

## CAF Status Report

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May 16th 2002

- Overview
- Status: User perspective
- Status: Hardware perspective

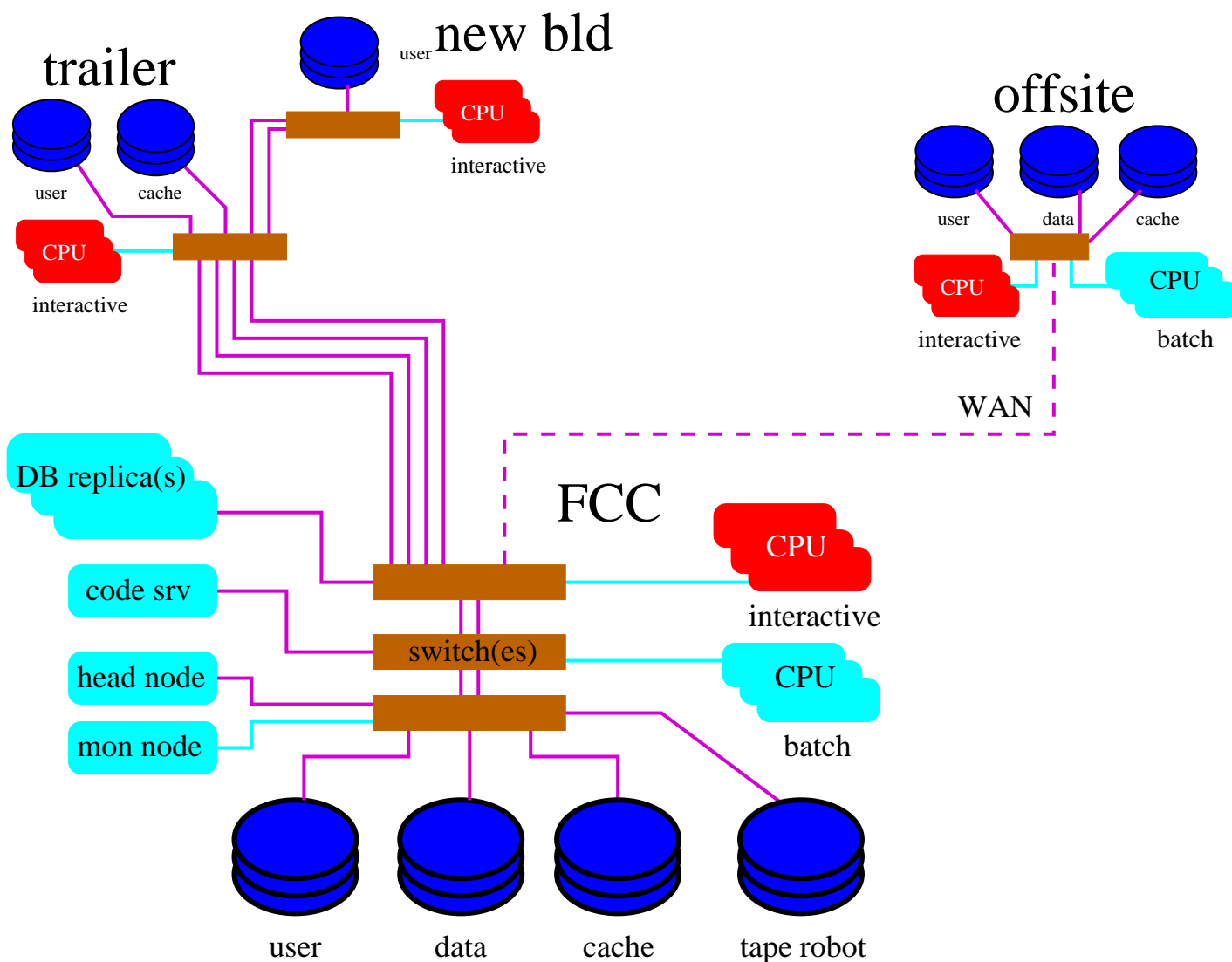
Detailed documentation available:

- CDF Note 5961: CAF Design Document
- in cvs: CafUtil/doc/UserGuide.ps
- CDF Note 5914: CDF Plan and Budget for Computing in Run 2

## protoCAF Development Team

- CD: Lance, Art, Richard, Rob H., Igor M.
- MIT: Taehyun, Mark, fkw
- Italy: Massimo, Ombretta, Igor S., Franco, Stefano, Antonio
- Pittsburgh: Yuri

