Cavity database and EDMS CEA status

E-XFEL Accelerator Consortium

17th April 2012

Data-transfer (1)

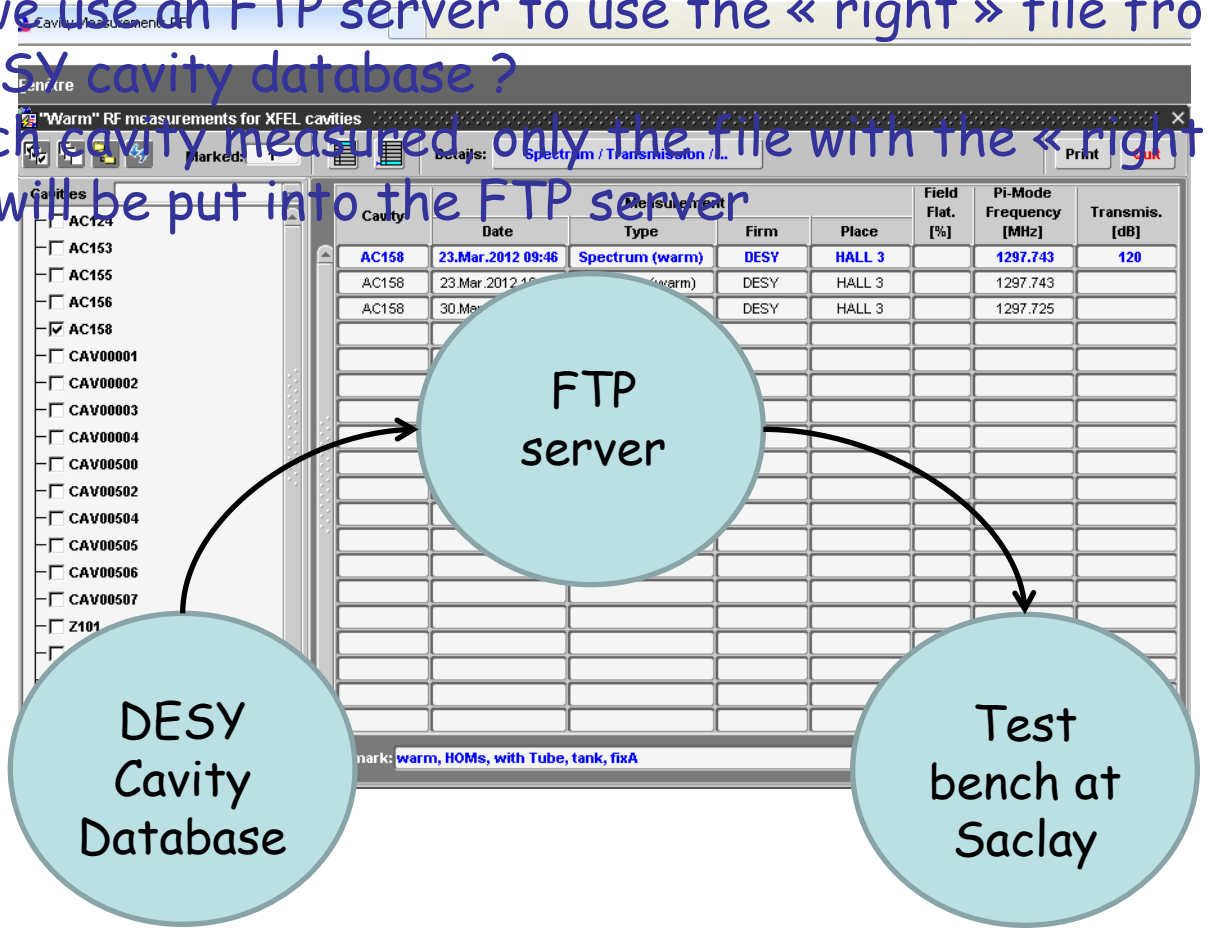
Several measurements for one cavity

- How could we identify the « right » measurement »?

  With no manual search

Could we use an FTP server to use the « right » file from the DESY cavity database ?

