Toward a stand alone distributed management system

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Generalization of SuperB distributed production system as stand alone, general purpose infrastructure to accomplish small and medium VO requirements

let's talk about:

- WebUI development :
  - user ldap groups vs. webui permissions :
    how could ldap groups be changed to reach a better generalization
  - bug-fixing on several pages
  - Full Simulation :
    - *FullSim* "draft" version
    - how show a large number of job parameters
      - introducing sub-parameters
- TIMELINE

WebUI Development - LDAP groups and WebUI privileges

Now there are the following LDAP groups:

- **webui**
- **webuiFastProdMgr**
- **webuiFullProdMgr**
- **webuiShift**
- **WebUiDeveloper**

WebUI devel works with these

which assign different privileges on webui users, this privileges are:

- **init_full**
- **init_fast**
- **init_shift**
- **shift_monitor**
- **view_monitor**
- **create_production**
- **create_request**

In a generic <session oriented> project these groups and privileges are not enough the proposal is to introduce following LDAP groups and privileges:

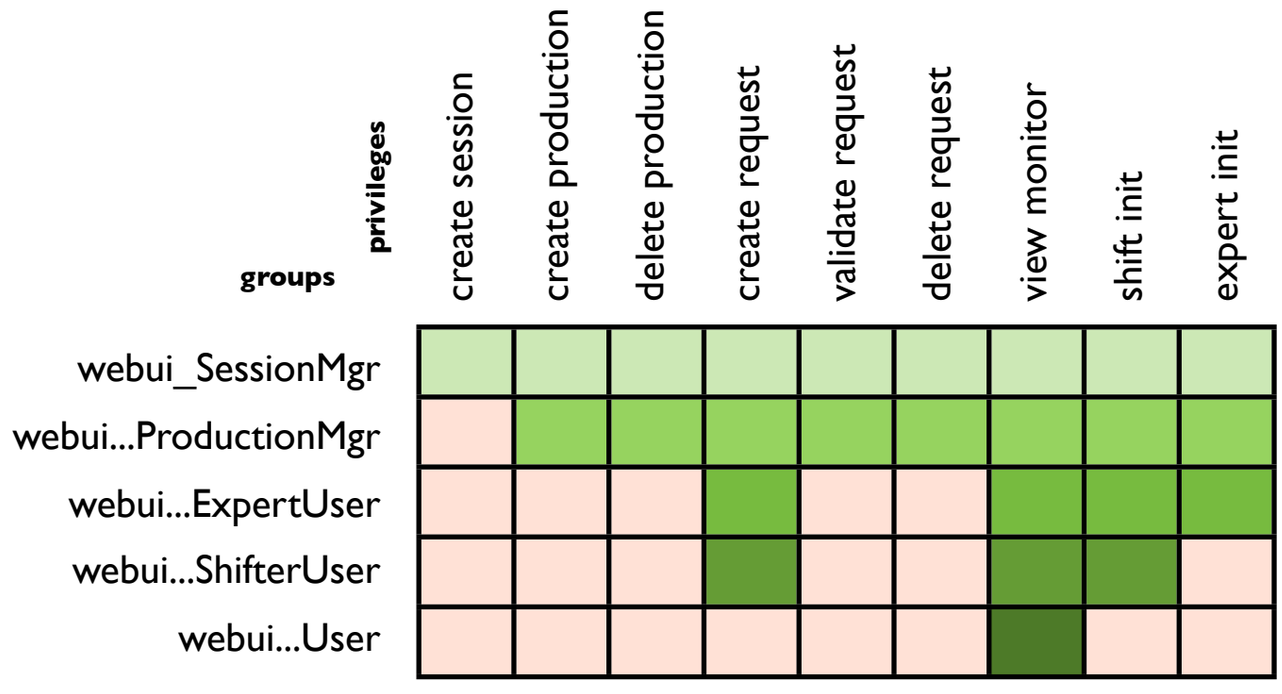
ldap groups:

webui_SessionMgr
webui_%SESSIONNAME%_ProductionMgr
webui_%SESSIONNAME%_ExpertUser
webui_%SESSIONNAME%_ShifterUser
webui_%SESSIONNAME%_User

privileges:

create session
create production
delete production
create request
validate request
delete request
view monitor
shift init
expert init

WebUI Smarty now works with these



...how about this solution?

