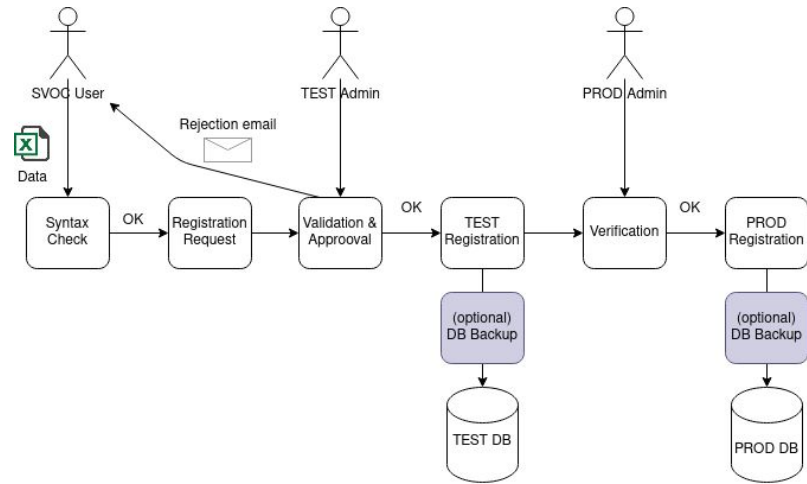


• Use case scenarios



• Registration statuses updates

Spring 8 Signal Registration v1.1.0beta

Search options

All Accelerators xmon-b3-dump xfel\_lrf All Request Users All Types

2021/10/04 Last Update To

Search

Show: 50 entries

ID	Requested	Accelerator	User	Type	Groups	CPUs	Files	New/ Update/ Delete	WRW/ CHK/ ADM	STATUS	TEST Registration	PROD Registration	ACTIONS
9	2021-10-04 18:43:39	sr	test	svoc	xfel_mon	xmon-476	svoc.bl	0/5/0	0/0/0	REQUESTED (Test Regist.)			show
8	2021-10-04 16:43:13	sr	test	svoc	xfel_mon	xmon-476	svoc.bl	0/5/0	0/0/0	OK (Test Regist.)	2021-10-04 16:43:21		show
7	2021-10-04 16:42:40	sr	test	svoc	xfel_mon	xmon-476	svoc.bl	0/5/0	0/0/0	OK (Test Regist.)	2021-10-04 16:42:57		show
6	2021-10-04 16:25:17	sr	test	svoc	xfel_mon	xmon-xcr-03	svoc.bl	15/2/0	8/153/0	ERR (Test Regist.)			show
5	2021-10-04 16:24:24	xfel	test	svoc	xfel_mon	xmon-xcr-03	svoc.bl	15/2/0	8/153/0	ERR (Test Regist.)			show
4	2021-10-04 16:14:10	sr	dbadmin	svoc	xfel_mon	xmon-xcr-03	svoc.bl	15/2/0	8/153/0	REJECTED (Test Regist.)			show
3	2021-10-04 16:13:57	sr	dbadmin	svoc	xfel_mon	xmon-xcr-03	svoc.bl	15/2/0	8/153/0	ERR (Test Regist.)			show
2	2021-10-04 16:12:15	xfel	dbadmin	svoc	xfel_lrf	xmon-b3-dump	svoc.bl	0/0/0	0/29/0	OK (Test Regist.)	2021-10-04 16:24:01		show
1	2021-10-04 15:42:29	sr	svoc	svoc	xfel_lrf	xmon-b3-dump	svoc.bl	0/0/0	0/29/0	OK (Test Regist.)	2021-10-04 16:24:34		show

