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# **sphinxcontrib-tryton**

***Release 0.1.1***

**David Harper**

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The *sphinxcontrib-tryton* package is an extension to [Sphinx](#). It aims to allow better documentation for [Tryton](#) by providing a `tryton` domain and other features which are then used to query a `trytond` server and get information and screenshots from a Tryton installation.

This extension was inspired by the [trydoc](#) extension.



## 1.1 Installation

### 1.1.1 Prerequisites

- Python 3.5 or later (<http://www.python.org/>)
- See the `setup.py` file for python package dependencies.

### 1.1.2 Using pip

The easiest way to install this extension and it's dependencies is directly from the Python Package Index:

```
pip3 install sphinxcontrib-tryton
```

### 1.1.3 Using Sources

Alternatively, you can clone the *sphinxcontrib-tryton* repository, and install the extension from there:

```
git clone https://bitbucket.org/libateq/sphinxcontrib-tryton
cd sphinxcontrib-tryton
python3 setup.py install
```

### 1.1.4 Other Information

If you are using an existing Tryton server, then you should ensure that the locally installed versions of *proteus* and *tryton* are from the same Tryton series as the *trytond* server.

You may need administrator/root privileges to perform the installation, as the install commands will by default attempt to install the extension to the system wide Python site-packages directory on your system.

For advanced options, please refer to the *easy\_install* and/or the *distutils* documentation:

- <https://docs.python.org/3/installing/index.html>
- <http://peak.telecommunity.com/DevCenter/EasyInstall>

## 1.2 Usage

The purpose of the *sphinxcontrib-tryton* extension is to provide markup that allows better Tryton documentation. Once configured correctly the markup can be used to pull data directly from a `trytond` server and add screenshots from the Tryton desktop client or Sao. This enables you to create documentation that is easier to keep up to date with any changes to the Tryton codebase.

### 1.2.1 Configuration

To use the *sphinxcontrib-tryton* extension it needs to be enabled in your project's `conf.py` file. This is done by adding it to the list of enabled extensions.

```
extensions = ['sphinxcontrib.tryton']
```

### Options

The *sphinxcontrib-tryton* extension adds some new configuration options that need to setup correctly to allow the extension to use the Tryton clients and server so you can get the most out of it's features.

If you have `trytond` installed on the local computer then this extension can be configured to connect directly to it. It is also possible to configure this extension to connect to a remote `trytond` server using XMLRPC. You should only provide connection settings for one of these connection types.

To generate screenshots from the Tryton desktop client you will need the client installed. Screenshots from the Tryton web client can also be taken, for this you will need a web browser supported by [Selenium](#), and an appropriate [webdriver](#) installed. Connection settings for each client can be specified separately to those for the server, but the server connection settings will be used by default.

### Common Server Connection Options

These configuration options are common to both local and remote server connections.

**trytond\_connection\_type** The type of connection to make to the tryton server. This must be either `trytond` for local connections or `xmlrpc` for remote connections. The default value for this option is `trytond`.

**trytond\_database** The name of the database to connect to on the Tryton server. This defaults to `tryton` for remote connections and `:memory:` for local connections.

**trytond\_user** The login name for the user to connect as, this defaults to `'admin'`.

### Local Server Connection Options

These connection options are only used when connecting to local trytond servers.

**trytond\_config\_file** The configuration file that contains the local `trytond` server's configuration options. If a value for this option is not provided then connection will fallback to using the value from the `TRYTOND_CONFIG` environment variable instead.

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**Note:** As normal with the Tryton server, the configuration values can be set using environment variables instead. See the [Tryton Documentation](#) for more details.

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**trytond\_activate\_modules** A list of modules that should be activated in a new database. If this option is provided then the database (which must already exist) is initialised, and the modules in this list are activated. No module activation will be attempted on databases that were already initialised before running Sphinx, so as not to corrupt existing installations. Use `[]` to initialise a database with no modules. The default value is `None` which does not attempt any module activation or database initialisation.



## Remote Server Connection Options

These connection options are only used when connecting to a remote trytond server.

**trytond\_host** The hostname of the server that is running the Tryton server. This value is required for remote connections.

**trytond\_password** The password for the user to connect as. This value is required for remote connections.

**trytond\_port** The port on which the remote Tryton server can be reached. This value is required for remote connections.

**trytond\_ssl\_context** This is an optional [ssl context](#) that may be required in order to connect to the server successfully.

## Desktop Client Options

These are the options that are available for configuring the Tryton desktop client.

**tryton\_database** The name of the database that the client should connect to on the Tryton server. If this value is not set then it defaults to the value specified by the `trytond_database` option.

**tryton\_default\_size** The default size of any images that are captured of the full window. This should be a tuple containing the default width and height in pixels. The default value for this option is `(1920, 1080)`.

