BPA Platform

White Paper

WooCommerce Integration Tool v1.0.15

codeless PLATFORMS

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Introduction

The **WooCommerce Integration** tool allows communication between BPA Platform and WooCommerce®. All communication uses XML. You use the Integration tool to map BPA Platform data to WooCommerce objects and operations. Operations such as, `ADD`, `UPDATE`, `GET`, and `DELETE`, are supported for a variety of business objects, such as, Product, Customer and Order — for a detailed list, see **SUPPORTED OBJECTS ON PAGE 13**.

The XML responses received back from the WooCommerce API can be saved to file or passed to another BPA Platform tool for further processing. The responses can include details of the object requested, any errors from the provider, or the values of any automatically generated ID fields. For example, you can use **WooCommerce Integration** to provide an indirect link between systems that do not typically synchronise data with each other, such as synchronising contacts from a CRM platform as WooCommerce customers, importing WooCommerce sales orders into an ERP, or even to provide reports containing data from both systems.

The WooCommerce Integration Tool Pack

The tool pack consists of:

- **WooCommerce Integration** — The Integration tool is a BPA Platform tool, used to communicate with the WooCommerce API. It must be installed on the BPA Platform server, and on any BPA Platform client machines. It is this that provides the translation between BPA Platform data and WooCommerce objects and operations.

NOTE: This tool pack has been developed by Orbis Software Benelux BV and has been certified for use with BPA Platform by Orbis Software Ltd T/A Codeless Platforms.

System Requirements

The **WooCommerce Integration** tool requires BPA Platform (formerly "TaskCentre") 4.6 build 1944 or above.

This tool is compatible with WooCommerce versions 3.x.

Architecture

The diagram below provides a high-level system architecture overview of the WooCommerce Integration tool pack, with BPA Platform and the WooCommerce REST API.

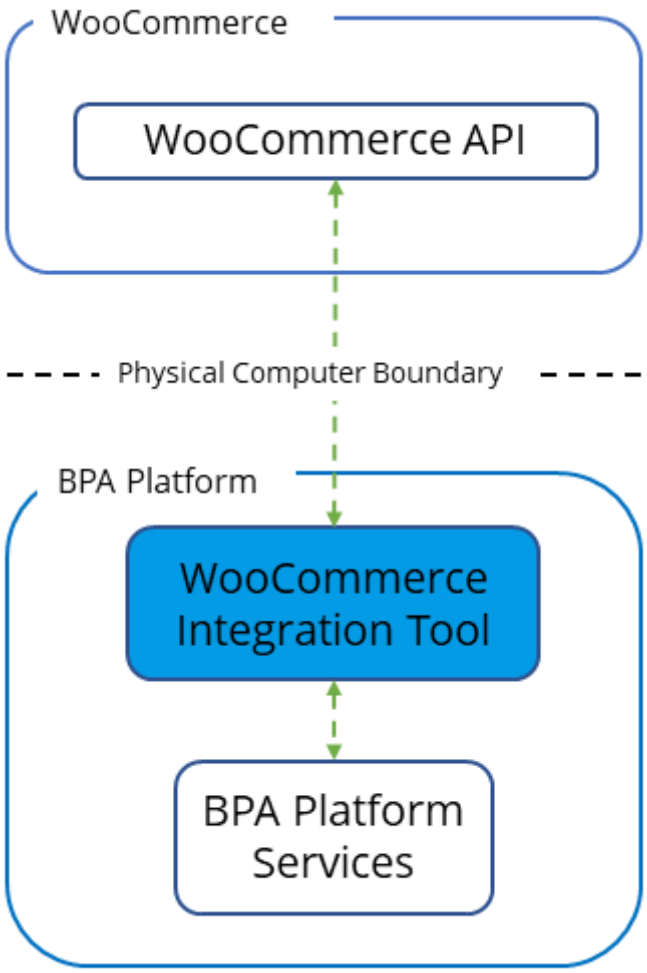

Figure 1 — High-level system architecture of the WooCommerce Integration

About the WooCommerce Integration Tool

Global Configuration

The global configuration for this tool is used to create connections to WooCommerce.