# Complete Hardware Picture

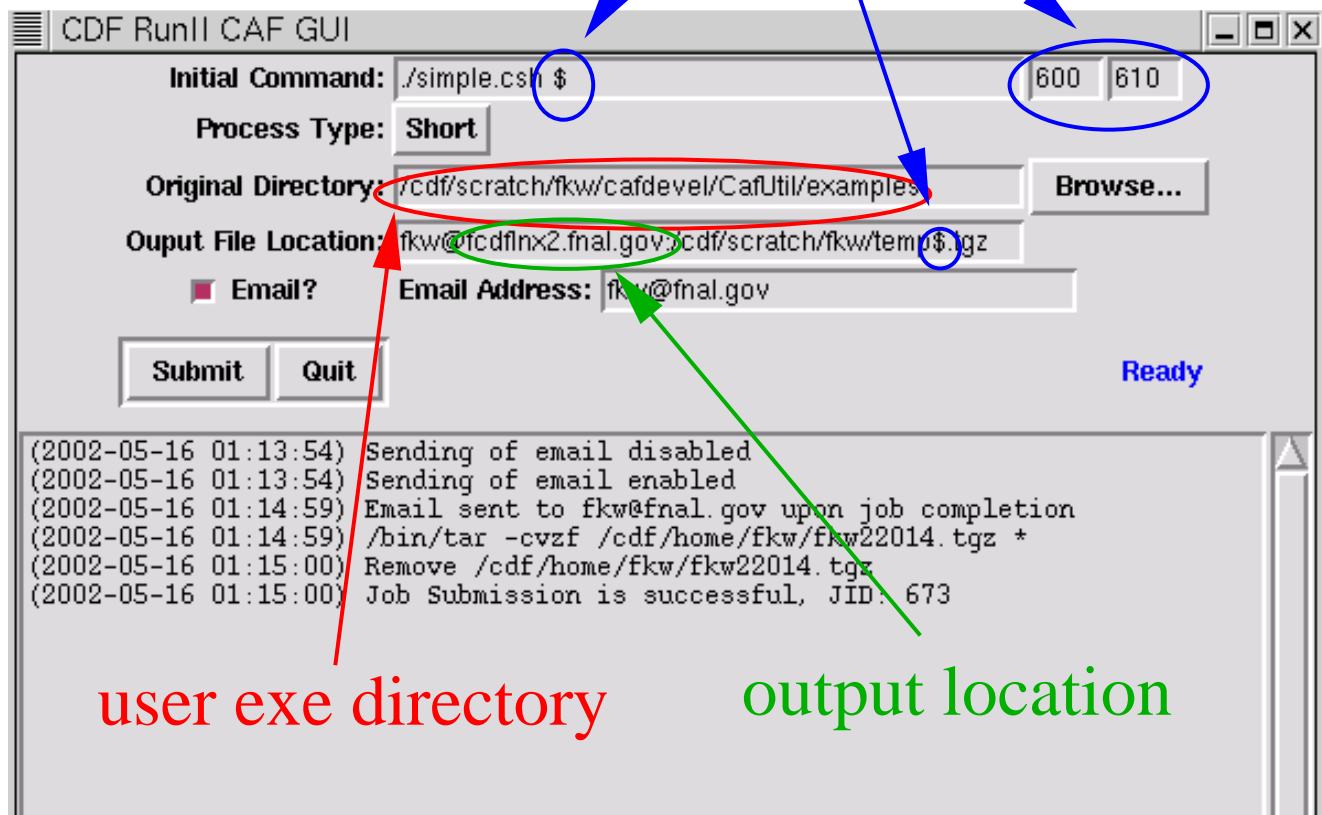


## How to use the CAF

- Compile, build, debug your exe & tcl on “desktop”
- adapt CAF shell script example(s)
- submit job using CafGui
- “retrieve” output ...
- ... or have it copied to you.

