

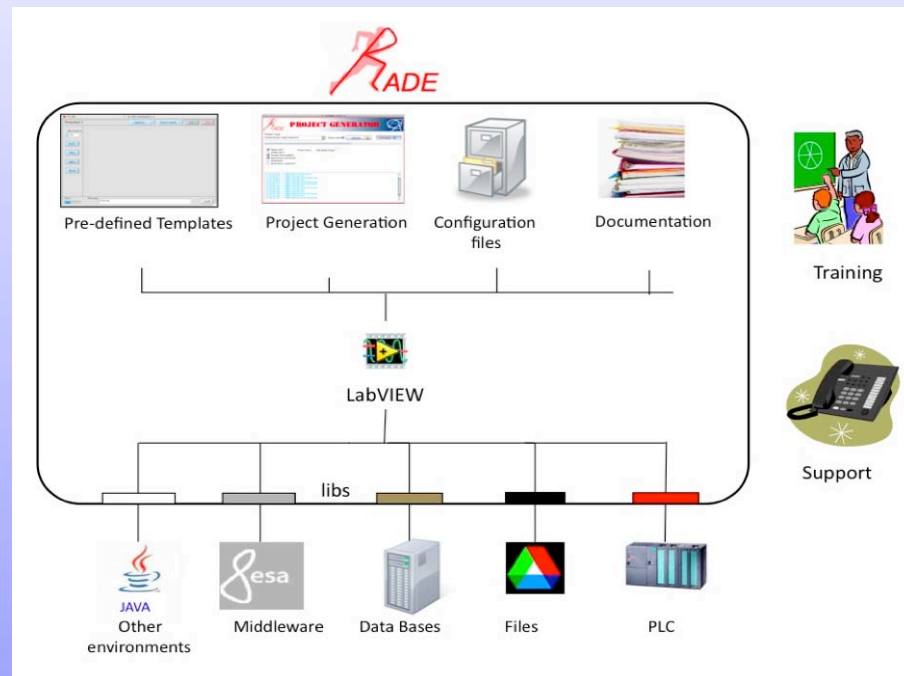
# THE LABVIEW RADE FRAMEWORK DISTRIBUTED ARCHITECTURE

**O. Ø. Andreassen, D. Kudryavtsev, A. Raimondo,  
A. Rijllart, V. Shaipov, R. Sorokoletov, CERN,  
Geneva, Switzerland**

**WEMAU003**

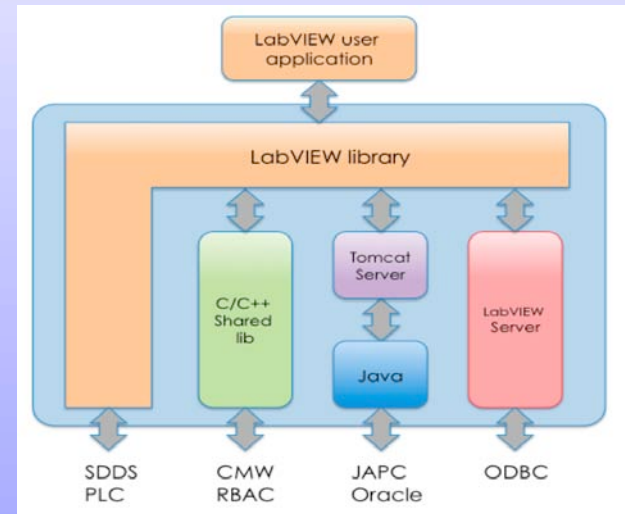
# Project Goal

- Full integration of LabVIEW in the CERN accelerator domain
- Rapid programming and stable implementations through well defined templates and project generation.
- Easy to maintain through transparent updates and support of multiple versions through a generic distributed architecture



# Solution Outline

- Distributed architecture implementation through Apache tomcat, TCP/IP and redundant servers
- Integration of multiple communication layers giving high flexibility
- Project generator automatically generating templates, documentation, drivers and communication layers



# Conclusion

- The RADE framework provides an excellent and powerful tool that can be used to cope with challenges in an environment that quickly and constantly changes.
- However, changes can cause unforeseen problems that affect many users.
- Flexibility and convenience of a distributed architecture trumps the downsides by far.