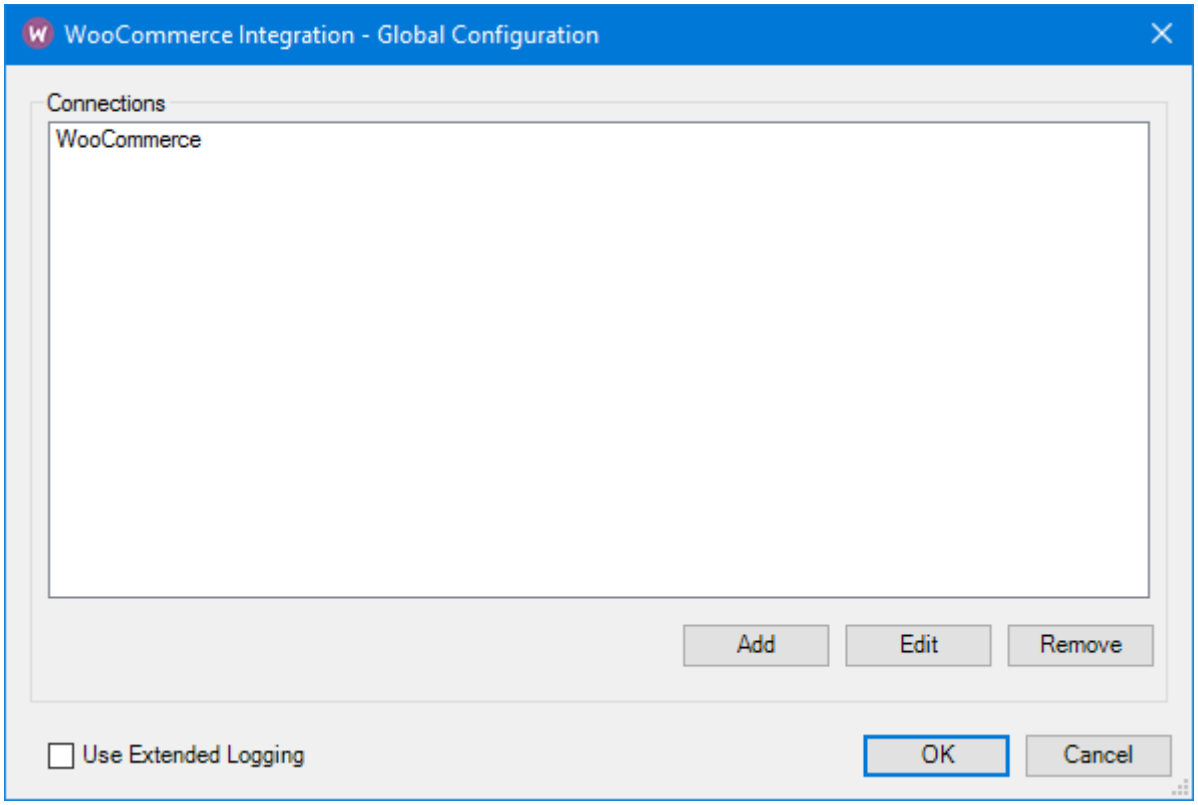

Figure 2 — WooCommerce Integration - Global Configuration dialog

Click **Add** to create a connection to WooCommerce.

Use Extended Logging

Enabling this option exposes the XML parsed between **WooCommerce Integration** and the WooCommerce API. You can view the log from the BPA Platform Event Log (*Manage* > *Event Log*).

Without extended logging, the Event Log only contains start and end of transaction messages, plus any error messages encountered at runtime.

WooCommerce Connection Tab

You configure the connection to WooCommerce here.

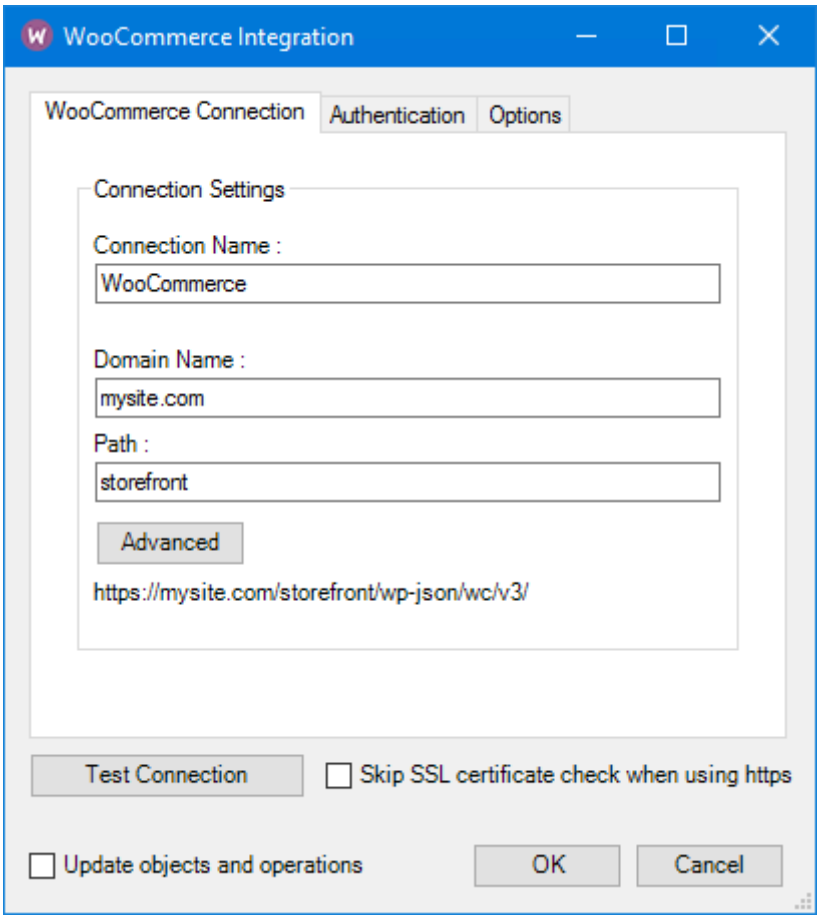

Figure 3 — WooCommerce Integration – WooCommerce Connection Tab

Configure a meaningful **Connection Name** for this connection; this is the name displayed when adding tasks for WooCommerce.

