

# IBM Db2 Web Query for i: Frequently Asked Questions

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This FAQ document is broken into three sections. Section 1 covers Db2 Web Query for i FAQ. Section 2 covers the Db2 Web Query <u>DataMigrator</u> ETL product, and section 3 covers <u>Upgrade and Licensing considerations</u>. Use Control-Click on the links to jump directly to that section!

# **SECTION 1: Db2 Web Query for i**

#### 1. What is IBM Db2 Web Query for i?

IBM is offering a Web-based query and report writing product that offers enhanced capabilities over the IBM Query for System i (also commonly known as Query/400) product with extensions to build robust Data Warehouse or Data Mart infrastructures to support Business Intelligence (BI) or Analytics applications.

IBM<sup>tm</sup> Db2 Web Query for i (5733-WQx), provides easy to use tools for building powerful reporting or Business Intelligence solutions, including the Info Assist report builder that is a highly intuitive drag and drop authoring tool. InfoAssist is so easy to learn and use it can extend the number of people that can build analytical reports without having to be SOL programmers or database experts.

IBM Db2 Web Query DataMigrator ETL Extension (5733-WQM) provides extract, transformation, and load facilities to support the automation of replication and transforming data from a variety of supported relational and flat file data sources, into a Db2 for i data warehouse or data mart. For more information about DataMigrator, see section 2.

### 2. What are some of the capabilities of Db2 Web Query?

Db2 Web Query provides the ability to query or build reports against data stored in Db2, Microsoft® SQL Server®, MySQL®, Postgres® or other relational databases¹ through browser-based user interface technologies. Spreadsheets and flat files can also be imported into Db2 Web Query and leveraged as a data source for reports. You can also use Query/400 definitions, SQL Scripts, views and procedures as data sources for reports and dashboards.

Deliver data to end users in many different formats, including spreadsheets, PDF, or viewed from the browser in HTML. Create dashboards or highly analytical applications that empower the end user. Leverage advanced reporting functions such as matrix reporting, ranking, color coding, drill-down and font customization to enhance the visualization of Db2 data. Embed ad-hoc reporting capability directly into your favorite spreadsheet or deliver reports automatically to mobile devices for data analysis "on the go."

As data analysis becomes a more and more critical part of daily activities, you can integrate Db2 Web Query reports into existing or new applications through provided programming interfaces. Simplify the management of reports by significantly reducing the number of report definitions required through the use of parameter driven or drill down reports.

Create a controlled ad-hoc query environment to eliminate run-away or uncontrolled queries written in free form query or SQL generation tools.

Take advantage of the latest in Db2 for i performance, analysis, and functional enhancements to improve report delivery, reduce dependency on I/T, and align with database modernization strategies.

Leverage an industry "best practice" meta data layer to shield the complexities of the database from report authors and end users while standardizing key calculated data fields to ensure a single version of the truth is deployed in reports enterprise wide.

<sup>&</sup>lt;sup>1</sup> Non Db2 database access requires Db2 Web Query Standard Edition

Automate the process of building data warehouses or data marts to consolidate data sources, isolate the analytics workloads in its own optimized environment, and transform the data into an analytical ready data model.

#### 3. Is there a trial version download available for Db2 Web Query?

Yes, we recommend you acquire the <u>"EZ-Install" package</u> from IBM. This package simplifies traditional IBM i Licensed Program Product processes and includes many sample reports and set up to allow you to dig right into our TEST DRIVE or TUTORIALS to help you learn the product.

The sample reports, charts, and dashboards provide examples of some of the reports and visualizations you can leverage in your business. The provided tutorials show you how to build such reports and the meta data framework. Leverage the built-in administration sample reports to gain immediate value for managing and monitoring IBM i utilization metrics and learn how simple it is to build your own system utilization reports using IBM i "services" (part of the OS).

In addition to the sample reports there are tools such as the Query/400 Discovery tool which you can use to analyze existing Query/400 reports to determine how best to consolidate, eliminate and/or modernize those reports.

To request the EZ-Install package, send an email to <u>QU2@us.ibm.com</u> and include your name, company name, and serial number of the system you plan to install Db2 Web Query on.

