

EXCHANGE OF CRUCIAL INFORMATION BETWEEN ACCELERATOR OPERATION, EQUIPMENT GROUPS AND TECHNICAL INFRASTRUCTURE AT CERN

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Abstract

During CERN accelerator operation, a large number of events, related to accelerator operation and management of technical infrastructure, occur with different criticality. All these events are detected, diagnosed and managed by the Technical Infrastructure service (TI) in the CERN Control Centre (CCC); equipment groups concerned have to solve the problem with a minimal impact on accelerator operation. A new database structure and new interfaces have to be implemented to share information received by TI, to improve communication between the control room and equipment groups, to help post-mortem studies and to correlate events with accelerator operation incidents. Different tools like alarm screens, logbooks, maintenance plans and work orders exist and are in use today. A project was initiated with the goal to integrate and standardize information in a common repository to be used by the different stakeholders through dedicated user interfaces.



Cern Control Center

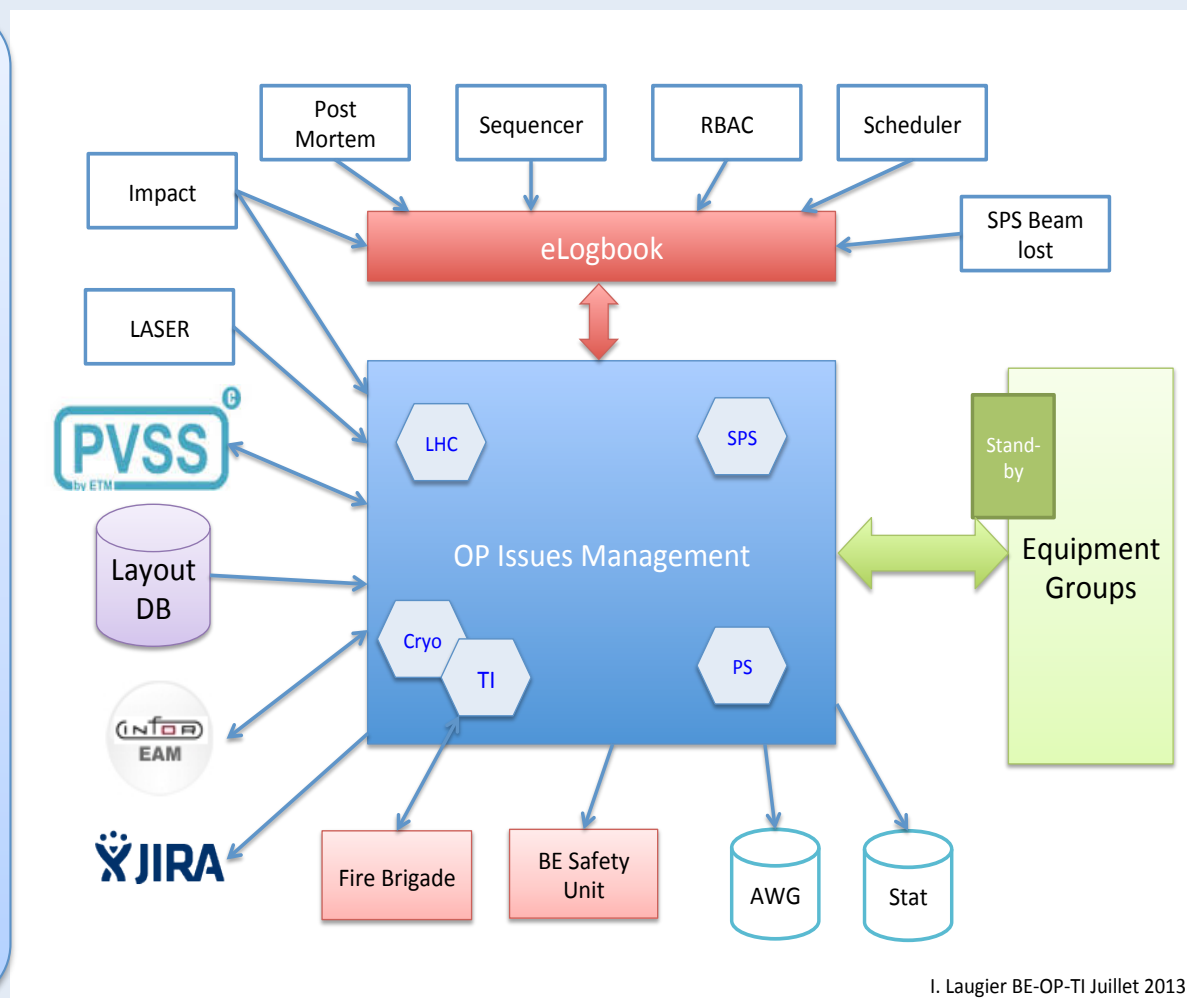
DIFFERENT USERS

People who will immediately be informed when an event occurs.

- Technical Infrastructure operators
- Accelerator operators
- Cryogenic operators
- Fire brigade

DIFFERENT STAKEHOLDERS

- Equipment groups including stand-by services
- Maintenance management project
- Infor EAM
- Availability working group
- Statistic officer
- Departmental Safety officer



I. Laugier BE-OP-TI Juillet 2013

DEFINITION OF AN EVENT

- An alarm is defined as an event that needs immediate operator attention and action.
- A phone call; a user will declare a problem where corrective maintenance is needed by an equipment group.
- A piece of information coming from accelerator operators declaring a degradation or a stop of the physics

Different types of events generated in CERN Control Center

- Major Event
- Minor Event
- Work Orders using Infor EAM
- Impact request
- Note / ongoing work
- Elogbook entries
- Stand-by intervention

CONCLUSION

In the CERN operations group, the need to store all relevant information concerning events in a common place is obvious. All the existing programs will continue to have their own purpose but they will publish their crucial information to be shared between the different accelerator operations, equipment groups and technical infrastructure at CERN. A flexible database structure, including unique identifier, core data and links within programs, will allow inserting already known or future event's types. Several user interfaces could be created for each specific requirement.



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