



FABRIC RELEASE NOTES

FABRIC V6.5.3 RELEASE NOTES

These Release Notes describe the new features in Fabric release V6.5.3 and lists bugs that have been fixed since release V6.5.2.

Certification of this Fabric release is based on:

- Cassandra version 3.11.9.
- SQLite version 3.34.0.
- Open JDK version jdk-8u292.
- Confluent Kafka version 5.5.1.
- OrientDB tp3-3.1.2.
- Elastic oss-7.6.0.

MAIN FEATURES AND IMPROVEMENTS

1. Batch Monitoring

A new advanced batch monitoring screen was added to the Web Admin application. This screen enables tracking of the following main items:

- Progress status
- Expected end time
- Trends on the data center and levels of nodes
- Analysis of failed entities
- Entities in process
- Analysis for performance improvements

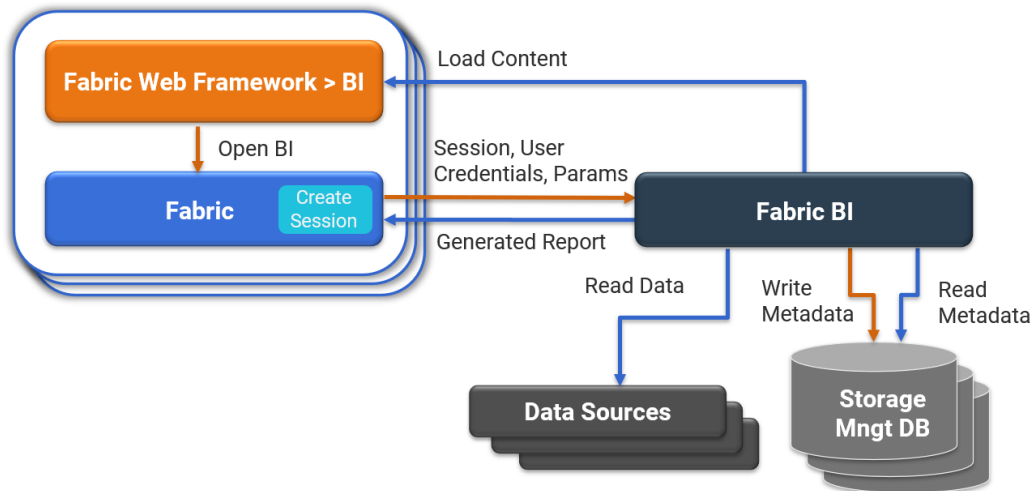
In addition, using this batch monitoring screen, you can control and enhance the execution in run time (add/reduce workers, stop/resume/pause the run).

2. Fabric BI – Dev ready

- Fabric includes a business intelligence application called **Fabric BI** that can be accessed via the K2View Web Framework. Fabric BI enables the design and execution of reports and dashboards and can connect to various data sources to read the data. The reports metadata is kept in an external Storage Management database.
- The **Fabric BI** application includes the following modules:
- **Admin** - system configuration module which enables setting up the source data model.
- **Designer** - content creation module which enables creation and generation of various types of reports and dashboards.

- The reports can also be generated from Fabric user code using a new job type: **GENERATE_BI**.

The figure below shows the basic architecture of how Fabric BI connects with Fabric and data storage:



3. Broadway – New Actors

- **BroadwayJob**: Provides the ability to trigger a Fabric job that will in turn execute another Broadway flow once or multiple times depending upon the configuration of the job.

There are 3 options for Jobs execution:

- Immediate - this job will run once on deploy
- Cron Expression - combined crontab command
- Time interval - scheduling execution interval that supports three formats:
 - Timestamp, yyyy-MM-dd HH:mm:ss
 - One time only datetime that schedules a Job's execution.
 - Time interval, HH:MM:SS to run the Job every X time.
- **InterfaceListener**: Enables the flow in which it is instantiated to listen to SFTP or File Systems interfaces and trigger another Broadway flow upon arrival of a new file on the interface.
- **HttpForm**: Sends a request to a web server emulating form POST submission. The actor does not support multi-part file attachment upload.
- **XMLStringify**: Converts a given map to an XML document. This actor also supports nested maps and arrays.
- **XMLParser**: Renamed to XMLParserLegacy.



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The main difference between the new XMLParser Actor and the existing XMLParserLegacy is the type of XML that the parser can handle:

The new XMLParser supports parsing an XML with a list of objects that can include attributes.

