

Quality is never an accident – it is always the result of sincere effort, intelligent direction and accurate execution; it represents the reasonable choice of many alternatives

Selected Quality Standards:

- ▶ IEEE Standards for Software Engineering
- ▶ Capability Maturity Model (CMM Level 3)
- ▶ ISO 9001 Quality Management System

ISO 9001
Certified

<http://www.intellias.com/qa>

How ISO Certification Assists Intellias in Delivering State-of-the-art Solutions to its Customers

Quality Policy & Objectives

Intellias is devoted to constant improvement of its quality management system by implementing the fundamentals of its Quality Policy, Quality Objectives and other corresponding documents. Other contributing factors aimed at increasing the effectiveness of the quality management system incorporate internal audit results, data review, corrective and preventive actions. First-hand involvement of the company's top-management in the quality procedures facilitates the organizational success of Intellias quality management system.

Closely adhering to ISO requirements, Intellias creates optimal prerequisites for the implementation of corporate mission and values. Our Quality Policy is optimally focused on strengthening our capability not only to meet, but also to exceed customers' expectations.

Well-defined Processes

Intellias utilizes process approach as the basis for structuring quality management system. Accordingly, the company has identified and employs four main process groups (quality management, provision of resources, product realization, measurement, assessment and improvement). The processes are in turn divided into subprocesses.

Monitoring & Assessment

Intellias is continuously executing monitoring and evaluation of the software development products with the means of analysis, verification and validation. The indicators that are taken into consideration include, but are not limited to:

- ▶ Functionality
- ▶ Convenience of maintenance
- ▶ Effectiveness
- ▶ Agility
- ▶ Usability
- ▶ Reliability

Consistency of Improvements in Quality Assurance

Besides utilizing ISO 9001:2000 approaches, Intellias pays close attention to industry specific unifying standard – ISO/IEC 9003:2004, Software engineering – Guidelines for the application of ISO 9001:2000 to computer software, being particularly useful in measurement of processes and enabling continual improvement.

Increased Operational Efficiency

Intellias optimizes operational efficiency by applying leverage technologies, implementing careful resource planning and employing processes to automate commonly repeatable tasks. Increased operational efficiency results in minimization of costs needed for routine operations and therefore enables us to deliver extra value to our clients.

Capability Maturity Model (CMM) developed by the Software Engineering Institute (SEI) at Carnegie Mellon University is a method for evaluating and measuring the maturity of the software development process within organizations. It is considered to be a yardstick to assess and describe the capability of software contractors to provide software on time, within budget, and of acceptable standards.

IEEE (the Institute of Electrical and Electronics Engineers) **Standards for Software Engineering** were developed with direct input from software engineering professionals around the world and updated and restructured into a framework of terminology, quality management, software engineering and system disciplines.

The widely accepted **ISO 9000** series of standards specifies requirements for a **Quality Management System** – a system that outlines the policies and procedures necessary to improve and control various processes that will ultimately lead to improved business performance.

Quality Approach

Everyone in our company takes responsibility for implementation of the quality standards and is motivated to prevent problems and detect them at earlier project stages instead of struggling with the consequences. By implementing such quality procedures as coding conventions, reviews and inspections, documentation, testing, we ensure that the final product is reliable, usable, maintainable and error-free.

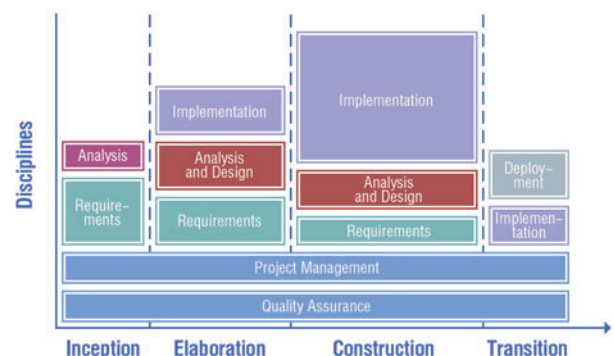
Software Development Process

A solid well-managed approach to software development is essential to deliver quality software on time and within budget. Development process at Intellias is based on set of IEEE Standards for Software Engineering and the continuous review of process improvement is based on SEI Software Capability Maturity Model.

The process of software development at Intellias is based on Rational Unified Process (RUP), methodology designed for software development by Rational Software company. It clearly identifies project phases, activities and targets throughout the project life-cycle.

RUP Principles

- ▶ Requirement changes are noted and could be accommodated
- ▶ Risks are attacked early in development, since each iteration gives the opportunity for more risks to be identified
- ▶ Software architecture is improved through repeated scrutiny
- ▶ Focus on meeting customer requirements
- ▶ Continual quality management throughout product life cycle



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Intellias Conforms to the Quality Standards and Recommendations by Applying Carefully Documented Procedures

We have developed and implemented the unique documentation system to make management process efficient and tracked by both our and client's side. During project's life-cycle a number of documentation procedures are kept. The development of documents series for our clients enables us to make overview of the process and to keep abreast.

The following documents are developed and accessible for our clients:

Area / Document	Tools / Resources
Requirements Engineering Software Requirements Specifications	IEEE Standards 830, 1233
Project Management Software Development Process Standard Project Vision Effort Estimations Project Schedules Web Development Standards & Guidelines Design guidelines HTML guidelines Testing guidelines Delivery guidelines Effort Reports Project Lifecycle Checklists, Instructions and Templates	Set of internal standards Internal templates Internal standard and guidelines MS Project, Gantt charts Set of internal standards INTEMS INTEMS, set of internal templates
Change Request Management Requirements Tracking Defects Tracking	Seapine TestTrack Pro, JIRA
Configuration Management Source Code Version Control Parallel Versioning Delivery Model	MS VSS, Seapine Surround SCM, CVS Seapine Surround SCM, internal documents Internal documents
Solution Design Architecture Proposals Object Oriented Design (OOD), use of design patterns Database Design GUI Prototypes Technical Documentation GUI Design Guidelines	Rational Rose, Together J, Design Patterns PowerDesigner DataArchitect
QA Procedures Testing Process Standard Automated Testing Testing Plans and Testing Reports Testing Checklists Coding Conventions	QA Wizard, Mercury's QuickTestPro Internal templates Internal templates Internal standards (General, C#, Java, PHP)

These documents are sent to the client during project life-cycle and enable to build strong communication, tracking and feedback system in order to achieve excellent results. Our main aim is to make the process of project development most efficient and easy going for both our client's and Intellias sides.

How We Make Sure the Projects Run Under Customer Control

Project Model

According to confirmed requirements specification and delivery plan, the client has control over project tasks and milestones. Regular project reports are presented in order to demonstrate how the project follows defined milestones. Detailed Gantt charts provide the client with better understanding of time schedules and deliverables.

Dedicated Center Model

With this model the client has complete control over the project team, including definition of tasks, assignments, priorities, defects and other project details. The clients has full access to effort reports and statuses, and this transparency allows to fully control project flow.



CASE Systems Used

- ▶ PowerDesigner DataArchitect 6
- ▶ Rational Rose 2000
- ▶ TestTrack Pro 7
- ▶ Surround SCM 3.x
- ▶ MS Visual SourceSafe
- ▶ MS Project 2000
- ▶ MS Visio 2000
- ▶ QA Wizard