


Comparison of U.S. Patent No. RE40,520 with IBM DB2 Version 8, 9 and 10 - Tools Catalog Database



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(12) **Doktor**

(64) **EASILY EXPANDABLE DATA PROCESSING SYSTEM AND METHOD**

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(21) Appl. No.: 11/152,835
 (22) Filed: Jun. 14, 2005

Related U.S. Patent Documents

Reissue of:
 (64) Patent No.: 5,826,259
 Issued: Oct. 20, 1998
 Appl. No.: 08/862,176
 Filed: May 22, 1997

U.S. Applications:
 (63) Continuation of application No. 08/439,207, filed on May 11, 1995, now Pat. No. 5,675,779, which is a division of application No. 08/003,861, filed on Jun. 28, 1993, now Pat. No. 5,694,899, which is a continuation of application No. 07/526,424, filed on May 21, 1990, now abandoned.

(51) **Int. Cl.**
G06F 17/30 (2006.01)

(52) **U.S. Cl.** **707/4; 707/2**

(58) **Field of Classification Search** 707/2, 707/3, 101, 103 Y
 See application file for complete search history.

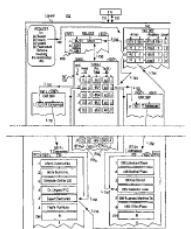
(56) **References Cited**

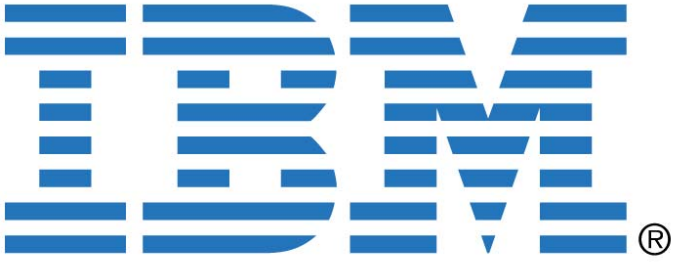
U.S. PATENT DOCUMENTS

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(Continued)

18 Claims, 19 Drawing Sheets





DB2 for LUW v8 Editions:

- Data Warehouse Enterprise
- Enterprise Server with Partitioning
- Information Integrator Advanced
- Enterprise Server
- Data Warehouse Standard
- Workgroup Server Unlimited
- Workgroup Server
- Express
- Express-C
- Personal
- Developer's Editions (PDE, UDE)

DB2 for LUW v9 Editions:

- InfoSphere Balanced Warehouse
- IBM Smart Analytics System
- InfoSphere Warehouse
- Advanced Enterprise Server
- Enterprise
- Workgroup
- Express
- Express-C
- Personal
- Developer's Edition (DEDE)

All Editions of:

- DB2 Warehouse Manager v8 (including DB2 LUW)
- DB2 Information Integrator v8 (including DB2 LUW)
- WebSphere Information Integrator v8, v9 (including DB2 LUW)
- WebSphere Federation Server v9 (including DB2 LUW)
- InfoSphere Federation Server v9, v10 (including DB2 LUW)

DB2 for LUW v10 Editions:

- IBM Smart Analytics System
- InfoSphere Warehouse
- Advanced Enterprise Server
- Enterprise
- Workgroup
- Express
- Express-C
- Developer's Edition (DEDE)

Comparison of U.S. Patent No. RE40,520 with IBM DB2 Version 8, 9 and 10 - Tools Catalog Database

Some Background Information: Tools Catalog Database

With DB2 v8.1 software (in which documentation was marked as v8.2) items that were previously tables such as ATCHREL & RELINST had become views. See IBM's DB2 "Data Warehouse Center Application Integration Guide Version 8.2 (SC27112401)" [db2ade81.pdf], at pages 9, 125:

You import metadata into the Data Warehouse Center so that the Data Warehouse Center can extract and transform data for the warehouse or run partner applications that extract and transform data.

...

You can create views that are compatible with Information Catalog Manager Version 7 by using the Manage Information Catalog wizard. See the Information Catalog Manager Administration Guide for details. You might need to access these views if you had an application that uses SQL to access Information Catalog Manager metadata in Version 7.

...

FLG.ATCHREL view for the Data Warehouse Center

...

FLG.RELINST view for the Data Warehouse Center

...

These version 7 compatibility views, as well as views such as REL_INSTANCE_UV and REL_LINK_UV in DB2 LUW v8.1 (e.g., the CREATE statements for the views), demonstrate that the new OBJECT_TYPE table is used to store entity types, and that the new REL_LINK table is used to store relation instances. These new tables exist in several places, including the 'Tools Catalog' database, and serve various modules including the Data Warehouse Center:

From <http://publib.boulder.ibm.com/infocenter/db2luw/v8/topic/com.ibm.db2.udb.doc/core/r0008881.htm>
<http://pic.dhe.ibm.com/infocenter/db2luw/v9r7/topic/com.ibm.db2.luw.admin.cmd.doc/doc/r0008881.html>
<http://pic.dhe.ibm.com/infocenter/db2luw/v10r1/topic/com.ibm.db2.luw.admin.cmd.doc/doc/r0008881.html>

db2 create tools catalog cc create new database toolsdb

After executing the above command, there would exist tables OBJECT_TYPE, SYSIBM.SYSTABLES (pre-existing), REL_LINK, REL_INSTANCE and MDTASKTYPE00, as well as views REL_INSTANCE_UV and REL_LINK_UV.

