talend*
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Talend Open Studio for ESB
Release Notes

5.2.1

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Introduction

Talend Open Studio for ESB and Talend ESB Standard Edition is an Apache based product that offers Big Data capabilities for the Masses, simplifies Big Data technologies, and thus makes it easier for users to leverage Big Data clusters, through an intuitive tool, making them more productive.

System Requirements

Talend Open Studio for ESB and Talend ESB Standard Edition users should refer to the *http://www.talend.com/docs/community/prerequisites.html* and *http://talendforge.org/wiki/doku.php?id=doc:installation_guide* for more information on Installation and System Requirements.

ESB: New Features

1. Studio

1.1. Data Services (REST)

- A new tRESTClient component:

  - for HTTP verbs: GET, POST, PUT, DELETE

  - Accept type selection: XML / JSON / any

  - Query parameter support

  - Basic HTTP Authentication and HTTPS Support, and HTTP proxy support

  - Ability to add additional HTTP header (an advanced option)

- An improved tRESTResponse component – Custom HTTP Header support including Cross-Origin Resource Sharing (CORS) Headers (Advanced Options)

1.2. Data Services (SOAP and REST)

- Improved Database Connection handling within Data Service (REST and SOAP) for tJDBC, tMySQL and tORACLE Components. This was done using the new 'Specify a data source alias' option in the related connection components and the ability to share and configure these 'named' data sources on the Talend Runtime container for advanced connection configuration and pooling.

- Updated Apache CXF version (see ESB: Changes in Apache Projects for the details)

1.3. Route Builder

- New Resource Management to include management files and configurations required by Route Builder components into the route model and share or reuse resources across Routes. For common types of Resources (Text, XML, WSDL and others) viewing and editing within the Route Builder is supported and versioning is provided for all resources.

- Improved integration between Talend Jobs and Routes using the improved cTalendJob component and the related Talend Job components tRouteInput, tRouteOutput and tRouteFault.

  This improvement makes it also easy to exchange data between the Route and the (Data-) Integration Jobs. It also supports the embedded and separate deployment of the Integrating Job within the Route or separate to the Route in Talend Runtime.

- New cDataSet component, which also supports route testing by providing an easy way to create DataSet Instances (and by this Exchange Messages). It can also be used not only as producer of messages but also to assert that an exchange message conforms to a given data set.

- New `cTimer` Component – to easily trigger Routes.

- New `cBeanRegister` component – which makes it easy to register custom beans in the Context and thus to use these custom beans in other components within the Route.

- Enhanced `cCXF` Component to also support Service Activity Monitoring when the full SOAP Message needs to be received into the Route Exchange using the new Dataformat option 'CXF_Message'.

- Enhancements in `cProcessor` and `cConfig` to support Java package imports to make it more convenient to add/edit custom code.

- Enhanced `cHTTP` component configuration for POST and PUT (Plain Text, Form Style and Message Body option) and improved content type selection (allowing to define 'others').

- Enhanced `cSetHeader` to allow the setting of multiple Exchange header at the same time within a single cSetHeader component.

- New and improved examples in the ESB Demo Project for Routes.

- New OSGi Dependency Editor in Route Builder to allow custom changes on the Import Packages List, the Export Packages, the Bundle Class Path and the Require Bundles.

2. Runtime

- Authentication Support for Service Locator (including the Service Locator SOAP Client)

- Updated Apache Karaf, CXF, Camel Cellar and ActiveMQ versions (see ESB: Changes in Apache Projects for the details)

ESB: Bug fixes and change log

In addition to the above new features, there are a number of minor improvements within the entire product and also significant bug fixes. Please see the corresponding Change Log on our bug tracking system for more details on the individual issues:

- Talend ESB 5.2.1 Release Notes Report: https://jira.talendforge.org/secure/ReleaseNote.jspa?projectId=10186&version=13710.

- Talend ESB 5.2.0 Release Notes Report: https://jira.talendforge.org/secure/ReleaseNote.jspa?projectId=10186&version=12813.

