Progress in Databases (CMS and EMU)

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EMU Meeting
CERN
16 September 2003

5 Databases:

1) DDD (Detector Description Database)

2) Construction Database

3) Integration Database
(EMDB - Equipment Management DataBase)

4) Configuration Database

5) Conditions Database

Tendency - Relational Databases

$\Downarrow$

Oracle

DDD - Conversion XML $\Rightarrow$ Oracle

The most probable solution:

Oracle and MySQL

Configuration

Possibilities:

1) Standard structure of tables.
2) Different tables and common interface.
3) Specific to each subdetector.

Conditions

Prototypes in Objectivity, Oracle and MySQL exist.

Accepted by SC2 as a common LCG Project.

Alternative solution

Valeri Sytnik:

Simple object oriented Database.

Advantages:

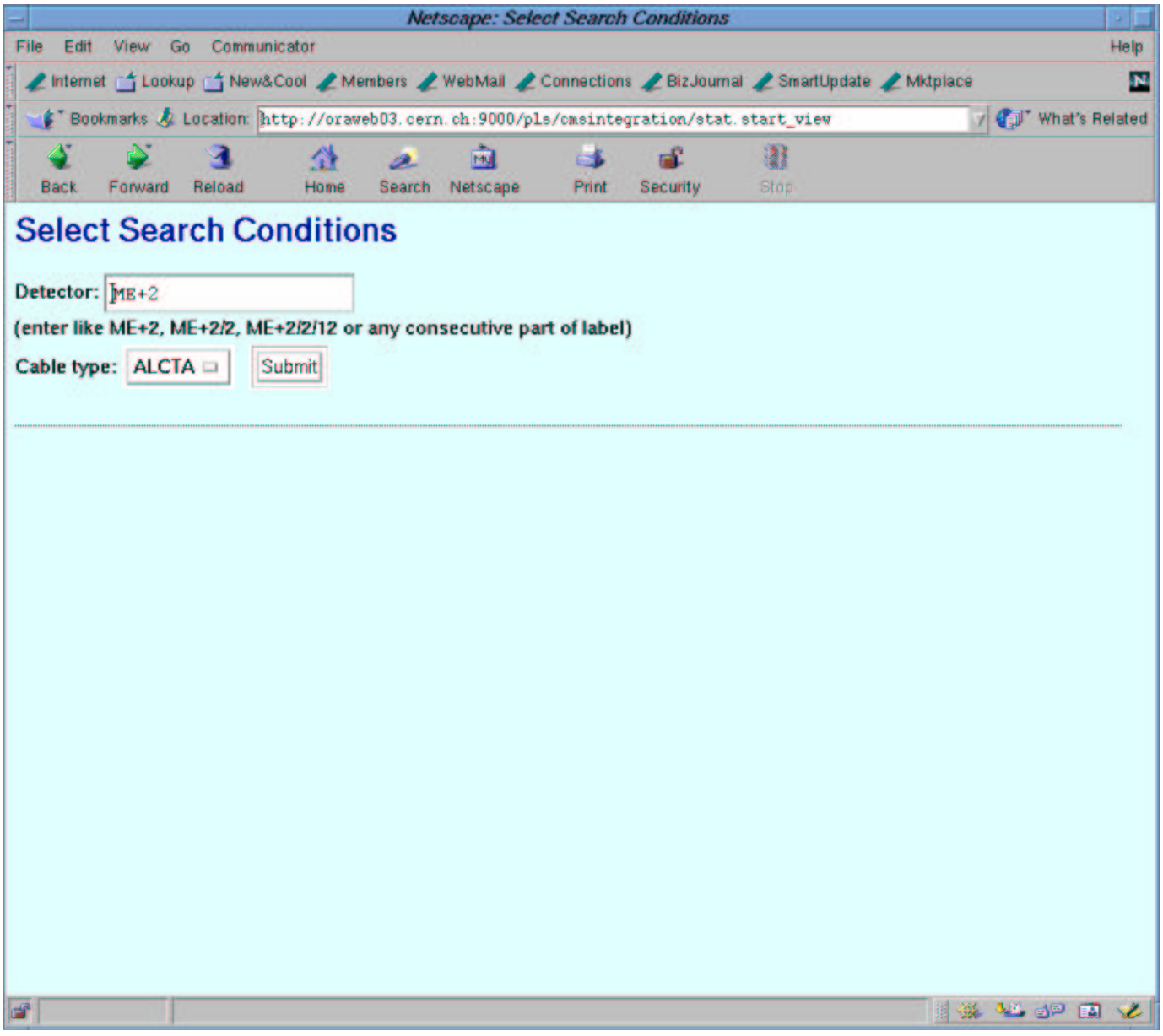
1) Tree structure of objects.
2) Automatic data evolution.
3) Effective storage in file-tree structure.
4) Easy and direct access from C++.

