

Associating Requirements with Files

This chapter describes how to associate requirements with files so that the a Parasoft traceability report can show static analysis violations and build reviews within the context of the analyzed source files.



Implement This Workflow for Each Build ID

The following workflow describes how to enable requirements traceability for a specific build ID. You must repeat the steps for each additional build ID you want to view requirements traceability information for.

1. Create requirements (e.g., Jira stories) in the requirements tracking system.
2. Create a CSV file that maps the source code files for your project to the requirement IDs generated by your ALM system, e.g.:

File	Associated Requirement ID
Project-A/src/foo/goo.java	reqA
Project-A/src/foo2/goo.c	reqA, reqB, reqC



Creating the File-to-Requirement Map

The file may be prepared manually by team members or it can be automated with a script. For example, the script could scan the source control repository for requirements markers added by developers and generates the CSV file accordingly.

3. Add the file-to-requirement association information to the DTP database by checking the source code files into source control and running your Parasoft tool. The tool execution must be run under the specific build ID and project (see the documentation for the tool for instructions on how to specify this metadata).
 - You can also send a POST to the DTP REST API `/artifactsTypes` endpoint to add the requirements to the DTP database. Choose **API documentation** from the DTP help menu for additional information.
4. Run the CSV-scanning script shipped in the `<DTP_INSTALL>/grs/extras/traceability` directory with the following arguments:

```
groovy fileReqAssoc.groovy -csv <CSV_FILE_NAME> -build <BUILD_ID> -dtp <DTP_HOST_INC_PROTOCOL> -user <DTP_USERNAME> -password <DTP_PASSWORD>
```

- This is an example script intended to demonstrate a sequence of API calls that should be performed to associate files with artifacts in DTP. You can use this example script as a starting point for implementing a more advanced solution.
- The script is written in Groovy, but the directory also contains a JAR file that you can run with the same arguments.
- The script scans the CSV file prepared in step #2 and feeds the DTP database with the information about requirements to files mapping. See the README.txt file for details how to run the script.

After the script finishes, the traceability data for the specific filter ID and build ID will be stored in the database. The data can now be viewed using one of the following methods:

- Calling the artifactTraceability [REST API](#) endpoint
- In the [Integrating with Jira Report](#)
- In the [VersionOne Traceability Report](#)
- In the [Polarion Traceability Report](#)
- In the [CodeBeamer Traceability Report](#)