## CAF software: CafGui

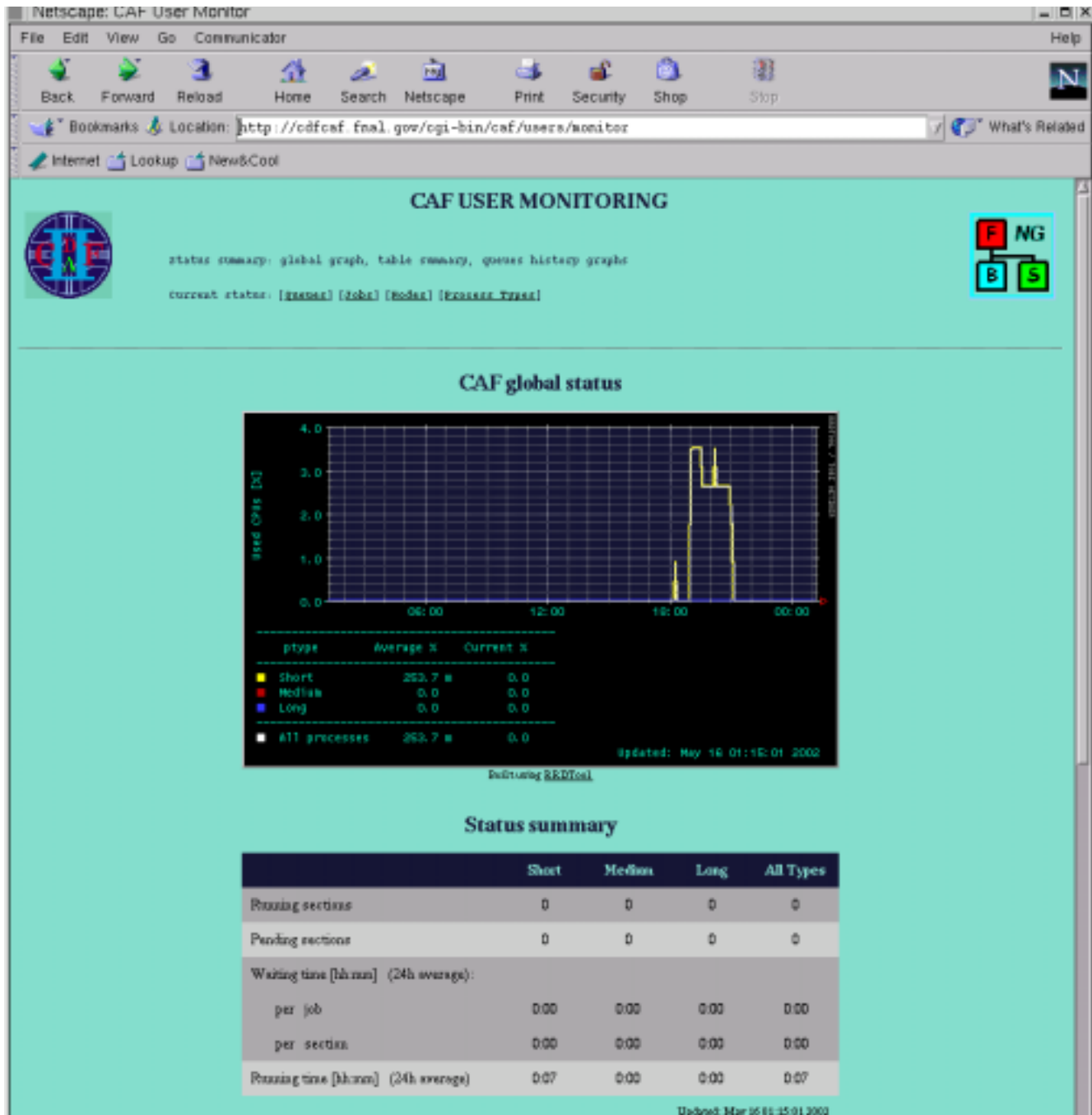
int from 600 to 610



- Specify shell script.
- Specify short, medium, long (2,6,48h).
- Specify number of CPU's to run on.
- Specify input & output
- Submit!

Details: see CafUtil/doc/UserGuide.ps or <http://cdfcaf.fnal.gov>

# User Level Monitoring





# Monitoring All Queues

The screenshot shows a Netscape browser window titled "FBSWWW CAF list of queues". The address bar contains the URL: `http://cdfcaf.fnal.gov/cgi-bin/fbswww/fbswww?action=listQueues&form=CAF`. The page content includes a header with "FBSMC on the web" and a table of process statistics.

