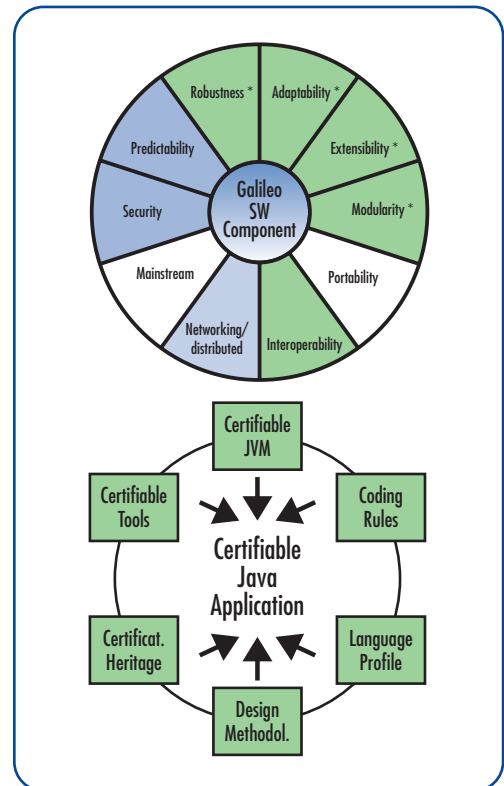


Comparative Study on Software Development Environments and Implementation Technologies

Each Galileo Ground Segment software component or product has specific mandatory or desirable characteristics due to its functional, performance, interface, security or safety requirements.

The study identified the key properties of software components for the Galileo Ground Segment and the best technologies to implement these components.

An investigation of the language-related factors that affect the cost of certifying a software application and evaluation of those factors for the Java language was carried out.

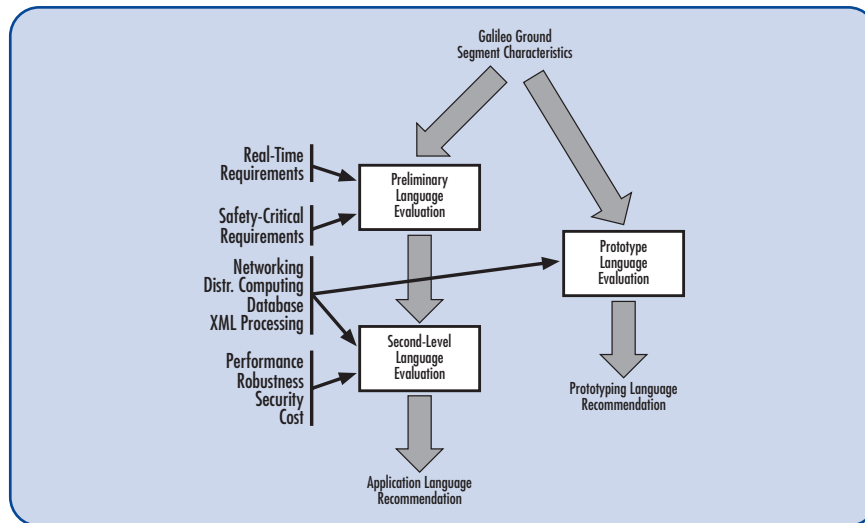
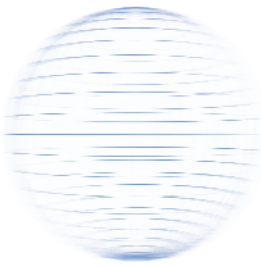


Main software properties examined in the study:

- Portability (platform-independence)
- Adaptability and Scalability
- Database connectivity
- Security
- Safety
- Robustness
- Predictability
- Certification

Study concentrated on:

- Technical trade-offs
- Real-time issues
- Safety and Certification
- Data standards technologies



Recommendation Model for Application and Prototyping Language

Investigating for each specific part of the Galileo Ground Segment the best technology to use for implementing the requirements with the best and most cost-effective result

History of the activity:

- Start October 2001
- Monthly progress meetings and reports
- Four extensive technical study reports
- Clear conclusions and recommendations
- Final Presentation November 2002



Coming soon:

- Design pattern catalogue
- Framework prototypes
- Model of requirements adaptability
- Investigation of autocoding environments
- Java language prototyping

Industry Contact:

P&P Software GmbH
Konstanz, Germany
Tel.+49-7531-697512
Web Site: www.pnp-software.com

ESA Contact:

Peter Claes,
Tel. + 31 71 565-3083
Email: Peter.Claes@esa.int

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Tel +31 71 565 3193

galileo.project@esa.int

www.esa.int/navigation