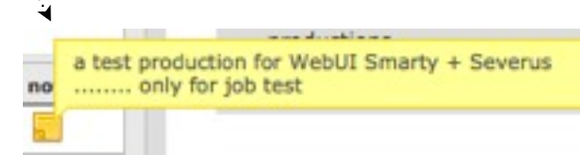
WebUI Development - bug-fixing and improvements

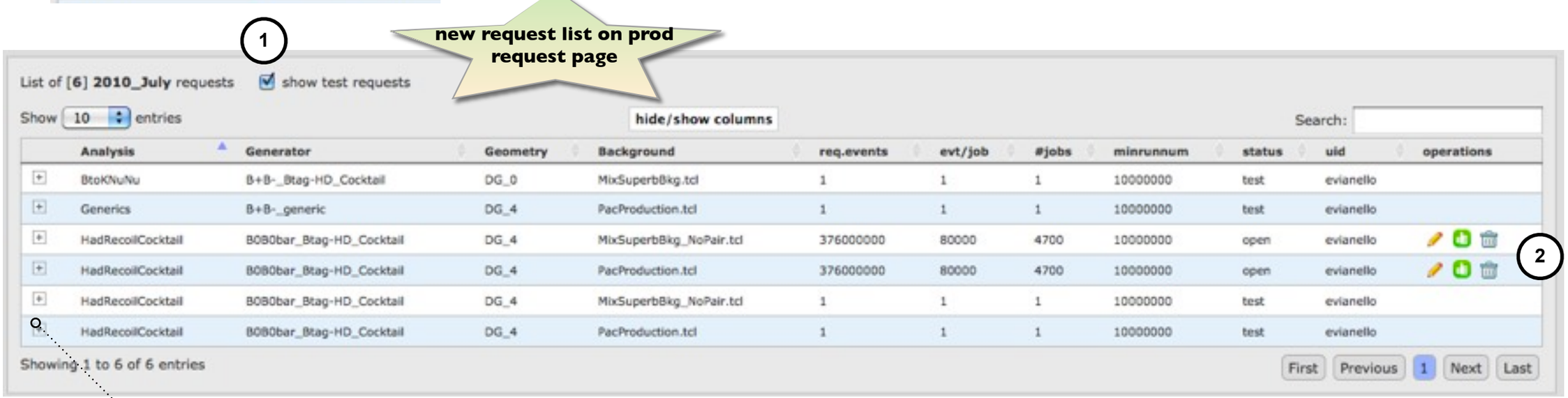
1 **show/hide test productions**

2 **table data received as JSON string + datatables performance**

3 **show production's requests summary**

4 **open/close actions associated to "create_production" privilege delete action associated to "delete_production" privilege**





1 **show/hide test productions**

2 **open requests:** modify action associated to "create_request" privilege, valid action associated to "validate_request" privilege, delete action associated to "delete_request" privilege
running requests:
close action associated to "validate_request" privilege

3 **link to submission on job monitor**

- **When a user creates a new production, an associated test production is created**
- **User can delete a production (main + test) when both main and test production has no jobs**
- **It's possible to re-open a close production**

- **When a user creates a new production request, an associated test request is created**
- **It's possible to delete only production requests that have no jobs**
- **If a user deletes a production request, the test request associated is cleared only if has no jobs, otherwise the test request "survives" while main request is cleared**
- **..so it's possible to have on db a test request and not the main request (in fact, by Expert-Init it's possible to create a new test request through a job submission)**
- **target-sites specified on creating a production requests are virtually "shared" with the associated test request: the changements on main target sites are copied to the test request**
  - **there is the possibility that test request has some jobs while main request is still open: it means that jobs already submitted had, as target site, the site specified in the main request; also, if there is a changement on target sites (because status is still open!), from that moment on all test jobs will be move output files to the new target sites**