Note: DB2 v10 documentation states the tools catalog is being deprecated, but is still available if customers want it. See the following links:

<http://publib.boulder.ibm.com/infocenter/db2luw/v10r1/topic/com.ibm.db2.luw.qb.dbcconn.doc/doc/c0008453.html>
<http://publib.boulder.ibm.com/infocenter/db2luw/v10r1/topic/com.ibm.db2.luw.admin.gui.doc/doc/t0004960.html>
<http://publib.boulder.ibm.com/infocenter/db2luw/v10r1/topic/com.ibm.db2.luw.qb.upgrade.doc/doc/t0009303.html>
<http://publib.boulder.ibm.com/infocenter/db2luw/v10r1/topic/com.ibm.db2.luw.admin.cmd.doc/doc/r0052380.html>

Comparison of U.S. Patent No. RE40,520 with IBM DB2 Version 8, 9 and 10 - Tools Catalog Database

Some Background Information: Tools Catalog Database

See "Figure 1. Where DAS is used" (where DAS = DB2 Administration Server) at <http://publib.boulder.ibm.com/infocenter/db2luw/v8/topic/com.ibm.db2.udb.doc/admin/c0004959.htm>
 See also "Figure 6. How DAS relates to other parts of DB2 UDB" at <http://publib.boulder.ibm.com/infocenter/db2luw/v8/topic/com.ibm.db2.udb.doc/admin/t0008695.htm>

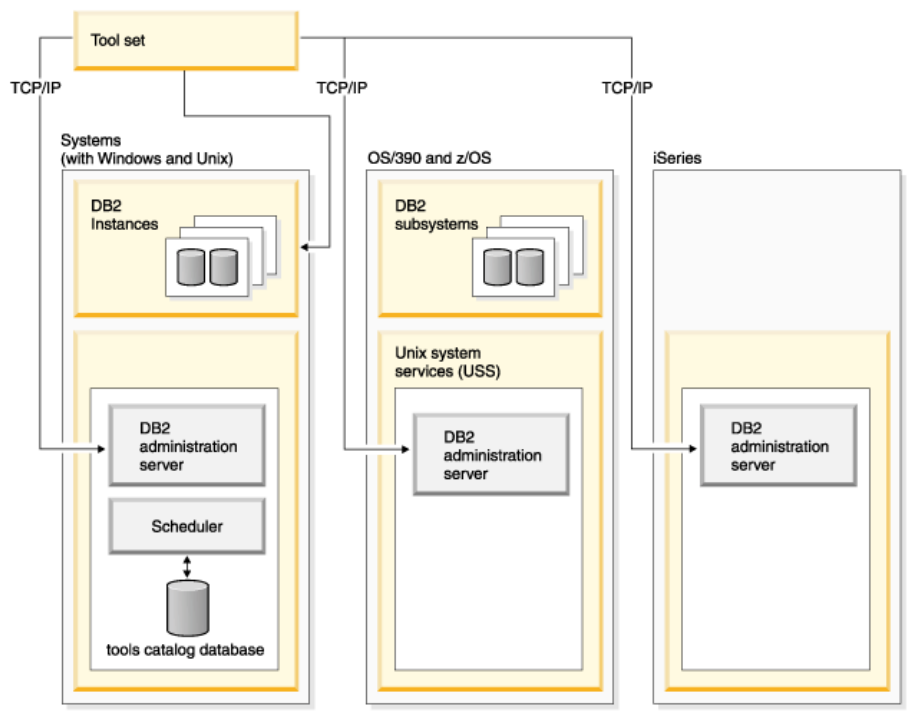


Figure 1. Where DAS is used

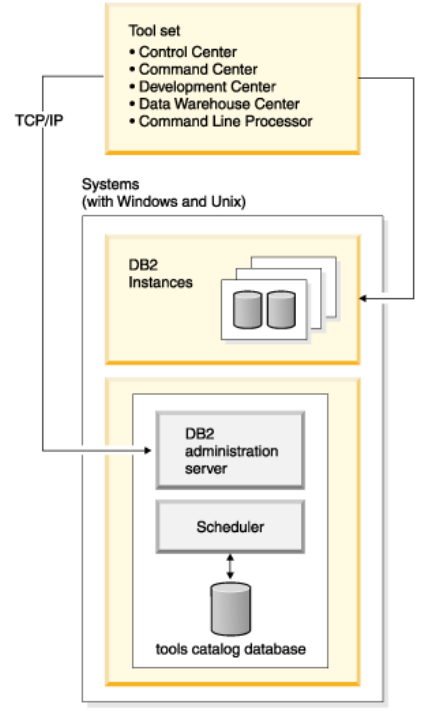


Figure 6. How DAS relates to other parts of DB2 UDB

Comparison of U.S. Patent No. RE40,520 with IBM DB2 Version 8, 9 and 10 - Tools Catalog Database

Some Background Information: DB2 / WebSphere / InfoSphere: Information Integrator / Federation Server

<http://www-01.ibm.com/support/docview.wss?uid=swg27009554#db2ii>

... DB2 Information Integrator (now called WebSphere Information Integrator) ...