Name	Status	Default Process Type	Share	Prio	Waiting	Ready	Running	Total
abacc	OK	short	1.00	0	0	0	0	0
abaccv	OK	short	1.00	0	0	0	0	0
bellini	OK	short	1.00	0	0	0	0	0
birkel	OK	short	1.00	0	0	0	0	0
blam	OK	short	1.00	0	0	0	0	0
bondreau	OK	short	1.00	0	0	0	0	0
carati	OK	short	1.00	0	0	0	0	0
cararra	OK	short	1.00	0	0	0	0	0
colucci2	OK	short	1.00	0	0	0	0	0
corri	OK	short	1.00	0	0	0	0	0
chickona	OK	short	1.00	0	0	0	0	0
dicenzo	OK	short	1.00	0	0	0	0	0
fermand	OK	short	1.00	0	0	0	0	0
fil	OK	short	1.00	0	1	0	11	12
glam	OK	short	1.00	0	0	0	0	0
gatica	OK	short	1.00	0	0	0	0	0
gova	OK	short	1.00	0	0	0	0	0
hays	OK	short	1.00	0	0	0	0	0
hempcke	OK	short	1.00	0	0	0	0	0
ikfacio	OK	short	1.00	0	0	0	0	0
iswinn	OK	short	1.00	0	0	0	0	0
justin	OK	short	1.00	0	0	0	0	0
jona	OK	short	1.00	0	0	0	0	0
leonardo	OK	short	1.00	0	0	0	0	0
liverini	OK	short	1.00	0	0	0	0	0
louchari	OK	short	1.00	0	0	0	0	0
luis	OK	short	1.00	0	0	0	0	0
lesens	OK	short	1.00	0	0	0	0	0
metodi	OK	short	1.00	0	0	0	0	0
smartin	OK	short	1.00	0	0	0	0	0
hja	OK	short	1.00	0	0	0	0	0
paris	OK	short	1.00	0	0	0	0	0
pmi	OK	short	1.00	0	0	0	0	0
retikov	OK	short	1.00	0	0	0	0	0
rossino	OK	short	1.00	0	0	0	0	0
ruscia	OK	short	1.00	0	0	0	0	0
rfalicoi	OK	short	1.00	0	0	0	0	0



# Monitoring Your Queue

**FBSNG on the web**  
Path: /caf  
Time: Thu May 16 01:17:21 2002  
Report: queue.fkw

Queue: Jobs: Nodes: Process Types

User Monitor

Queue Parameters: [show]

Status: 00 Running, 11 Pending, 0

SessionID	User	FreeType	Status	Fries	MFree	Date/Time
672.fkw.618	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:09
673.fkw.611	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:09
672.fkw.612	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:10
673.fkw.611	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:10
672.fkw.614	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:11
673.fkw.615	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:11
672.fkw.616	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:12
673.fkw.617	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:12
672.fkw.618	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:13
673.fkw.618	edfoaf	sharc3	running	0	1/1	started at 05/16 01:15:14
672.fkw.614	edfoaf	hailer	waiting	0	0/1	submitted at 05/16 01:15:08

01:17:21 EDT

FBSWWW webserver

# Monitoring Your Job

FBSNG on the web

Path: /CAF  
 Time: Thu May 16 01:17:53 2002  
 Report: Section 679.fhw\_603 status

User: submitter

ID: 679.fhw\_603      User: edfoaf

Queue: fhw      Process type: short

NPProc: 1      Status: running

Reqd: 0      Depends:

Submitted: 05/16 01:15:00      Started: 05/16 01:15:10

CPU time limit: 2040s

Proc Kerr: cgm:100 disk:15      Sect Kerr:

Command: /fhsng/caflocal/vi.01/cafexe edfoaf@fodfhead1.fnal.gov:/home/edfoaf/vi.01/submitter/cafca/fhw\_nc.tgr  
 fhw603.fhw\_603.tgr fhw 4h  
 edfoaf@fodfhead1.fnal.gov:/home/edfoaf/vi.01/submitter/fhw/FBS\_nc.fhw\_603.1.log ./simple.csh 603

Other sections: fhw\_600 (running) fhw\_601 (running) fhw\_602 (running) fhw\_603 (running) fhw\_604 (running) fhw\_605 (running) fhw\_606 (running) fhw\_607 (running) fhw\_608 (running) fhw\_609 (running) fhw\_610 (running) fhw\_caf (waiting)