To solve:

1) Numerous versions of configuration.
2) Variation in time.
3) Search (keys? indexing?).

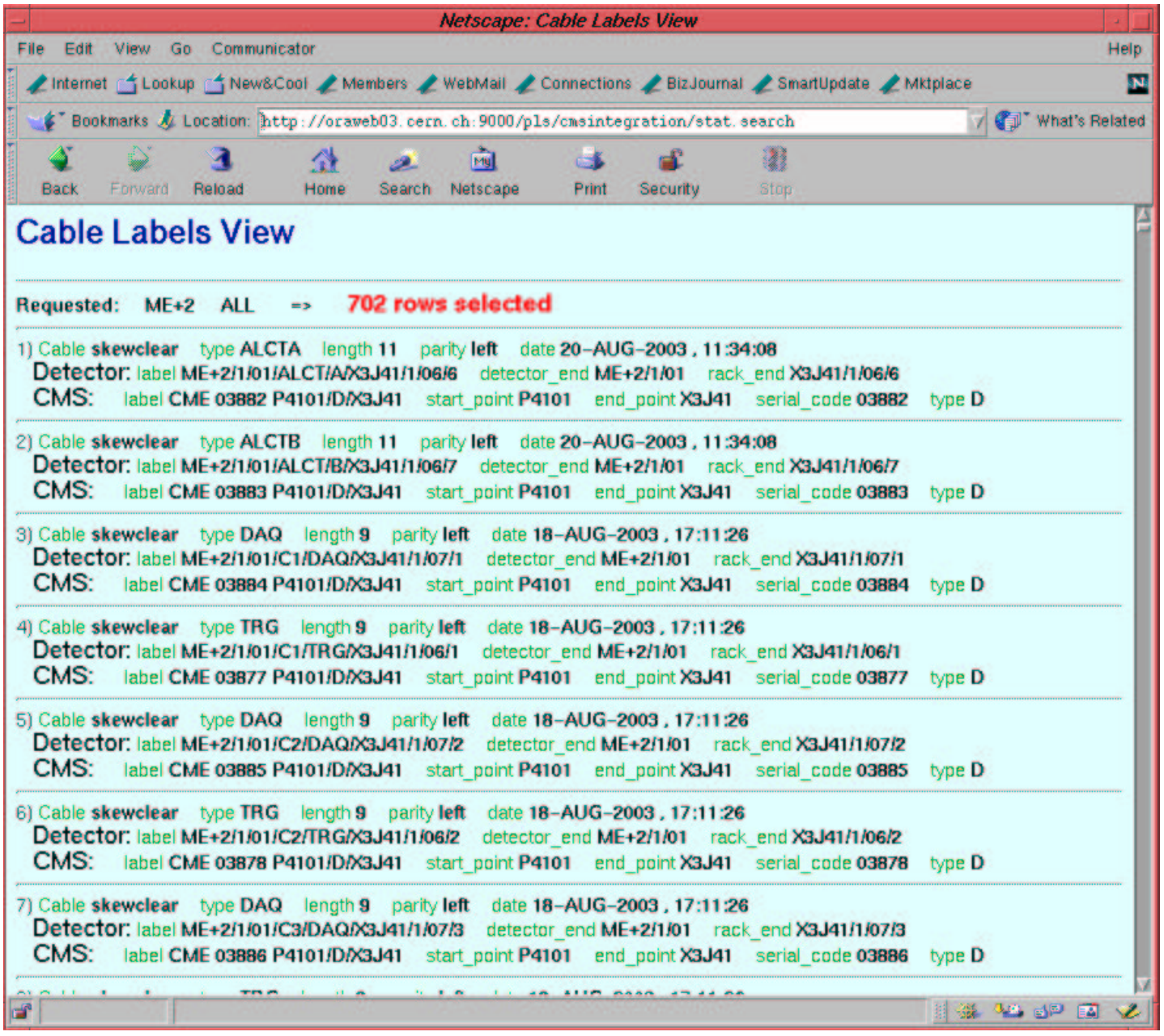
Cable selection

URL address:
http://oraweb03.cern.ch:9000/pls/cmsintegration/
/stat.start_view



Enter a part of EMU cable label to find matching records.

List of cables