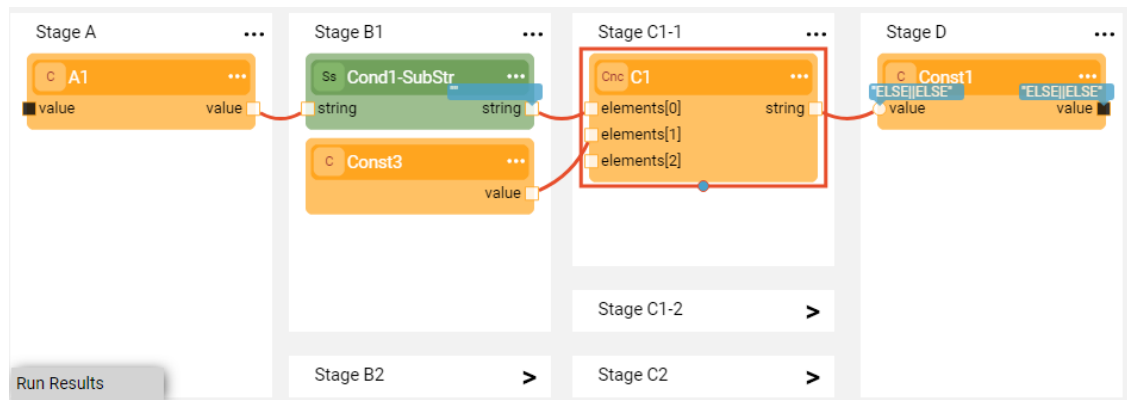
For example:

```
<office name="New York">
  <user id="1" name="John" last_name="Wick">
    <room>123</room>
    <phone_number>987654321</phone_number>
    <phone_number>123456789</phone_number>
  </user>
  <user id="2" name="Alice" last_name="Liddell">
    <room>wonderland</room>
    <phone_number>3334445555</phone_number>
    <phone_number>7776667777</phone_number>
  </user>
</office>
```

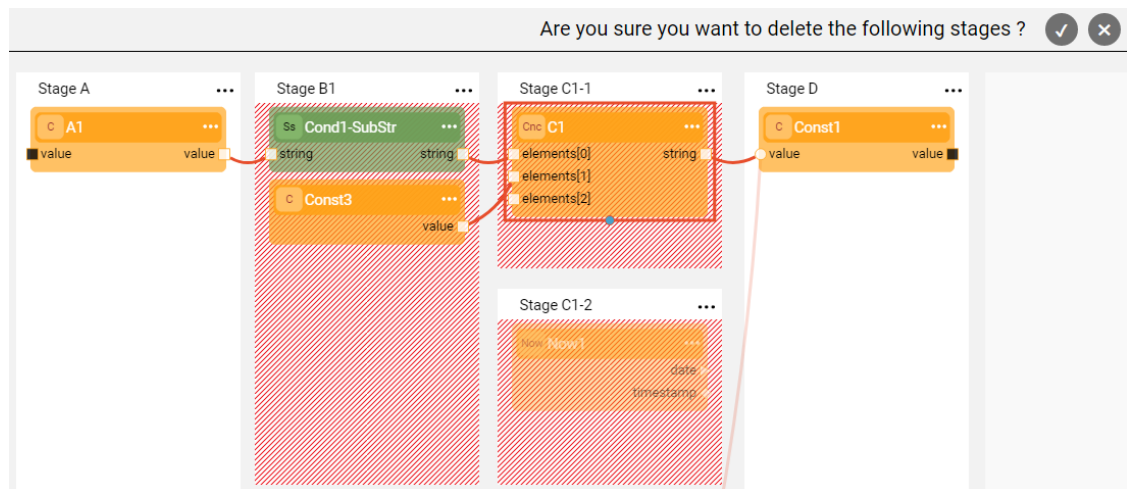
- The enhanced functionality of the XMLParser Actor is that it enables setting an object name to the parsed XML elements and parsed attributes using its new input arguments valueField and attributesField.
- The input arguments valueField and attributesField have default values that can be changed or set to null.
- When an XML includes an element with attributes and a primitive value (not a nested XML element), setting valueField to null is not supported.
- The XMLParser actor's input can be marked as Mandatory and it can be exposed via the Broadway command.
- The **XMLParserLegacy** actor supports parsing only an XML with a list of objects without attributes.

