

■ innotek[®]

Development tools



OS/2 development dilemma

- OS/2 has always suffered from inferior development tools leading to inferior products
 - IBM's Visual Age C++ Version 4 was never fully stabilized, causing developers to stick with the older version 3
 - Porting mainstream apps to OS/2 often fails because of backlevel compilers and development tools
 - IBM's JDK's for OS/2 are being discontinued (since 1.3.1)

InnoTek's solution

- We provide state-of-the-art development tools for OS/2 developers:
 - InnoTek GCC for OS/2[®]
 - InnoTek OS/2 Kit for Java (SDK)
- We are committed to support OS/2 until the last customer has completed the transition process
- We guarantee enterprise-level support and functionality



InnoTek GCC for OS/2

- A commercial distribution of the GNU C/C++ compiler suite and associated utilities for the IBM OS/2 platform.
- InnoTek maintains and provides comprehensive support for the compiler environment
- GCC generates native OS/2 code (no EMX required!)
- Available for free personal use / Enterprise licensing



Benefits

- Availability of a modern C/C++ compiler environment on OS/2, supporting the latest C++ language standards
- A complete, easy to use and well tested compiler suite from the leading OS/2 ISV
- Enterprise level defect support for mission critical use of the compiler suite
- Custom enhancements and modifications available as part of a support agreement

Licensing

- The GCC compiler suite is licensed under the GNU Public License (GPL) and can be used free of charge. (All OS/2 specific changes and enhancements performed by InnoTek are released under the GPL as well)
- InnoTek GCC for OS/2 can be downloaded at no charge
- InnoTek GCC for OS/2 with 12 months of defect support is available directly from InnoTek at USD \$2500 per developer seat. The minimum number of seats per customer required to get defect support is 10.



Support

■ Software defect support

- InnoTek will address all software defect issues that are specific to OS/2, i.e. either a problem in GCC that is only (or mainly) relevant on OS/2 or a problem in the OS/2 platform support of GCC.

■ Additional enhancements and modifications

- These are product enhancements that InnoTek agrees to provide based on customer requirements. Currently, InnoTek commits to providing:
 - ▶ complete support for the IBM VisualAge for C++ 3.6.5 _Optlink function and method calling convention
 - ▶ support for the IBM VisualAge for C++ 3.65 internal C++ object layout (VTABLE) for enhanced compatibility with existing VAC++ objects
 - ▶ more complete and up-to-date support of the IBM HLL debug information for source level debugging with the IBM Debugger for OS/2 3.65 (IDEBUG)

■ Access to InnoTek's online support system

- Registered customers will get access to InnoTek's online support system to create and track support incidents.

Java challenges

- Java is still a relatively young platform
 - changes from release to release are quite significant
 - important features are still being added
 - significant performance increases are made
- The SUN reference implementation is becoming the de-facto standard on Windows and Unix
 - customers in a cross-platform environment wish to standardize on a single JVM version
- Customers using OS/2 have been limited to the IBM version of the JVM
 - this makes cross-platform development of Java applications (e.g. for OS/2 and Windows) more difficult