# 4. We are happy with our Query/400 reports. Is there really any reason to move to this new product?

There are several reasons you might want to consider using this new technology:

- PRODUCTIVITY: Many report types offer dynamic filtering that could substantially reduce the
  number of reports that have to be maintained individually, reducing the backlog of report writing
  requests and simplifying the execution of reports for end users. For those report definitions in
  place, Db2 Web Query provides better tooling to understand the impact of database changes on
  report definitions.
- EMPOWERMENT OF END USERS: Today's requests for information demand that the data be delivered in many different formats. Information must be provided via easy to interpret graphical representations, dashboards, or integrated with spreadsheets. End users want to interact with the data with drill down and pivot functions. The reports must be able to be saved as PDF, PPT, HTML, spread formats, and more. Query/400 is very limited in its ability to meet these demands. Providing Self Service guided ad-hoc forms further simplifies the access to data for end users in a controlled environment beneficial to I/T.
- STANDARDIZING AND SIMPLIFYING DATA: Today, with Query/400, only the "expert" who knows the data can build reports, limiting the number of report authors and building a dependency on that knowledge worker. Db2 Web Query's meta data layer allows you the shield the complexities of the database from report authors and end users, opening up the report authoring community to a much broader group while creating single version of the truth definitions of data that provide consistency across the enterprise.
- ADVANCED VISUALIZATIONS: Db2 Web Query contains over 100 charts and graphs, including heat maps, bubble charts, stock hi-lo charts, and many pre-packaged geographical maps. These visualizations enhance end users experience in easily identifying trends or areas of focus. Add the visualizations to a personal or public dashboard through a variety of dashboard layout tools.

#### 5. Can I continue to use Query/400?

Yes. You can use both Db2 Web Query and the older green screen product independently.

#### 6. How can I modernize Query/400 reports into Db2 Web Query?

Db2 Web Query contains an import function that allows you to bring a Query/400 report definition into Db2 Web Query's web-based environment. With a few clicks of the mouse, you can web-enable the Query/400 definitions. Enhance those reports by choosing a direct to Excel output option, add a parameter or return the data in chart/graph format. Place the report into a dashboard or schedule the report to run at night and be distributed via email.

For customers with large numbers of Query/400 definitions, it may be of value to take a systematic modernization approach that can consolidate Query/400 definitions, eliminate redundant definitions, and convert a subset of definitions to native Db2 Web Query reports.

IBM provides a Query/400 Discovery Tool as part of the Db2 Web Query EZ-Install package that can be used to analyze existing definitions on your system. Information such as how many, what files are in use, what fields are used as selection criteria or result sets, joins, output types and whether they are "chained" or not can all be extracted from definitions and analyzed to assist in building a strategy to modernize. IBM Systems Technology Services also offers a consulting service to assist in modernizing your reporting environment. For information on the Query/400 modernization service, visit: <a href="http://ibm.biz/db2ilabservices">http://ibm.biz/db2ilabservices</a>.

#### 7. Do I need to rename all my files to use them with Db2 Web Query?

No. You do need to create a synonym (meta data representation) over your database tables/files, but that is a very quick process and there are a number of ways to auto generate a synonym and a report. You may choose to enhance the synonym over time because of the long-term benefits of enhancing that meta data to include pre-defined joins, date decompositions, multi-dimensional relationships, column/field formatting, and other meta data concepts is extremely valuable to documenting your database, improving productivity, and creating "single version of the truth" data elements so the information is trusted by those that need it the most.

#### 8. How is Db2 Web Query packaged?

The Db2 Web Query Business Intelligence side of the product set comes in one of four packages.

**EXPRESS** Edition is the entry level version of the software that allows you to build analytical reports, including drill down, OLAP and HTML Analytical documents. Spreadsheet integration, PDF, and Powerpoint outputs are also included. The graphical report authoring tools are simple to learn interfaces for report authoring. Express Edition is generally offered as a low-cost solution for a small number of users.