Please note that this list also includes fixes to Talend Enterprise ESB products. (If in doubt please check the **Edition** field of the issue you are interested in to see if it applies to *Talend Enterprise ESB only* or if the component is a *Talend Enterprise Only* component in general (for example, Talend Administration Center).

As Talend Open Studio for ESB is based on the unified Talend Open Studio, you will also find general changes of the Studio, which apply to all Talend Open Studio products, in Talend DI and UP (TDI /TUP) JIRA Projects.

ESB: Changes in Apache Projects

The Talend Runtime is based on key Apache Foundation projects which Talend actively supports; the Talend ESB now contains the following Apache Project versions:

Software	Talend v5.2.1	Talend v5.1.2	Notes	More information
Apache Karaf	2.2.9	2.2.9	with an additional upgrade to Jetty 7.6.7	Release notes: http://karaf.apache.org/index/community/download/karaf-2.2.9-release.html
Apache CXF	2.7.0	2.6.2	with initial support for JAX-RS 2.0 and many additional improvements.	Release notes and Migration Guide: http://cxf.apache.org/docs/27-migration-guide.html
Apache Camel	2.10.2	2.9.3	with bug fixes and some improvements	Release notes: https://cwiki.apache.org/confluence/display/CAMEL/Camel+2.10.2+Release
Apache ActiveMQ	5.7.0	5.5.1	with bug fixes and some improvements	Release notes: http://activemq.apache.org/activemq-570-release.html
Apache Cellar	2.2.5	2.2.4	with bug fixes and some improvements	Release notes: http://karaf.apache.org/index/subprojects/cellar/download/karaf-cellar-2.2.5-release.html)

ESB: Known Issues

1. Installer

1.1. Unknown Error during installation

Symptoms: When you install Talend Open Studio for ESB and Talend ESB Standard Edition, the warning "Unknown Error in post-install step" may be displayed at the end of the installation process.

Workaround: If you click OK to accept this warning, the installation proceeds as normal.

2. Studio

2.1. WSDL documents with external references are not supported

Symptoms: WSDL documents with external references such as:

- XML schemas that use xsd:import or xsd:include elements that are referring to XML schema documents located outside of the WSDL file.

- References on other WSDL documents declared using wsdl:import. are not supported in Talend Studio.

WSDL documents used for service creation and consumption should be self-contained.

Workaround: As workaround you can embed external XML Schemas and WSDLs into the single WSDL document. In this case your WSDL will be the same, but will no longer have an external reference to schema definitions outside the WSDL document.

2.2. External JAR file dependencies declared in cConfig are not exported [TESB-4219]

Symptoms: In Talend ESB Studio Route Builder, when an external JAR is referenced in cConfig component it is correctly used when a Route is started inside Talend Studio and also for exporting the route as a standalone service or OSGi bundle. However it does not get exported when doing "Export as Item".

Workaround: As workaround you may copy JAR files manually and re-associate them in cConfig after the route is imported in your workspace.

2.3. Duplication or Copying of Data Services (in the Service Node) does not duplicate /copy the underlying service operation Jobs [TDI-19542]

Symptom: When you duplicate or copy a service in the Service node of the Studio the tolling will not create or copy the underlying service operation Jobs. The new service will refer and use the same service operation Jobs as the original service.

Workaround: Duplicate the underlying service operation Jobs individually in the Job tree of the Studio and reassign them in the new duplicated service (service node).

2.4. Route Builder beans cannot be organized in packages [TESB-3701]

Symptoms: Beans in a route build can be used to add Java code for the route builder routes, however all beans are currently located in one single package.

Workaround: None

2.5. XML payload content is not fully displayed in trace or debug mode

Symptoms: When starting a Data Service Job in trace/debug mode, the content of the Document fields of the flows is not displayed fully - only the first line of the XML payload is shown.

Workaround: If you need to see the XML data you can place a tLogRow component anywhere into your models. Keep in mind that Talend Studio also allows you to disable this component, so that you can enable it for testing inside Talend Studio, but disable it for export or publishing.

