Tungsten AP Agility
Custom Fields
Best Practices Guide

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Table of Contents

Preface

This guide describes the recommended best practices that you should follow while using Tungsten AP Agility and working with subclasses to improve extraction performance.

Related documentation

The full product document set for Tungsten AP Agility is available here:

https://docshield.tungstenautomation.com/Portal/Products/APAgility/2025.1-j1u9a8a63z/APAgility.htm

The product document set for Tungsten TotalAgility is available for the following supported versions:

- 7.9.0
- 7.10.0
- 7.11.0
- 8.0.0
- 8.1.0

Select the documentation link for the Tungsten TotalAgility version that you are currently using.

If you select the incorrect link, it is possible that some features documented are not in your installed version.

In addition to this guide, the AP Agility document set includes the following items:

Tungsten AP Agility Release Notes

This guide contains late-breaking product information that may not be included in other Tungsten AP Agility documentation. Release notes are also available for each of your installed Tungsten Automation applications.

Tungsten AP Agility Installation Guide

This guide provides instructions for installing Tungsten AP Agility and integrating it with Tungsten TotalAgility.

For more information about installing Tungsten TotalAgility refer to *Tungsten TotalAgility Installation Guide*

Tungsten AP Agility On-Premise Multi-Tenant Installation Guide

This guide provides information about installing the on-premise components you may needed to get Tungsten AP Agility to work in a multi-tenant TotalAgility environment or a Tungsten Automation hosted TotalAgility Azure environment.

Tungsten AP Agility Configuration Help

This help provides detailed information on how to configure Tungsten AP Agility for your environment.

Tungsten AP Agility PIX Correction activity Help

This help provides detailed information about how to navigate through the PIX Correction activity. It also includes details about how to use the PIX Correction activity when processing documents with Tungsten AP Agility Invoice Processing.

Tungsten AP Agility Scan activity Help

This help provides information on how to scan documents for Tungsten AP Agility Invoice Processing.

Tungsten AP Agility Line Pairing Correction activity

This help provides use cases and examples for correcting a document that fails line pairing during Invoice Processing.

Tungsten AP Agility Validation activity Help

This help provides information about validating a document in Tungsten AP Agility Invoice Processing.

Additional documentation about validating documents is available in the *Tungsten TotalAgility Validation activity Help*.

Tungsten AP Agility Error Handling Help

This helps provides information on how to handle documents that end up in an error state during Invoice Processing.

Tungsten AP Agility AP Workflow Help

This help provides information about how to use the various activities that are part ofs the AP Agility AP Workflow. This includes general information that is relevant for all activities as well as specific information related to the Approval activity, the Coding activity, the Exception activity, the Line Pairing Exception activity, the Hold activity, and the Comment Request activity.

Analytics for AP Agility Installation Guide

This guide provides information about installing Analytics for AP Agility and integrating it with Tungsten AP Agility.

Analytics for AP Agility Help

This help provides detailed information on how to generate and interpret the various reports that are available in Analytics for AP Agility .

Training

Tungsten Automation offers both on-demand and instructor-led training to help you make the most of your product. To learn more about training courses and schedules, visit the Tungsten Automation Learning Cloud.

Getting help with Tungsten Automation products

The Tungsten Automation Knowledge Portal repository contains articles that are updated on a regular basis to keep you informed about Tungsten Automation products. We encourage you to use the Knowledge Portal to obtain answers to your product questions.

To access the Tungsten Automation Knowledge Portal, go to https://knowledge.tungstenautomation.com/.

The Tungsten Automation Knowledge Portal is optimized for use with Google Chrome, Mozilla Firefox, or Microsoft Edge.

The Tungsten Automation Knowledge Portal provides:

- Powerful search capabilities to help you quickly locate the information you need.

  Type your search terms or phrase into the **Search** box, and then click the search icon.
- Product information, configuration details and documentation, including release news.

  To locate articles, go to the Knowledge Portal home page and select the applicable Solution Family for your product, or click the View All Products button.

