

SSC REST API

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How to create a project version

- Creating a project is not one REST API endpoint call but uses two separate calls using the following endpoints

/projectVersions
/bulk

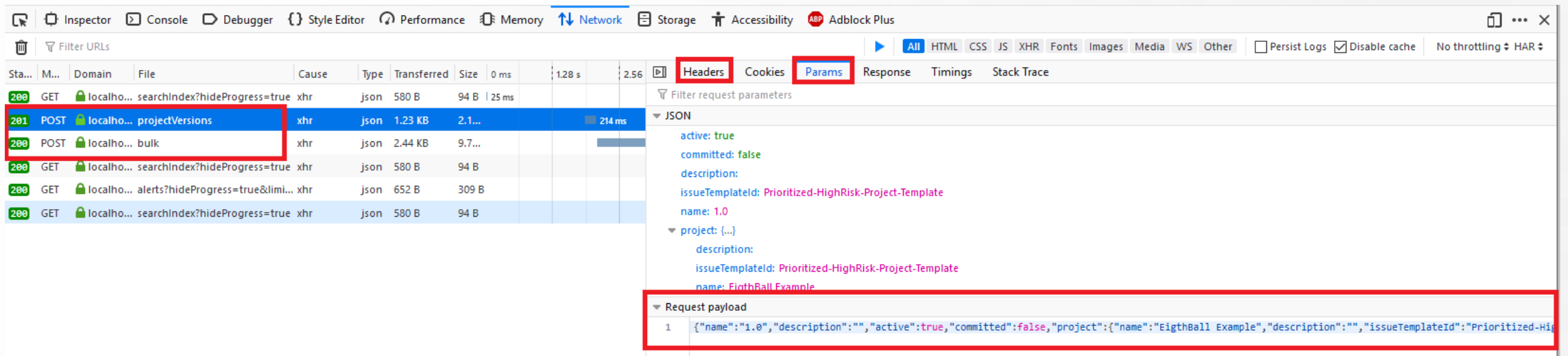
- To see how the two endpoints work together under the SSC covers, a trick used by Fortify technical support is using the browser's network web developer tools. In IE that is accessible by clicking F12 and FireFox that is pressing CTRL+SHIFT+E.

We would create a new application version using the “NEW APPLICATION VERSION” wizard under the Dashboard or Application view and go through the process creating a new application version and monitor the network traffic to see the SSC calls.

+ NEW APPLICATION VERSION

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- After clicking “Finish” for the new application version, in the Network web developer tool console, under the Network section, the 2 POST requests made by /projectVersions and /bulk endpoint can be seen. Switching between “Header” and “Params” where the header contains the url used and params contains the json payload. This will come handy when using the REST API swagger page later in the presentation.



SSC REST API Swagger page

This can access by logging into SSC and clicking on Help icon -> API Documentation -> API Reference

The screenshot shows the Fortify Software Security Center interface. At the top, there is a blue navigation bar with links for DASHBOARD, APPLICATIONS, REPORTS, and ADMINISTRATION. To the right of these links is a search bar and a help icon (a question mark inside a circle). Below the navigation bar, there is a blue banner with the text "About Fortify Software Security Center 18.20.1072". The main content area is white and contains sections for SUPPORT and DOCUMENTATION. The DOCUMENTATION section includes a link for "API Documentation" which is highlighted with a red box. At the bottom of the page, there is a blue footer bar with the Fortify logo and the text "FORTIFY SOFTWARE SECURITY CENTER API DOCUMENTATION VERSION 1.0". To the right of this footer bar is a red box containing the text "API Reference".

or access it via

http://ssc_context_path/ssc/html/docs/api-reference/index.jsp

Using the SSC Rest API Swagger page

- Locate “project-version-controller”
- Click the /projectVersions create endpoint

project-version-controller Manage application versions. A variety of associated resources are accessible via links.