**Processes**

Process #	Node	Status	CPU Time	PID	Command
1	fedfoaf054	running	0	29393	cafexe edfoaf@fodfhead1.fnal.gov:/home/edfoaf/vi.01/submitter/cafca/fhw_nc.tgr fhw603.fhw_603.tgr fhw 4h
			0	29392	simple.csh 603
			0	29601	sleep 603

edfoaf@fodfhead1
78/777/submitter

## Summary Email

From cdfcaf@fcdfhead1.fnal.gov Thu May 16 02:21:23 2002  
 Date: Thu, 16 May 2002 01:25:40 -0500  
 From: CDF CAF <cdfcaf@fcdfhead1.fnal.gov>  
 Subject: JID 673 summary  
 To: fkw@fnal.gov



Section number from 600 to 610

Output location: fkw@fcdflnx2.fnal.gov:/cdf/scratch/fkw/temp\$.tgz

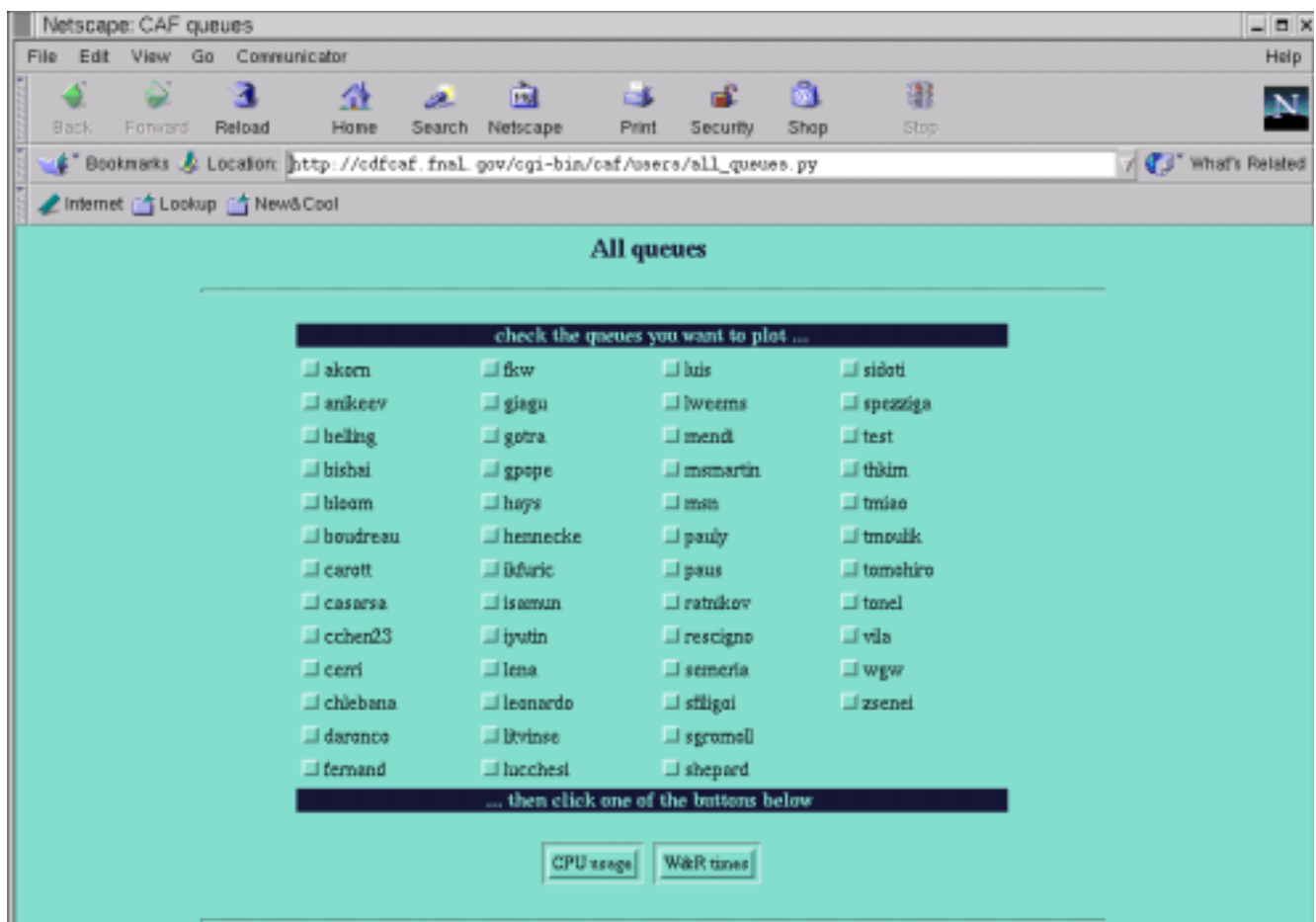
	#Sections
	-----
Completed with exit status = 0 (OK):	11
Completed with exit status != 0:	0
Canceled:	0
Timeout or possibly canceled while running:	0
User oriented error:	0
Caf system error:	0
Unknown error:	0
 Total sections:	 11

