

IBM Informix 4GL Version 7.32 product family

Highlights

- ***Integrated rapid development system, interactive debugger and compiler***
- ***Customizable power with a combination of procedural and nonprocedural statements***
- ***High-performance production environment***



Sophisticated database applications with one consistent interface.

Ideal environment for database application development

The Informix® 4GL product family comprises the Informix 4GL Rapid Development System, Informix 4GL Interactive Debugger and Informix 4GL Compiler. It is a comprehensive fourth-generation application development and production environment that provides power and flexibility without the need for third-generation languages like C or COBOL.

Wouldn't you like to find a self-contained application development environment that:

- *Provides rapid development and interactive debugging capabilities?*
- *Offers high performance in the production environment?*
- *Integrates all the functionality that you need for building even the most-complex applications?*
- *Doesn't require the use of a third-generation language?*
- *Allows you to easily maintain your applications for years to come?*
- *Is based on industry-standard SQL?*
- *Is easily portable?*

Look no further. You have just described the Informix 4GL product family.

The Informix 4GL product family gives you the tools that you need to create sophisticated database applications—in three easy packages with one consistent interface. Used together, Informix 4GL Rapid Development System and Informix 4GL Interactive Debugger provide the optimal environment for developing applications, while Informix 4GL Compiler provides high-performance application execution in the production environment.

Whether you are building menus, forms, screens or reports, Informix 4GL software performs development functions and allows for easy integration between them, reducing the need for external development packages. Because our Informix 4GL products are source-code compatible, 4GL-generated applications are highly portable.

Integrated, high-performance environment

Complete application development environment

For creating customized applications, Informix 4GL has pop-up windows, color built-in help, nonprocedural report specifications, complete procedural flow control and other facilities. You can also create your own ring menus and use flexible scrolling arrays—all of which increase productivity during development and production.

Informix 4GL offers a combination of procedural and nonprocedural statements to give you the customizing power that you'll need without the requirement for third-generation languages such as C and COBOL. Procedural statements give developers flexibility while nonprocedural statements such as OPEN WINDOW, MENU, SELECT, DISPLAY, FORM and INPUT save developers from writing hundreds of lines of detailed code.

Less code also means less time spent maintaining your applications. Informix 4GL is concise and English-like, making it easy for programmers to get up to speed quickly when it's time to view, edit and update existing applications.

Like all Informix application development tools, the Informix 4GL product family is built on industry-standard SQL, which speeds database access and manipulation, and allows easy integrations with applications built using any of our SQL-based tools. These include Informix-SQL and Informix-ESQL/C (embedded SQL for C that allows SQL commands to be used in applications created with the C programming language).

Extensive data-type support includes basic as well specialized data types. Supported data types are Array, Byte, Character, Date, Datetime, Decimal, Float, Integer, Interval, Money, Nchar, Nvarchar, Record, Smallfloat, Smallint, Text and Varchar. The Byte and Text data types are for use with Informix-Online only.

Informix 4GL development environment

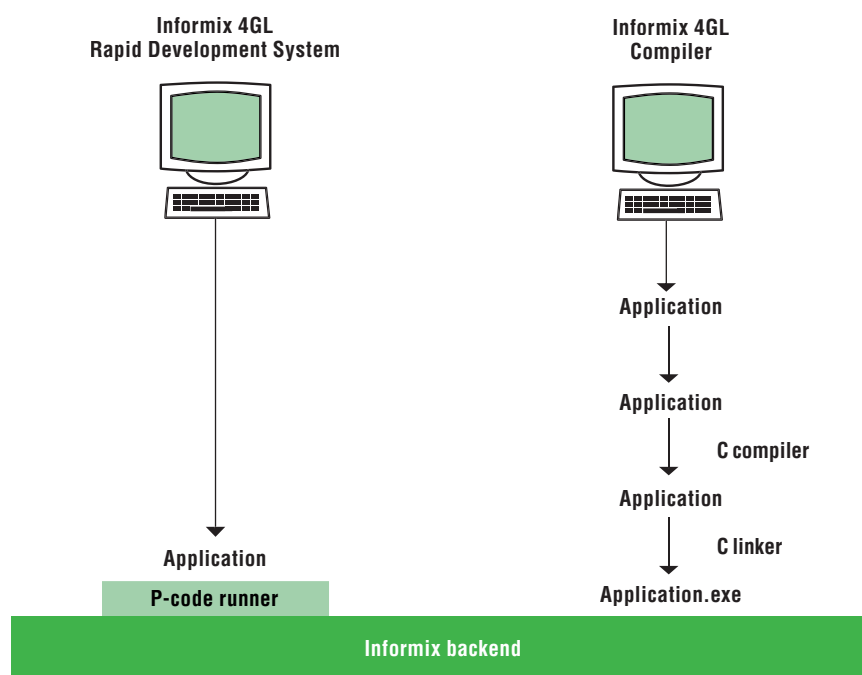


Figure 1. Informix 4GL Rapid Development System provides one-step compilation that produces pseudomachine code (p-code) quickly, minimizing compile time. For maximum performance, Informix 4GL Compiler produces compiled code for fast application execution.

