



Getting started with Data Studio

IBM Information Management – Cloud Computing Center of Competence
IBM Canada Labs

Agenda

- **DB2 tools general overview**
- **Data Studio overview**
- **Touring the workbench (demo)**
- **Managing connections (demo)**
- **Working with SQL and SQL scripts (demo)**

Supporting reading material & videos

- **Reading materials**

- Getting started with IBM Data Studio for DB2 eBook
 - Chapter 1: Overview and installation
 - Chapter 2: Managing your database environment
 - Chapter 3, section 3.2.1: Creating table spaces

- **Videos**

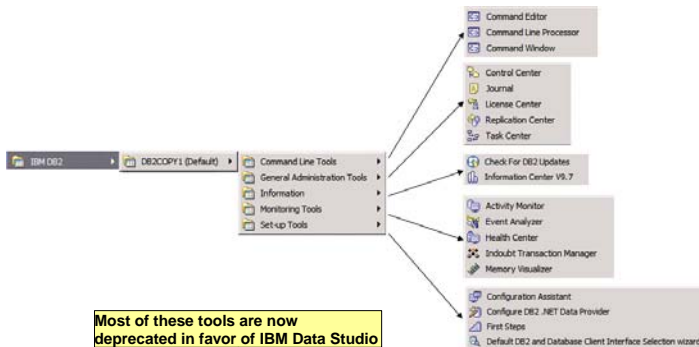
- db2university.com course AA001EN
 - Lesson 3: Getting started with Data Studio

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- **DB2 tools general overview**
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DB2 tools



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This figure shows all the tools that come with DB2. The same tools (except the Command Window) are available in Linux and Windows. As shown in the chart, most of these tools will not be enhanced in the future and will eventually disappear in favor of IBM Data Studio. The Command Line Processor and First Steps tools are likely to remain.

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- **Data Studio overview**
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What is IBM Data Studio?

- **Free tool for database administration and database development**
- **Based on Eclipse**
- **Can work with:**
 - DB2 for Linux, UNIX, or Windows
 - DB2 for iSeries
 - DB2 for z/OS
 - Informix Dynamic Server

IBM Data Studio is a FREE tool for database administration and development.

The latest version is 2.2.1. It is based on Eclipse 3.4.2 and can work with:

- DB2 for Linux, UNIX, or Windows (DB2 LUW)
- DB2 for iSeries
- DB2 for z/OS and
- Informix Dynamic Server

Note that though Data Studio is based on Eclipse and it's free, it is NOT open source.

Related products

InfoSphere Data Architect

Optim Database Administrator (ODA)**

Optim Development Studio (ODS)**

Optim Query Tuner

Optim Performance Manager

Data Studio

** Optim Database Administrator and Optim Development Studio are now included with most priced DB2 Editions

There are several fee-based products related to IBM Data Studio, most are Eclipse-based. We have, for example, InfoSphere Data Architect (IDA) which provides a complete solution for database design. Data Studio has a limit set of features from IDA, like the one to graph relationships between tables.

Then we have Optim Database Administrator (ODA). ODA provides a complete solution for database administration. Data Studio has most of the features available with ODA except "Change Management". Change Management is useful when your database structure needs to be modified affecting many tables that are related between each other.

With this feature, ODA takes care of propagating changes and keeping the data consistent. We also have, Optim Development Studio (ODS), provides an environment for database developers to work on functions, develop stored procedures, SQL scripts, Web services, and so on. Data Studio provides this same functionality, but it does not have pureQuery support. pureQuery is a new Java API from IBM that allows Java developers to code in a simpler way. It also helps DBAs improve performance of applications without modifying any code. Note the two asterisks at the bottom indicate that Optim Database Administrator and Optim Development Studio are now included with most priced DB2 Editions. So if you have purchased for example DB2 Workgroup edition, these tools ODS and ODA, can be used at no extra charge. Note that to run pureQuery applications you do need to purchase Optim pureQuery Runtime. Next we have Optim Query Tuner which is a tool that can help you tune your queries. Data Studio includes part of the functionality from this tool. Finally, Optim Performance Manager can help you monitor and tune your database. Data Studio also includes part of the functionality provided with Optim Performance Manager. So in summary, Data Studio provides functionality that could be considered as the base for some of these other products.

How is it packaged?

Evaluate **Support**

This product has all features enabled. IBM Data Studio is a fully licensed product available for free. It has no time restrictions. Download Data Studio now and try it with a free data server Express-C.