GET	/projectVersions	list
POST	/projectVersions	create

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- Here you can enter the json input to create a project

The screenshot shows a REST client interface for a POST request to the endpoint `/projectVersions create`. The request body is a large JSON object. The interface includes a 'Parameters' section, a 'resource' section with 'Example Value' and 'Model' tabs, and a 'Responses' section at the bottom. The 'Parameter content type' is set to `application/json`.

```
{
  "active": false,
  "assignedIssuesCount": 0,
  "attachementOutOfDate": true,
  "autoPredict": false,
  "bugTrackerEnabled": false,
  "bugTrackerPluginId": "string",
  "committed": false,
  "createdBy": "string",
  "creationDate": "2019-08-27T21:51:56.003Z",
  "currentState": {
    "analysisResultsExist": false,
    "analysisUploadEnabled": false,
    "attentionRequired": false,
    "auditEnabled": false,
    "batchBugSubmissionExists": false,
    "committed": false,
    "criticalPriorityIssueCountDelta": 0,
    "deltaPeriod": 0,
    "extraMessage": "string",
    "hasCustomIssues": false,
    "id": 0,
    "issueCountDelta": 0,
    "lastPpUploadDate": "2019-08-27T21:51:56.004Z",
    "metricValueDate": "2019-08-27T21:51:56.004Z",
    "percentAuditDelta": 0,
    "percentCriticalPriorityIssuesAuditedDelta": 0
  },
  "customTagValueAutoApply": false,
  "description": "string",
  "issueTemplateId": "string",
  "issueTemplateModifiedTime": 0,
  "issueTemplateOwner": "string",
  "issueTemplateId": 0,
  "loadProperties": "string",
  "masterAttrOid": "string",
  "migrationVersion": 0,
  "mode": "none",
  "name": "string",
  "obfuscatedId": "string",
  "owner": "string",
  "predictionPolicy": "string",
  "project": {
    "createdBy": "string",
    "description": "string",
    "issueTemplateId": "string",
    "name": "string"
  },
  "refreshRequired": true,
  "securityGroup": "string",
  "serverVersion": 0,
  "siteId": "string",
  "snapshotOutOfDate": false,
  "sourceBasePath": "string",
  "stateIssueTemplate": false,
  "status": "ACTIVE",
  "tracesOutOfDate": true
}
```

Using the info from the browser's web developer tool, the params section contains the json payload that would be entered here with slight modifications.

The screenshot shows a browser's web developer tool with the 'Params' tab selected. The 'JSON' section is expanded, showing a request payload. A red box highlights the 'Request payload' section, which contains the following JSON:

```
1 [{"name": "1.0", "description": "", "active": true, "committed": false, "project": {"name": "Eighthall Example", "description": "", "issueTemplateId": "Prioritized-Hi..."}}
```

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- /projectVersions endpoint payload example (important parts in blue). This will generate an ID for the new application version. This can be found in the URL bar when open the application version or when viewing the network developer tool

```
{  
  "name":"1.0", ← Application Version  
  "description": "",  
  "active":true,  
  "project":{  
    "name":"Test4", ← Application Name  
    "description": "",  
    "issueTemplateId":"Prioritized-HighRisk-Project-Template"  
  },  
  "issueTemplateId":"Prioritized-HighRisk-Project-Template",  
  "committed":true  
}
```

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POST /projectVersions create

Parameters Cancel

Name	Description
resource * required <i>(body)</i>	resource Example Value Model <pre>{ "name": "1.0", "description": "", "active": true, "project": { "name": "Test4", "description": "", "issueTemplateId": "Prioritized-HighRisk-Project-Template" }, "issueTemplateId": "Prioritized-HighRisk-Project-Template", "committed": true }</pre> Cancel Parameter content type application/json

Execute

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- Click the "Execute" button and it should return a response code 201. Keep track of the new project version ID, in this example it is "id": 10043. This information will be needed to enable the project version using the /bulk endpoint step.