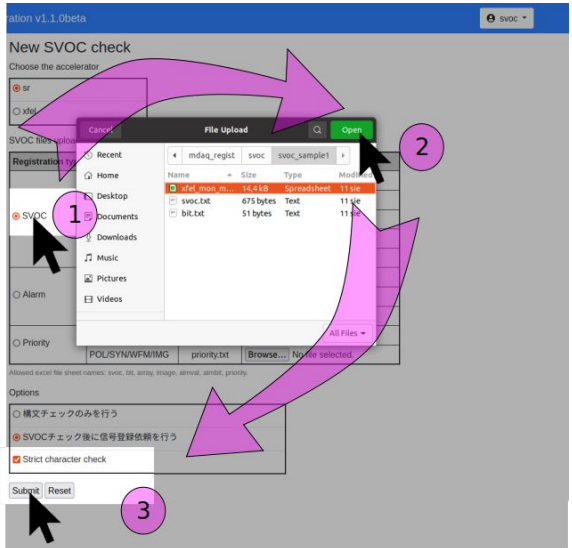
Showing 1 to 9 of 9 entries

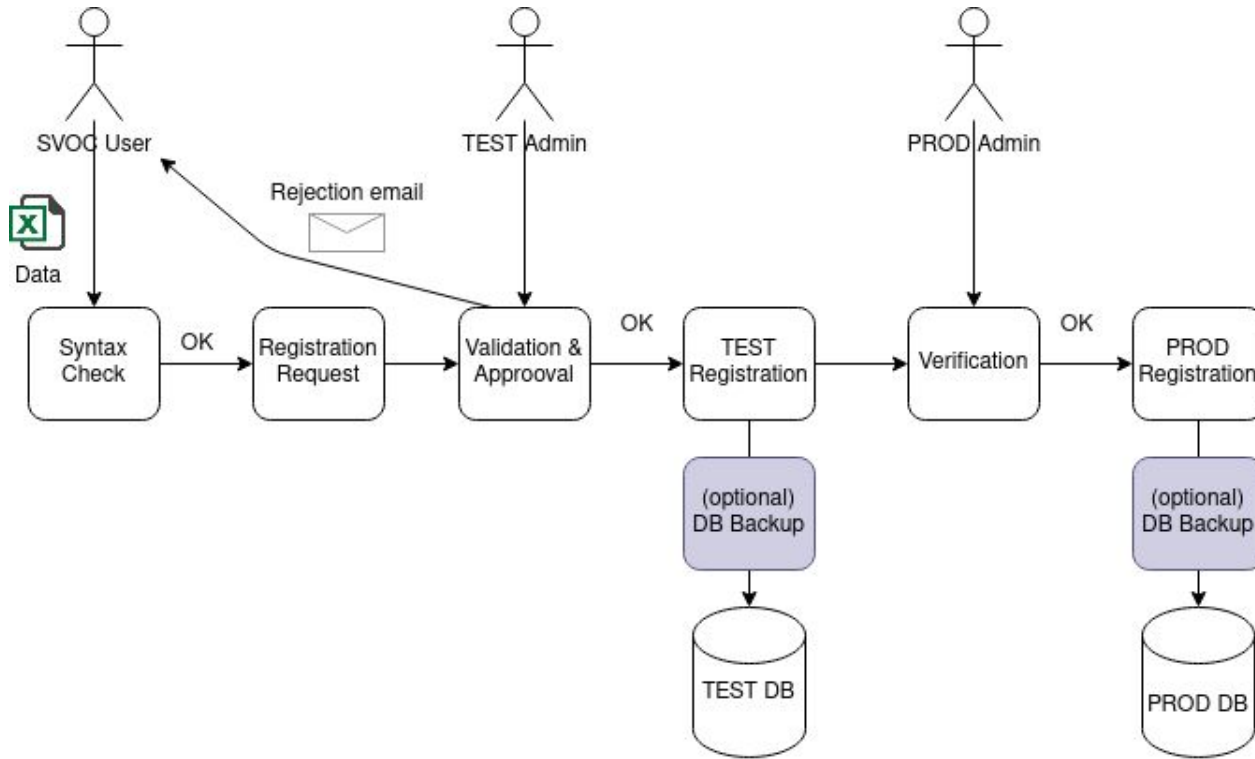
• User management

ID	Username	Email	Role	Session	Delete	Suspend
1	guest	test0@example.com	guest	None	✗	
2	svoc	test1@example.com	svoc	None	✗	
3	test	test2@example.com	test	None	✗	
4	prod	test3@example.com	prod	None	✗	
5	dbadmin	test4@example.com	dbadmin	2021-10-04 20:00:21	✗	

After you change roles, reset your server to expire all active sessions.

