost item property name

The names of the cost item properties can be changed in Antura but must always match the names sent in the xml file.

If the xml file contains a <key> that cannot be matched to an existing cost item property in Antura, the cost item and its outcome will still be imported, but a warning will be printed in the error report afterwards. See the section *Error management* below.

Metadata (tooltip)

For the imported costs, the user can get a popup (so-called "tooltip") if the user keeps the mouse pointer over the imported cost item in Antura. This tooltip is a table with two columns - the first column is a header and the other contains the information.

Below is an example of metadata that could be displayed in tooltip:

Header	Example data
Verification number	61007891
Verification date	2016-12-14

Format in the xml file

For each row to be shown in the metadata table, there must be a <metadataRow> in the xml file as shown below (the example is for the Verification number):

```
<metadata>
  <metadataRow>
    <heading>Verification number</heading>
    <value>12345678</value>
  </metadataRow>
  ...
</metadata>
```

The header is defined by <heading> and the data will be displayed as it is in <value> in the file, **without further formatting**.

Note that the list of metadata does not necessarily have to match the list of cost item properties. In other words, it is fine to send optional headings and values in the xml file as metadata.

URL

The URL link goes directly to a page on another server, normally directly to a pdf in the ERP system. The user who clicks on the link in Antura needs access to the page that is linked.

Multiple periods per cost item

The traditional behavior is that each cost import item will create one cost item with one period set, called a transaction. Enabling multiple periods per cost item will import new cost item to cost items that are already existing in Antura as additional periods. For this to happen an already existing cost item must be found that looks the same as the one being imported. Specifically, the following properties must match:

- Name
- Task
- Cost category
- Cost center
- Cost investment type
- Url
- Metadata – Order of key/value pars in the import file is not important
- Cost properties
- Cost perspective (E.g a cost import item being imported to actual will not match a cost item already imported to budget)
- Import mode (Cost periods will only be appended to cost items that where import with MultiplePeriodsPerCostItem = true)

Where relevant, the equality comparisons are case insensitive.

Deletion strategies

Before the importing of a file begins, previously imported costs are deleted within the same perspective based on one of the following deletion strategies (manually entered costs are not affected). The deletion is done to include changes that have occurred for previously imported costs. Therefore, the file must contain all transactions from the earliest date in the file to the current date for the perspective to be complete.

From the earliest date in the file (default)

The deletion is done from the earliest date in the import file for all projects.

NOTE! The deletion is done for all projects in Antura, not just the projects in the new file.

From the earliest date per project (project number) in the file

The deletion is done from the earliest date in the import file per project. E.g. date X for project Y, date Z for project W, etc.

Matching on project numbers is not case sensitive (does not make any difference between upper- and lower-case letters).

From a specific date in the configuration file

The deletion is done from the date specified in the integration configuration file (regardless of content in each import file).

NOTE! Thus, deletion is done from the same date before importing each file.

From the earliest date per task property

The deletion is done from the earliest date in the import file per task property. The task property value needs to be unique in Antura. Preferably used in combination with the project matching logic *task matching*.

Multiple periods per cost item

Whole periods will be deleted since there is not possible anymore to delete cost items on specific dates. Which in turn means that import files must always include all costs for full periods, so that deleted costs can be re-imported properly

No deletion

No deletion is performed.

Error management

In connection with an import, the following reports can be sent. The reports are sent to one or more predefined email addresses.

Reconciliation report

The reconciliation report shows the total amount imported and the total amount in the file.

Error report

The error report shows project numbers for the projects found in the import file, but which could not be matched with existing projects in Antura. The error report also shows the name of any cost item properties found in the import file, but which could not be matched to existing cost item properties in Antura.

This report is only sent if errors occur.

Error report for unexpected errors

If an unexpected error occurs during the import, it will be interrupted. The items with actuals that have been imported will remain imported and the items that have not yet been imported will not be read again from the file.

The mail sent contains no details. Troubleshooting takes place with Antura's support.

This mail is sent, for example, if the format of the import file is not correct, if any required fields are missing, or if other unexpected errors occur.

Prerequisites (for internal installation)

For internal installation

- The folder where the import file is to be read must exist and be configured during installation.
- The folder where the import file is to be read must be unique and not used by any other import.
- The system account (application pool user) running Antura must have write permissions in the folder where the import file is added.

Other

- The import file will be archived after the completed import.
- The integration is built against the latest available version of Antura when the development starts.

