

BSSE USP's

Inspiration instead of Transpiration. BSSE suggests a revolutionary new paradigm in the context of software development: give priority to inspiration rather than transpiration, based on full automation in the software lifecycle. We assign the tedious manual activities – the transpiration – fully to the computer and leave the creative activities – the inspiration – to the engineer. This approach implies a high potential of savings in terms of budget, time-to-market, and of increased productivity and quality. We support our customers in moving towards fully automated processes, and in implementing a tailored approach at drastically reduced risks.

Inherent Quality. Automated checks on the quality of the process are an inherent part of our concept. The integrated checking mechanisms are capable of identifying faults, which cannot be found at all with other analysis and test tools. This has been confirmed in practice.

Time-to-Market. Due to a large experience in the analysis and the optimisation of processes, BSSE is in a sound position to immediately assess the current state of an organization in terms of quantitative figures regarding efficiency and productivity. From such an assessment we derive concrete measures to significantly accelerate the development of software products.

Interdisciplinary. Due to our deep experience in numerous application domains, we have good interdisciplinary knowledge to successfully enter new areas. Apart from software development we also consider aspects of system engineering.

Benefits for a Customer

Feasibility. The shorter time-to-market and the higher flexibility ensure an immediate and reliable analysis on the feasibility of a specification. Full process automation implies immediate and inexpensive identification of dependencies between requirements and system elements and the impacts of envisaged changes/change requests.

Flexibility. A specification may be easily iterated and refined until the observed properties of the product meet the needs. Due to full automation the observed properties, not its theoretical assessment, drive the improvement of the specification. As soon as a specification is available, the software product is immediately available “at a touch” (typically within 15 minutes, but this depends on size and complexity).

Productivity. Due to the fully automated production chain with integrated quality checks a software product can be derived from a specification at a rate of up to 1 million lines of code per hour on a ordinary PC and can then be automatically executed on the development or target system.

Quality. The fault rate of BSSE tools and the derived code is up to 2-3 order of magnitudes lower than in case of manual development for a first version of a new process – approaching zero defects immediately or after tool maintenance. The quality of every product built with such a chain is continuously high and reproducible.

Fault Identification. Faults and failures are reported either inherently by the tool before the production process is started (faulty specification) or immediately after the production due to the automatically visualized properties (validation of the specification). Other software like legacy software not being subject to automatic production can be efficiently analysed for faults by test environments automatically derived from the provided source code, automatically stimulating the software-under-test.

Risk Reduction. Project risks are significantly reduced due to the higher flexibility, the capability for early and continuous feasibility analyses, the easy and advanced capability for change impacts and the capability for early identification of faults.

Cost Reduction. The costs of personnel are drastically reduced as the whole transformation of a specification into a product is fully automated including execution, stimulation and reporting on properties. Off-shoring or outsourcing is no longer required.

Know-how. Company know-how is preserved in a repository of specifications due to the automated process. The valuable know-how remains in a company even if engineers leave. Similarly, the absence of off-shoring keeps the know-how in a company.

Spectrum of BSSE Customisable Services

Full Scope. Provision of technical and organizational solutions and their implementation in automated and optimized processes according to customer's requests. From requirements engineering to project coaching. We also deliver analyses regarding productivity and efficiency as well as risk analyses. We perform sensitivity and impact analyses of envisaged changes.