**tryton\_force\_update** A boolean that specifies whether the images in the tryton figure directives should be replaced with new screenshots when the documentation is built. If this option is not set then if an existing image is available it will be used.

**tryton\_host** The hostname of the server that the client should connect to. If this value is not set then it defaults to the value specified by the `trytond_host` option.

**tryton\_password** The password for the user to connect as. If this value is not set then it defaults to the value specified by the `trytond_password` option.

**tryton\_port** The port on the server that the client should connect to. If this value is not set then it defaults to the value specified by the `trytond_port` option.

**tryton\_timeout** The amount of time in seconds that must pass before operations on the client are assumed to have failed, and so time out. This defaults to 60 seconds.

**tryton\_user** The login name for the user to connect as. If this value is not set then it defaults to the value specified by the `trytond_user` option.

## Web Client Options

These are the options that are available for configuring the web browser based client called Sao.

**sao\_browser** The name of the browser that is used to run the Sao client. See the `sphinxcontrib/tryton/sao.py` file for a list of supported browsers.

**sao\_database** The name of the database that Sao should connect to on the Tryton server. If this value is not set then it defaults to the value specified by the `trytond_database` option.

**sao\_default\_size** The default size of any images that are captured of the full window. This should be a tuple containing the default width and height in pixels. The default value for this option is `(1920, 1080)`.

**sao\_force\_update** A boolean that specifies whether the images in the tryton figure directives should be replaced with new screenshots when the documentation is built. If this option is not set then if an existing image is available it will be used.

**sao\_host** The hostname of the server that Sao is on. If this value is not set then it defaults to the value specified by the `trytond_host` option.

**sao\_password** The password for the user to connect as. If this value is not set then it defaults to the value specified by the `trytond_password` option.

**sao\_port** The port on the server that Sao is on. If this value is not set then it defaults to the value specified by the `trytond_port` option.

**sao\_protocol** The protocol to use to connect to the server with. Should be one of either `http` or `https`. The default value for this option is `https`.

**sao\_timeout** The amount of time in seconds that must pass before operations on the client are assumed to have failed, and so time out. This defaults to 60 seconds.

**sao\_user** The login name for the user to connect as. If this value is not set then it defaults to the value specified by the `trytond_user` option.

## 1.2.2 Domain

The *sphinxcontrib-tryton* extension adds a new domain called `tryton` for use when documenting Tryton objects. This domain contains directives and roles that can be used to describe models, fields, and other data from a Tryton system and add screenshots of the Tryton clients to the documentation.

### Directives

This extension adds several new directives that are intended to help document various parts of a Tryton system. All the directives accept the `:noindex:` option to leave the directive out of the index, and make it so it cannot be targeted by references.

**.. tryton:button:: *model.name.button\_name*** The `tryton:button` directive is used to document a Tryton button.

**.. tryton:data:: *module\_name.xml\_id*** The `tryton:data` directive is used to document XML data that is inserted into a Tryton system when a module is activated.

**.. tryton:field:: *model.name.field\_name*** The `tryton:field` directive is used for documenting a field from a Tryton model.

**.. tryton:figure:: *image\_uri*** The `tryton:figure` directive is used to insert a screenshot of a Tryton client into the document. It works in a similar way to the [docutils figure directive](#), and supports all the options provided by the standard figure directive as well as some additional options.

***image\_url*** The `image_uri` argument to the directive is not required, unlike the standard figure directive. If the `image_uri` is provided, then if there is an image at this location it will be used, otherwise it will be created (unless the `force_update` option is set for the client, in which case existing images will be replaced with new screenshots). If no `image_uri` is given then a screenshot will be taken each time the documentation is built.

***:client: client\_name*** The client that should be used for the screenshot, if this is not given then the first configured client is used.

***:view: module\_name.xml\_id*** The `module_name.xml_id` of the view that should be open in the client when the screenshot is taken.

***:fields: field\_name [field\_name ...]*** A list of `field_names` around which the screenshot will be cropped. The first field in the list will also be focused in the client.

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**Note:** If you want to focus a field, but still capture the whole view, then specify the field to focus using this option, then set a large `padding` so everything in the window is then captured.

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***:domain: tryton\_domain*** The Tryton domain to use in order to filter the records displayed in the view by the client.

**:menuitem: *module\_name.xml\_id*** The `module_name.xml_id` of the main menu item that should be selected and displayed in the screenshot. If this option is not given then the main menu will be hidden in the screenshot.

**:padding: *num\_pixels*** The number of extra pixels around the edge of cropped parts of the screenshot that should be included in the image. The padding will not make the screenshot extend beyond the edges of the client window.