Within **Domain Name**, specify the domain name of the URL to WooCommerce. For example, if the WooCommerce webshop is running on https://www.we-sell-clothes.co.uk/storefront, the corresponding domain name is `www.we-sell-clothes.co.uk`.

Within **Path**, specify the path of the URL to WooCommerce. With the example above, this is `storefront`.

By default, the connection to WooCommerce is over HTTPS, on TCP port `443`. Use **Advanced** to **Set a Custom Port Number**. You can also change the **Authentication Type** to `Query Parameters` here, when `Basic` authentication is not working.

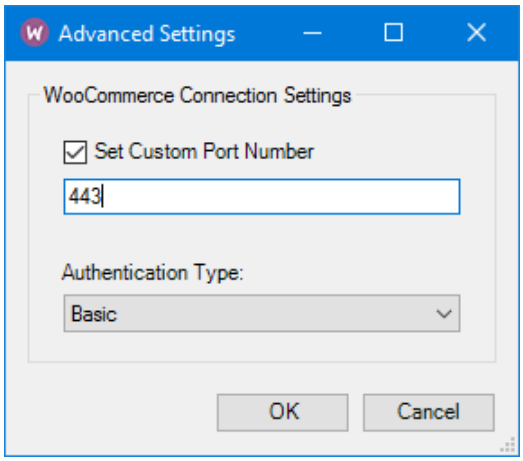

Figure 4 — Advanced Settings dialog

Authentication Tab

You can configure the WooCommerce credentials here that allow access to WooCommerce.

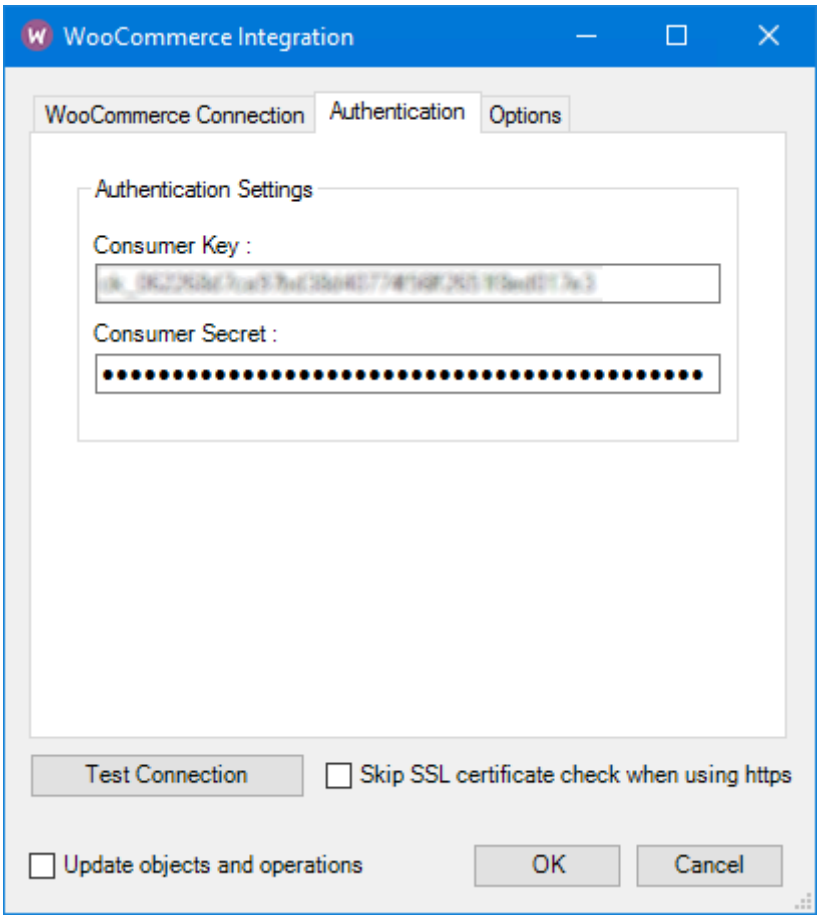

Figure 5 — WooCommerce Integration - Authentication Tab

Specify the **Consumer Key** and **Consumer Secret** created in WooCommerce.

Options Tab

By default, all WooCommerce objects are available for mapping to BPA Platform data — see **MAPPING TAB ON PAGE 9**. If required, you can reduce the number of available objects in the **Options** tab.