EMU cables

⇓

CMS Integration Database

EMU-label, CMS-label, both sides
connection, type, length, parity, serial number

To enter:

label issued
location

New Oracle server:

cerndb1, **Oracle 8i**

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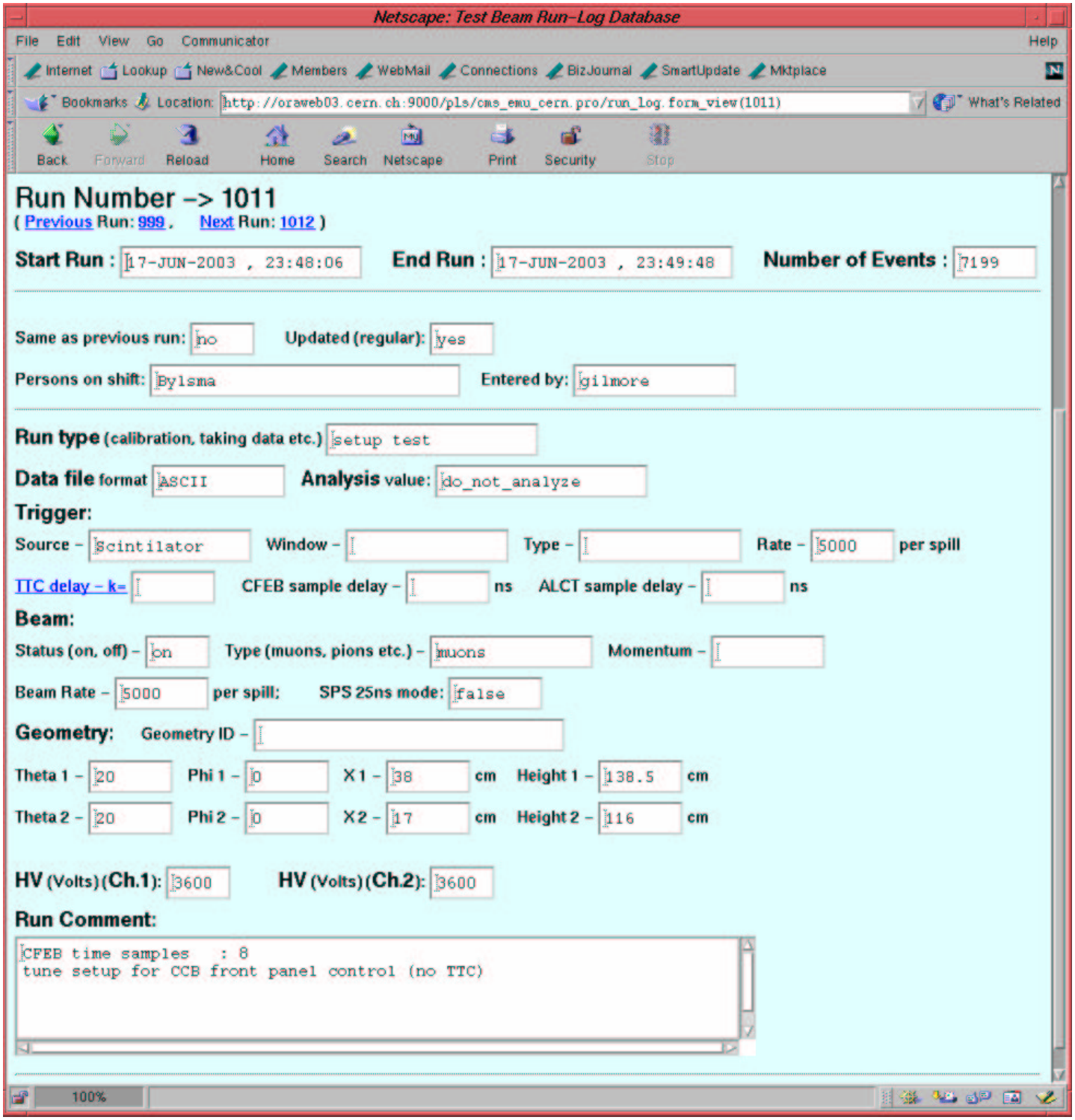
pdb01, **Oracle 9i**