TO DO

- **on expert init interface, if the user defines a new test request, not only minrunnum has to be asked but also one or more target-sites**

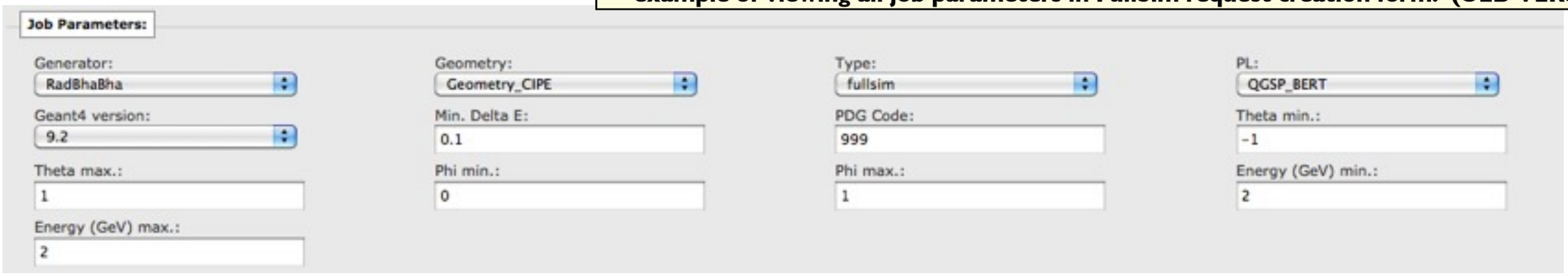
- **SBK4 FullSim tables created!**

- **FullSim Job Parameters:**

  Generator, Geometry, Symtype, PL, Geant4 Version, Min. Delta E, PDG Code, Theta min, Theta max, Phi min, Phi max,

  Energy min, Energy max. (**any other?**)

example of viewing all job parameters in FullSim request creation form: (OLD VERSION)

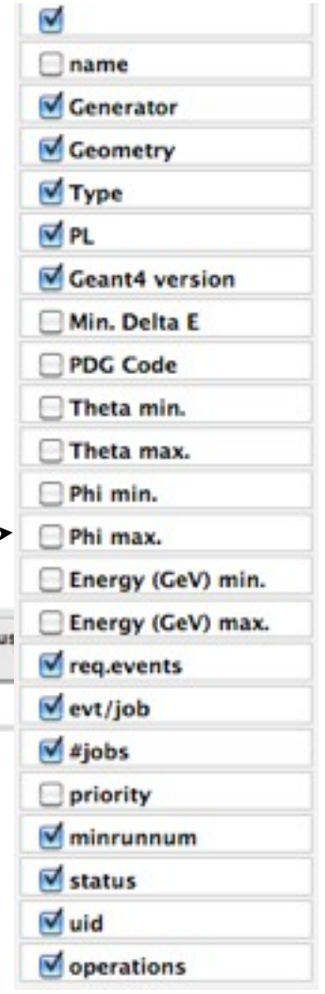


- **problems:**
  - **how to hide/show sub-parameters (like in webui devel) when selecting the generator and how to show in a better way some job parameters (ranges for example..)**

    ~~solution #1- SuperBVO members has a custom view of job parameters (simple but not generic)~~

    solution #2- Elaborate a valid and not too much complex way to implement subparameter or dependencies (complex but generic)

  - **large number of parameters = large number of columns on monitors**
    - solution: adding a new field on *_Parameter table: *hide_on_monitor* , so session manager can hide column/s by default on monitors and then, through the datatables col-vis plugin, show hidden columns if necessary



Parameters and Sub-Parameters

- there was a not used "[session_name]_Enable" on db, designed to obtain a "tree" of dependencies for Job Parameters = DELETED
- new "[session_name]_SubParameter" designed as follow: (case FullSim_SubParameter)

