



# Support for Technical Infrastructure operations

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# AB/OP/TI - Technical Infrastructure

- TS/CSE/TCR → AB/OP/TI since Jan 2005
- Operation 365 days per year, 24 hours per day
- Providing a service to different CERN users such as TS, AB, AT
- Infrastructure supervision including
  - Electricity: 400kV → 48V, consumption, ...
  - Cooling: raw water, demi water, chilled water, mixed water, reject water, ...
  - Ventilation: Tunnel ventilation, smoke extraction, heating, air-conditioning, ...
  - Safety (installations): Fire, gas detection systems, access, ...
  - Communication and control systems: Front-ends, servers, hardware and software
  - Others
    - Vacuum
    - Cryogenics (limited set of alarms)
    - ...
- Monitoring service provided with the help of different tools
- Remote monitoring tools must be available 24 \* 365 !!



# TI operation tools

- Alarm screens
  - LASER: Main tool for alarms
  - ENS, ElecAlarm: Detailed electricity alarms
  - Xcluc: host monitoring

ALARM LIST - Meyrin ST 60

List	Descriptive	Filter
92 / 2		
01/03/05 09:05:25.00		
01/03/05 09:05:25.00		
01/03/05 09:04:55.39		
01/03/05 09:04:55.39		
25/02/05 23:34:17.16		
25/02/05 15:53:14.32		
25/02/05 15:37:28.52		

task\_Elec\_Alarmes\_CERN

Configuration SetUp Operation Exploitation Help

SPS  MEYRIN  PREVESSIN  LEP\_SITE1  LEP\_SITE2  LEP\_SITE3

LEP\_SITE4  LEP\_SITES  LEP\_SITE6  LEP\_SITE7  LEP\_SITE8

xcluc: tcr@mmsrv1 viewing T

File Find View Machine Admin General Tv Piquet

Tue Mar 1 15:36:51 2

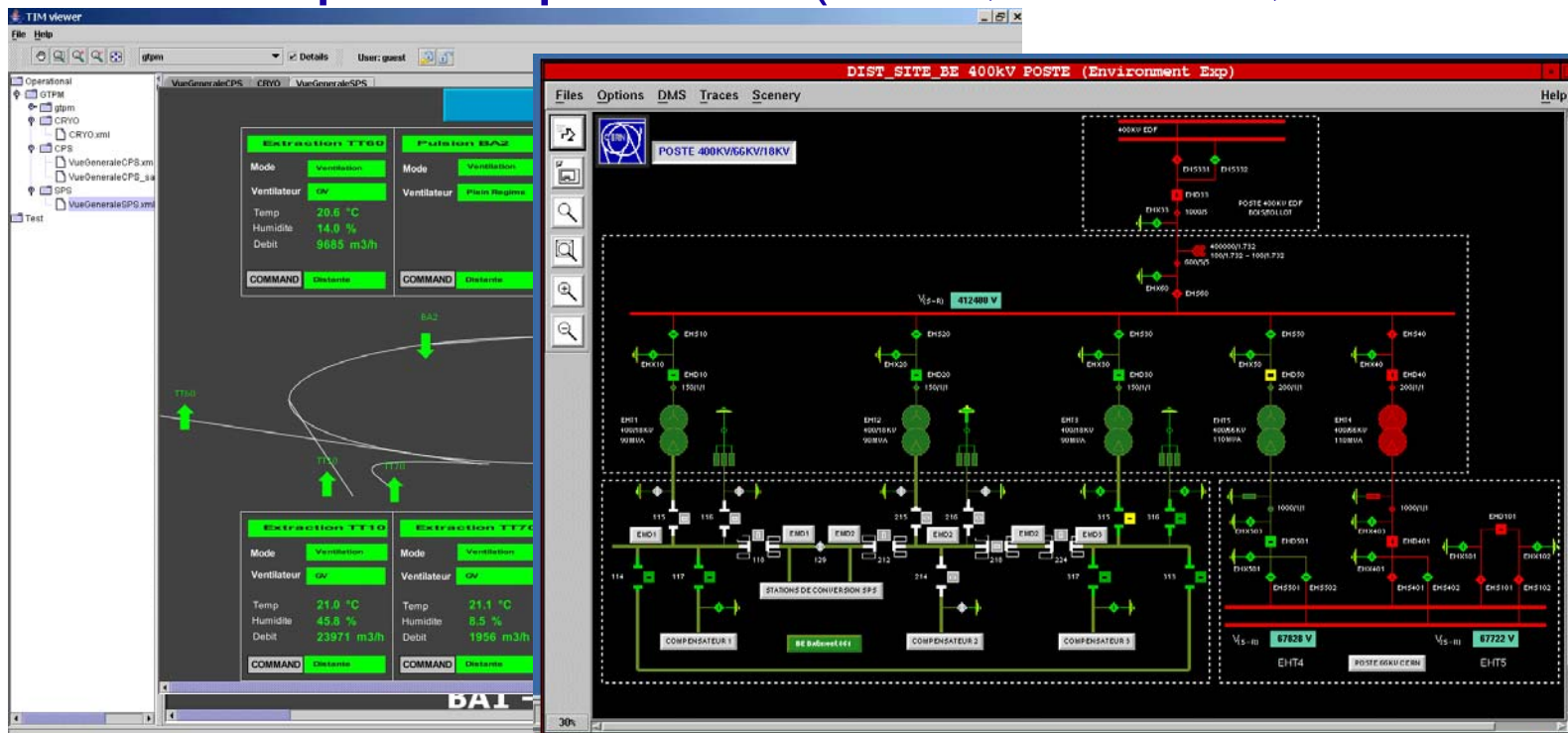
Booting	Fatal	Error	Warning	Normal	unsurvey
acmccr acsps1 <i>ellse1</i> ellse2 ellse3 ellse4 ellse5 ellse6 ellse7 ellse8 ellse9 elms04 elms23 elms59 elmtcr elsa85 <i>elsb87</i>					
elsba3 elsrv1 hpslz18 mmsrv1 pcrrsv1 reprsv rmpscr rmstcr rvlsv1 s2mtcr spstds1 srvtvs1 srvtvs2 stpub1 stsv1 sttds1 svlsr1					
svlsr2 svlsr3 svlsr4 svlsr5 <i>svlsr6</i> svlsr7 svlsr8 svmtcr					