section	node	exit	comment
600	fcdfcaf057	0	
601	fcdfcaf056	0	
602	fcdfcaf055	0	
603	fcdfcaf054	0	
604	fcdfcaf053	0	
605	fcdfcaf052	0	
606	fcdfcaf051	0	
607	fcdfcaf050	0	
608	fcdfcaf017	0	
609	fcdfcaf035	0	
610	fcdfcaf029	0	

# Monitoring All Nodes

FBSNG on the web		 		
Path: / Time: Thu May 16 01:30:26 2002 Report: List of each nodes				
<a href="#">Overview</a> <a href="#">Jobs</a> <a href="#">Nodes</a> <a href="#">Process Types</a>				
User Monitor	Node name	Class	Status	Processes
	fedfeaf001	worker	OK	
	fedfeaf002	worker	OK	
	fedfeaf003	worker	OK	
	fedfeaf004	worker	OK	
	fedfeaf005	worker	OK	
	fedfeaf006	worker	OK	
	fedfeaf007	worker	OK	
	fedfeaf008	worker	OK	
	fedfeaf009	worker	OK	
	fedfeaf010	worker	OK	
	fedfeaf011	worker	OK	
	fedfeaf012	worker	OK	
	fedfeaf013	worker	OK	
	fedfeaf014	worker	OK	
	fedfeaf015	worker	OK	
	fedfeaf016	worker	OK	
	fedfeaf017	worker	OK	572_khw_608_1
	fedfeaf018	worker	OK	
	fedfeaf019	worker	OK	
	fedfeaf020	worker	OK	
	fedfeaf021	worker	OK	
	fedfeaf022	worker	OK	
	fedfeaf023	worker	OK	
	fedfeaf024	worker	OK	
	fedfeaf025	worker	OK	
	fedfeaf026	worker	OK	
	fedfeaf027	worker	OK	
	fedfeaf028	worker	OK	
	fedfeaf029	worker	OK	572_khw_608_1
	fedfeaf030	worker	OK	
	fedfeaf031	worker	OK	
	fedfeaf032	worker	OK	
	fedfeaf033	worker	OK	
	fedfeaf034	worker	OK	
	fedfeaf035	worker	OK	572_khw_608_1
	fedfeaf036	worker	OK	

## History of Some Queues



## Things a user can do

- peek at logfile on worker node.
- ls of execution directory on worker node.
- ls of all file servers.
- kill job.
- Store output in scratch disk ... and run on it later.
- monitor batch queue resource usage.

## CAF Stage1 hardware

1. File server (  
[http://mit.fnal.gov/~msn/cdf/caf/server\\_evaluation.html](http://mit.fnal.gov/~msn/cdf/caf/server_evaluation.html)  
)
  - 2.2TB useable after RAID50 (hot-swap)
  - Dual 1.4GHz P3, 2GB RAM
  - 190MB/s local I/O
  - 1GigE: 50MB/sec LAN I/O, CPU limited.
  - 4U rackmount
2. Worker Nodes
  - Dual P3 1.26GHz / Dual Athlon MP 1600+
  - 2GB RAM / 512MB RAM
  - 80GB scratch space, no raid
  - 1FE: 10MB/sec
  - 2U rackmount

## CAF Stage1 Hardware Status

- 16 Dual Athlon 1600+
- 43 Dual P3 1.28GHz
- interactive nodes: fcdflnx2,3
- fcdrcode1
- fcdfhead1, fcdfmon1
- 6 file servers (one for dCache)

### Things that are missing

- 10 file servers (ship 5/17)
- 10 Dual P3 (install 5/17)
- 48FE switch ports (ship 5/20)
- DB replica (fcdflnx1)
- Users & Data



## Data Management

- 10TB dCache R&D
- 12TB under CD(F) control:
  - 2TB R&D use
  - 2TB of user space
  - All Data has to come from tape.
  - All disk space organized via physics groups.
  - General guidelines based on Feb.15th reqs.
- 10TB controlled by Itlay & MIT
  - 2TB user space
  - 8TB top & B group

# Official Switch into “Production”

CDF Collaboration Meeting