**SCHEDULER** Edition builds on Express Edition by adding the ability to schedule reports to run and be distributed out to consumers. Automate the running of reports based on a calendar or your IBM i job scheduler. Distribute the resulting report (spreadsheets, HTML, PDF, HTM Analytical documents) by way of email (including distribution lists), FTP, or send to a file system directory.

**RUNTIME USER** Edition is also an option to that builds on Express Edition by adding the ability to support large number of users that need to sign and RUN reports interactively. This edition is mutually exclusive of Scheduler Edition (if you need both the functions of Scheduler and RunTime User you should be looking at Standard Edition.

**STANDARD** Edition is the most robust edition supporting 1000's of users and includes all the functions of Express, Scheduler, and RunTime User Editions. It also adds ability to access non Db2 databases with specific adapters for SQLServer, Postgres, and MySQL, and a generic JDBC adapter for others (such as

Oracle). Customers can also integrate reports and dashboards into their own web-based applications using the simple URL construction API referred to as WebQuery Run-time Access Extension (WQRAX).

**DataMigrator ETL** is a separately priced component to provide an automated way to create an optimized data mart or data warehouse to support the reporting/dashboarding infrastructure. DataMigrator ETL requires one of the above four Editions as a pre-req (we recommend a minimum of Scheduler Edition to get scheduling functions within the ETL processes, and Standard Edition if you need to extract data from non Db2 databases into your consolidated data warehouse repository). DataMigrator can also support data replication from databases or journal receivers (or any data source that the Db2 Web Query Editions support).

#### 9. Can I use DataMigrator to stream data into a cloud database or server?

Yes. There are multiple ways to use DataMigrator to automate the streaming of data into a cloud service or database. DataMigrator can act as the glue to extract data from Db2 files or journal receivers and feed directly into a cloud target or by leveraging open-source software such as Apache Kafka or Camel. We recommend you reach out to us at <a href="QU2@us.ibm.com">QU2@us.ibm.com</a> to discuss specific requirements you have and how DataMigrator could meet those requirements!

### 10. Is Db2 Web Query available in the cloud?

On October 6, 2020, IBM announce the availability of Db2 Web Query in IBM's Power Systems Virtual Server cloud offering. This is a cloud-based offering of Standard Edition with unlimited users. For more information, visit: https://www.ibm.com/cloud/power-virtual-server.

#### 11. What are some of the capabilities of the IBM Db2 Web Query for i product?

All Editions contain the following functions:

## Mobility Support

The Internet makes vital information easily accessible to large numbers of people. But what about mobile workers who are frequently disconnected from the Web and using devices such as smart phones and iPads?

With Db2 Web Query active technologies, users like these can take the power of business intelligence with them wherever they go. By combining data and interactive controls into a single, self-contained HTML file, active technologies deliver analytic capabilities in a completely portable and disconnected environment, with absolutely no software required. Users can manipulate reports in various sort orders, filter data by different criteria, and chart information for visual impact - anytime, anywhere.

#### Auto Drill Down Reports

Business analysts know that even a slight variation in the way they look at data often uncovers previously indiscernible trends and relationships and produce remarkable insights. But if each new view required a new report request, more time would be spent building and processing reports than analyzing results and taking appropriate action. The auto-drill down report output type (included in Express and Standard Editions) solves the data analysis issues that business analysts face by adding in-depth, built-in analytical processing to the product's robust and scalable enterprise reporting and information delivery capabilities.

#### Microsoft Excel Integration

Db2 Web Query provides enhanced capabilities for users of Microsoft Excel®. With the Express or Standard Edition users can create templates or regularly used spreadsheets that can be repopulated with

data from Db2 for i. End users with appropriate authority can build queries from directly within the Excel application in order to populate spreadsheet cells. Choosing Excel as an output option of a report opens up a new spreadsheet but preserves data computations. Totals, for instance, are brought into Excel as native formulas, and you can add data filtering and style the output to further enhance the data within Excel.

#### Interactive Dashboards and Visualizations

It is often much easier to glean trends or understand metrics over copious amounts of data using a visualization. "A picture is worth a thousand words" is a popular English language idiom that suggests that you can derive a lot of information in a shorter amount of time from a single picture than you could from digging through a lot of text. The same could be true for data analysis—a visual depiction of data is worth a thousand spreadsheets!