The InnoTek solution

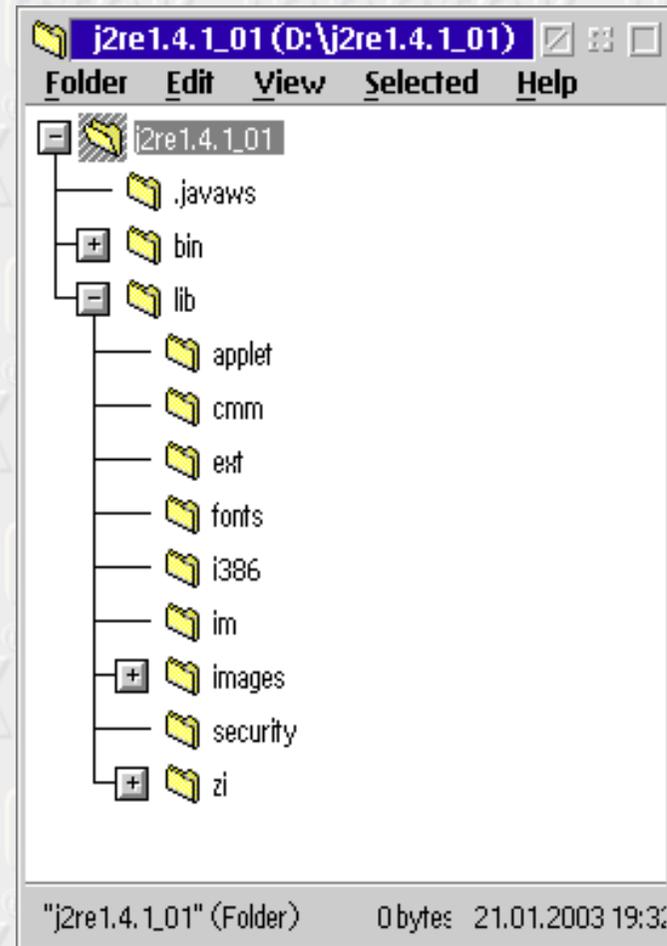
- InnoTek is providing an up-to-date version of the SUN JVM (currently at the 1.4.2_01 level)
 - both JRE and SDK are available
 - Browser plugin available for Mozilla / Firebird / IBM Web Browser for OS/2
 - Java Web Start included
- Advantages:
 - significant performance gains (esp. load time, optimized for HPFS with small caches)
 - optimized for low virtual address space consumption
 - fully tested and serviced code base, 100,000,000+ installations
 - the most current JVM available
 - **Updates and extensions available per customer request**

InnoTek OS/2 Kit for Java

- Directly based on SUN's most current JVM for Windows (1.4.2_01)
- Advantages:
 - Unmodified thus industry proven SUN code
 - SUN HotSpot engine delivers much higher client performance compared to the IBM JIT (esp. application startup and GUI)
 - Built with the identical compiler suite (Intel VTUNE) thus delivering the most reliable and best optimized code possible
 - code quality and performance unreachable with any OS/2 native compiler
 - InnoTek architecture allows for instant availability of updated versions
 - traditional approaches come with significant delays in time to market and require substantial effort for every new (minor) version
 - "Same bugs and features" as under Windows - InnoTek guarantees identical behavior
 - this is the main driver of all our development!

JAVA 1.4 directory layout

- identical to Windows
- no PATH/LIBPATH settings required (uses OS/2's registry to find itself)
- can be used in parallel with IBM Java or other InnoTek Java versions
- integrates into any OS/2 environment



OS/2 Executables provided

- **JAVA.EXE** for command line invocation:

```
[D:\j2rel.4.2\bin]java -version  
java version "1.4.2"
```

Java(TM) 2 Runtime Environment, Standard Edition (build 1.4.2-b28)

Java HotSpot(TM) Client VM (build 1.4.2-b28, mixed mode)

- **JAVAW.EXE** for GUI invocation

- keytool.exe, kinit.exe, klist.exe, ktab.exe, orbd.exe, policytool.exe

- rmid.exe, rmiregistry.exe, servertool.exe, tnameserv.exe

Total Support Option

- InnoTek's products provide a unique support experience
 - InnoTek guarantees identical behavior on OS/2 and original platform (Windows/Linux)
 - up-to-date OS/2 versions for higher code quality
 - in case of problems due to OS/2 limitations or bugs, InnoTek commits to implementing workarounds as possible
 - Full source codes available at no charge upon customer request
 - TCO level support for the cost of traditional warranty defect support
 - IBM Software Support available

Purchase options

- InnoTek offers this solution to enterprise customers worldwide
- As an IBM business partner, InnoTek sells through IBM
- Full service is available
- **Enterprise licenses, volume discounts and support contracts are available**



Contact information

- **InnoTek**
Systemberatung GmbH
Werkstrasse 32
71384 Weinstadt, Germany
Sales: ostein@innotek.de
Inquiries: info@innotek.de

Web sites:

<http://www.innotek.de>