From the Knowledge Portal home page, you can:

- Access the Tungsten Automation Community (for all customers).

  On the Resources menu, click the **Community** link.
- Access the Tungsten Automation Customer Portal (for eligible customers).

  Go to the Support Portal Information page and click **Log in to the Customer Portal**.
- Access the Tungsten Automation Partner Portal (for eligible partners).

  Go to the Support Portal Information page and click **Log in to the Partner Portal**.
- Access Tungsten Automation support commitments, lifecycle policies, electronic fulfillment details, and self-service tools.

  Go to the Support Details page and select the appropriate article.

Chapter 1

Overview

Tungsten AP Agility is designed to work out-of-the box for a majority of vendors and common invoice fields.

The Invoices class provides generic extraction logic that works well for many documents. This includes five custom fields that are part of the validation form and displayed in the AP Workflow master form.

There are five custom fields

However, if your extraction needs are beyond the default extraction profiles, it may be necessary to configure your own custom fields.

Chapter 2

Custom fields

Tungsten AP Agility provides custom fields so that you can augment the default solution to meet your requirements. There are two different types of custom fields.

1. There are five custom fields in every Tungsten AP Agility solution. If enabled, these fields are available in the Invoice Processing Validation activity as well as on the AP Workflow master form.

   These predefined custom fields are restricted to basic extraction methods such as pattern matching. You can also use these fields as basic data entry fields as needed.

2. If you need more custom fields or a more complex extraction logic for your custom fields, you can add additional custom fields manually.

   These additional custom fields are available in the Validation activity but they are not available on the AP Workflow master form.

Both types of fields are stored in the Tungsten AP Agility database and can be exported so that their data is available once an invoice is fully processed by Tungsten AP Agility.

Configure predefined custom fields

You can use the five predefined custom fields to extract and validate data during Invoice Processing. These five predefined fields are also available on the AP Workflow master form. Using a predefined custom field requires no changes to the Transformation Designer project. However, these fields are limited by their number and in what they can extract.

If you run out of predefined custom fields or you would like to extract data using a more complicated extraction logic, use additional custom fields.

There are several predefined format locators that you can use for the predefined custom fields. The first five locators, FL_Custom1 through FL_Custom5, extract alternatives for the field value. These fields are configured via the *Settings* > *Invoice Processing* > *Global Settings* > *Custom Extraction Profiles* > *Extraction Profiles*.

In addition, there are five locators for evaluation, FL_EvalCustom1 through FL_EvalCustom5, that extract alternatives for the field label. These locators are configured via the *Settings* > *Invoice Processing* > *Global Settings* > *Custom Extraction Profiles* > *Evaluation Profiles*.

With these locators, the distance between the extracted field values and their labels are analyzed. The various alternatives are weighed and the best alternative is assigned to the field.

Do not edit these format locators in Transformation Designer. Doing so means that you cannot upgrade to a newer version in the future. Instead, use the Settings > Invoice Processing menu for all configuration of these fields.

In order to configure one or more custom fields, the following information is needed.

- Activate one or more of the custom fields in the *Settings* > *Invoice Processing* > *Capture Profiles* > *Field Settings*.
- Enter a label string into the *Settings* > *Invoice Processing* > *Global Settings* > *Custom Extraction Profiles* > *Evaluation Profiles*.
- Enter a format string into the *Settings* > *Invoice Processing* > *Global Settings* > *Custom Extraction Profiles* > *Analysis Profiles*.

By default, these predefined custom fields appear on the Invoice Processing validation form with their existing Custom1-Custom5 field names. If these names are not suitable, edit them as needed.

Use predefined custom fields

There are many ways that you can use the predefined custom fields.

For example, you can use a predefined custom field to process the UK bank sort code. The sort code is a 6-digit number with hyphens between the digit groups in the following format: `55-61-16`.