For each cavity measured, only the file with the « right » values will be put into the FTP server



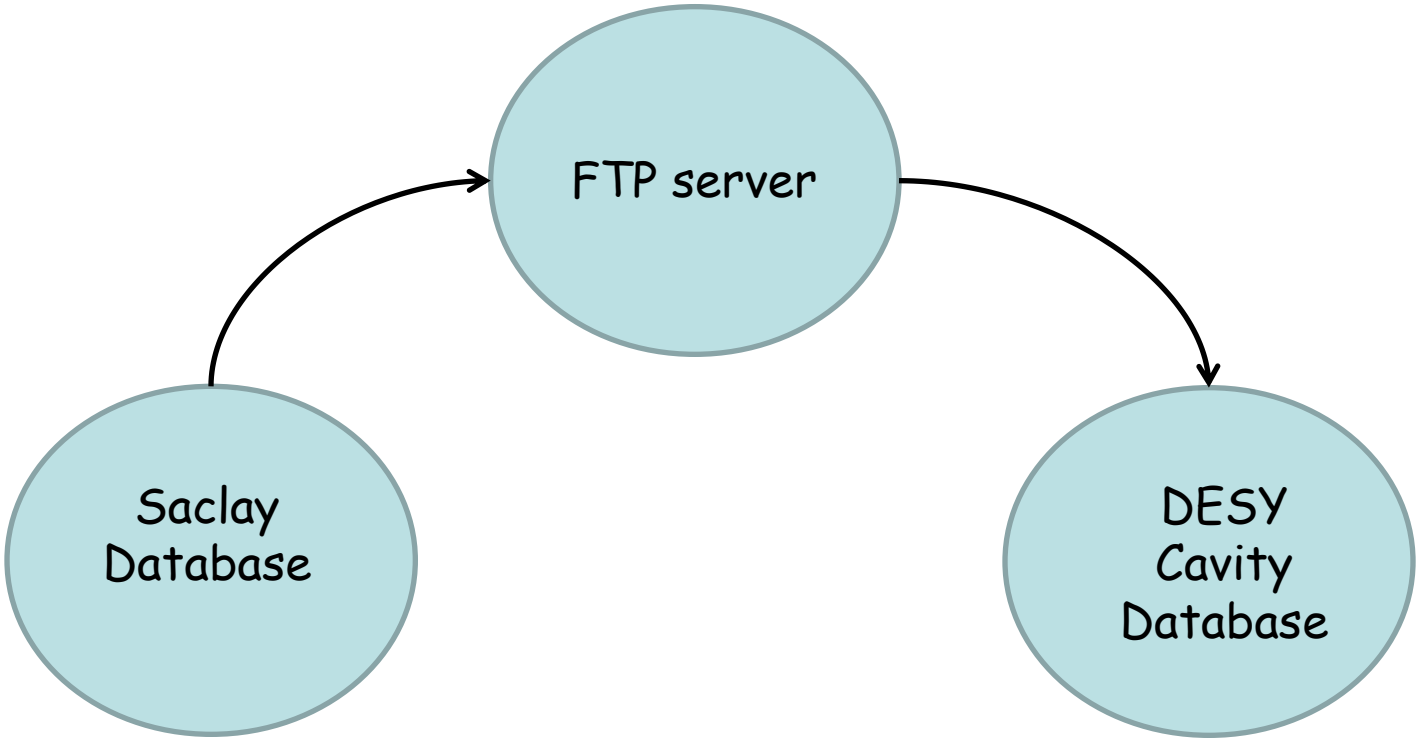
Saclay Database

A data-base at Saclay was created for the files (.CRF, .WFT and .XLS files) generated by each test-bench.

Data transfer (2)