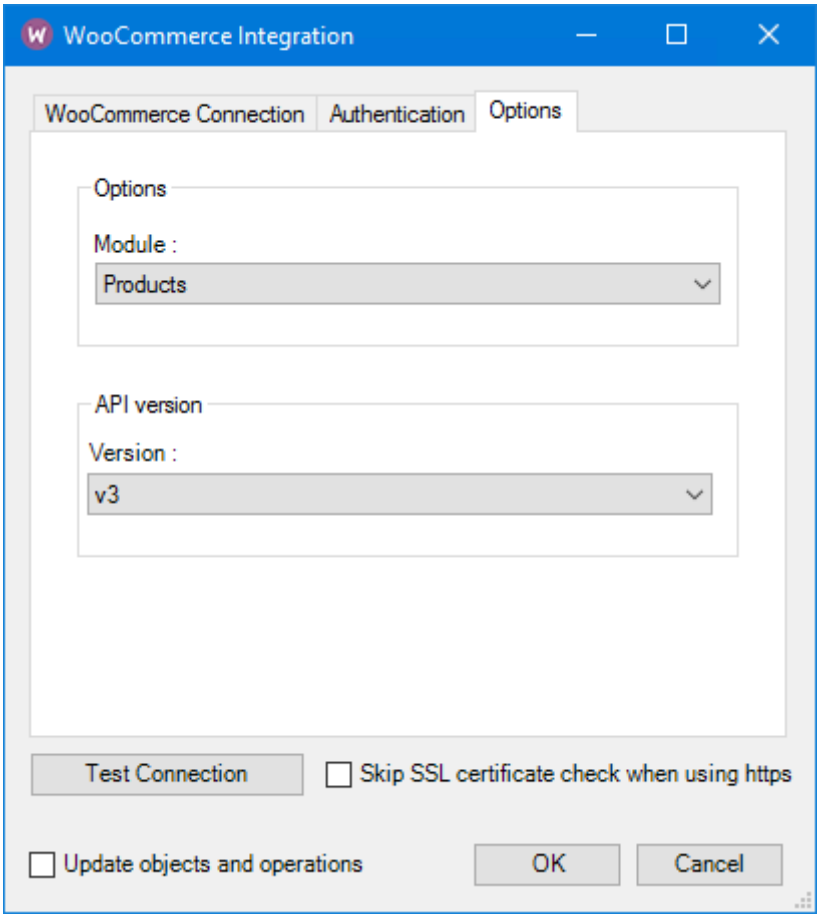

Figure 6 — WooCommerce Integration - Options tab

From the **Module** drop-down, select to show only WooCommerce **Customers**, **Orders**, or **Products** objects in the **Mapping** tab. The default is **All objects**.

Both version 2 and 3 of the WooCommerce API are supported in the **WooCommerce Integration** tool — from the **Version** drop-down, select the relevant API to connect to.

Test Connection

Using **Test Connection** allows you to test the connection to the WooCommerce API.

Skip SSL Certificate Check When Using HTTPS

Communication to WooCommerce is over HTTPS, which typically involves an SSL certificate. If required, enable **Skip SSL certificate check when using HTTPS** first — this is particularly useful if using a test (sandbox) environment on an internal server that doesn't have a valid SSL certificate. By not selecting this option, a full connection test is performed.

Update Objects and Operations

Enabling the **Update objects and operations** option, allows the WooCommerce Integration schema within BPA Platform to be refreshed.

> **NOTE**: Existing task steps using the WooCommerce connection must be refreshed in order to use the latest schema.

Step Configuration

When creating new tasks, the **WooCommerce Integration** tool is located under **Data Connectors** of the Task Browser.

> **NOTE:** It is not possible to add the connector tool to the task until at least one connection to WooCommerce has been defined in the global configuration.

General Tab

Use the **General** tab to name the BPA Platform data source to be mapped to the WooCommerce objects. The data source must be in XML form. To map BPA Platform recordsets, configure a **Convert Recordset to XML** step in the task before the **WooCommerce Integration** step, then select this as **Task step**.