PK

0 : is not a subparam
1 : is a subparam and it is shown if the parameter in *fname* is *fvalue*

name	subparam	fname	fvalue
DG	0	DG	Geometry_CIPE
PL	0	PL	QGSP
G4EVER	0	G4EVER	9.2
SIMTYPE	0	SIMTYPE	bgframes
GENERATOR	0	GENERATOR	RadBhaBha
BRUNOPDG	1	GENERATOR	singleparticle
BRUNOEMAX	1	GENERATOR	singleparticle
BRUNOEMIN	1	GENERATOR	singleparticle
BRUNOPHIMAX	1	GENERATOR	singleparticle
BRUNOPHIMIN	1	GENERATOR	singleparticle
BRUNOBBBMINDE	1	GENERATOR	RadBhaBha
BRUNOTHETAMAX	1	GENERATOR	singleparticle
BRUNOTHETAMIN	1	GENERATOR	singleparticle

not relevant - initialized with default value for the parameter - used to maintain the referential integrity

it means that the parameter *name* has to be shown on the interface only if *fname* parameter has the value in *fvalue*

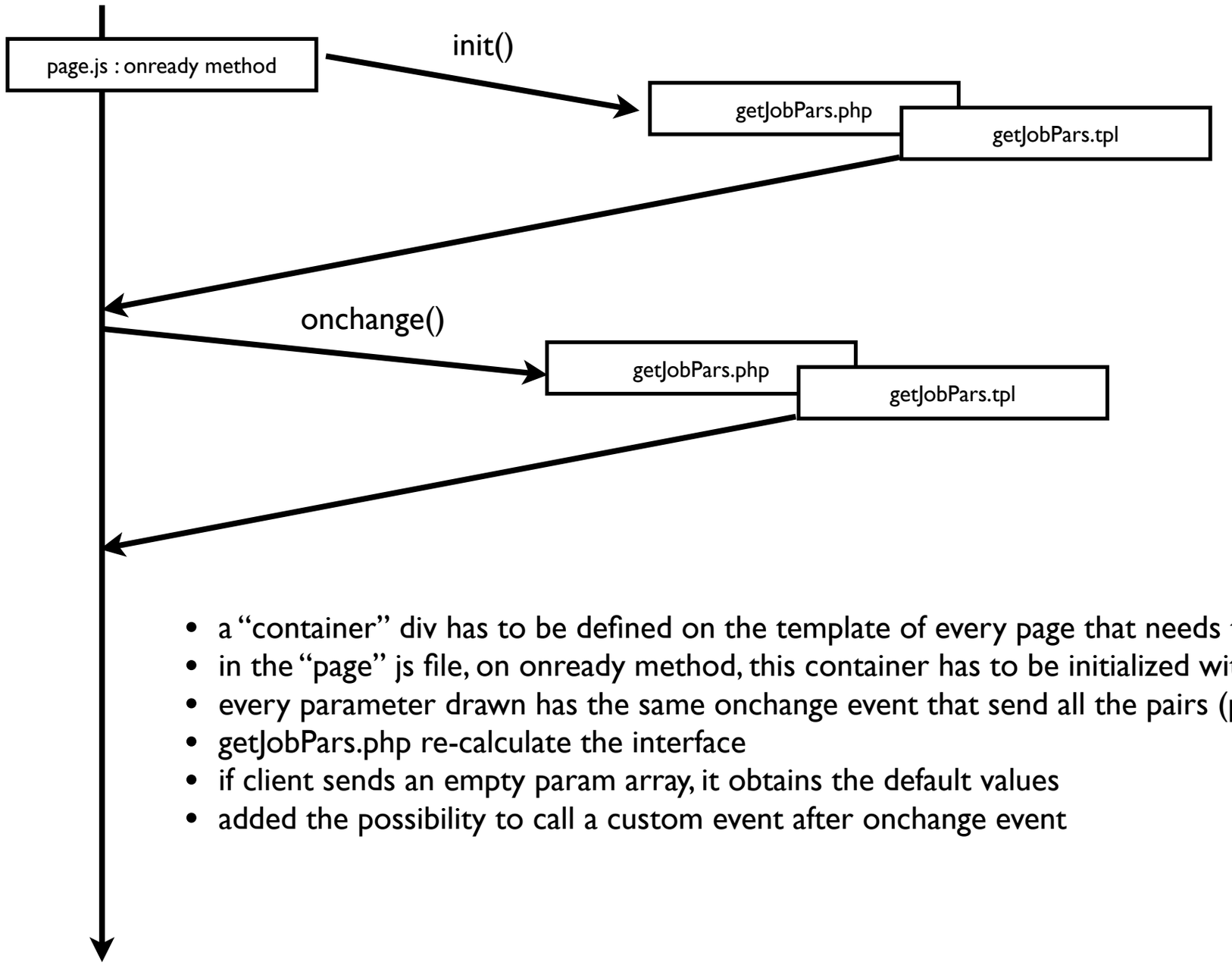
FK
..._Parameter(name)