Edition/Operating system	Version	Size	Method	Download
Stand-alone Red Hat Linux, SUSE Linux, Windows	V2.2.1	277MB-290MB	HTTP Download Director	Download
IDE Red Hat Linux, SUSE Linux, Windows	V2.2.1 *	826MB	HTTP Download Director	Download
IDE Windows, Linux	V2.2.1 *	90MB-91MB**	Installation Manager (recommended)	Download
Data Studio Health Monitor AIX, Red Hat Linux, SUSE Linux, Windows	V2.2.1	140MB-160MB	HTTP Download Director	Download

Stand-alone (RCP)
Download size
290 MB

IDE Download
size 826 MB zip

IDE Download
size 91MB**

*To download available fix packs, see [Fix packs for IBM Data Studio](#).

** IBM Installation Manager is about 90MB. The size of the trial code itself and the download time required varies according to the product components and language you select.

www.ibm.com/db2/express/download.html

www.ibm.com/developerworks/downloads/im/data/

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Data Studio is available in 2 packages: Stand-alone, and IDE.

IDE stands for Integrated Development Environment. With this package you get everything Data Studio can offer including an installation manager. It also allows you to integrate well with other IBM Eclipse-based tools. For example if you have IDA installed in your system, then after installing and starting Data Studio IDE package you would see all the menus also from IDA from the same console as one single tool. As you install more products that can be integrated like this, you will see more menus appearing from the same console. You also can "shell-share", meaning that you share the same Eclipse across all of these products. Now the IDE package is rather heavy. It has a download size of 826MB. The IDE package could be downloaded differently as shown on the next line in the figure. So with this other package, or another method to download IDE. You only need to download 91 mb. This package, will first download the Installation management component and then the installation manager will pull in the components it needs rather than all of Data Studio software. This is helpful if you have already installed other IBM Eclipse-based products that share components with Data Studio. The second package is the Standalone package, also known as RCP, which stands for Rich Client Platform (an Eclipse component). This package has the exact same look and functionality as the IDE package, but it does not allow for extensibility with other IBM Eclipse-based products. It also does not have support for a few features like Data Web services and an XML editor. However, the download size is a lot smaller (290Mb). Data Studio Stand-alone may be all that you need and is the preferred choice for people using DB2 Express-C data server.

Where can Data Studio run?

- **Windows**

- Windows workstation platforms (XP, Vista, Windows 7)
- Windows server platforms (2003, 2008)

- **Linux**

- Red Hat, SUSE, and can work on other distributions

- **Can run on 32-bit and 64-bit systems**

For 64-bit systems, Data Studio runs in 32-bit mode

Data Studio can run on Windows workstation platforms like (XP, Vista, Windows 7) and Windows server platforms (2003, 2008).

It can also run on Linux. Redhat and SUSE are the one normally used for testing, but other distributions may also work.

And it can run on 32 and 64-bit systems, though if running on 64-bit systems, Data Studio will actually be running on 32-bit mode.

What are Data Studio requirements?

- **Minimum requirements**

- Memory: 1GB
- Disk space: 500MB (Stand-alone), 2GB (IDE)

- **Requirements can be found at:**

<http://publib.boulder.ibm.com/infocenter/idmhelp/ds-v2r2/index.jsp>

About Data Studio requirements:

You would need a minimum of 1GB of memory and for disk space, 500 MB for the stand-alone package, or 2GB for the IDE package.

For detailed information, visit the link that is provided.

Where can I download Data Studio?

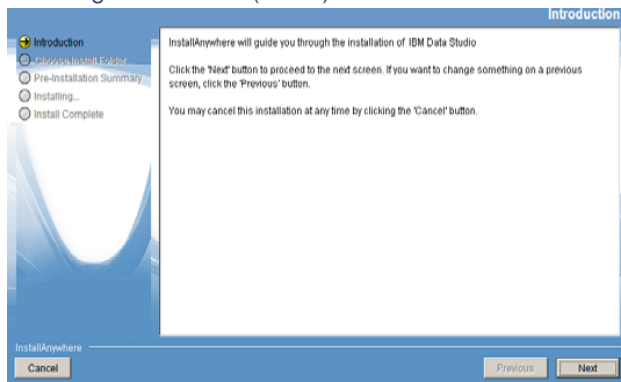
www.ibm.com/db2/express/download.html

www.ibm.com/developerworks/downloads/im/data/

Video demos can be found in: www.db2university.com

The first link actually takes you to the DB2 Express-C site, however, this site has links to download Data Studio. Moreover, you can choose to download DB2 Express-C, and during the download process of DB2 Express-C, you have an option to also download Data Studio.