You can use a predefined custom field to extract and process a sort code for a UK bank by following these steps:

1. Navigate to the ***Settings*** > ***Invoice Processing*** > ***Global Settings*** > ***Custom Extraction Profiles*** > ***Analysis Profiles*** settings.
   A list of existing analysis profiles is displayed.
2. Click **Add** to add a new analysis profile.
   a. From the **Analysis Profile ID** list, select **New**.
   b. Choose a **Compare Type**.
   c. Set a **Format** that matches the expected format.
      Using the sort code example, use `##-##-##` as the format.
   d. Optionally, enter any characters that can be ignored.
   e. Click **Save**.

   The analysis profile is added to the list.
3. Optionally, if other formats appear for the sort code, add another format for the same Analysis Profile ID.
4. Click on the **Evaluation Profiles** tab and click **Add** to create a new evaluation profile.
   a. From the **Evaluation Profile ID** list, select **New**.
   b. For the **Context** field, enter a value that matches your expected value.
      Using the sort code example, enter `Sort Code`.
   c. Enter any **Ignore Characters**.
      Using the sort code example, enter -.

   d. Click **Save**.

   The evaluation profile is added to the list.
5. Optionally, add other context words for the same Evaluation Profile ID if needed.
6. Click on the **Extraction Profiles** tab and then click **Add** to add a new extraction profile.
   a. Enter a **Description**.
   b. From the **Analysis Profile ID** list, select the ID for your recently added analysis profile.
   c. From the **Evaluation Profile ID** list, select the ID for your recently added evaluation profile.
   d. Optionally, to enable regions and restrict the search to the first page, select **Use Regions** and **Use First Page**.
   e. Optionally, configure the other settings as needed.
   f. Click **Save**.

   The extraction profile is added to the list.
7. Navigate to the ***Settings*** > ***Invoice Processing*** > ***Capture Profiles*** > ***Field Settings***.
   A list of all fields for the selected capture profile is displayed.
8. In the list of fields, select **Custom1** and then click **Activate**.
   The Custom1 field is activated for this capture profile.
9. Select **Custom1** and then click **Edit**.
   a. In the **Field Settings** window, select your newly created **Extraction Profile** from the list.
   b. Click **Save**.

   The Custom1 field is saved.

What next?
- Edit custom field labels
- Additional custom fields

Additional custom fields

If there are not enough predefined custom fields or their functionality is too restrictive, you can add additional custom fields to your project manually.

You can add these fields to the Invoice Processing validation form but you cannot add these fields to the AP Workflow master form. However, these fields are saved to the Tungsten AP Agility database and you can configure XML invoice export.

For example, an organization processes hundreds of invoices on a daily basis. All of their business is done online so they regularly provide discount codes to returning and new customers as an incentive to make a purchase. These discount codes are provided during weekly emails as well as via other social media platforms.

The default functionality of Tungsten AP Agility records the discount value and incorporates it into its amount calculations. However, there is nothing configured to extract and record the discount code itself.

Adding an additional custom field to extract the discount code enables you to export the discount code so that these codes are available outside of Tungsten AP Agility. This enables the organization to see what discount codes are used and to determine if various email or social media campaigns are effective.

You can create an additional custom field that you can export in the following way.

- Create field(s) in Transformation Designer
- Configure locator method for field(s) in Transformation Designer
- Add new field(s) to Field Settings and configure as needed
- Add new field(s) to XML export settings
- Regenerate the Invoice Processing validation form

Create custom extraction logic

If the predefined custom fields are already in use or you require extraction logic that is beyond the capabilities of extraction profiles, it is possible to create custom extraction logic. Any custom extraction logic can be added to the Invoice Processing validation form but not the AP Workflow master form

In order to create a custom extraction logic you need to create one or more locator methods and one or more custom fields in the Transformation Designer. After that, integrate the new fields with

You can create fields and locators in the Transformation Designer by following these steps:

1. Launch the Transformation Designer and open the InvoiceProcessingAgility project that is appropriate for your solution.
2. In the **Project Tree**, expand the **Invoices** class.
3. Right-click on the **Locators** group and select **Add Locator**.
    a. Edit the name of the new locator that is added to the bottom of the list of locators.
    Use a unique name with a unique prefix in order to help avoid conflicts with later versions.
    For example, `CST_LOC_<UniqueName>` or `XXX_<UniqueName>`.
    b. In the **Details** pane, select the **Locator Method** from the list for your new extraction logic and then open its properties.
    c. Edit and test the locator properties as required.
    For more information on configuring and testing locator methods see the *Tungsten TotalAgility Transformation Designer help*.
4. In the **Project Tree**, expand the **Fields** collection.
5. Right-click on the **Custom** field group and select **Add Field**.
    a. Edit the name of the new field that is added to the bottom of the list of custom fields.
    Use a unique name with a unique prefix in order to help avoid conflicts with later versions.
    For example, `CST_FLD_<UniqueName>`.

   b. From the **Field populated by** list, select the custom locator method that you created in the previous step.
   c. Configure the rest of the field settings as required.

      See the *Tungsten TotalAgility Transformation Designer help* for more information about fields and field settings.
6. Optionally, repeat the previous steps to add additional locator methods or fields.
7. Thoroughly test your custom fields and locator methods using relevant test documents.
8. When you are happy with the locator and field results, **Release** the project.

   Your project now contains your custom extraction logic. You cannot use these custom fields in production until you make the necessary change in Tungsten AP Agility.

Configure Invoice Processing to use custom extraction logic

Now that you have custom fields and locators it is necessary to configure Tungsten AP Agility to use that custom extraction logic for Invoice Processing.

You can configure Invoice Processing to use your custom extraction logic by following these steps:

1. Launch Tungsten AP Agility.
2. Navigate to **Settings** > **Invoice Processing** > **Capture Profiles** > **Field Settings** for the appropriate organization.

   The **Field Settings** for the selected capture profile are displayed.
3. Below the list of fields, click **Add**.

   The **Field Settings** window is displayed so that you can add a new field.
4. From the **Field Name** list, select your custom field.
5. Edit the other field settings as required and then click **Save**.
6. If not already done, click **Activate** to turn on this field.
7. To ensure that the new field is included in your XML export, navigate to **Settings** > **Invoice Processing** > **Invoice Export Settings** > **XML Export Settings** for the appropriate organization and update the XML output as required.
   a. Navigate to the **Header Table** tab and click **Add**.

      The **XML Header Mapping** window is displayed.
   b. From the **Field Name** list, select your custom field.
   c. In the **XML Tag** field, enter an XML tag that is replaced with the value of the custom field on export.
   d. Click **Save**.

      The newly added field and corresponding XML tag is added to the list of XML Header Mappings.
8. Optionally, add additional fields to the XML export.

   Tungsten AP Agility is now configured to use the custom extraction logic. The next step is to update the Invoice Processing validation form so that it includes your new custom extraction logic.

Regenerate Invoice Processing validation form

If you add your own custom fields to the Transformation Designer project then it is necessary to regenerate the Invoice Processing validation form and then add your fields to the form. The Custom1 - Custom5 fields are already on the validation form. This means that you only need to regenerate the validation form if you have added additional custom fields.

If however, you are using the predefined custom fields, you may want to edit the name as it appears on the validation form. In that case, it is necessary to edit the custom field labels.

You can regenerate the validation form by following these steps:

What next?

Edit custom field labels

Edit custom field labels

If you do not want your fields to be called Custom 1 - Custom 5, or you have additional custom fields, it is necessary to update the validation form translation values for these fields

You can edit custom field labels by following these steps:

1. Launch the TotalAgility Designer.
2. On the menu select **Translation**
   The **Translation** page is displayed and by default, **Form** is selected.
3. From the **Form** list, select **InvoiceProcessingAgility** category and then select the **Invoices_Validation_2_5_0_0**.
4. Click **Translate**.
   The translation page for the validation form is displayed.
5. Find your custom field in the list and provide a value for **English** and then edit the values for other languages as needed.
6. Repeat this for any other custom fields.
7. Click **Save**.