3. Runtime

3.1. Runtime Container - Sporadic start/restart issues with some bundles [TESB-7061]

Symptom. When you start the container it could happen that the following three bundles not start correctly (see below). When you don't see the 'Started' status using the **list** command, the three bundles are not in the correct state. This happens only sporadically, but it might lead in some case to follow up errors on other feature you might install on the Container (for example, Data Services and Routes).

Example of correct output:

```
[ 183] [Active   ] [  ] [Started] [  80] Service Activity Monitoring :: Agent (5.2.0)
[ 186] [Active   ] [  ] [Started] [  50] Service Locator Client for CXF (5.2.0)
```

```
[ 189] [Active     ] [   ] [Started] [   80] Talend :: ESB :: Job :: Controller (5.2.0)
```

Example of incorrect output:

```
[ 183] [Active     ] [   ] [        ] [   80] Service Activity Monitoring :: Agent (5.2.0)
[ 186] [Active     ] [   ] [        ] [   50] Service Locator Client for CXF (5.2.0)
[ 189] [Active     ] [   ] [        ] [   80] Talend :: ESB :: Job :: Controller (5.2.0)
```

Workaround. Please restart the container again (and check the status of the three bundles before you continue).

```
[ 189] [Active     ] [   ] [Started] [   80] Talend :: ESB :: Job :: Controller (5.2.0)
```

ESB: Known Limitations

This section contains limitations on how you use the product that you need to be aware of.

1. Studio

1.1. Only WS-I Basic Profile compliant WSDL documents are supported

All WSDL service descriptions should be at least WS-I Basic Profile compliant if you want to use them in the ESB Studio. See http://ws-i.org/deliverables/workinggroup.aspx?wg=basicprofile for more information. Other WSDL documents might also work but they are more likely to fail.

1.2. Data Service WSDLs with more than one port, portType and endpoint are not supported [TESB-4707]

Symptoms: Data Services imported or designed in Talend Studio can only have one wsdl:port, wsdl:portType and one wsdl:endpoint element.

Workaround: As workaround you can create a WSDL per port or porttype (manually).

1.3. Route Builder: cTalendJob can only be used with Jobs that have at least a tRouteInput component included

A cTalendJob component used within a Route can only execute Jobs which contain the tRouteInput component properly. Only Jobs including the tRouteInput component are supported to be used with cTalendJob.

If a Route uses cTalendJob to call a Job that does not contain a tRouteInput component, the call will fail with a `NoClassdefFoundError` or in some cases also other unexpected behaviour.

The tRouteInput component is mandatory for a Job which is intended to run with a Route (using the cTalendJob component) even if no data should be transferred between the Route and Job. The tRouteOutput/tRouteFault components are optional and only needed if a response or fault should be returned back to the Route.

1.4. Activity Monitoring Console / Components only with limitations

The Activity Monitoring Console as provided in the Studio and the related Dashboard screens can be used to visualize tLogCatcher, tStatCatcher and tFlowMeterCatcher events. In Talend Enterprise ESB there are some limitations that you need to consider for these components and the related features in the Studio:

- tLogCatcher can be used in Data Services and Jobs, but the tLogCatcher component must be explicitly included in the Job and the use of a database for logging is recommend in this environment (Talend Runtime - OSGi Container).

- tStatCatcher and tFlowMeterCatcher can be used only in Jobs which are not defined as **Keep Listening** but not in Data Services (where the operations are implemented in **Keep Listing** Jobs). Also these components must be explicitly included in the Job and the use of a database for logging is recommended in this environment (Talend OSGi container).

- tLogCatcher, tStatCatcher and tFlowMeterCatcher by the entire Activity Monitoring Console feature can not be used within Routes developed using the Route Builder with the Studio (Mediation Perspective).

- Note that you can use the AMC view in Talend Enterprise ESB Studio but the related AMC Web-Console in TAC is only provided with a license which contains the DI Product (for example, Talend Platform for Data Services license).

2. Runtime

There are no known issues at this time.