**.. tryton:menu:: *module\_name.xml\_id*** The `tryton:menu` directive is used to document a menu item that appears in the main Tryton menu.

**.. tryton:model:: *model.name*** The `tryton:model` directive is used to document a Tryton model.

**.. tryton:option:: *model.name.field\_name.option*** The `tryton:model` directive is used to document an option from a Tryton selection field.

**.. tryton:view:: *module\_name.xml\_id image\_uri*** The `tryton:view` directive is used to insert a screenshot of a Tryton view into the document. It works in exactly the same way, and has the same options, as the `tryton:figure` directive, with one exception. Instead of providing the view's `module_name.xml_id` in an option it must be given as the first argument.

**.. tryton:wizard:: *wizard.wiz\_name*** The `tryton:wizard` directive is used to document a Tryton wizard.

## Roles

The roles provided by the `tryton` domain allow you to refer to Tryton objects, such as models, fields or data. If there is a matching directive they will also generate a link to it.

## Cross Referencing Syntax

In general the `tryton` roles follow the normal Sphinx [cross referencing syntax](#), by writing `:tryton:role:`target`` a link will be created to the target, if the target has been defined. By default the title for the target will be the name of the object translated into the language of the *trytond user*, if the object can be found in the Tryton system and a translation for it is available.

The cross referencing syntax also enables the following features:

- You may supply an explicit title, like in reST direct hyperlinks: `:tryton:role:`title <target>`` will refer to *target* but the link text will be *title*.
- You can set the title of the link to a different property of the object instead of the object name. This is done by appending a pipe symbol `|` and the property name to the target. For example the help text for a field can be set as the title with: `:tryton:field:`model.name.field|help``.
- Prefixing the content with an exclamation mark `!` will mean that no reference or hyperlink will be created.
- Prefixing the target with a tilde `~` will still create a link, but if the target is an object name then it will only include the last component of the target. If the target is not an object name, then any leading or trailing full stops are `.` removed.

**:tryton:button:‘*model.name.button\_name*’** Reference to a Tryton button.

**:tryton:data:‘*module\_name.xml\_id*’** Reference to some XML data that gets inserted into a Tryton system when a module is activated.

**:tryton:field:‘*model.name.field\_name*’** Reference to a field in a Tryton model.

**:tryton:menu:‘*module\_name.xml\_id*’** Reference to a menu item that appears in the main Tryton menu.

**:tryton:model:‘*model.name*’** Reference to a Tryton model.

**:tryton:option:‘*model.name.field\_name.option*’** Reference to a Tryton selection field option.

**:tryton:toolbar:‘*button\_name*’** Reference to a toolbar button that appears in the Tryton client.

**:tryton:wizard:‘*wizard.wiz\_name*’** Reference to a Tryton wizard.

### 1.2.3 Functions

The *sphinxcontrib-tryton* extension provides a few useful functions that are intended to help when creating Tryton documentation.

`sphinxcontrib.tryton.inherit_modules` (*app, config*)

Returns a list of names of activated modules from a `trytond` server. The module names are returned in dependency order. This means that a module will always appear in the list after all the modules that it depends upon. This function can be imported as the *inherit\_modules* option for the *sphinxcontrib-inherit* extension.

```
import from sphinxcontrib.tryton import inherit_modules
```

`sphinxcontrib.tryton.inherit_installed_modules` (*app, config*)

Returns a list of names of all the modules installed on a `trytond` server. The module names are returned in dependency order. This means that a module will always appear in the list after all the modules that it depends upon. This function can be imported as the *inherit\_modules* option for the *sphinxcontrib-inherit* extension.

```
import from sphinxcontrib.tryton import inherit_installed_modules as inherit_
↳modules
```

## 1.3 Testing

The full test suite can be run from the top level of the package by executing:

```
python3 setup.py test
```

Alternatively just some of the tests can be run by using unittest, for example:

```
python3 -m unittest test.test_sao
```

### 1.3.1 Client Tests

The client tests, in addition to the requirements for running the client, also require a running server to be able to work.

For the tests the client options should be specified in environment variables. These environment variables should be named `TEST_SPHINXCONTRIB_` followed by the option name in uppercase, for example: `TEST_SPHINXCONTRIB_SAO_BROWSER`.

## 1.4 Support

Any issues or bugs with this extension can be reported using the bug tracker: <https://bitbucket.org/libateq/sphinxcontrib-tryton/issues>

If you are looking for commercial support, custom enhancements, or would just like to support the maintenance and upkeep of this extension, then please don't hesitate to get in touch:

- Email: Support <[support@libateq.uk](mailto:support@libateq.uk)>
- Website: <https://libateq.uk/support/>

## 1.5 ChangeLog

## 1.6 Licence

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Version 3, 29 June 2007

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