



■ Critical Issues

■ Aren't you conducting your business under the following conditions?

- ◆ The development worksite is chronically busy, and we'd like to do something about it.
- ◆ Even though we are conducting various improvement activities, it is hard to see any improvement in productivity.
- ◆ We find so much waste in our current development operations, but we don't know how to actually deal with it.
- ◆ Although the amount of development tasks remains the same, the number of employees has been reduced, and we don't know what to do.
- ◆ We'd like to get involved in innovation activities, but we don't have enough time to fully discuss innovation issues or plans.
- ◆ Since even productivity innovation activities are outsourced, the reform itself does not proceed as expected.
- ◆ Improvement and reform have lost their power as rallying calls, and actually nothing has been accomplished.
- ◆ Quality control standards such as ISO/CMM disrupt improvements in productivity, but we are unable to solve this.

■ JMAC Concept

■ Understanding the customer's basic requirements and purposes

Generally, many customers express their demands through the means for achieving their targets. Engineers usually design software by simply following what customers request. However, root requirements are different even if customer requests are the same. It is important to understand root requirements for design standardization. JMAC places great importance on understanding the customer's basic requirements and purposes, and provides requirement analysis techniques to improve productivity by optimizing software requirement specification through commonality found in customer's requests.

■ Elimination of waste

- Much of the waste in software development operations is hard to detect. By eliminating the main factors of waste listed below, JMAC reduces the development costs and improves the productivity.
- Development process that does not match the business characteristics and actual development situation
 - Unnecessary development production items
 - Overlapping documents
 - Reviews and meetings which have no meaning and no effect
 - Software structures that are prone to quality problems, or those that are difficult to test

■ Automation of non-intellectual work

Among various types of work involved in software development, there is much clerical work. In order to enable software development engineers to concentrate on more intellectual work, JMAC supplies ideas for automation for productivity improvement.

Software Productivity Innovation

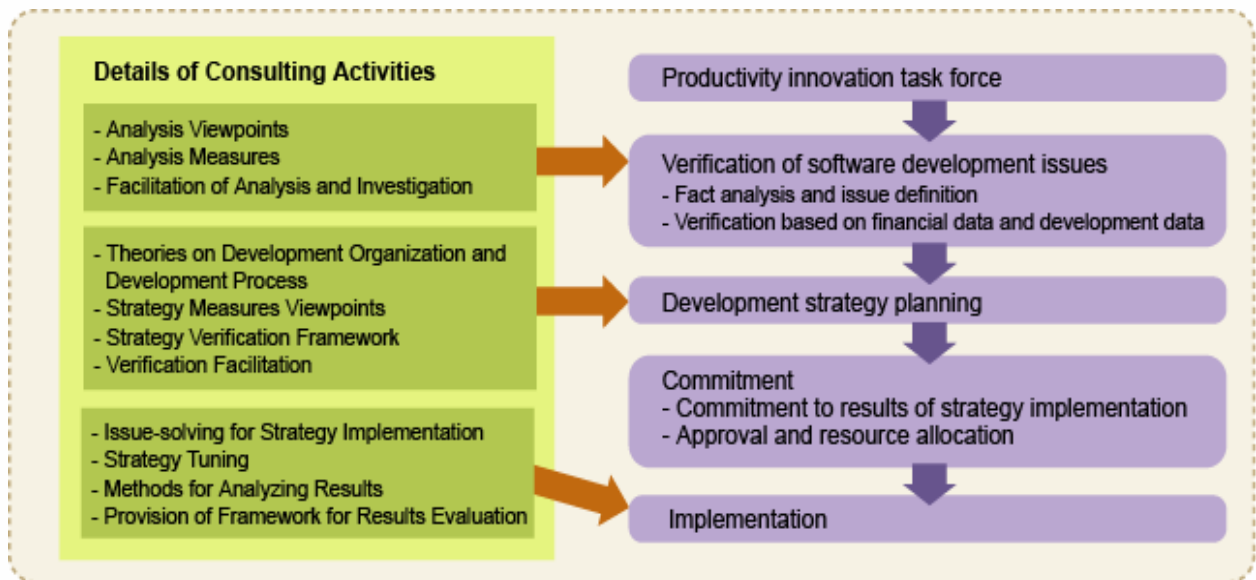
Software development innovation



JMAC Features

Forming software productivity innovation task force, and implementing activities

- ◆ A software development productivity innovation task force will be set up, made up of the software development managers as leaders and the main software development engineers as members. They will be responsible for implementing innovation activities.
- ◆ Brainstorming will be used to define sources of waste recognized in daily development operations, and the impact of each source on the productivity will be quantitatively analyzed.
- ◆ Set the productivity innovation targets quantitatively, and conduct quantitative visualization of the innovation effect.



Results

Software Development Results

- ◆ Greater value-added development for the same cost
- ◆ Development costs reduction
- ◆ Expansion of medium-term strategy implementation by redefining the excess personnel in the development division

Building of innovation skills in software development team

- ◆ Build productivity innovation skills of development team
- ◆ Education of development management capability due to innovative experiences as development leaders
- ◆ Education of future development leaders