Experience finding MS Project Alternatives at CERN

CHEP 2019

Maria Alandes, Pete Jones, Piotr Seweryn – CERN IT Department
Outline

- Some Background
- Project Organisation
- Strategy to Find Alternatives
- Current Status and Next steps
Some Background
The MALT Project

- Mitigate software license fee increases
- Investigate the migration from commercial software products towards other solutions
  - with special focus on evaluating FOSS alternatives
- Minimise CERN’s exposure to the risks of unsustainable commercial conditions
MS Project Deployment in 2018

1558 centrally managed PCs

1273 users

787 active users

Active users since the last 6 months

Host owners with MS Project installed
Project Plan and Challenges
Challenges

• Long Shutdown at CERN starting in 2018
• Heterogeneous groups of users
  • Different manpower and timing constraints to implement change
  • Different needs for MS Project
  • Different level of expertise
  • Different desktop platforms:
    • Linux, Windows and Mac

+ 1000 experiments and projects
+ 2500 staff
+ 14,000 users
16 Departments and units
+ 500 students
+ 800 fellows

<> Professional Categories
Strategy to Find Alternatives
Understanding Use Cases

- Discussions with key project leaders and MS Project experts
- User survey

### Critical Features per Department

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### Mandatory features (>2/3)

### Desired features (1/3-2/3)

### Advanced features (<1/3)
The Right Tool for the Right Needs

Type A
Critical/Important
You need MS Project

Type B
Important
You need a planning and scheduling tool

Type C
Minor/Not Important
You like to use a planning and scheduling tool

Ideal Tool

- MS Project
- PM tool not necessarily compatible with MS Project
- PM tool backwards compatible with MS Project
- TM tool
Some Evaluated Alternatives (but not selected)

- ProjectLibre™
- GanttProject
- TaskJuggler
- Wrike
- teamgantt
- OpenProject
Proposed Alternatives

Project On-Line
- User named Licenses
- Professional and Essential (read-only) license scheme

WBS Gantt Chart plugin
- Proprietary 3rd Party JIRA plugin
- Unlimited number of Licenses
- Import MS Project and XML
- Export files in XML
- Kanban boards for Task Management

Gantt Chart viewer
- Open Source License
- Deployed in read-only mode for the time being
- Import MS Project and XML
- Export in XML
Current Status and Next Steps
MS Project

• Moved from MS Project 2016 to MS Project On-Line
  • MS Project 2016 no longer available for new installations
  • Grace period about to finish
    • A removal campaign of MS Project 2016 is taking place at the end of November
  • MS Project On-Line Licenses requested via ticket

• Already granted MS Project On-Line Licenses (~500) for several projects. The biggest ones:
  • ATLAS Upgrade project
    • Very complex project that required MS Expert support for the migration
  • CERN Accelerator Schedules
    • Migrated to MS Project On-Line already in 2018 for the start of LS2
    • Now implemented a read-only Gantt Viewer in DHTMLX
JIRA Gantt Chart Plugin

• Gantt Chart Plugin available in JIRA central instance since October 2018
• 7 tutorials organised at CERN in 2019
  • Around ~50 project managers attended the training so far
• Trying to create a community to share experiences and best practices
  • Discourse community forum in place
  • Gitlab Repository to share libraries and functions
    • To programmatically interact and manipulate JIRA project and issues
    • https://gitlab.cern.ch/it-dep-cda/jira-api-utils
DHMTLX Gantt

Currently in production:
• Gantt Chart Viewer for CERNBox (IT-CDA)
• CERN Accelerator schedules (EN-ACE)

DHTMLX use at CERN is still limited…
• Expected increase after removal campaign
• Potential to extend it and give also write access
DHMTLX Gantt Chart Viewer on CERNBox

HTML
CSS
JavaScript
DHTMLX Gantt library
Conclusions and Lessons Learned

- The number of MS Project Licenses have been reduced in the new contract
- A set of alternatives are now in production
  - Documentation, training and tutorials are available
  - It was critical to identify use cases and to align with IT strategy
    - User survey and close collaboration with key experts and project managers was key for success
    - Alternatives based on on-line tools that allow for collaboration
      - FOSS hasn’t been possible for all the use cases
      - But we have guaranteed the use of open standards