Db2 Web Query provides many new visualizations, from bubble charts to tree and heat maps, to geographical maps that can be leveraged as part of an interactive dashboard, or "visualization" object. Go way beyond static reporting with powerful new ways to analyze data. Examples of visualizations can be found on the Db2 Web Query Video page here.

The following capabilities of Db2 Web Query are available with RunTime User and Standard Edition:

• Support for Virtually Unlimited Number of Run Time Users

With either RunTime User or Standard Editions, Db2 Web Query provides support for a large community of run time users. With Standard Edition Run Time Group Licenses, members of that group can run reports concurrently and support exists for literally thousands of users per Run Time Group License.

Unlike Query/400, Db2 Web Query's parameterized reporting capabilities, analytical and active technologies mean many more capabilities are available to end users without having to edit the query definition. In other words, the need for end users to have editing capabilities is significantly reduced with Db2 Web Query when compared to Query/400, which required almost all users to have full developer access.

The following capabilities of Db2 Web Query are available with Scheduler and Standard Edition:

#### Automated Report Execution and Distribution

Standard Edition includes automated report execution and distribution. Use the scheduling facilities to run reports in batch on a daily or weekly basis, or on specific dates, or add blackout dates. Run reports based on an event, such as end of day processing.

Deliver reports in formats such as PDF, spreadsheet or other PC File formats and automate report distribution through an e-mail distribution list. Send reports to users with active technologies that can also be analyzed on a mobile device. Intelligently burst reports by a key field, such as REGION ID, allowing only the pertinent pages to be distributed to recipients such that they only see the pages associated with their regional data.

The following capabilities of Db2 Web Query are available only in Standard Edition:

#### • Accessing non Db2 for i Databases

Db2 Web Query Standard Edition includes the ability to build reports accessing remote Microsoft SQL Server, MySQL, Postgres databases through specific adapters. In addition, a generic JDBC adapter can be leveraged to access other non Db2 relational databases. Many IBM i customers have the majority of their data in Db2 for i, but occasionally want to get real time access to data in another database for reporting purposes. Accessing Db2 family member databases other than Db2 for i is built into Express and Standard Editions. Standard Edition is required for access to non Db2 databases.

#### Adapter for Oracle JD Edwards

The Db2 Web Query Adapter for Oracle JD Edwards is an option that can be added to Standard Edition and allows Db2 Web Query to report on data stored in World or EnterpriseOne databases within Db2 for i. The adapter provides a level of seamless integration that simplifies authoring of reports. The adapter also preserves data integrity and security during report execution by automatically interfacing to the application's meta data and security layers.

#### Application Integration Enablement

The Db2 Web Query application integration support provides a set of Web Services that allow you to integrate Db2 Web Query functions into applications or to customize an interface into Db2 Web Query functions. Included is the ability to provide a URL interface to report execution.

The Web Services allow web applications to authenticate users, view domains and folders, determine report parameters, and execute Db2 Web Query reports and more.

Db2 Web Query Web Services are language independent, meaning you can invoke Db2 Web Query functions through Java, C, .NET, PHP and more.

Note – when deploying an application built with the application integration functions of Standard Edition, deployment servers also require Standard Edition.

#### Customized Portals

Simplify your user's experience by creating customized portals tailored to their content and usage. Instead of signing into a generic home page, users signing into a portal are presented with a view of their content that simplifies navigation to commonly used reports, dashboards, and other content.

## 12. Can I add additional users or other features to Express Edition?

Express Edition is really meant for very small shops with less than a handful of users. You can add more individual user licenses, but with Express Edition EVERY user no matter what role you have within web query requires this individual user. For this reason, Express Edition breaks down pretty quickly as a viable option cost wise if you have a larger pool of interactive users and/or report consumers. It will most always be more cost effective to upgrade into RunTimeUser Edition if you have more than a handful of people that need to run reports interactively. It is also almost always a more cost-effective approach to upgrade into Scheduler Edition if you want to be able to run reports in the background and push them out to uses (report consumers) in a scheduled, automate fashion.

If you need both the concurrent run time support and job scheduling functions, an upgrade to Standard Edition is your best bet.