Attachment 1 - Mapping fields in the file

XML file field	Customer system	Fields in Antura	Example	Mandatory	Comment
projectNumber			ABC123	Yes	
taskReferenceKey				No	
taskReferenceValue				No	
costCategoryReference ¹			Cost	No	
costCategoryName ¹				No	The field can be left empty in the file to enable manual handling of the cost types' names in Antura
costCenterReference ¹				No	
costCenterName ¹				No	The field can be left empty in the file to enable manual handling of the cost centers' names in Antura
Name			Transaction description + number	Yes	The name that is shown in Antura for this transaction (cost item). Should be unique for the project and date in question. I.e. the transaction description in the ERP system followed by the transactions unique identification number.
url			http://url	No	A full URL leading to an invoice image for the cost item in question.
Amount			2075.75	Yes	Amount: - Minus sign for negative numbers - No thousand dividers - Dot (.) as decimal point, can be changed to comma (,) in the configuration. - Two decimals The amount is always in the project currency (in Antura) and will be loaded as it is without character conversion, i.e. -100 is loaded as -100 SEK.
Date			2025-11-25	Yes	The date on which the transaction (cost item) should be on in Antura; e.g. transaction date or accounting date. Date yyyy-MM-dd alt. yyyy-MM
investmentExpenditure			-	No	I = Investment E = Expenditure - = None

Table 1: Mapping fields in the file.

¹ Antura creates cost categories and cost centres automatically if the references for these cannot be found. The name fields are then used to name the new entities in the system. If the name field does not contain a value, the reference will be used as the initial name. The name can be updated manually in Antura. If the name and reference fields contain values, the names will be updated in the system. This way the names will always be in sync between the two systems.

Cost item properties

Fields in XML-file (<key>)	Customer system	Cost item property names in Antura	Example (<value>)	Translation (<translation>)	Comment
Verification number	Verification number	Verification number	ABC123		Possibility to tag the transaction (cost item) for sorting/filtering, with optional information (not necessary in the file)

Metadata (tooltip)

Header (Fields in XML-file <key>)	Customer system	Example (XML-field <value>)	Comment
Verification number	Verification number	Verification number	Possibility to show tool tip for each transaction (cost item) with optional information (not necessary in file)

Attachment 2 - Configuration

Comment	Value
Actual/Budget/Forecast/Optional	
One or more email address that will be recipient for reports, separate email with semicolon	
First line in email reports	CUSTOMER NAME [Test]
Send email report even if no errors occurred	True/False
Send email if no file was found to import and that the customer should contact their Internal IT for troubleshooting. Default this is "false".	True/False
Language for email reports (English: true, Swedish: false)	True/False
Culture to use when parsing decimal amounts ("en-US" for dot decimal separator or "sv-SE" for comma decimal separator)	en-US/sv-SE
Format to use when parsing dates	yyyy-MM-dd
Deletion strategy (PerGlobalMinDateInFile, PerProjectAndMinDate, FromFixedDate or NoDeletion)	
How to perform project mapping? ProjectNumberCaseInsensitive (default), DelimiterSeparatedMultipleProjectNumbers, OnlyProjectProperty, ProjectNumberAndProjectProperty FromTaskReference	ProjectNumberCaseInsensitive (default)
MultiplePeriodsPerCostItem – Import to the same cost item if they have the same properties. Can be activated for all cost perspective or only one/multiple.	True/False for all cost perspectives. If it should only be active for one or some cost perspectives, please specify which one.
Optional configuration	
Enables the transfer of imported costs between cost perspectives. This will also enable the setting in AP "Create new cost when transferring imported cost)	<TransferImportedCostEnabled>true/false</TransferImportedCostEnabled> (This is set in application.config)
Encoding for import files (default UTF-8)	
First date of deletion when using deletion strategy "FromFixedDate"	
Avoid duplicate warnings, some cost items are similar but for example verification number can be different. Avoid the warning by activate a flag. Should be added into <SharedSettingsForCostImports>	<IgnoreImportedItemAlreadyExistsWarning>>false</IgnoreImportedItemAlreadyExistsWarning>
Character used to separate multiple project numbers in Antura	
When using ProjectNumberAndProjectProperty as project mapping strategy, this specifies the name of the project property that mapping should be done towards	
When using OnlyProjectProperty as project mapping strategy, this specifies the key of the customFiled that holds project property NAME to use for mapping	
When using OnlyProjectProperty as project mapping strategy, this specifies the key of the customFiled that holds project property VALUE to use for mapping	