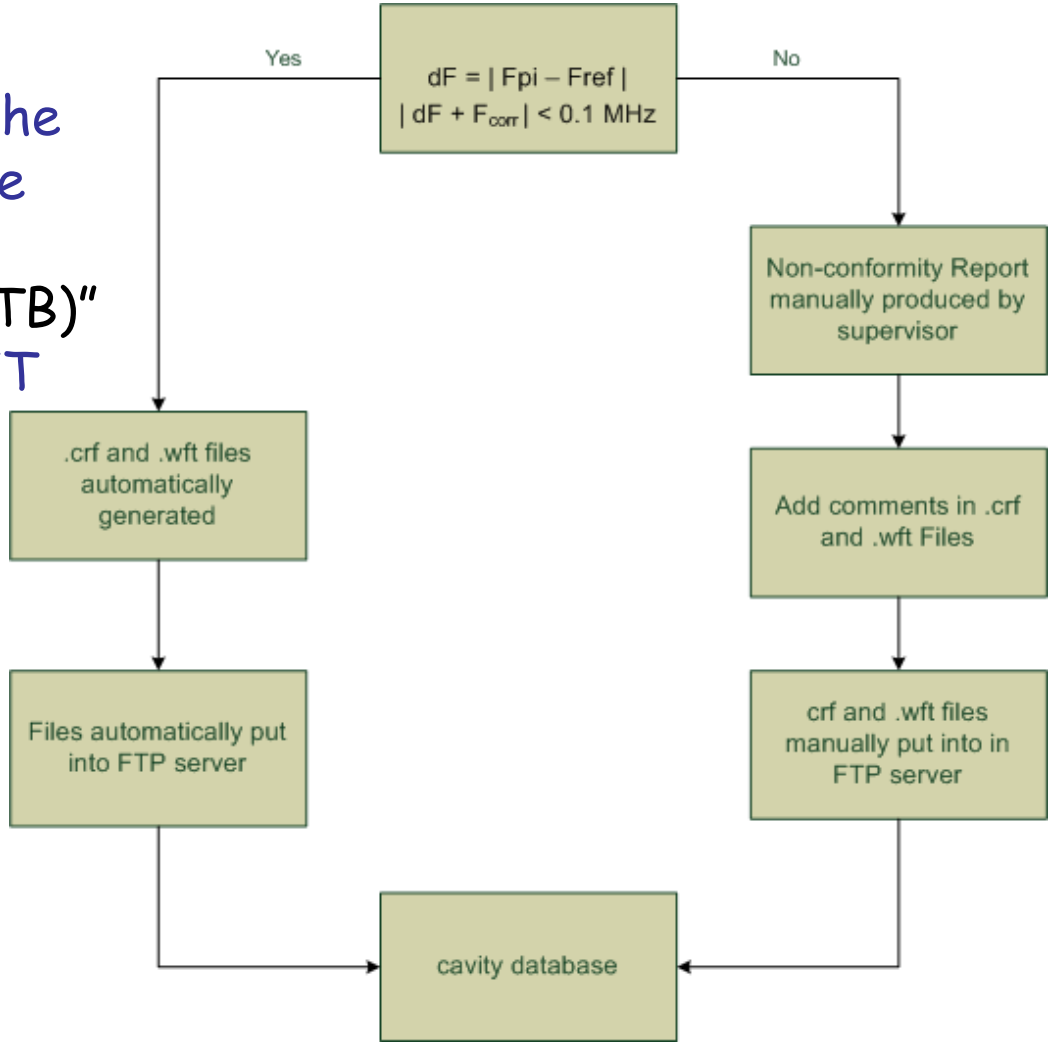
An FTP server could be also used to put files .CRF and .WFT created with the 3 test benches.

Files will be available to be downloaded to the DESY cavity database.



Test Bench for cavity reception (ISO5-REC-TB)

- How could we manage the non-conformities on the "Test Bench for cavity reception (ISO5-REC-TB)" with the .CRF and . WFT files ?



.CRF and .WFT Files (1)

Concerning the name of file, we thought used same file that files .xls generated for EDMS i.e:

TR_F1_CAVxxxx_hhmm_yymmdd.WFT & *TR_F1_CAVxxxx_hhmm_yymmdd.CRF*
F1 will be for the measurements done on the test bench for cavity reception

TR_F2_CAVxxxx_hhmm_yymmdd.WFT & *TR_F2_CAVxxxx_hhmm_yymmdd.CRF*
F2 will be for the measurements done on the test bench at string roll-out

TR_F3_CAVxxxx_hhmm_yymmdd.WFT & *TR_F3_CAVxxxx_hhmm_yymmdd.CRF*
F3 will be for the measurements done on the test bench at shipment area

.CRF and .WFT Files (2)

In the .CRF and .WFT files, there are comments:

- do we have to add some comments ?
- if yes, what kind of comments

```
# cavity
AC158
# date and time
23-03-2012 09:46
# firm name
DESY
# location
HALL 3
# operator
Szymon Myalski
# comments
warm, HOMs, with Tube, tank, fixA
# transmission (dB)
119.8
# spectrum F (Hz)
1272996000
1275186000
1278522000
1282677000
1287052000
1291241000
1294697000
1296972000
1297743000
```

EDMS

- All files will be in pdf (traveller) and .xlsx (controls) format
- Which « fields » are mandatory to fill ?
- name of files : automatically generated by EDMS (chosing pre-filled items in fields) : confirmation
- Validation between CEA and Industrial company and then put in EDMS

Irfu

cea

saclay

Test Bench for cavity reception (IS05-REC-TB)