# 13. Will I need to download data to a PC Server or install a Windows server to sit between the client and the System i server?

No. Many enterprise reporting tools on the market force you to move your data out of Db2 or require multiple servers to support various reporting functions. The Db2 Web Query product is an IBM i implementation with a web browser interface and an optional PC client for meta data developers. This greatly simplifies the whole reporting infrastructure. Software upgrades are simplified, reliability can be increased, network traffic is reduced, and security and auditing may be simplified.

#### 14. Can I query remote Db2 for i databases within my enterprise with Db2 Web Query?

Yes, the Db2 Web Query server component can reside in a single copy (LPAR/VM or Server) of IBM i and allow you to query databases (any Db2 family member, or, with Standard Edition, non-IBM Db2 databases) that are remote from where Db2 Web Query is installed.

#### 15. What is the latest version of Db2 Web Query?

Version 2, Release 4 (V2.4.0) is the latest version that will be generally available at the end of 2022. Version 2.3.0 has been the most recent level currently available. Version 2.2.1 has also been available, but IBM has announced end of support for that version in January 2023.

If you are running 2.2.1 it is highly recommended, you upgrade to one of the newer (and supported in 2023) versions. The recommendation for installing or upgrading from previous levels is with the EZ-Install package (<a href="http://ibm/biz/db2wqezinstall-info">http://ibm/biz/db2wqezinstall-info</a>). For release and pre-requisite information, refer the Release Levels and Pre-Reqs document at <a href="http://ibm.biz/db2wqwiki">http://ibm.biz/db2wqwiki</a>.

#### 16. How can I learn more about what's coming in Version 2.4.0?

Glad you asked! There are some very powerful new user interfaces and capabilities in 2.4.0, including a newly designed "Hub" home page, customize portals, and enhancements to the Designer tool for building interactive dashboards and visualizations. For more information, you can refer to a blog post at <a href="http://db2webqueryi.blogspot.com/2022/10/new-db2-web-query-version-240-coming.html">http://db2webqueryi.blogspot.com/2022/10/new-db2-web-query-version-240-coming.html</a> or review the New Features or Product Manual documents off the DOCUMENT link from our wiki: <a href="http://ibm.biz/db2wqwiki">http://ibm.biz/db2wqwiki</a>.

For a few more months, you could also register and watch a replay of the 2.4.0 announce at http://ibm.biz/Db2wq-Oct132022-Webinar.

#### 17. Is V2R2M0 still supported?

No, it has been withdrawn from support. Current supported versions are 2.2.1 and up, but version 2.2.1 goes out of support in January 2023.

#### 18. I still have version 1 of Db2 Web Query. How can I get V2 licenses?

Clients that have an existing software maintenance agreement for Db2 Web Query can obtain any Version 2 licenses at no charge as part of that agreement if they upgrade from Version 1. An order must be placed to refresh Db2 Web Query (currently, only your Business Partner or IBM can process this upgrade order – the upgrade process cannot be done through the Entitled Software Support system). If your SW Maintenance has expired, the configuration system will add it back into your order.

To upgrade Db2 Web Query, we recommend you use the "EZ-Install" package that includes all Db2 Web Query components, sample reports, tools and supporting tutorials to allow you to get up to speed quickly.

# 19. Will I have to buy Db2 Web Query if I already own Query for System i and never was licensed to Db2 Web Query?

Possibly, yes, although most customers probably have license rights to a limited use version of Db2 Web Query (Express Edition with limited number of user licenses) as that was provided for many years if you owned the Query/400 (57xx-QU1) product. You may want to check with your IBM Business Partner or send an email to QU2@us.ibm.com to determine if you already own this limited use license of Db2 Web Query. If you send an email to QU2, please include the serial number of your system of interest.

#### 20. Can I use Db2 Web Query to build a data warehouse?

Yes, with the addition of DataMigrator Extension for ETL (extract, transformation, and load). Please see section 2 of this document. This ETL tool is designed to automate the extraction of data, usually from production application databases, transform that data (optimize it for analytics), cleanse and replicate then load into another database potentially on different server or LPAR/VM. It can pull data from any of the data sources supported by Db2 Web Query, including journal receivers, and populate any of the supported databases as the target.

