

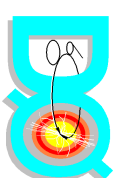
MC simulations in Prague

DØ Collaboration Meeting: September 12-14, 2001

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Prague team

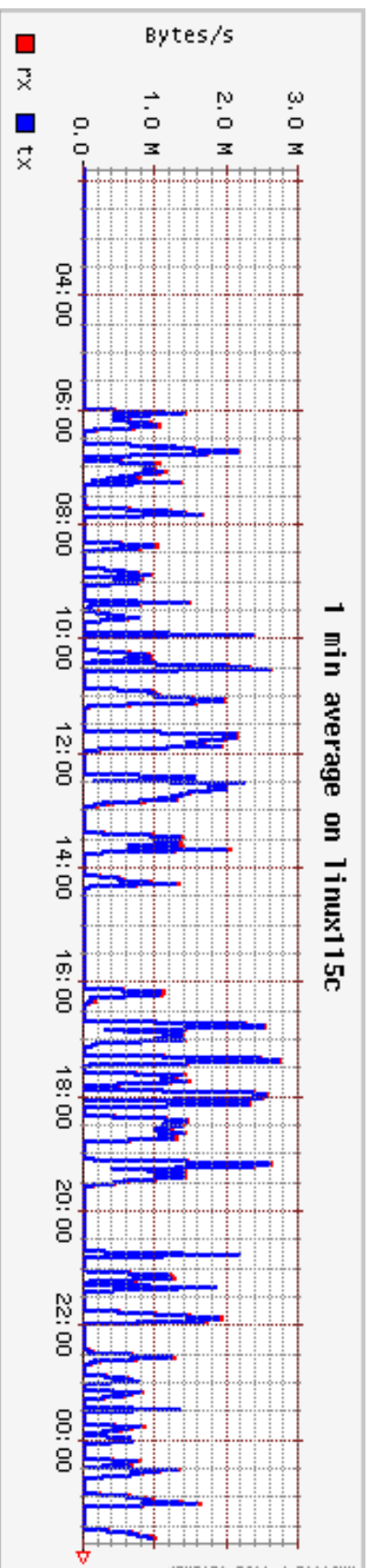
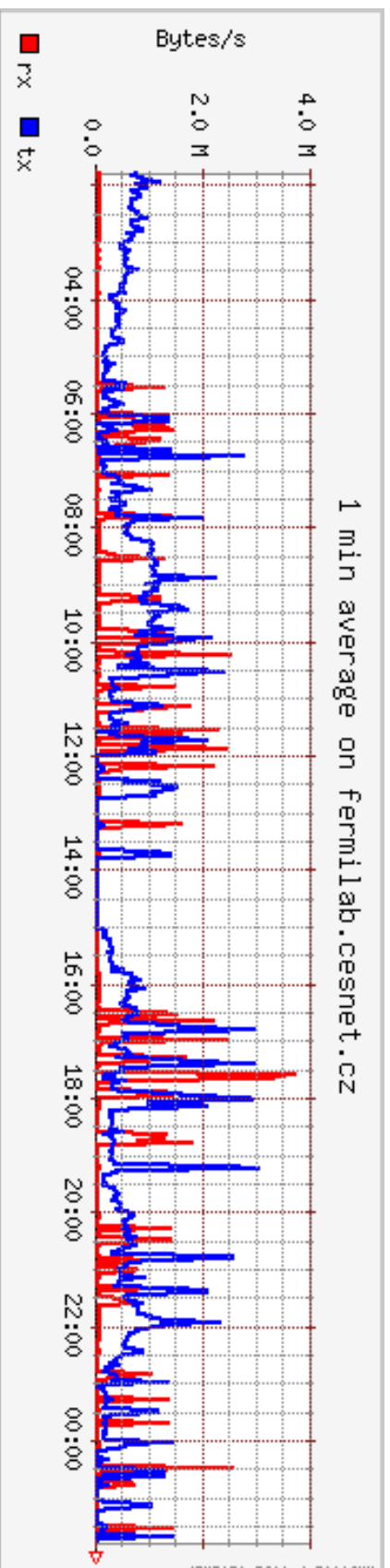


- ▷ Alexander Kupčo (FzÚ AVČR, Center for Particle Physics, Prague)
hardware, system and software manager, data production
- ▷ Miloš Lokajíček (FzÚ AVČR, Center for Particle Physics, Prague)
hardware, data storage, network
- ▷ Karel Smolek (Czech Technical University, Prague)
SAM manager, data production
- ▷ CESNET farm administrators

- ▷ SAM station installed with more than 200GB cache (Karel Smolek)
- ▷ fully automatic system based on our database server `mccdbd`
- ▷ jobs are submitted by command

`mcc3_submit mc_runjob.macro`
- submit jobs to PBS batch queue on PC farm
- job result checking (analysis of log files)
- move good files into the SAM cache area
- declare and import files on SAM
- ▷ farm monitoring through Web
 - CPU, network, and disk space monitoring of fileserver and SAM station
 - cgi-script interface to the database

