

# B2safe\_rp\_pilot (v1.0.5) installation and configuration

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## 1 Introduction

You can refer to the Repository Package Design document to get a description of the architecture.

The repository package source code is available on github at

<https://github.com/EUDAT-B2SAFE/B2SAFE-repository-package>

Some additional information are published as github pages at:

<http://eudat-b2safe.github.io/B2SAFE-repository-package/>

## 2 Installation

### 2.1 Pre requisite

The repository package program requires java 1.7 to be installed on the server.

### 2.2 Installation steps

Copy the files provided by EUDAT in the execution directory of your choice. You will have the following files:

```
b2safe_rp_pilot.jar
config.properties.model
log4j.xml
```

Define the directory(ies) and file names you want to use for the command and result files.

Create the config.properties file. You should start from the available config.properties.model The config.properties file must be in the same directory as the b2safe\_rp\_pilot.jar file.

Note that the section related to B2SAFE parameters must be filled with the datacenter providing the B2SAFE service.

The table below describes the different properties:

b2safe_rp_pilot parameters	
PILOT_EXEC_MODE batch	Select the execution mode, values can be : console or batch
localIngestFileList = /Directory/DataObjectToReplicate.txt	File listing the DO to replicate
localDeleteFileList = /Directory/DataObjectToDelete.txt	File listing the DO to delete
localRetrieveFileList = /Directory/DataObjectToRetrieve.txt	File listing the DO to retrieve
replicationResultFile = /Directory/OperationResult.txt	File storing information about ongoing replication
operationErrorResultFile = /Directory/OperationErrorResult.txt	File storing the operations resulting in errors

# B2SAFE parameters	
RESOURCE_ID = xxxxxxxxx	Resource ID is the ID assigned to the storage resource in the EUDAT RCT tool for the dataset or project.  Will be provided by EUDAT datacentre
B2SAFE_TRANS_PROTOCOL irods	Transfer protocol to use. Values limited to "irods" for now on
Parameters for the iRods based file transfer. To be defined with EUDAT partner	
HOST = ariane-test.cines.fr	
PORT = 1247	
USER_NAME = repopack	
PASSWORD = *****	
HOME_DIRECTORY = /TheZone/home/project_name/ingest_collection	
ZONE = TheZone	
DEFAULT_STORAGE = transResc	

### 3 Command and result text files

#### 3.1 Command files

Most of the features are controlled from text files providing the information about Data Objects to replicate or to retrieve.

The format is the same for all the files used in b2safe\_rp\_pilot and is described below. The path and name of the command files are defined in the properties file.

File format is text, one line per Data Object with ';' as field separator.

The first line is a header including field names. It must be in the file. The line is

```
fileName;localFilePath;remoteDirPath;ror;eudatPid;
```

The list of fields is in the table below:

<b>filename</b>	Data Object file name.
<b>localFilePath</b>	Path to read Data Object file on the repository (shared space)
<b>remoteDirPath</b>	Collection to use to store the Data Object on the EUDAT replication area, must end with '/' char.
<b>Ror</b>	ROR (Record Of Reference) : if any, this is the PID on the repository side
<b>eudatPid</b>	EUDAT PID for the replica (copied from the .DSS file)

Not all the fields are mandatory.

Here is an example:

```
fileName;localFilePath;remoteDirPath;ror;eudatPid;replicaLaunchDate;  
replicaEndDate;adminStatus;  
test1.txt;C:\\tmp\\test1.txt;testcoll/sub1/;id1  
test2.txt;C:\\tmp\\test2.txt;testcoll/sub2/;id2
```

```
test9.txt;C:\\tmp\\test9.txt;testcoll/sub1/id9
```

## 3.2 Result files

Those text files are used to provide output for the feature when relevant.

The application uses one file to log the results for all the operations (file path is on the 'replicationResultFile' parameter), and a file to log the result of all the operations resulting in error (file path is on the 'operationErrorResultFile' parameter).

The format is the same for all the result files used in b2safe\_rp\_pilot and is described below. The path and name of the result files are defined in the properties file.

File format is text, one line per Data Object with ';' as field separator.

The first line is a header including field names. It must be in the file. The line is

```
Operation;Status;StatusMessage;LaunchDate;EndDate;FileName;LocalFilePath;remoteDirPath;ror;eudatPid;
```

The list of fields is in the table below:

<b>Operation</b>	Type of operation, values can be REPLICATE, RETRIEVE, DELETE
<b>Status</b>	Values can be SUCCESS or ERROR
<b>StatusMessage</b>	A message providing details about the status, for example a error message.
<b>LaunchDate</b>	Start date for operation
<b>EndDate</b>	End date for operation
<b>filename</b>	Data Object file name.
<b>localFilePath</b>	Path to read Data Object file on the repository (shared space)
<b>remoteDirPath</b>	Collection to use to store the Data Object on the EUDAT replication area, must end with '/' char.
<b>Ror</b>	ROR (Record Of Reference) : if any, this is the PID on the repository side
<b>eudatPid</b>	EUDAT PID for the replica (copied from the .DSS file)

Not all the fields are mandatory.

## 4 Execution

### 4.1 Command line syntax

Launch the program from the command line with the command

```
java -DRP_LOG_DIR=PathToLogDirectory -DRP_LOG_LEVEL=INFO -jar b2safe_rp_pilot.jar
```

The parameters you can update in the command line are:

RP\_LOG\_DIR defines the path to the directory you want to use for log files

RP\_LOG\_LEVEL defines the level for logging and can be ERROR, WARN, INFO or DEBUG. We recommend using INFO.

### 4.2 Test installation

Setup parameters in config.properties with

#### **PILOT\_EXEC\_MODE console**

Create an input file for replication (the file path must be the same as the value of the parameter ***localIngestFileList*** ). It is not necessary to have real life values for this installation test

Launch the program, the menu should be displayed

Choose **Test access to Data Object file**. As a result, the content of the file is displayed with field names and values.

Choose **Test Connection to B2SAFE** . This will try to connect to EUDAT B2SAFE and display a result message

### **4.3 Log files**

The logging mechanism is based on Apache log4j.

Log files are available in the directory corresponding to the RP\_LOG\_DIR command line argument.

The program creates 4 files corresponding to the ERROR, WARN, INFO and DEBUG levels. The files names are

**error.log**

**warning.log**

**info.log**

**debug.log**