3. Administration Center (TAC) and CommandLine

There are no known issues at this time.

ESB: Migration V5.1.1 to 5.2.1

Note: this section gives details of migrating from V5.1.2 to V5.2.1, but the instructions equally apply to migrating from V5.1.1 directly to V5.2.1.

1. Studio

The ESB Studio requires a new installation (unzip or using the Talend Installer) and needs to be connected to a 5.2.1 Talend Administration Center to access your shared (existing) projects. If you used local workspaces you need to export your 5.1.2 projects from your local 5.1.2 workspace and import the project with the ESB Studio 5.2.1.

Studio projects can be used without any manual migration and all models will automatically be upgraded for the components which need changes when the related model is opened in the ESB Studio.

2. Runtime

The ESB Runtime (OSGi Container) requires a new installation (unzip or using the Talend Installer). With 5.2.1 we also provide a tool which allows you to export features and configurations you installed on the 5.1.2 container. Note that we do not have fully binary compatibility between artifacts generated by 5.1 and 5.2 Studio on Talend Runtime. See section *Compatibility note* for details.

3. Compatibility note

Binary compatibility for Studio designed Data Services (SOAP & REST) and Routes is not generally provided between 5.1 and 5.2 generated code. If you want to run your existing Data Services or Routes on the new 5.2.1 Container, you need to re-publish / re-export the Studio models to use the latest code changes.

We support the mixed installation and use of Talend ESB container 5.1 with Data Services and Routes generated by Talend ESB Studio 5.1, and the Talend ESB Runtime Services in 5.2.1, namely: Service Locator (without the new authenticated mode), Service Activity Monitoring, and Security Token Service.

ESB: Hints and Notes

1. Runtime

1.1. Copying an ESB Container might lead to unexpected behaviour

A Talend Runtime container which was started once can't be copied to a different directory or machine. We recommend to always use our container that we ship it with the product.

Documentation

1. New documents

The following new documentation is available for this release.

- *Talend Big Data Studio User Guide*: this guide addresses only big data related features and capabilities offered in the big data studios.

2. Revised documents

In addition to updates to the content across the documentation set, the following specific documentation changes have been made.

- *Talend ESB Getting Started User Guide* has been renamed *Talend ESB Getting Started Guide*, and *Talend ESB Service Factory User Guide* has been renamed *Talend ESB Service Developer Guide*.

- Updates have been made to several *Talend ESB* guides to reflect changes in certain Apache products.

  - *Talend ESB Development Guide*: Apache CXF 2.7

  - *Talend ESB Mediation Developer Guide*: Apache Camel 2.10

  - *Talend ESB Service Developer Guide*: Apache CXF 2.7

  - *Talend ESB STS User Guide*: Apache CXF 2.7 - STS

3. Known issues

The documentation of certain technical fixes that arrived too late to be included in the current release will be dealt with in the next release.

https://jira.talendforge.org/secure/IssueNavigator.jspa?requestId=13952

Reporting Defects and Issues

As a customer of Talend with a valid support contract, you can use our Talend Online Helpdesk or you can contact our customer support by phone and e-mail as stated in your contract.

Often the following information is needed and would help us to more easily evaluate your issue:

• Product and Version which you used (for example, Talend Data Services Studio 5.2.1)

• Operating System, for example Windows Server 2008 R2 SP1 (64bit)

• Version of Java Platform JDK / JRE in use (for example, ORACLE JDK 1.6.0_25).

• Log files and/or screenshots

Also, in order to ensure that the technical support team has sufficient information to help you, describe at least the following in detail:

• your actions up to the point when the problem occurred

• the results you expected

• the ensuing results that differ from your expected results.

Note: in addition to our support helpdesk, you can also use our community support tools:

• The Talend User's Forum at Talend Forum, in the section related to "Talend Enterprise Data Integration".

• You can also look into the Talend Bug Tracker, in Projects > Talend DI.

• Just keep in mind that only cases you create via one of the Talend Support channels in our Talend Support Helpdesk are treated under the service level agreements we provided in the related contract to you.