Other ETL tools from IBM could also be leveraged to build a Db2 for i data warehouse, including InfoSphere DataStage, but that does not run in IBM i.

#### 21. What is the relationship with Information Builders/Tibco?

IBM has an agreement with Information Builders/Tibco to provide a customized version of their WebFOCUS® product to IBM.

#### 22. I already own WebFOCUS. Is that a problem?

No, that should not be a problem at all. We would suggest you continue to work with Information Builders directly for WebFOCUS sales and technical support. Db2 Web Query for i is specifically for the IBM i platform and supported by IBM as the first line of defense (but 2<sup>nd</sup> level support from Information Builders).

#### 23. How does this compare to other products on the market?

While a comparison is too exhaustive for a FAQ format, there are several key differentiators that this product offers (some of these functions require additional adapters):

- Pure IBM i Server and thin client implementation
- Leverages the latest Db2 for i query optimization technologies
- Leverage Db2 for your reporting environment without having to download data to another database
- Leverages an industry best practice of a meta data layer that shields the complexities of the
  database from report authors and end users, while reducing a dependency on I/T for building
  reports.
- Audience. The product is not just for developers, but also for any information consumer.
- Combine multiple data sources into a single report
- Web or desktop authoring vs. fat client only
- Excel Support, e.g., automatic generation of excel pivot tables, push data into different tabs of the sheet, even embed a query into your spreadsheet to leverage existing excel formats and macros.
- Built in relational OLAP functionality enabled with a few clicks of a mouse button
- Powerful mobility support no charge downloads for Apple and Android devices to synchronize reports and dashboards with tables and smart phones.

# 24. IBM also provides Cognos solutions for analytics. Should I buy Cognos instead?

There are many factors in choosing a solution to meet your query, report writing, or analytical requirements. Db2 Web Query is designed as an IBM i centric query and report writing tool, and offered as an affordable upgrade from Query/400. The product is designed specifically for IBM i and Db2 for i usage, including native, heritage, and query/400 adapters in the base product, CL commands, automatic setup of a dedicated subsystem, and more.

All components of the reporting server, including the meta data layer and OLAP functionality, can reside in IBM i. IBM has many offerings for Business Intelligence to serve multiple marketplaces and accommodate different customer requirements, and what is right for you will depend on your requirements, including budget.

We suggest you continue to work with your IBM or IBM Business Partner, or the Db2 for i Technology Services team to craft the right solution based on your specific requirements. The Db2 for i Technology Services team offers an IBM i Analytics Discovery workshop that is designed to identify requirements, analyze current environments, and recommend how to move forward with tools, education, design, best practices and project planning.

For information on the Discovery Workshop go to: <a href="http://ibm.biz/Db2TechnologyServices">http://ibm.biz/Db2TechnologyServices</a> .

#### 25. Is Websphere Application Server required?

No. Db2 Web Query leverages the Web Application Server that comes standard with IBM i.

#### 26. What is the best way to get some help getting started this product?

First off, your installing of Db2 Web Query SHOULD be done with the <u>EZ-Install package</u> as it contains many sample reports and all the set up you need to then take the **self-guided tutorials**. The two tutorials that come in the EZ-Install package are the best place to start.

In addition, one of the best resources available to learn about Db2 Web Query is the <u>Nuts and Bolts Redbook</u>. There is also a wealth of documentation at on the <u>technical wiki</u>.

For best practices skills transfer and consulting, IBM's Db2 for i Technology Services team offers a "Getting Started" 2.5 day on site, or 24-hour remote service designed specifically to jump start your implementation. Using a combination of skills transfer and joint workshops, and taught by the experts, this service can greatly shorten the implementation cycle and get you on your way to self-service reporting for end users!

The cost of the service can be minimized with the use of a Services Voucher. If you want to find out if you have a Services Voucher available for your use, send an email to <a href="QU2@us.ibm.com">QU2@us.ibm.com</a>. Include the serial number of your system and request an inquiry into whether you have a valid Services Voucher.

