



Rational software

IBM WebSphere Development Studio for System i, Version 6.1

Highlights

- **Enables you to order and install only the features you need**
- **Includes enhancements to the IBM i5/OS host ILE RPG compilers**
- **Features other enhancements to the ILE COBOL, ILE C and ILE C++ compilers**

IBM WebSphere® Development Studio for IBM System i™, Version 6.1 software has been repackaged into three separate options, allowing you to order and install only the components you need. In addition, this release includes significant enhancements to the IBM i5/OS®

host integrated language environment (ILE) RPG compilers, as well as a number of other enhancements. As of this release, the WebSphere Development Studio Client is no longer included as part of WebSphere Development Studio for System i software.

Option

ILE compilers

- Option 31 ILE RPG
- Option 35 ILE RPG *PRV compiler
- Option 41 ILE COBOL
- Option 45 ILE COBOL *PRV
- Option 51 ILE C
- Option 52 ILE C++
- Option 56 IXLC for C/C++

Heritage compilers

- Option 32 S/36 compatible RPG II
- Option 33 S/38 compatible RPG III
- Option 34 RPG/400
- Option 42 S/36 compatible COBOL
- Option 43 S/38 compatible COBOL
- Option 44 OPM COBOL

Application Development ToolSet

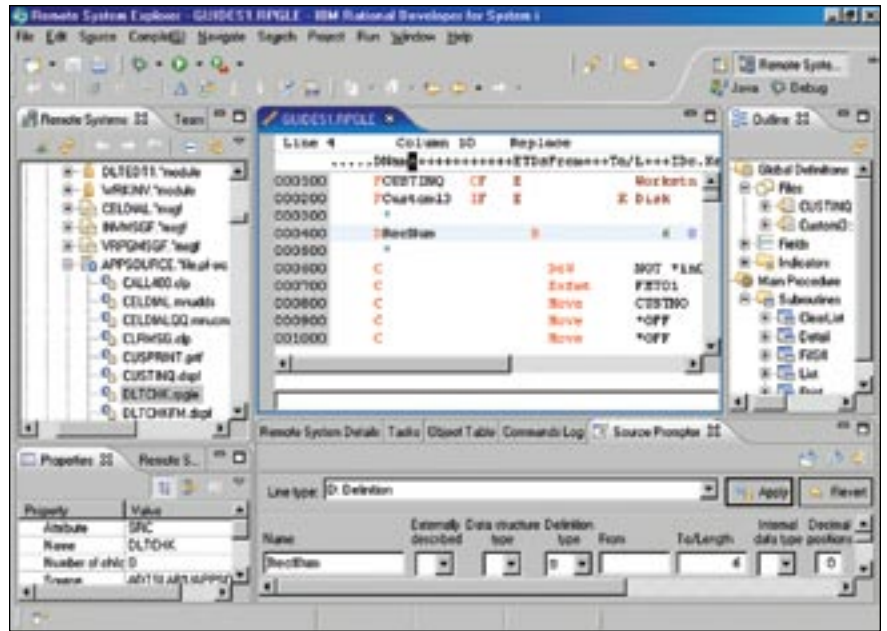
- Option 21 Application Development ToolSet

In the future, IBM will focus its development efforts on the ILE compilers in WebSphere Development Studio for System i and on the new IBM Rational® Developer for System i, Version 7.1 software. The heritage compilers, Application Development ToolSet and WebSphere Development Studio Client will no longer be updated.

Enhancements to the IBM i5/OS host ILE compilers

The latest release of WebSphere Development Studio for System i software includes significant enhancements to the IBM i5/OS host ILE RPG compilers, enabling you to:

- Run concurrently in multiple threads. Each thread has its own static storage for fields, and all threads can use `STATIC(*ALLTHREAD)` for fields. Additionally, each procedure can be serialized individually.
- Specify the main procedure to be called. Now you can create an RPG program with no RPG cycle.
- Use files more effectively. Support local files by defining them in a procedure after the P Specification. You can now make better use of files by defining them in qualified record formats (`FILENAME.RECNAME`). The `LIKEFILE` keyword allows you to define one file the same way as an existing file, and the `LIKEFILE` prototype keyword allows you to pass files as parameters. The new `TEMPLATE` keyword helps define file types, and the new `EXTDESC` keyword specifies the file to be used at compile time. Further, you can define data structures in the result field for `EXFMT`.
- Utilize significantly higher limits for the size of variables. Variables can now range from 64K to 16MB, and the number of elements in an array can range from 32K to 16MB (16 million). Additionally, the length of string literals can range from 1K to 8K. And some Universal Character Set 2 (UCS-2) rules have been relaxed.*
- Leverage the new `TEMPLATE` keyword to define field and data structure types.
- Reduce module size with `OPTION(*NOUNREF)`.
- Store Program Call Markup Language (PCML) code in the module itself.