MEI VM\_04 20 0274-- DEFAUT FIN DE COURSE VANNES



# TI operation tools

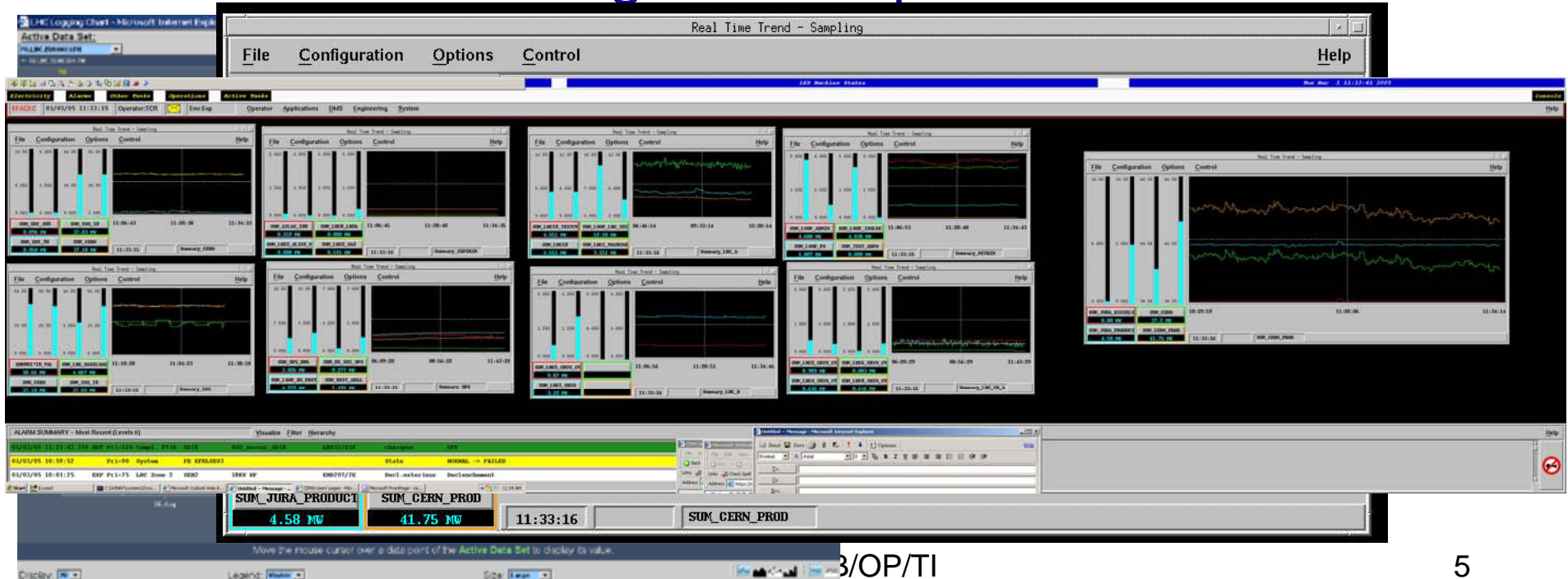
- Mimic (synoptic) diagrams
  - GTPM: SPS, CPS, soon Cryo
  - TIM views: process details
  - Eq. Group views (ENS, Wizcon, vacuum, ...)





# TI operation tools

- Trends
  - Timber: Main tool to view logged data
  - ENS trends: e.g. consumption





# TI operation tools

- Network supervision
  - Spectrum
- Work order management
  - D7i
- Console Hardware
  - NICE Windows XP
  - NICE For Controls?
- Console Software
  - Yacoma console Manager



# Strong support needed for

- Alarm tools
  - LASER (AB/CO) *Netbeans/sonic/oc4j*
  - ENS (TS/EL) *ScateX EFACEC*
  - xcluc (AB/CO) *sonic?*
- Synoptic view tools
  - TIM (TS/CSE) *JViews/sonic/oc4j*
  - ENS (TS/EL) *ScateX EFACEC*
  - Vacuum (AT/VAC) *PVSS*
- Trending
  - Timber (AB/CO) *JViews/oracle*
  - ENS (TS/EL) *ScateX EFACEC*



# *Normal working hours support for*

- Data
  - TI monitoring tools use & display AB/CO data
  - GTPM views
    - clogger states, CPS working set data, TZ data, ROCS data, ...
    - Transmitted through TIM (TS/CSE), but acquired on AB/CO equipment
  - AB/OP needs support for data definition, entry and extraction
- Console
  - NICE Windows XP PCs
- Desktop and administration
  - Purchasing, installation, repair
  - User administration, account creation, backups,
  - NICE FC support





# In summary

- AB/OP/TI provides a 24\*365 service to many CERN users
- This service relies on AB/CO support directly or indirectly
- AB/CO support has been available for these services in the past and...
- AB/CO support is absolutely necessary for TI operation now and in the future