FK
..._Parameter_Values
(name, value)

With a list of pairs like (parameter.name, parameter.value), we can obtain a list of the parameters that have to be shown with a query similar to:

```
SELECT DISTINCT(name)
FROM FullSim_SubParameter
WHERE (subparam = 0)
        OR ( (subparam = 1) AND (
                (fname = parameter[1].name AND fvalue = parameter[1].value)
                OR
                ...
                OR
                (fname = parameter[n].name AND fvalue = parameter[n].value) )
```

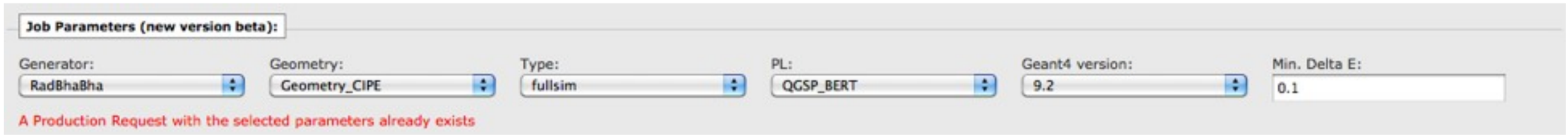
Parameters and Sub-Parameters



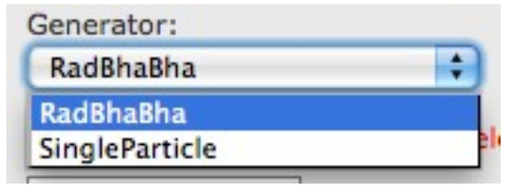
- a "container" div has to be defined on the template of every page that needs to show the session job parameters
- in the "page" js file, on onready method, this container has to be initialized with an ajax call to getJobPars.php
- every parameter drawn has the same onchange event that send all the pairs (parname - parvalue) to the getJobPars.php
- getJobPars.php re-calculate the interface
- if client sends an empty param array, it obtains the default values
- added the possibility to call a custom event after onchange event

Parameters and Sub-Parameters

after init :



