**Fix Bugs of the Application**

* **Fix bugs**

Java Debugger (JDB) is used to find and fix bugs in the java program.

A software bug is an error, flaw or fault in computer software that causes it to produce an incorrect or unexpected result, or to behave in unintended ways. The process of finding and correcting bugs is termed "debugging" and often uses formal techniques or tools to pinpoint bugs. Since the 1950s some computer systems have been designed to deter, detect or auto-correct various computer bugs during operations.

Most bugs arise from mistakes and errors made in either a program's design or its source code, or in components and operating systems used by such programs. A program with many, or serious, bugs is said to be buggy. Bugs can trigger errors that may have ripple effects. Bugs may have subtle effects, or cause a program to crash, or freeze the computer. Other bugs qualify as security bugs and might, for example, enable a malicious user to bypass access controls in order to obtain unauthorized privileges

* **Debugging**

The typical bug history (GNU Classpath project data). A new bug submitted by the user is unconfirmed. Once it has been reproduced by a developer, it is a confirmed bug. The confirmed bugs are later fixed. Bugs belonging to other categories (unreproducible, will not be fixed, etc.) are usually in the minority.

Debugging

Finding and fixing bugs, or debugging, is a major part of computer programming. Maurice Wilkes, an early computing pioneer, described his realization in the late 1940s that much of the rest of his life would be spent finding mistakes in his own programs.

Usually, the most difficult part of debugging is finding the bug. Once it is found, correcting it is usually relatively easy. Programs known as debuggers help programmers locate bugs by executing code line by line, watching variable values, and other features to observe program behavior. Without a debugger, code may be added so that messages or values may be written to a console or to a window or log file to trace program execution or show values.