Network traffic



File Edit View Go Communicator Help

Location: <http://www-hep.fzu.cz/d0/mcc/query.html> What's Related

Prague MCC - file query

phase: type: job name:

Job ID:

Production: Decay:

Cardfile Version: CardfileDir:

Minimum bias: Number of minimum bias overlap:

PtGt: PtLt: EtaGt: EtaLt:

HMASS: TopMass:

Farm status:

File status:

SAM status:

Facility: Author:

Last update on Aug 31, 2001 by [AK](#)

Data File Query Output

Table generated on 07 Sep 2001 at 23:30:50 UT

type	all	produced	on SAM
generator	250	250	0
simulator	250	250	0
digitizer	250	250	0
reconstruction	250	250	0
ntuplemaker	1750	250	0

type	JobID	Run#	Channel	Cuts	MinBias	#evts	Farm	Files	Sam	Date
gen	Job248161036_2001	11002855	qcd-null	PtGt80.0		250	OK	DELETED	CACHE	05Sep01
d0g	Job248161036_2001	11002855	qcd-null	PtGt80.0		250	OK	DELETED	CACHE	05Sep01
sim	Job248161036_2001	11002855	qcd-null	PtGt80.0	Poisson-2.5	250	OK	DELETED	CACHE	05Sep01
reco	Job248161036_2001	11002855	qcd-null	PtGt80.0	Poisson-2.5	250	OK	DELETED	CACHE	05Sep01
recoA	Job248161036_2001	11002855	qcd-null	PtGt80.0	Poisson-2.5	250	OK	STORED	CACHE	05Sep01
recoA	Job248160736_2001	11002830	qcd-null	PtGt40.0	Poisson-2.5	500	ABORTED	STORED	CACHE	05Sep01
recoA	Job245052902_2001	11002753	qcd-null	PtGt40.0	Poisson-2.5	1000	BAD_NEVENTS	DELETED	CACHE	02Sep01

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Bookmarks
Location:
<http://fermilab.cesnet.cz/cgi-bin/mccdb/mu>
What's Related

Job Info

Table generated on 07 Sep 2001 at 23:40:27 UT

JobID	Job248161036_2001
Origin	prague
CardfileVersion	v00-02-07
WorkRequestID	2001
Phase	mcp07
CardfileDir	hit
EtaLt	0.0
MinBiOpt	Poisson
Autor	Alexander Kupco
NEvents	250
JobName	Job
TimeStamp	248161036
PtLt	0.0
HMASS	0.0
GenType	pythia
Facility	cesnet
EtaGt	0.0
Decay	null
RunNumber	11002855
Production	qcd
PtGt	80.0
TopMass	0.0
NumMinBi	2.5

	class	type	D0Release	GENSTAT	FILESTAT	SAMSTAT
gen	generator	pythia	p07.00.05a	OK	DELETED	CACHE
d0g	simulator	d0gstar	p07.00.05a	OK	DELETED	CACHE
sim	digitizer	d0sim	p07.00.05a	OK	DELETED	CACHE
reco	reconstruction	d0reco	p08.12.00	OK	DELETED	CACHE
recoA	ntuplemaker	recoanalyze	p08.12.00	OK	STORED	CACHE
	global	samglobal		DONE	DELETED	NONE

Generated by mccdb_jobinfo on 07 Sep 2001 at 23:40:27 UT in 0.15sec. [AK](#)

Production status

- phase MCP06 - 800750 reconstructed events (715000 on SAM)

Summary Table mcp07

Type	generator	mbias	d0gstar farm / SAM	d0sim farm / SAM	d0reco farm / SAM	reco_analyze farm / SAM
Minimum bias						
minbi	pythia	none	110000 / 0	10000 / 0	10000 / 0	10000 / 0
OCD						
PT>2.0 GeV	pythia	2.5avg	16000 / 0	16000 / 0	16000 / 16000	16000 / 16000
PT>5.0 GeV	pythia	2.5avg	16000 / 0	16000 / 0	16000 / 16000	16000 / 16000
PT>10.0 GeV	pythia	2.5avg	16000 / 0	16000 / 0	16000 / 16000	16000 / 16000
PT>20.0 GeV	pythia	2.5avg	16000 / 0	16000 / 0	16000 / 16000	7500 / 7000
PT>40.0 GeV	pythia	2.5avg	16000 / 0	16000 / 0	16000 / 15000	5500 / 3500
PT>80.0 GeV	pythia	2.5avg	13250 / 0	13250 / 0	13250 / 12750	5250 / 4750
PT>160.0 GeV	pythia	2.5avg	8000 / 0	8000 / 0	8000 / 8000	0 / 0
OCD - min. bias studies						
PT>2.0 GeV	pythia	0fx	10000 / 0	10000 / 0	10000 / 10000	10000 / 10000
Total			221250 / 0	121250 / 0	121250 / 109750	86250 / 73250

- ▷ we have developed handy system for farm management
- ▷ with present PC farm (32 processors) we can reconstruct about
2.5 million events per year
and store them on tapes in Fermilab

▷ **Future plans**

- new 10TB type library in Physics Institute in Prague
- work is going on installation right now
- we would like to use part of it for DØ MC simulations