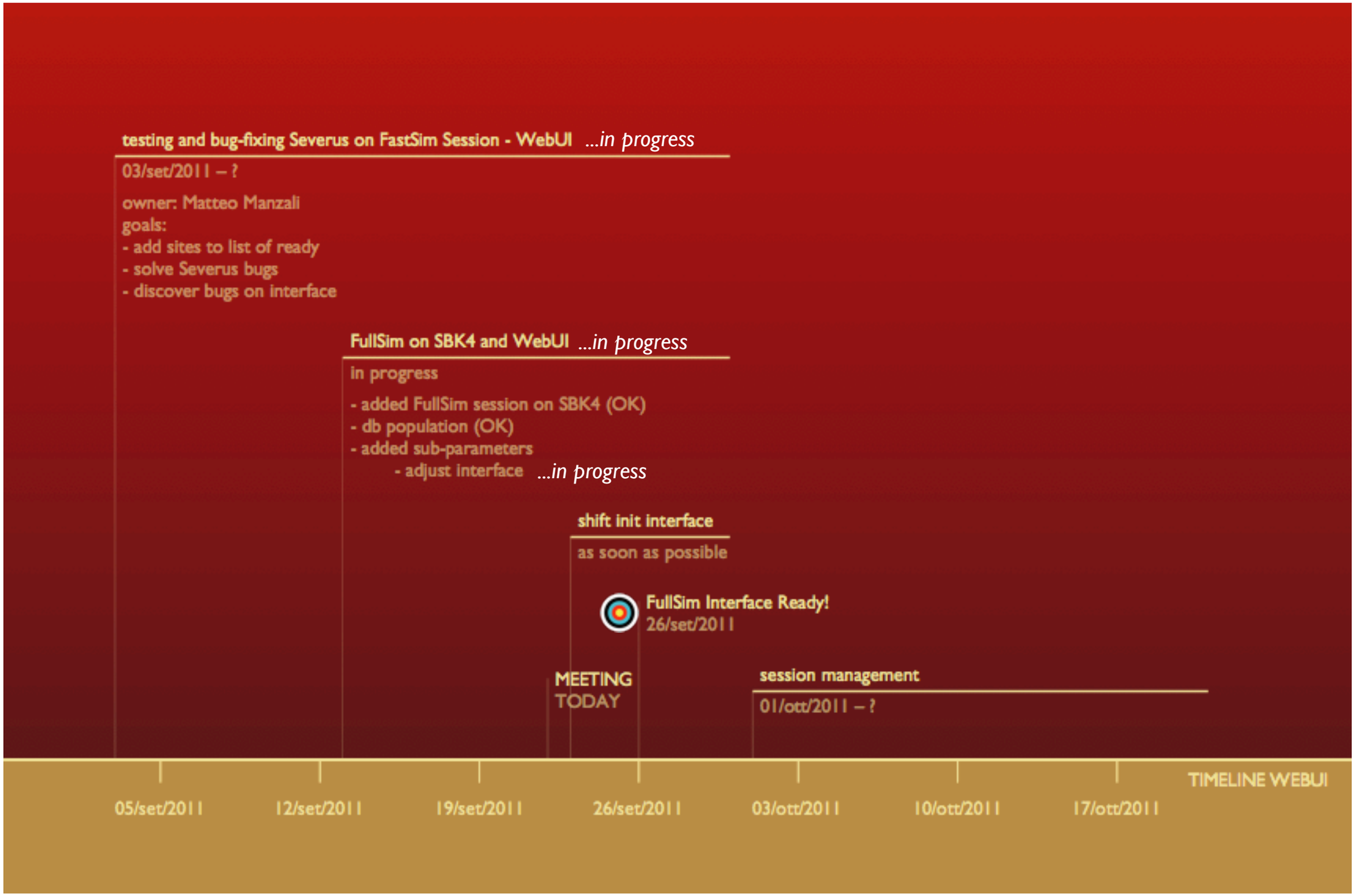
on change "Generator" :



check if that request exists - a method appended to the onchange event check this!

>> now REQUEST_NAME has to be created with the MD5 of the enabled job parameters!

TIMELINE


testing and bug-fixing Severus on FastSim Session - WebUI ...in progress
03/set/2011 – ?
owner: Matteo Manzali
goals:
- add sites to list of ready
- solve Severus bugs
- discover bugs on interface
FullSim on SBK4 and WebUI ...in progress
in progress
- added FullSim session on SBK4 (OK)
- db population (OK)
- added sub-parameters
- adjust interface ...in progress
shift init interface
as soon as possible
FullSim Interface Ready!
26/set/2011
MEETING
TODAY
session management
01/ott/2011 – ?
TIMELINE WEBUI
05/set/2011
12/set/2011
19/set/2011
26/set/2011
03/ott/2011
10/ott/2011
17/ott/2011