

Computer systems, specifically software, encompass small, medium, and large enterprise applications: from word processors to large applications such as satellites and the National Defense System. In all cases, the trend is going toward Graphical User Interfaced systems and networked applications, which are complex in nature. Developing them is usually a complex process. Corporate priorities are focussed on delivering these projects using new technologies and techniques with reduced time-to-market. Every development team shares a common mission; to develop quality software that is delivered on time and on budget, which also meets the defined functional and quality requirements, requested by the users.

Studies have shown that approximately 56% of software development errors originate at the requirements definition stage. In addition, another 27% originate at the design stage, and in total, over 80% of errors originate early in the project life cycle, before any code is written. One reason for this is that the norm for testing is usually subsequent to releasing the completed product. Requirement defects left undetected until construction or maintenance will cost 50 to 200 times as much to fix, as it would have if uncovered at the requirements stage.

Information Balances testing process (IB-TestSphere™) promotes an approach that focuses on tracing requirements throughout the life cycle, beginning at the requirements stage. This approach ensures that business and technical requirements are front and centre in the testing of the software system. IB-TestSphere™ uses the best practices available in order to provide a progressive approach to testing and quality assurance, referencing and utilizing the Software Engineering Institute's Capability Maturity Model (SEICMM) and the Quality Assurance Institute's Capability Maturity Model. (QAICMM)

IB-TestSphere™ uses templates and samples that are proven to speed the completion of testing projects. A template is a pre-written product outline which contains the main content (tables of contents, suggested topics) for a particular product, while a sample is a completed product that is used as an example or reference for developers and testers. While a template does not contain specific project details, a sample does. It is sometimes easier for a developer or tester to visualise a product's contents from a completed sample product. IB-TestSphere™ **provides over 100 templates** covering each stage of the development cycle in detail. All of the templates, samples, checklists and deliverables can be viewed and managed using the web-based IB Test Portal tool. The tool provides a single location for accessing and managing testing and QA components, and included, are links to third party test tools and web testing resources.

Experience in our testing consulting practice has shown that **templates** provide a significant productivity increase since they allow developers to quickly create the required testing products without the need to invent and re-invent for each project. Templates also provide uniform product standards across an organization. IB-TestSphere™ works with any testing tool, and supports all the key platforms and project types that are commonly used in software development today.

At the onset of Software Development, testing should be considered and used as the philosophy of 'getting things right'. Testing should be associated with all phases of any software's development. It is the sentinel of quality and insurance that an IS project or software application meets its design, functionality, and operational objectives.

Information Balance is committed to the goal of defect prevention throughout the development lifecycle. Our goal is to do the exact amount of testing to lower the business risk to an acceptable level.