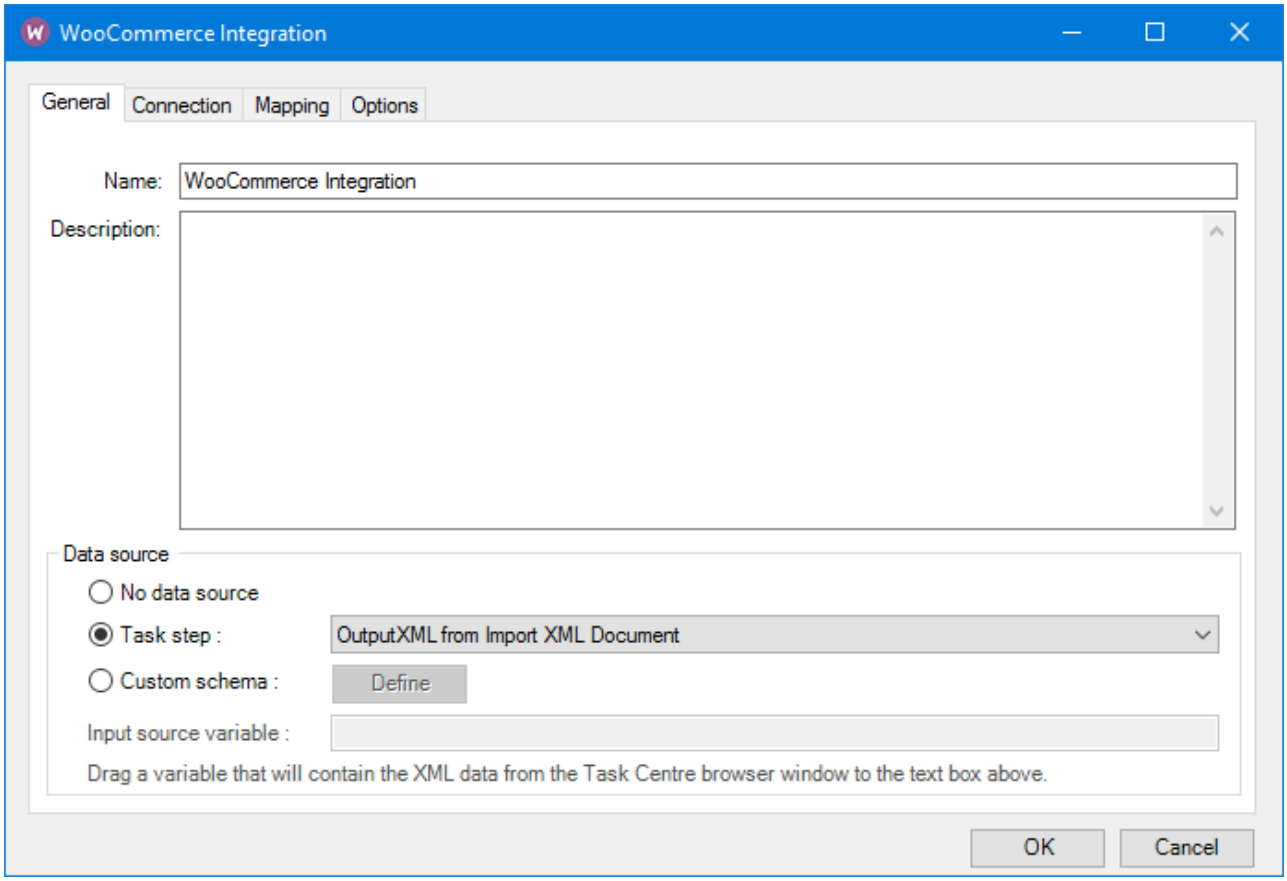

Figure 7 — WooCommerce Integration - General tab

Provide a meaningful **Name** and **Description** for this step.

Choose your **Data source**. This can either be:

- **No data source** — If you don't make use of a dedicated XML input source, select this option to use BPA Platform variables in place of the XML objects' fields. These can then be mapped to operational fields — see **MAPPING TAB ON PAGE 9**.

  For example, you can extract various bits of information from an email and store them in BPA Platform variables. Then, having mapped them to WooCommerce objects and operations, these can be stored in WooCommerce for later use.

- **Task step** — The data source can be set to an available BPA Platform XML data source. Only those steps that are capable of natively exposing an XML document at runtime are listed. These may be another **WooCommerce Integration** step, or a tool such as **Convert Recordset to XML**.

- **Custom schema** — An XML schema defines the structure of the parsed XML: what tags are present, and the nesting of the tags. You **Define** the schema of the XML that will be used as the input data source for this step. The industry standard XSD format is used by the **WooCommerce Integration** tool. Any XML processed by this step must conform to this schema else an error will be reported.

  If the XSD schema is available, either import it into the **Custom Schema Configuration** (use **the Import XSD/XML File** button) or copy and paste it into the configuration box.

  If the XSD schema is not available, you can import an example of the runtime XML (**Import XSD/XML File**) or copy and paste it into the configuration box. Use the **Parse** button to create the schema.

  - **Input source variable** — As well as defining the schema, you must specify the BPA Platform variable that contains the XML data at runtime.

Connection Tab

You specify the WooCommerce **Connection** this step must use.

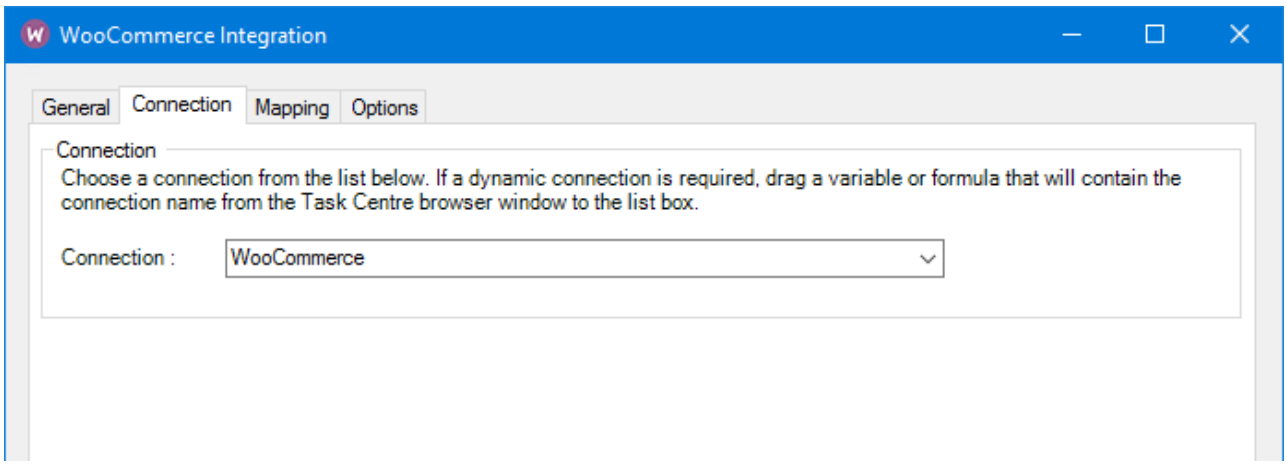

Figure 8 — WooCommerce Integration - Connection tab

All connections created in **GLOBAL CONFIGURATION ON PAGE 3** are presented here.