Informix 4GL Rapid Development System

Informix 4GL Rapid Development System, the interpreted version of Informix 4GL, helps to increase developer productivity by decreasing compilation time (see Figure 1).

Developers don't have to wait long for programs to compile with Informix 4GL Rapid Development System because the product is optimized to reduce compile times. Code written with Informix 4GL Rapid Development System is compiled into p-code, read into memory and executed by a p-code runner.

Informix 4GL Interactive Debugger

Informix 4GL Interactive Debugger enables you to "step inside" a running program to perform debugging operations in a friendly, easy-to-use environment. Programmers can:

- *Control the execution of running programs*
- *View and change contents of variables*
- *Analyze program execution step by step*

Informix 4GL Interactive Debugger is also a powerful tool for maintaining Informix 4GL programs because it reduces the time required for developers to understand an existing application, and enables them to locate bugs quickly and easily.

Informix 4GL Compiler

After you have completed development and are ready to move into the production environment, you will want the fastest-possible performance. Informix 4GL Compiler maximizes application performance by taking Informix 4GL source code and compiling it into standard C code — which is then compiled into machine code. Informix 4GL Compiler enables you to take full advantage of the speed of the computer.

Informix 4GL Version 7.32 — features, benefits and value

The following paragraphs give an overview of the Version 7.32 features, benefits and its value.

Perfectly suited for IBM Informix Dynamic Server Version 7 to 9 upgrades

Informix 4GL 7.32 will allow users currently on Informix Dynamic Server (IDS) 7.x databases to take advantage of the latest function-rich IDS 9.4 server release. It also offers superior IDS 9.x server compatibility with features that support the new SQL data types INT8, SERIAL8 and NCHAR/NVARCHAR. This release also supports the important IDS 9 Long ID feature that allows handling of identifier names up to 128 characters in length.

Highly efficient memory utilization

With the new Dynamic Arrays 4GL 7.32 feature, you can allocate just the amount of memory needed for their arrays, rather than having to preallocate enough space for the worst-case scenarios. Using simple 4GL 7.32 language statements, programmers can dynamically allocate the amount of space actually needed, and then release that space when it is no longer needed. Programmers can also resize dynamic arrays. Finally, dynamic arrays are no longer limited to 32 767 elements.

Ideal for Informix 4GL Version 4 to 7 upgrades

Customers can now upgrade their legacy Informix 4GL 4.x applications to Informix 4GL 7.32 and take advantage of many of the new Informix 4GL features added in Version 7.30 (and later). The addition of pipe connectivity in the IBM Informix OnLine Extended Edition (OnLine) 5.20 server lets you connect Informix 4GL 7.32 directly to Informix OnLine 5.20 server running on the same machine — without requiring either I-NET or I-STAR. Unlike the earlier Informix 4GL 4.x releases, Version 7.32 supports the latest internationalization techniques. For example, a single binary now supports different language settings such as English and Asian.



Availability on latest platforms

Informix 4GL 7.32 is available on all major UNIX® platforms (32- and 64-bit) as well as Linux running on Intel® processor platforms and it is fully compatible with Informix Client Software Development Kit (CSDK) 2.81 and the latest Informix servers. This allows developers to write applications in languages and application programming interfaces (APIs) such as C, C++, ESQL, ODBC and OLEDB.

Memory and disk requirements

All Informix 4GL products occupy less than 30 MB of disk space and run well on machines with 32 MB of RAM. Display characteristic type, report specification type, and form specification type can be found in product documents.

UNIX specifications

The specifications in the following tables are based on Informix 4GL Compiler, Informix 4GL Rapid Development System and Informix 4GL Interactive Debugger 7.32 running on Sun SPARC 10 with Solaris 2.3.

For more information

Please contact your IBM Marketing Partner, or call 1 800 IBM CALL (1 800 426-2255) within the U.S. Also, go to our Web site at **ibm.com/informix**

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