Installing Data Studio (demo)



Video demos can be found in: www.db2university.com

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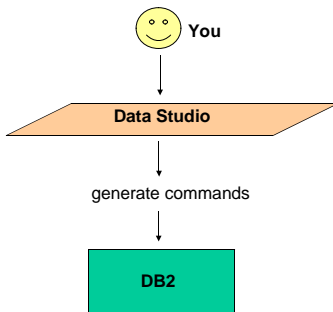
The installation is fairly straight forward. Choose all defaults. You can watch a demo video in db2university.com

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Sometimes people forget GUIs are... GUIs

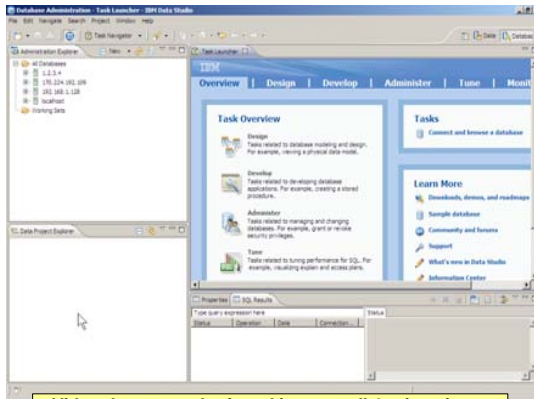


Sometimes people forget that GUIs are just GUIs. Data Studio is another GUI, a graphical interface tool where you can input your commands, and behind the scenes Data Studio is generating other commands, that will be applied to DB2.. If you have a good foundation on DB2 and you work with Data Studio, you will have absolutely no problems.

On the other hand, if you are new to DB2 and start working with Data Studio, in some situations, you may find things that may not be intuitive. For example in Data Studio you have a folder for groups and users. When you click on a user there's an option that says "new user or new group", so that may give you the idea that you can create a user and a group through Data Studio and that user and group will be actually created in DB2. But in DB2 we actually do not create users and groups. This is normally performed by a third-party application like either the operating system, which is normally the default, or LDAP for example.

So again, just keep in mind, Data Studio is a graphical interface. It is recommended that you have some understanding of how DB2 works.


Touring the Data Studio workbench



Video demos can be found in: www.db2university.com

This must be shown as a demo. See db2university.com for a video with a demo, or simply demo it yourself on your local computer.

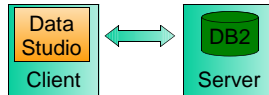
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Connection requirements for Data Studio

- **Client**

- Data Studio is a client
- Data Studio connects to the database using:
 - JDBC, Database Administration Server (DAS), or ssh



- **Server**


- DB2 needs to be installed
- Some operations require DAS or Secure Shell (ssh) to be available
- No additional Data Studio component is required on the server

Video demos can be found in: www.db2university.com

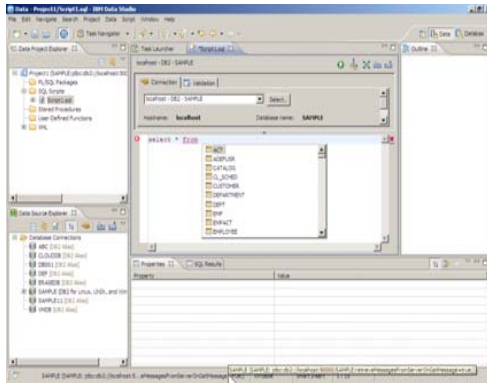
Show first a demo of how connections are managed in Data Studio (again, there are videos in db2university.com that can be played.)

This slide is self-explanatory. Note that the DAS is still needed for some operation to work with Data Studio. It's not yet deprecated.

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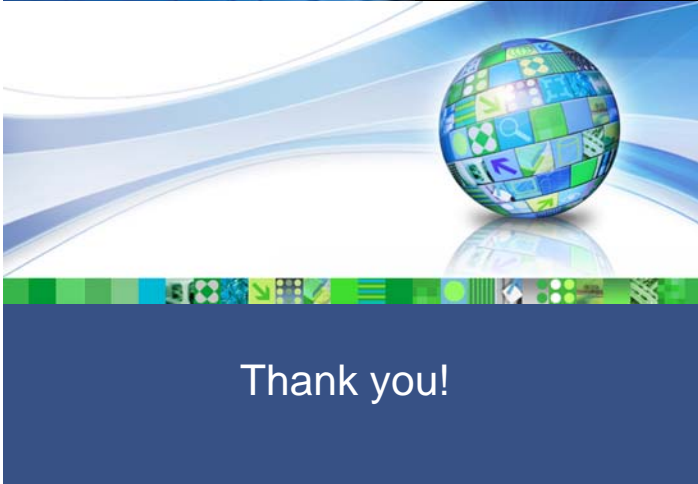
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Working with SQL and SQL scripts



Video demos can be found in: www.db2university.com

Show the db2university.com video with a demo of how we work with Data Studio and SQL



Use the forum in the db2university.com course AA001EN if you have technical questions about the materials covered in this course. Fellow students, faculty and IBMers can help you!