Irfu | European XFEL | **AC147**

1 Information

Date:	VEN. 6 AVR. 2012	Test:	TEST RECEPTION
Heure début:	15:11:06		
Heure fin mesures:	15:22:57		

2 Configuration

Equipements:	Analyseur	Mini Amplificateur	Amplificateur de Puissance	Autre
	MY49202564	12345	56789	

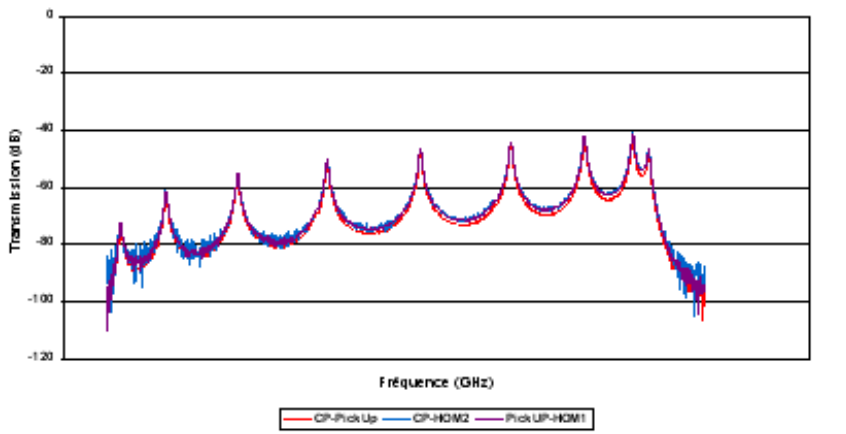
3 Mesures

Mode	Référence	Coupleur/Pickup		Test	Coupleur/HOM2		Pickup/HOM1	
	Fréquence (Hz)	Fréquence (Hz)	Amplitude (dB)	Fréquence (Hz)	Amplitude (dB)		Fréquence (Hz)	Amplitude (dB)
π/9	1273136000	1274765000	-62,92	✓	1272122500	-80,42	1272017500	-87,28
2π/9	1275258000	1278125000	-56,08	✓	1272192500	-81,09	1272087500	-87,58
3π/9	1278560000	1282290000	-51,55	✓	1273575000	-78,52	1272192500	-86,80
4π/9	1282665000	1286700000	-47,95	✓	1274747500	-60,68	1272245000	-85,03
5π/9	1287034000	1290900000	-45,48	✓	1278125000	-54,21	1272647500	-72,08
6π/9	1291179000	1294365000	-43,74	✓	1282290000	-49,70	1274765000	-61,22
7π/9	1294566000	1296622500	-42,83	✓	1286700000	-46,08	1278125000	-54,68
8π/9	1296818000	1297392500	-48,44	✓	1290900000	-43,57	1282290000	-49,95
π	1297576000	1299912500	-92,35	✓	1294365000	-41,67	1286700000	-46,32
Temps d'acquisition (h:mn):		00:01:43			00:01:48		00:01:48	

4 Conformité

S21 mode π (dB):	92,37	✗	Coupleur/HOM2:	WARNING !	Pickup/HOM1:	WARNING !

5 Graphe



5 Visa

	Opérateur	Contrôleur	Approbation
Nom:	Y.LE NOA		
Date:	VEN. 6 AVR. 2012		
Signature:			

Vacuum

- Where is the back-up of the data ? (local and at DESY ?)
- How to store data at CEA and insert them in EDMS report or other ?

TDR (1/2)

- 3 RF cables per cavity: Probe (3 m), HOM1 (2 m), HOM2 (3 m).
- 2 RF cables per coupler
- 4 cables per BPM
- Measurement device :
- Resolution asked (less than cm)
- Set up under development (E5061B-135 from Agilent) :
  - measure the length,
  - compare them with thresholds,
  - sends a list with all the cables and a "ok"/"not ok" info
- Up to now, no recording was asked :
  - Confirm
  - Or where and what ?

TDR (2/2)

- At which workstation :
  - after tuner assembly
  - after thermalisation on magnetic shield
  - after 4K welding,
  - after 70K welding
  - after thermalisation on 70K shield
  - after roll over,
  - after coupler warm part assembly
  - after flange connection
  - before shipping
- One file per measurement

String with cavity order

- Example from Axel reworked for CEA : sent by email Configuration PXFEL2_2.xlsx
- How is it foreseen in future ?
  - Email, EDMS, other ?