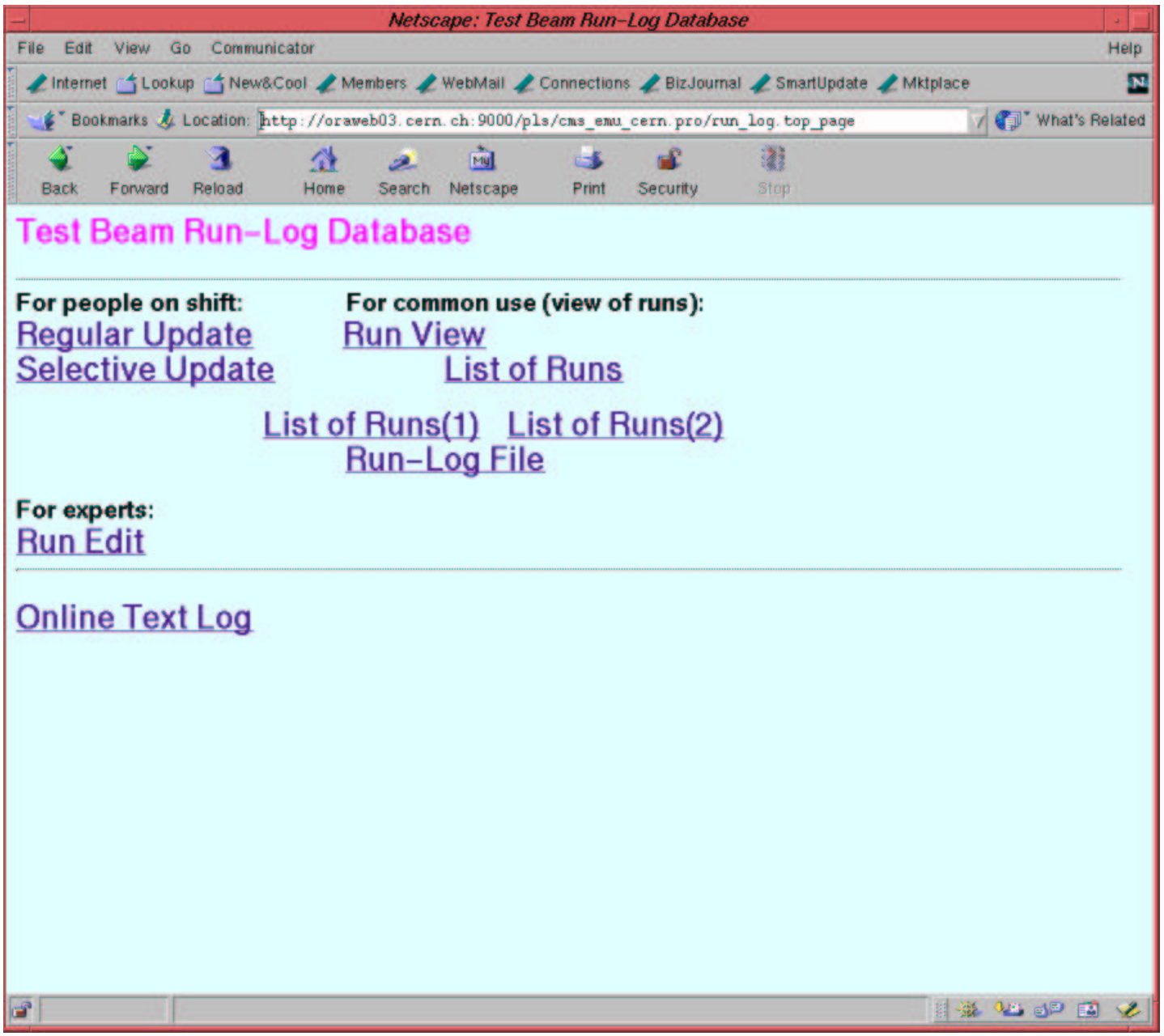
Test Beam Database:

1) **Run Log**
2) **Online Text Log**

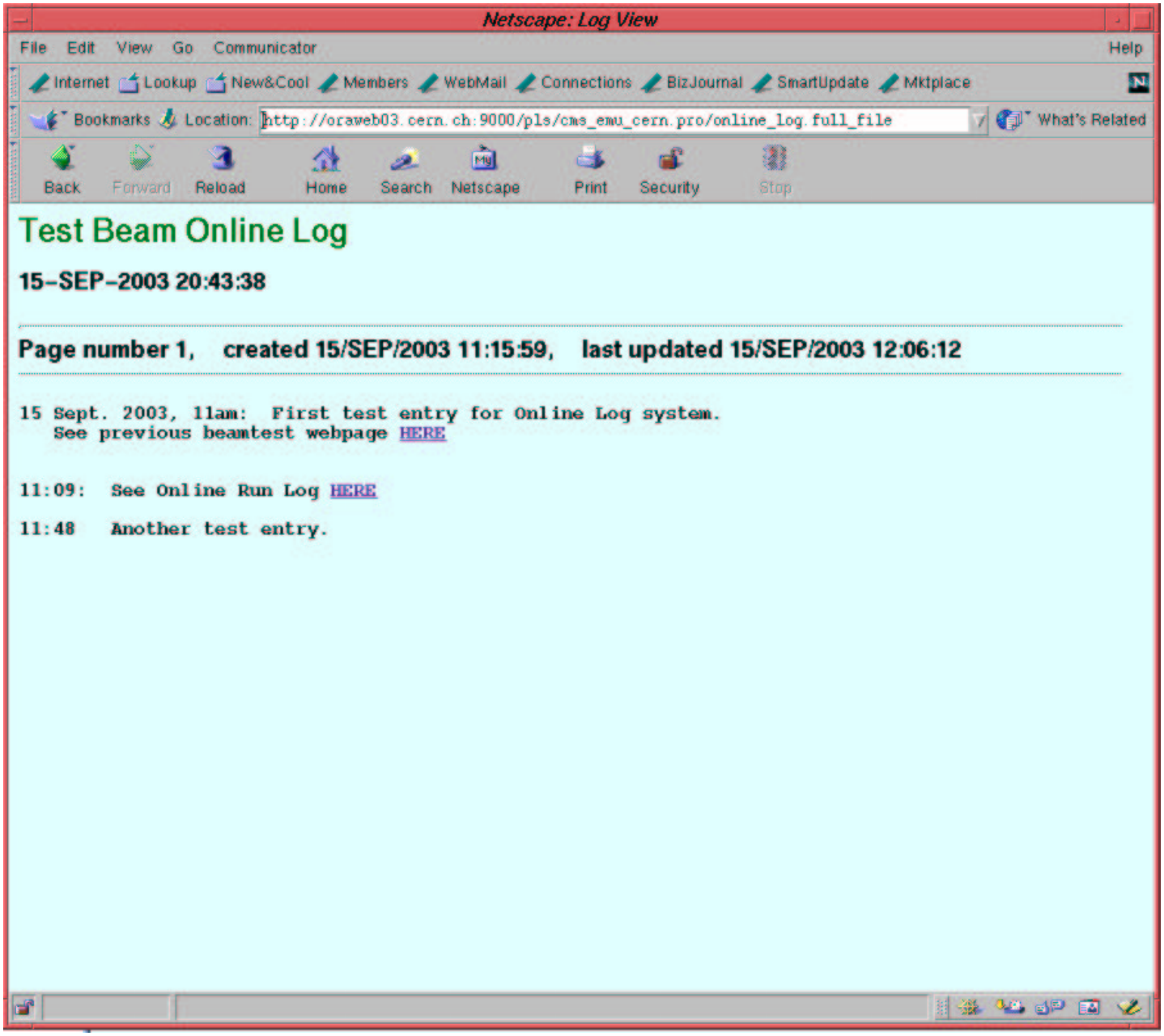
Run view


Netscape: Test Beam Run-Log Database
File Edit View Go Communicator Help
Internet Lookup New&Cool Members WebMail Connections BizJournal SmartUpdate Mktplace
Bookmarks Location: http://oraweb03.cern.ch:9000/pls/cms_emu_cern.pro/run_log.form_view(1011) What's Related
Back Forward Reload Home Search Netscape Print Security Stop
Run Number -> 1011
(Previous Run: 999 , Next Run: 1012)
Start Run : 17-JUN-2003 , 23:48:06
End Run : 17-JUN-2003 , 23:49:48
Number of Events : 7199
Same as previous run: no
Updated (regular): yes
Persons on shift: Bylsma
Entered by: gilmore
Run type (calibration, taking data etc.) setup test
Data file format ASCII
Analysis value: do_not_analyze
Trigger:
Source - scintilator
Window -
Type -
Rate - 5000 per spill
TTC delay - k=
CFEB sample delay - ns
ALCT sample delay - ns
Beam:
Status (on, off) - on
Type (muons, pions etc.) - muons
Momentum -
Beam Rate - 5000 per spill;
SPS 25ns mode: false
Geometry:
Geometry ID -
Theta 1 - 20
Phi 1 - 0
X1 - 38 cm
Height 1 - 138.5 cm
Theta 2 - 20
Phi 2 - 0
X2 - 17 cm
Height 2 - 116 cm
HV (Volts)(Ch.1): 3600
HV (Volts)(Ch.2): 3600
Run Comment:
CFEB time samples : 8
tune setup for CCB front panel control (no TTC)
100%

Top page of Run-log Database



Online log


Netscape: Log View
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Bookmarks Location: http://oraweb03.cern.ch:9000/pls/cms_emu_cern.pro/online_log.full_file What's Related
Back Forward Reload Home Search Netscape Print Security Stop
Test Beam Online Log
15-SEP-2003 20:43:38
Page number 1, created 15/SEP/2003 11:15:59, last updated 15/SEP/2003 12:06:12
15 Sept. 2003, 11am: First test entry for Online Log system.
See previous beamtest webpage HERE
11:09: See Online Run Log HERE
11:48 Another test entry.

Outlook

Next important task - creation of Configuration and Conditions Databases.