OSCAR Command Line Interface (CLI)

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Plan

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- Rationale
- Proposed Implementation
- Conclusion
Introduction

• OSCAR is 100% GUI based
• No alternatives

Work done during Fernando Laudares internship at the Centre de Calcul Scientifique of the Université de Sherbrooke
To be continued (Master's thesis)
Rationale

- Scriptability
- Modularization of the install process
- Automatisation / Improved reproductability
- No need for an X-windowing system on servers
Scriptability

- CLI can be easily scripted
- The OSCAR wizard will write a complete script that can then be used to (auto)install a similar master node
- The script can be edited/generated
Modularization of the install process

- The actual wizard is a « big » monolithic application.
- The CLI will break this big application into smaller components.
- Steps can then be easily added/removed.
- Easier to maintain.
Automatisation / Testing

- Consequence of the scriptability of most of the OSCAR functionalities
- Tests can be fully automated!
- Article/talk: « OSCAR CLI », OSCAR III session, tuesday 28, 16h45
No X on the server

• The CLI will allow an installation without the X windowing system.

• Side effect but ...
  
  – most of system administrators don't like useless features ;-(
Proposed Implementation

- Language chosen: Perl
  - All the OSCAR library code is in Perl.

- Only some prototyping done at the time of this writing.

- Work will really start in a couple of months.
During the CLI development, no modification of the GUI will be necessary.

Once the CLI will be functionnal, we hope that the GUI will simply call CLI commands.
Conclusion

• First pass at the specifications of a CLI for OSCAR

• Rationale :
  – Clean separation of interface & functionnality
  – Scripts / Automatisation / Testing

• Open for discussion : questions ?