• Selenium test scenarios





**Figure 1.** Application scenarios involves multiple users and roles.

- Accelerator metadata registration
- Multiple roles scenarios
- Two databases
- Simultaneous login restrictions
- Email notifications



**Table 1.** Simplified roles table.

Action	SVOC User	TEST User	PROD User	DB admin
Max logged in accounts	-	1	1	1
SVOC check	✓	✓	✓	✓
TEST registration		✓		
TEST DB backup		✓		✓
TEST DB restore				✓
PROD registration			✓	
PROD DB backup			✓	✓
PROD DB restore				✓

Spring 8 Signal Registration v1.1.0beta

test

Syntax check

New SVOC check

Check History

Backup & Restore

MDAQ WEB Links

Search options

All Accelerators

xfmon-bl3-dump

xfel\_llrf

All Request Users

All Types

2021/10/04

Last Update To

Search

Show 50 entries


ID	Requested	Accelerator	User	Type	Groups	CPUs	Files	New/Update/Delete	WRN/CHK/ADM	STATUS	TEST Registration	PROD Registration	ACTIONS
9	2021-10-04 16:43:39	sr	test	svoc	xfel_mon	xfmon-476	svoc.txt bit.txt	0/5/0	0/0/0	REQUESTED (Test Regist.)			show
8	2021-10-04 16:43:13	sr	test	svoc	xfel_mon	xfmon-476	svoc.txt bit.txt	0/5/0	0/0/0	OK (Test Regist.)	2021-10-04 16:43:21		show
7	2021-10-04 16:42:40	sr	test	svoc	xfel_mon	xfmon-476	svoc.txt bit.txt	0/5/0	0/0/0	OK (Test Regist.)	2021-10-04 16:42:57		show
6	2021-10-04 16:25:17	sr	test	svoc	xfel_mon	xfmon-xcr-03	svoc.txt bit.txt	15/2/0	8/153/0	ERR (Test Regist.)			show
5	2021-10-04 16:24:24	xfel	test	svoc	xfel_mon	xfmon-xcr-03	svoc.txt bit.txt	15/2/0	8/153/0	ERR (Test Regist.)			show
4	2021-10-04 16:14:10	sr	dbadmin	svoc	xfel_mon	xfmon-xcr-03	svoc.txt bit.txt	15/2/0	8/153/0	REJECTED (Test Regist.)			show
3	2021-10-04 16:13:57	sr	dbadmin	svoc	xfel_mon	xfmon-xcr-03	svoc.txt bit.txt	15/2/0	8/153/0	ERR (Test Regist.)			show
2	2021-10-04 16:12:15	xfel	dbadmin	svoc	xfel_llrf	xfmon-bl3-dump	svoc.txt bit.txt	0/0/0	0/29/0	OK (Test Regist.)	2021-10-04 16:24:01		show
1	2021-10-04 15:42:29	sr	svoc	svoc	xfel_llrf	xfmon-bl3-dump	svoc.txt bit.txt	0/0/0	0/29/0	OK (Test Regist.)	2021-10-04 16:24:34		show

Showing 1 to 9 of 9 entries

Previous

1

Next



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**Figure 2.** Fully responsive web interface. Registration statuses updates in real time. Menus and actions are role-dependant.

Spring 8 Signal Registration v1.1.0beta

dbadmin

Syntax check

New SVOC check

Parameters (Test)

Parameters (Prod)

Backup & Restore

Users

MDAQ WEB Links

System

Choose the accelerator

sr

xfel

SVOC files upload

Registration type	DAQ type	File	Upload
SVOC	POL/SYNC/WFM/IMG	excel/ods book	<div>Browse...</div> No file selected.
	POL/SYNC/WFM/IMG	svoc.txt	<div>Browse...</div> No file selected.
	POL/SYNC	bit.txt	<div>Browse...</div> No file selected.
	WFM	array.txt	<div>Browse...</div> No file selected.
	WFM	image.txt	<div>Browse...</div> No file selected.
Alarm	AI/DI	excel/ods book	<div>Browse...</div> No file selected.
	AI	almval.txt	<div>Browse...</div> No file selected.
	DI	almbit.txt	<div>Browse...</div> No file selected.
Priority	POL/SYNWFM/IMG	excel/ods book	<div>Browse...</div> No file selected.
	POL/SYNWFM/IMG	priority.txt	<div>Browse...</div> No file selected.

Allowed excel file sheet names: svoc, bit, array, image, almval, almbit, priority.

Options

横文チェックのみを行う

SVOCチェック後に信号登録依頼を行う

Strict character check

Submit

Reset

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(a)

Spring 8 Signal Registration v1.1.0beta

dbadmin

Syntax check

Parameters (Test)

Parameters (Prod)

Backup & Restore

Users

MDAQ WEB Links

System

Reset passwords

Users List

Create User

Users List

ID	Username	Email	Role	Session	Delete	Suspend
1	guest	test0@example.com	guest	None	✖	
2	svoc	test1@example.com	svoc	None	✖	
3	test	test2@example.com	test	None	✖	
4	prod	test3@example.com	prod	None	✖	
5	dbadmin	test4@example.com	dbadmin	2021-10-04 20:00:21	✖	

After you change roles, reset your server to expire all active sessions.