<http://www-01.ibm.com/support/docview.wss?uid=swg21245039>

IBM WebSphere Federation Server product name replaces the product names for IBM WebSphere Information Integrator: Standard Edition and WebSphere Information Integrator: Advanced Edition.

<http://www-01.ibm.com/support/docview.wss?uid=swg21320617>

The IBM WebSphere Federation Server software portfolio is being rebranded as IBM InfoSphere Federation Server.

<http://publib.boulder.ibm.com/infocenter/db2luw/v8/topic/com.ibm.db2.ii.doc/start/ciiovr02.htm>

Table 2. DB2 Information Integrator editions and the products and components that they include

DB2 Information Integrator components	Event Publisher Edition and Replication Edition	Standard Edition	Advanced Edition	Advanced Edition Unlimited	Developer Edition
DB2 Universal Database [™] Enterprise Server Edition	X	X	X	X	X
Q replication	X	X	X	X	X
Nonrelational wrappers	Not included	X	X	X	X
Relational wrappers	X	X	X	X	X
DB2 Net Search Extender	Not included	X	X	X	X
DB2 Run Time Client (32-bit and 64-bit)	X	X	X	X	X
DB2 Administration Client (32-bit and 64-bit)	X	X	X	X	X
DB2 Application Development Client (32-bit and 64-bit)	Not included	Not included	Not included	Not included	X
DB2 XML Metadata Registry	X	X	X	X	X
Application server for DB2	X	X	X	X	X
Java [™] debugger	X	X	X	X	X

As shown in the first row of Table 2 (at left), all editions of DB2 Information Integrator use DB2 UDB, and thus all editions will also have access to the tools catalog database.

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Some Background Information: DB2 / WebSphere / InfoSphere: Information Integrator / Federation Server

"Data Federation with IBM DB2 Information Integrator V8.1 (SG24705200)" [sg247052.pdf], page 83:

13. Tools catalog

In Figure 4-8 you need to select whether you want to prepare the DB2 tools catalog or not. To enable you to use some tools like the task center and scheduler, you have to prepare the catalog first. [Fig. 4-8 states "... The DB2 tools catalog contains task metadata. The DB2 Setup wizard can prepare a local database to store this metadata."]

"IBM WebSphere Information Integrator: Accessing and integrating diverse data for the on demand business"
[a_user_management_system_for_federated_databases_using_web_services.pdf] pages 9 & 25-26:

A federated system consists of a federated engine, a database, one or more data sources and clients to access the database and the set of data sources. Several steps are necessary to add a new data source to a federated system. The Control Center in IBM DB2 Universal Database (UDB) and WebSphere Information Integrator software comes with wizards to step users through these tasks, or they can be done manually via DDL statements.

...

WebSphere Information Integrator V8.2 federation offerings ...

IBM WebSphere Information Integrator Standard Edition for Linux, UNIX and Windows provides the full range of federation capabilities described in this paper across a wide range of distributed sources.

IBM WebSphere Information Integrator Advanced Edition for Linux, UNIX and Windows provides all of the same federation capabilities as WebSphere Information Integrator Standard Edition plus an unrestricted license for DB2 Universal Database Enterprise Server Edition V8.2 (DB2 UDB ESE). ...

IBM WebSphere Information Integrator Advanced Edition Unlimited for Linux, UNIX and Windows provides all the same federation capabilities as WebSphere Information Integrator Advanced Edition and includes entitlement for an unlimited number of data connections.

IBM WebSphere Information Integrator Classic Federation for z/OS ... When combined with WebSphere Information Integrator editions for Linux, UNIX and Windows, data can be federated between mainframe and distributed databases.

<http://publib.boulder.ibm.com/infocenter/db2luw/v9/topic/com.ibm.websphere.ii.federation.query.doc/administering/tfpsts04.htm>

Administering > Federated systems > Working with nicknames > Updating nickname statistics

WebSphere Information Integration

Creating a DB2 tools catalog

When you update the statistics for a nickname, you can use a DB2® tools catalog to schedule subsequent updates to nickname statistics. If you lack a DB2 tools catalog, you are prompted to create a catalog. You can create a DB2 tools catalog from DB2 Control Center or the command line prompt, but you only can schedule the update with the DB2 Control Center. ...

2. Select the system that you want to create a database on for the DB2 tools catalog. ...

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