Server response

Code	Details
201	<p>Response body</p> <p>Download</p> <pre>{ "data": { "latestScanId": null, "serverVersion": 18.2, "tracesOutOfDate": false, "attachmentsOutOfDate": false, "description": "", "project": { "id": 32, "name": "Test4", "description": "", "creationDate": "2019-04-12T16:30:40.018+0000", "createdBy": "admin", "issueTemplateId": null }, "sourceBasePath": null, "mode": "BASIC", "masterAttrGuid": null, "obfuscation": null, "id": 10043, "enableProjectVersion": null, "issueTemplateId": "Prioritized-HighRisk-Project-Template", "loadProperties": null } }</pre>

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- Verify that the new project version was created by going to the Application page. Here you can see that the project version has been created but it is not accessible because it is not enabled.



- To enable the new project version, use `/bulk` endpoint under bulk-controller section



How to create a project version

- /bulk endpoint payload example (important parts in blue). The <PROJ_ID> comes from the /projectVersions

```
{
  "requests": [
    {
      "uri": "http://localhost:8080/ssc/api/v1/projectVersions/<PROJ_ID>/attributes",
      "httpVerb": "PUT",
      "postData": [
        {
          "attributeDefinitionId": 5, "values": [{"guid": "Active"}], "value": null,
          "attributeDefinitionId": 1, "values": [{"guid": "High"}], "value": null,
          "attributeDefinitionId": 6, "values": [{"guid": "Partial"}], "value": null,
          "attributeDefinitionId": 7, "values": [{"guid": "externalpublicnetwork"}], "value": null
        }
      ],
      "uri": "http://localhost:8080/ssc/api/v1/projectVersions/<PROJ_ID>?hideProgress=true",
      "httpVerb": "PUT",
      "postData": {"committed": true}
    }
  ]
}
```

< These attributeDefinitionId can be found in the metaoptionview table

How to create a project version

Parameters Cancel

Name	Description
apiBulkRequestData * required <i>(body)</i>	apiBulkRequestData

Example Value | Model

```
{
  "requests": [
    {
      "uri": "http://localhost:8080/asc/api/v1/projectVersions/10043/attributes",
      "httpVerb": "PUT",
      "postData": [
        {
          "attributeDefinitionId": 5, "values": [{"guid": "Active"}], "value": null,
          "attributeDefinitionId": 1, "values": [{"guid": "High"}], "value": null,
          "attributeDefinitionId": 6, "values": [{"guid": "Partial"}], "value": null,
          "attributeDefinitionId": 7, "values": [{"guid": "externalpublicnetwork"}], "value": null
        }
      ]
    },
    {
      "uri": "http://localhost:8080/asc/api/v1/projectVersions/10043?hideProgress=true",
      "httpVerb": "PUT",
      "postData": {"committed": true}
    }
  ]
}
```

Cancel

Parameter content type
application/json

Execute Clear

How to create a project version

- Verify that new project version is enabled by going to the Application page in SSC

FROM		
Test4	1.0	No analysis results exist
TO		
Test4	1.0	No analysis results exist

How to upload FPR to a project version

- Use the /projectVersions/{parentId}/artifact endpoint

artifact-of-project-version-controller Retrieve and upload FPR artifacts associated with this application version

GET /projectVersions/{parentId}/artifacts list

POST /projectVersions/{parentId}/artifacts upload

Parameters Cancel

Name	Description
parentId * required integer(\$int64) (path)	parentId <input type="text" value="10043"/>
file * required file (FormData)	file <input type="button" value="Browse..."/> WebGoat5.0.fpr
engineType string (query)	engineType <input type="text" value="engineType - engineType"/>

Responses Response content type application/json

Troubleshooting SSC REST API

- Depending on the endpoint, perform the action in SSC and use the browser's web developer tool to see what payload and calls it is doing.
- Check the ssc.log for any errors
- Using Postman better than using curl from command line

Questions

Thank you.

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