Alternatively, you can use a BPA Platform variable to create a dynamic connection, where the connection used is determined by runtime circumstances. At runtime, the contents of the variable must match the name of one of the **GLOBAL CONFIGURATION** connections — this is case-sensitive.

Mapping Tab

Here you define links between the incoming XML and the outgoing data that is sent to the WooCommerce API. This defines how, at runtime, the incoming XML is to be translated into the XML required for the relevant object and operation.

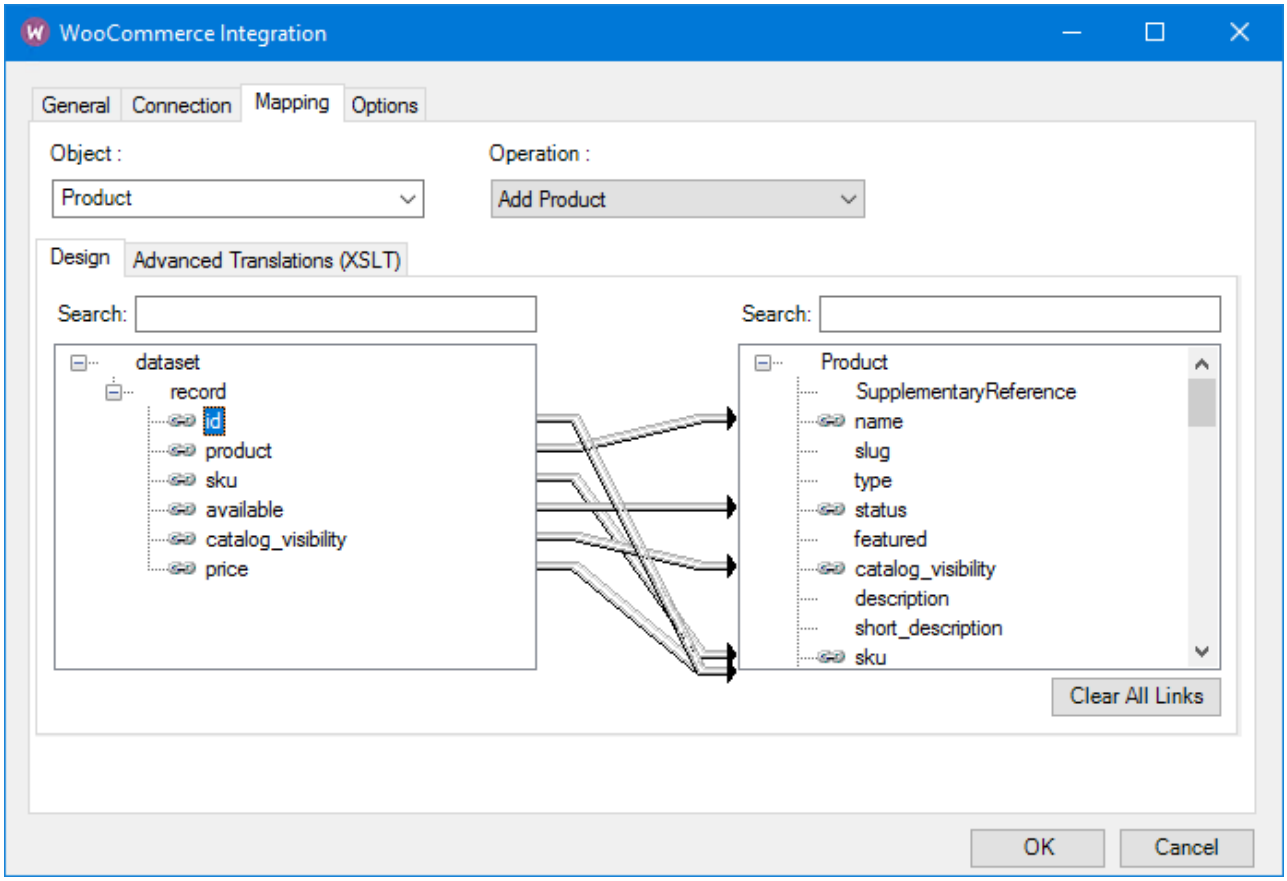

Figure 9 — WooCommerce Integration - Mapping tab

The **Object** drop-down shows the available objects. The **Operation** drop-down shows the operations available for the selected **Object**. For more information about which operation is available for an object, see **SUPPORTED OBJECTS ON PAGE 13**.

You create the links by clicking and dragging an object field onto its corresponding operation field. Note that only linked fields are used in the output XML. BPA Platform formulas and variables can be included in the source data — drag them from the Task Browser to the object's XML tree control. These can then be linked to operation fields. Note that BPA Platform recordsets must first be converted to XML using either the **Convert Recordset to XML** or **Transform Data** tool before they can be used here.

Each operation has an additional field, `SupplementaryReference`, which allows for traceability when transferring data from one place to another. When mapped, the data resides locally at runtime. It is added to the output and creates a record for reference purposes only — you can choose to map any field to `SupplementaryReference` to assist with checking where the data originated from or at what time the data transfer occurred, for example.

