

We at IMP-Telecommunications consider quality as a crucial element of product differentiation and success. Therefore we enforce strict appliance of quality assurance procedures through entire design and development process. As a general rule, implementing strong quality assurance makes projects to last longer and to be more expensive, but in our case we managed to tailor project management and development procedures to better suit agile development environment. On the other hand, for highly sensitive projects we are following more rigid procedures that include parallel development by independent teams, extreme programming and hardware design techniques, as well as frequent peer reviews.



Our comprehensive quality assurance system proved to be very efficient, cutting down development time and assuring customer satisfaction. In the last four years, more than 90 % of our embedded designs were fully operational right after the first development cycle. We are committed to continuous improvement of our quality assurance system, so with every new project we are making fine tuning of existing procedures and developing a new ones.

Project management practices in IMP-Telecommunications are transparent and accountable. They ensure that management process is unambiguously documented and traceable. By applying periodical project monitoring procedures project risks are identified early on and appropriate corrective measures are taken. Project reviews with the customer are done periodically, at defined milestones, or as a consequence of an issue that needs urgent resolving. Detailed project reports that are readily pro-

duced provide insight into the project status, project estimations, and resource usage efficiency.

Our design cycle includes independent verification of each design step. Proceeding to the next step is possible only if the previous step was fully verified. The verification is done by applying clearly defined verification procedures developed from the set of requirements defined for that step. Such quality assurance underpins complete development process, from early verification of project requirements, to final hardware and/or software testing procedures. In most cases, verification process is done or approved at peer review meetings.

Correctness and traceability of project deliverables are achieved by applying comprehensive configuration management and version control procedures. Complete project documentation is put under version control, not just software code or hardware schematic. Such control makes all changes of the product components fully traceable. Configuration management enables marking project baselines, so they can be formally verified for correctness. Data management for all ongoing projects in the company is uniformed, making it easier and less error prone. Daily server backup procedure protects project data in case of server malfunction.

Last, but not least important, formalizing of the development and project management procedures creates less stressful environment for all employees especially when working with short and consistent deadlines. Developers cease to be firefighters, but take more productive role in a cooperative team environment.



IMP-Telecommunications

Commitment to Quality

In January 2010 IMP-Telecommunications got the *IT Mark* quality certificate from European Software Institute, ESI Center in Bulgaria. This certificate confirms maturity of the business model, state of the information security practices and especially implementation of project management processes according to the *CMMI Maturity Level 2* model for development. The aforementioned practices enable complete insight and control of the project resources and tasks, better control of the development processes, ensuring work product completeness with higher time-to-effort ratio and minimized risks.

Our plan for further improvement of quality assurance processes includes continuous upgrade of the existing procedures and their fine adjustment for the specific project types. We also plan to apply for CMMI Level 3 appraisal in the year 2012.

Key points on quality:

- ISO 9001 Quality management system
- IT Mark quality certificate
- CMMI for Development Maturity Level 2
- Agile development practices (Scrum-like methodology)
- Well-developed and standardized verification checklists
- Proven data management and backup procedures

IMP-Telecommunications is a member of Texas Instrument's EMEA Design House Network of recognized and well-established companies.



IMP is a founder member of the Serbian ICT cluster ICT-NET.