(c)

**Figure 3.** User UI. (a) Data upload panel. (b) Database configuration panel. (c) User management panel

## Complete system

- Data upload support for excel files
- Database configuration
- User management
- Dynamic AJAX interface



Spring 8 Signal Registration v1.1.0beta

dbadmin

Syntax check

Parameters (Test)

Parameters (Prod)

Backup & Restore

Users

MDAQ WEB Links

System

System setup

System setup

Database Info

Last TEST registration: 2021-10-04 16:43:21

Last PROD registration: None

/mdaq\_tools/conf/paramdb.json

```
{
  "sr": {
    "equip_grp": {
      "id_from": 1,
      "id_to": 1999
    },
    "sub_grp": {
      "id_from": 1,
      "id_to": 1999
    },
    "host": {
      "id_from": 1001,
      "id_to": 9999
    },
    "equip_inf": {
      "id_from": 10001,
      "id_to": 199999
    },
    "sig_inf": {
      "id_from": 10001,
      "id_to": 199999
    },
    "sig_type": {
      "id_from": 10001,
      "id_to": 199999
    },
    "wfm_type": {
      "id_from": 10001,
      "id_to": 199999
    }
  }
}
```

(b)



```

mateusz@mateusz-ThinkPad-E480: ~/Documents/Project1 - Spring8/tornado_w...
mateusz@mateusz-ThinkPad-E480:~/Documents/Project1 - Spring8/tornado_website/spring8_signals$
pytest test/unit/test_accounts.py test/functional/test_login.py -v=====
= test session starts =====
platform linux -- Python 3.8.10, pytest-6.1.2, py-1.9.0, pluggy-0.13.1 -- /usr/bin/python3
cachedir: .pytest_cache
rootdir: /home/mateusz/Documents/Project1 - Spring8/tornado_website/spring8_signals
collected 6 items

test/unit/test_accounts.py::LoginTest::test_contains_form PASSED [ 16%]
test/unit/test_accounts.py::LoginTest::test_contains_inputs PASSED [ 33%]
test/functional/test_login.py::test_svoc PASSED [ 50%]
test/functional/test_login.py::test_signal_registration PASSED [ 66%]
test/functional/test_login.py::test_signal_registration_fail XPASS [ 83%]
test/functional/test_login.py::test_database_backup_fail PASSED [100%]

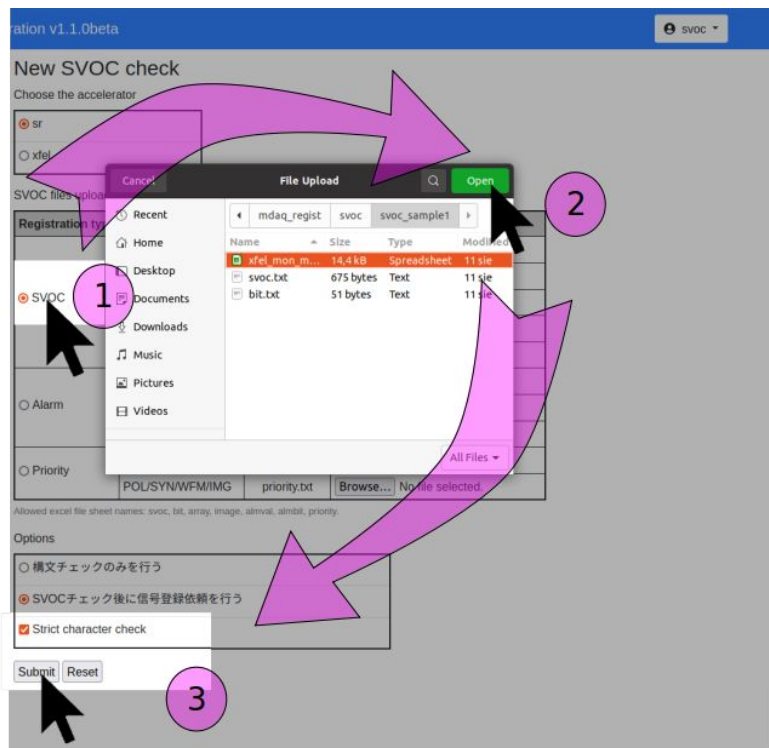
===== 5 passed, 1 xpassed in 6.41s =====
mateusz@mateusz-ThinkPad-E480:~/Documents/Project1 - Spring8/tornado_website/spr
ing8_signals$