The WooCommerce Integration tool uses eXtensible Stylesheet Language Transformations (XSLT) to translate the received XML. The **Advanced Translations (XSLT)** tab shows the XSLT generated for the links created for the

object and operation. Use **Enable Free Type Mode** to directly edit the XSLT — this is particularly useful when translating a nonstandard requirement.

Options Tab

The **Options** tab allows you to define how errors in this step are handled at task runtime.

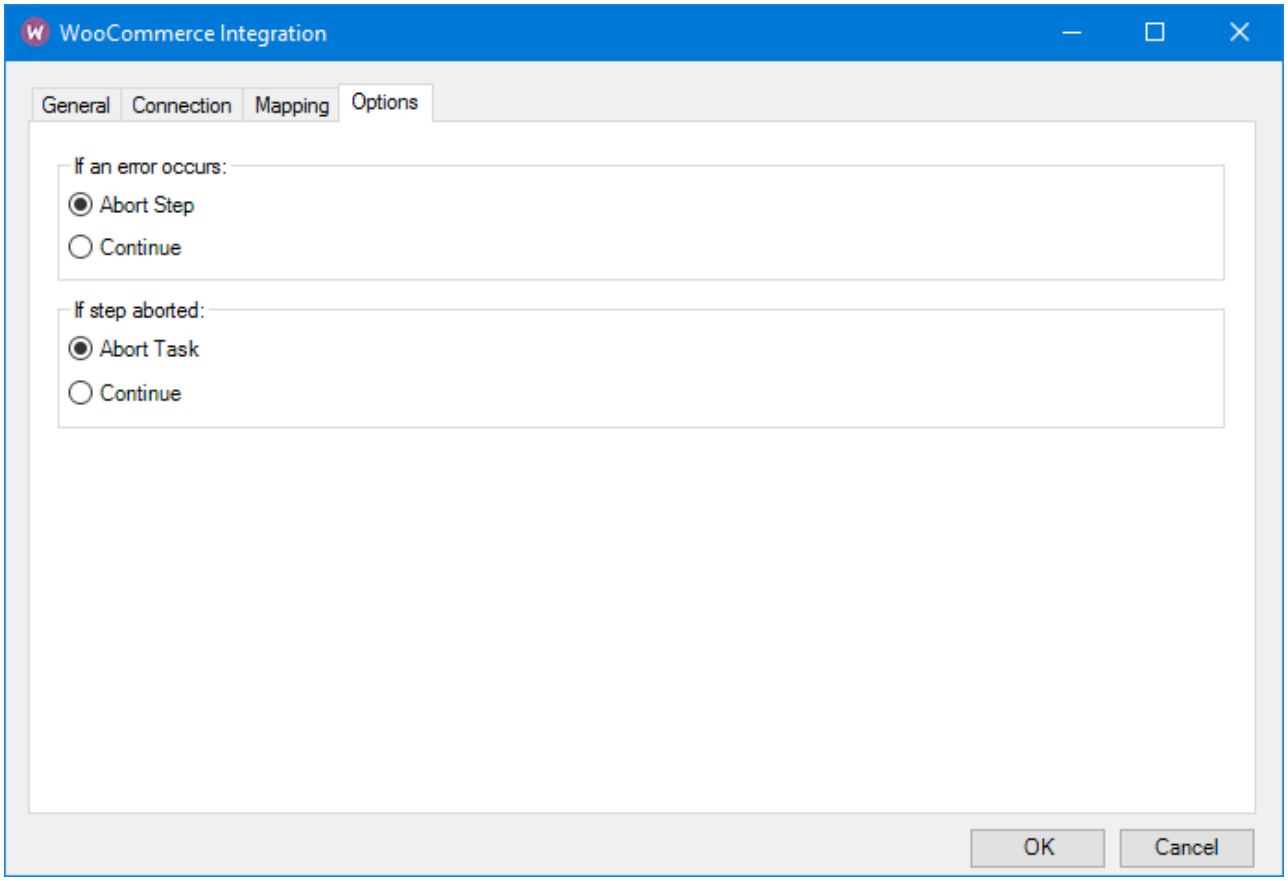

Figure 10 — WooCommerce Integration - Options tab

If an error occurs, you can decide whether the step should **Continue** processing, or terminate the step immediately (**Abort Step**).

If the step is aborted, you can choose to **Continue** processing onto the next step in the task or terminate the whole task immediately (**Abort Task**).

Allowing the task to continue allows you to use the error XML received back from **WooCommerce Integration** in a **Save File** step for investigation purposes, for example.

All errors are recorded to the BPA Platform Event Log (*Manage* > *Event Log*).