You can edit ILE RPG programs with Rational Developer for System i software.

Enhancements to the ILE COBOL, ILE C and ILE C++ compilers

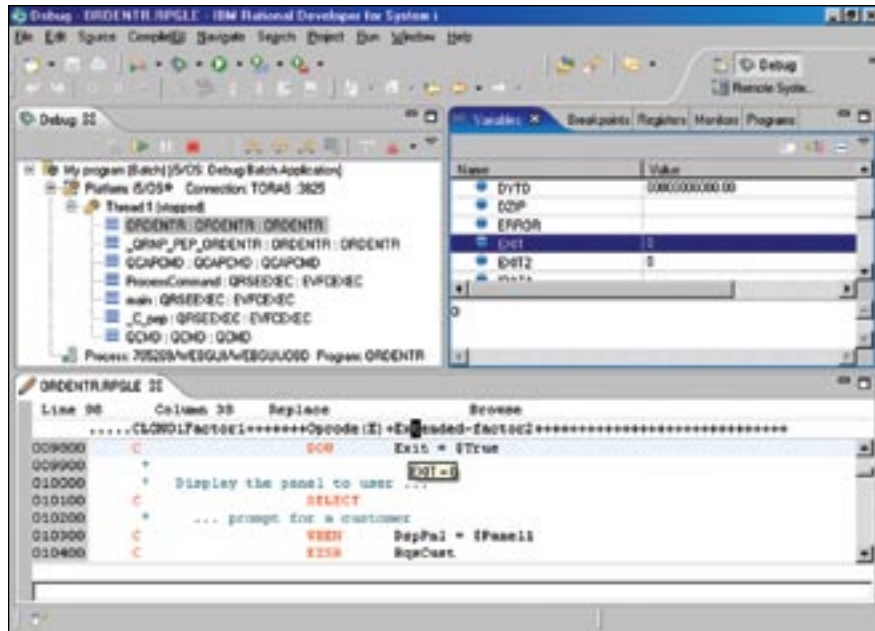
Other compilers have also been enhanced in the latest release of WebSphere Development Studio for System i software. Enhancements to the ILE COBOL compiler enable you to:

- Support national UCS-2 Coded Character Set Identification (CCSID).
- Debug complex occurs depending on (ODO) arrays.
- Support large programs easily.
- Store PCML in the module itself.

Enhancements to the ILE C compiler now allow you to:

- Support decimal floating-point.
- Support thread local storage.

In addition, the ILE C++ compiler has been enhanced to support thread local storage.



Rational Developer for System i makes it easy to debug System i RPG programs.

Software requirements

Operating system

IBM i5/OS, Version 6.1 (5761-SS1)

(Note: Some components will need additional program temporary fixes [PTFs]. PTF information is available online at www.ibm.com/software/awdtools/iseres.)

Compiler-specific requirements

- C and C++ compilers
 - “Openness Includes” (option 13 of 5761-SS1)
- C++ compiler
 - i5/OS Portable Application Solutions Environment (PASE) (option 33 of 5733-SS1)
- IXL shell command
 - Qshell interpreter (option 30 of 5761-SS1)



Hardware requirements

System

- IBM System i models 515, 520, 525, 550, 570, 595, 800, 810, 825, 870, 890 and MMA
- IBM blade models 7998-61X

Memory and disk space

- Base: 33MB
- Option 60 workstation tools: 2MB
- ILE RPG: 13MB
- ILE RPG *PRV compiler: 24MB
- ILE COBOL: 25MB
- ILE COBOL *PRV compiler: 42MB
- ILE C: 76MB
- ILE C++: 56MB
- IXLC for C/C++: The C++ compiler requires a machine capable of running i5/OS PASE (option 33 of i5/OS)
- S/36 compatible RPG II: 7MB
- S/38 compatible RPG III: 4MB
- RPG/400: 5MB
- S/36 compatible COBOL: 6MB
- S/38 compatible COBOL: 5MB
- OPM COBOL: 7MB
- Application Development ToolSet: 21MB

For more information

To learn more about IBM WebSphere Development Studio for System i, Version 6.1 software, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/awdtools/wds400

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* This functionality is available starting in version 5.2 through PTFs.