4. Broadway - Usability Improvements

- **Focus** – A new menu item was added to the Stage's context menu. It allows the user, in a single click, to collapse all Stages of the same level except the selected one. When the collapsed Stage is a part of a branch, the respective branch's Stages are collapsed too.



- **Delete Stage** - Improved by marking all the Stages that are about to be deleted. In addition, a confirmation message is displayed on top of the flow. This enables the user to verify whether the Delete result is what he/she expected.



- In the Actor's context menu, **Delete Actor** and **Disable Actor** were moved to a lower position.
- The **mapType** input was added to the following actors: MapMerge, MapDiff, MapBuild, ArrayToMap.
- Broadway redundant log reports were removed.

5. Graphit – error handling

- Once an `error.graphit` file is created on the project implementation, its execution is triggered each time an exception is returned as a result of a Fabric Web-Service call. (Important to note that if you have prepared a "catch" for the exception, there will be no trigger to execute the file).
- The creation of an `error.graphit` file allows the implementors to set a standard payload response structure to any exception, regardless of the cause.



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6. Reference/Common tables

- Support multiple common schemas/files. To do so, the schema field in the reference table properties panel can be set to a specific value.

For example: extraRefDB. In this case a new sqlite file - extraRefDB.db is created, and more reference tables can be added to its schema. Using this reference table segregation schema reduces considerably the locking of all tables during write processes.

- A schema was added as an optional parameter to the common product APIs.

7. Command Enhancements and Additions

- **Test_connection** - A filter parameter was enhanced to support regex.
- **Test_connection** - Always return SUCCESS when running the command on custom interface.
- LIST BROADWAY_FLOWS/BF command was enhanced. When LU_NAME and FLOW are specified and the command returns a single row, the result provides all of the flow's input and output arguments, including their type, schema, the mandatory indication and the default value (if exists). The command syntax is:
- LIST BF LU_NAME=<'LU Name'> FLOW=<'BF FLOW'>

8. Studio

- A new property was added to the sftp interface type. It is now possible to configure the port as well (default value: 22).
- A new property called **Test Connection Valid Status**, was added to the http interface type. It allows the user to list the http response codes that can pass the test connection activity successfully.
- A new property called **elevated permission** was added to the Web-Services property. This property Indicates if user permissions should be elevated to the Web-Service or not. Default is set to False. When set to False, this means (for example) if according to the user's role permission he cannot get instance 1 on a given LU, he will not be able to do so also when using the Web-Service. This is so even if the user can execute the Web-Service itself.
- An empty LU (schema with no tables) can now be deployed.
- **BroadwayJob** and **InterfaceListener** Actors were added to the deploy.flow Broadway flow template that is automatically created as a result of a new LU creation.



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9. Miscellaneous

- A new authentication type, called OAuth 2.0 Password Credentials (Basic auth headers), was added to the http interface.
- Console now supports UTF8 in non sql statements. For Example: `broadway LU_A.1 name='Michał Wiśniewski';`
- Various Data Catalog performance improvements were made.
- A catalog as a category to the trace command was added.
- New metrics were added to monitor Fabric interactions with Elastic Search.
 - `searchLoaderRead` - Duration of search loader's read operation.
 - `searchLoaderInsert` - Duration of search loader's insert operation.
 - `searchLoaderUpdate` - Duration of search loader's update operation.
 - `searchLoaderDelete` - Duration of search loader's delete operation.
 - `searchLoaderErrors` - Count of search loader errors.

RESOLVED ISSUES

- Data Catalog engine was fixed to capture cases of using a `select *` statement within a graphit file and using a statement that has fields later on in the output structure.
- Merged defect fixes from all 6.4 maintenance releases up to 6.4.7.
- Ticket #23668 – An overriding JDBC connection properties using environment functionality was not working.
- `ref_status` command shows incorrect status when ref table has enrichment function.
- Ticket #24001 – Web-Service response example in Json format instead of string.
- Ticket #24447 - Parser uses unnecessary quorum.
- `setContentType` API does not set the correct header key, it uses `contentType` but it should be `content-type`.
- Transaction rollback isn't working when using `InnerFlowAsync`.
- Graphit – drag and drop a node wasn't working.

Studio

- Ticket #24384 – Studio fails to open Logical Unit sometimes on MAC.
- Ticket #24344 – Non-Broadway files appear under Broadway.
- Ticket #24387 - Support adding a `varargs` input parameter to a function.