Working with Other Steps

WooCommerce Integration can directly interact with the following steps:

Consuming XML from Other Tools

The WooCommerce Integration tool can consume objects outputted from the following tools:

Step Icon	Name	Step Type
	**Import Flat File**	Input
	**Import XML Document**	Input
	**Convert Recordset to XML**	Format
	**Transform Data**	Format
	**Call Task**	Execute
	**WooCommerce Integration**	Data Connectors

WooCommerce Integration consumes the following objects exposed by other steps:

- **XML** — XML data from any BPA Platform tool capable of exposing XML (see above)

Exposing XML to Other Tools

Objects exposed by the **WooCommerce Integration** tool can be directly consumed by the following tools:

Step Icon	Name	Step Type
	**Convert XML to Recordset**	Format
	**Run Microsoft Reporting Services**	Format
	**Transform Data**	Format
	**Save File**	Output
	**Call Task**	Execute
	**Web Service Connector Tool**	Data Connectors
	**WooCommerce Integration**	Data Connectors

The **WooCommerce Integration** tool outputs the following objects which can be consumed by the above tools:

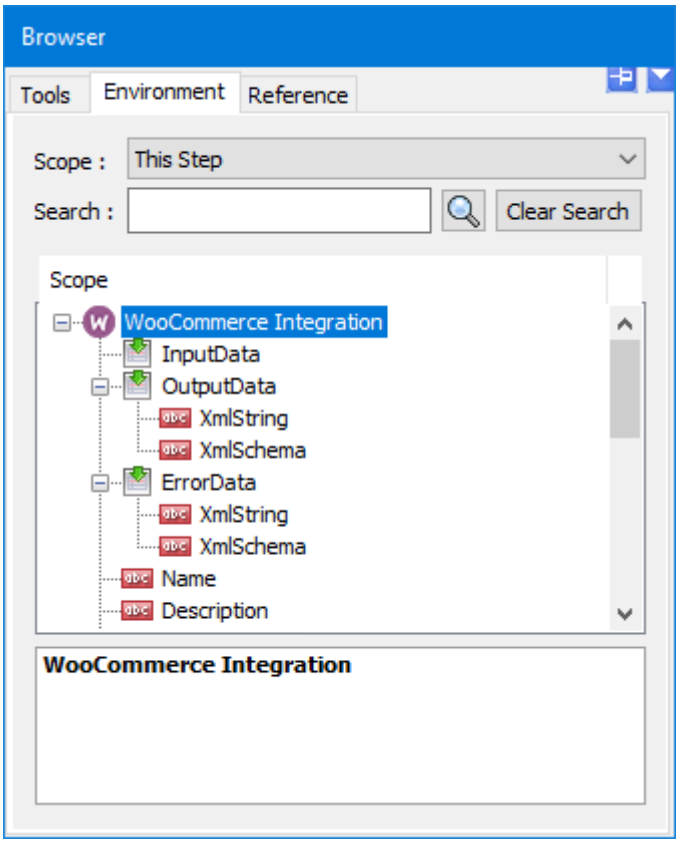

Figure 11 - WooCommerce Integration tool outputs

- `OutputData`

  The `OutputData` document contains:

  - Data returned from **WooCommerce Integration**, for instance the created, updated or retrieved entity instances
  - `SupplementaryReference`

- `ErrorData`

  The ErrorData document is structured as follows:

  `<Error>` — All errors are created as an `<Error>` node, with the following sub-nodes:

  `<Object>` — The name of the requested object, such as, `Product`

  `<CODE>` — The error code returned by WooCommerce

  `<MESSAGE>` — The corresponding error message

  `<EXTENDEDINFO>` — A string containing additional information about the error

  `<INPUTDATA>` — The input data mapped for the object, plus all data contained in the `SupplementaryReference` field

Both outputs can be used:

- Directly by subsequent tool steps which consume XML data inputs
    - If required, use the **Convert XML to Recordset** tool to convert the XML to a BPA Platform recordset
- Accessed using the output or error objects for response data (`XmlString`), or the output or error schema (`XmlSchema`) present in the Task Browser

Supported Objects

At the time of writing, the following objects and operations are supported:

WooCommerce Object	Standard Operations					Comment
	Get	Add	Update	Delete	Other	
Customers: Customer	✓	✓	✓	✓		
Orders: Order	✓	✓	✓	✓		
Orders: Order note	✓	✓		✓		
Orders: Order refund	✓	✓		✓		
Products: Product	✓	✓	✓	✓		
Products: Product attribute	✓	✓	✓	✓		
Products: Product attribute term	✓	✓	✓	✓		
Products: Product category	✓	✓	✓	✓		
Products: Product shipping class	✓	✓	✓	✓		
Products: Product tag	✓	✓	✓	✓		
Products: Product variation	✓	✓	✓	✓		

Runtime

The incoming XML is translated into the XML format for the object and operation selected in the configuration. The data for the linked fields is brought across into the output XML — only those fields that were linked are brought across. The XML is passed to the connector tool, which then:

- Processes the data
- Performs the operation requested
- Sends back an XML document containing the response

The XML can then be used by other BPA Platform steps

Error Handling

Errors are written to the BPA Platform Event Log (*Manage* > *Event Log*). You define how errors are handled in the **Options** tab of the **WooCommerce Integration** tool — see **OPTIONS TAB ON PAGE 10**.

Reasons for the errors could include:

- Web service connection errors
- User privilege errors
- Errors from the WooCommerce API (see **ERRORDATA ON PAGE 12**)
- Warnings and messages from the WooCommerce API (see **ERRORDATA ON PAGE 12**)

WooCommerce Account Security

The WooCommerce API is the only method used to connect to WooCommerce and perform read / write tasks — all security present in the API is used.

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