```

```

mateusz@mateusz-ThinkPad-E480:~/Documents/Project1 - Spring8/tornado_website/spring8_signals$ python3 app.py
2021/10/04 20:12:57.728 [INFO] Clearing UserSession's...
2021/10/04 20:12:57.759 [INFO] Sessions cleared.
2021/10/04 20:12:57.772 [INFO] listening on localhost: 8887
2021/10/04 20:13:11.522 [INFO] 302 [127.0.0.1] GET / 15.11ms
2021/10/04 20:13:11.530 [INFO] 200 [127.0.0.1] GET /login?next=%2F 5.39ms
2021/10/04 20:13:11.626 [INFO] 200 GET /static/libs/css/tabulator.min.css (127.0.0.1) 2.68ms
2021/10/04 20:13:16.197 [INFO] 302 [127.0.0.1] POST /login 72.26ms
2021/10/04 20:13:16.222 [INFO] 200 [127.0.0.1: svoc] GET /svoc_check 20.06ms
2021/10/04 20:13:16.358 [INFO] 200 GET /static/img/SPring-8.ico (127.0.0.1) 0.49ms
2021/10/04 20:13:21.284 [INFO] 200 [127.0.0.1: svoc] GET /workflow_list 75.55ms
2021/10/04 20:13:21.405 [INFO] 200 GET /static/img/SPring-8.ico (127.0.0.1) 0.58ms
2021/10/04 20:13:23.443 [INFO] 200 [127.0.0.1: svoc] POST /check_workflow_status 28.72ms
2021/10/04 20:13:23.550 [INFO] 304 [127.0.0.1: svoc] GET /svoc_check 30.26ms
2021/10/04 20:13:23.674 [INFO] 200 GET /static/img/SPring-8.ico (127.0.0.1) 0.51ms
2021/10/04 20:13:24.775 [INFO] 302 [127.0.0.1] GET /logout 43.53ms
2021/10/04 20:13:24.844 [INFO] 200 [127.0.0.1] GET /login 11.94ms
2021/10/04 20:13:31.210 [INFO] 302 [127.0.0.1] POST /login 68.25ms
2021/10/04 20:13:31.238 [INFO] 200 [127.0.0.1: test] GET /svoc_check 19.91ms
2021/10/04 20:13:34.036 [INFO] 302 [127.0.0.1] GET /logout 19.98ms
2021/10/04 20:13:34.041 [INFO] 200 [127.0.0.1] GET /login 3.59ms
2021/10/04 20:13:34.181 [INFO] 200 GET /static/img/SPring-8.ico (127.0.0.1) 0.63ms

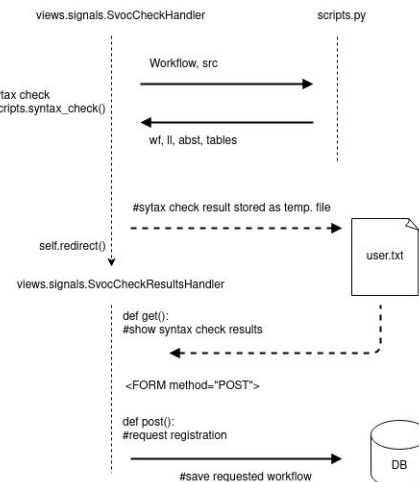
```



## Documentation

### Svoc Registration Logic

- SvocCheckHandler - is where the user uploads the files (svoc.txt, image.txt, etc.). POST method of this handler, performs a syntax check and saves its results to temporary file. Filename equals username -> one user = one tmp file.
- SvocCheckResultsHandler - is where the user can see the results of the syntax check, and request a signal registration (it also saves permanently a Workflow created in previous step)



## Quality Control

- Functional tests for user scenarios implemented in Selenium framework
- Unit tests for controller testing
- Concise documentation covering the most important maintenance guidelines
- Debug logs
- Work in progress...

**Figure 4.** Quality control. (upper left) PyTest suite (bottom left) Selenium functional tests (upper right) logger (bottom right) documentation