For information on the Getting Started Service, go to <a href="http://ibm.biz/Db2TechnologyServices">http://ibm.biz/Db2TechnologyServices</a>.

# 27. IBM offered a complete hardware and software solution for Db2 Web Query, called the IBM i for BI solution. Is that still available?

This packaged solution combined a POWER7 server with Db2 Web Query Standard Edition. It has been removed from marketing but replaced with a Db2 Web Query Solution Edition.

For many customers, having a separate server that is hosting the analytics databases (data marts or data warehouses) provides an opportunity to isolate the query workloads from production, and could also provide additional benefits if used to address other requirements, such as Disaster Recovery. For more information about the Db2 Web Query Solution Edition, refer to:

 $\frac{\text{http://www.ibm.com/systems/power/hardware/solutioneditions/ibmi/}}{\text{List.}} \text{ and } \underline{\text{IBM i Solution Editions ISV}}$ 

#### 28. Where can I find out more information about Db2 Web Query?

More information can be found at <a href="mailto:ibm.biz/Db2webqueryi">ibm.biz/Db2webqueryi</a> or from the Db2 Web Query wiki at <a href="mailto:ibm.biz/db2wqwiki">ibm.biz/db2wqwiki</a>. Or you can always reach out to us at our team email ID: <a href="mailto:QU2@us.ibm.com">QU2@us.ibm.com</a>.

## Section 2: Db2 Web Query DataMigrator ETL Extension

#### 29. What is DataMigrator ETL Extension?

Db2 Web Query DataMigrator ETL Extension (short name DataMigrator) is an additional product in the Db2 Web Query family. This product provides Extract, Transform, and Load (ETL) capabilities for the IBM i client. As part of the Db2 Web Query portfolio, it has a similar look and feel, and integration points with the Db2 Web Query Editions.

Many customers struggle with operational reporting because of conflicts of queries running in the same environment as production systems or the difficulty in understanding the data. Business analysts are spending too much time gathering data from multiple data sources, including Db2 for i, Microsoft SQLServer, or even spreadsheets, in order to get a clear picture of what the data is telling them about their business. With this new feature, customers can now organize and consolidate data into a single environment that is optimized for reporting, BI (Business Intelligence) and analytics.

With DataMigrator you can set up data and process flows to automate data replication, transformations, and loads. It can also be used to automate data motioning, for example, streaming data from Db2 into some cloud (or on-premise) service or database.

#### 30. How does one acquire DataMigrator?

DataMigrator is an IBM i Licensed Program Product (5733-WQM) and can be acquired through IBM's Business Partner channel or directly from IBM. DataMigrator is a separately charged product in the Db2 Web Query family and is licensed by core. It is supported on all IBM i OS releases supported by Db2 Web Query for i v2.

DataMigrator is shipped with the Db2 Web Query <u>EZ-Install package</u> and you can install it (for a 70-day trial or permanently with license keys).

# 31. What are some of the capabilities of DataMigrator?

DataMigrator provides the ability to perform both bulk loads and incremental updates of data, making it ideal for maintaining a reporting database such as a data mart or data warehouse. Data Flows can be created that define the ETL processes. A data flow defines where the data comes from, how it should be transformed, and into what files/tables the resulting data should be loaded. Once defined, data flows can be run immediately or scheduled to run once or on a recurring basis. As many data flows can be created as necessary to support an environment. Multiple data flows can optionally be controlled by one or more process flows, which orchestrate when and how data flows run.

Data sources can be any data available to Db2 Web Query for i. In fact, existing synonyms (meta data) defined for Db2 Web Query for i can be used by DataMigrator. Database files/tables, the most common data source, can be either from the same system on which DataMigrator is installed, or from one or more remote systems, or both. DataMigrator can also retrieve data from Db2 for Linux, Unix, and Windows and Db2 for z/OS platforms. Flat files in IBM i's integrated file system (IFS) can also be used as a source of data, including using a file listener capability to automate the process. As a unique integration point, DataMigrator can also read from journals attached to database files, including remote journals, as a data source. Journals are particularly useful for incremental maintenance flows where data changes to files/tables can be captured in a very low overhead manner.

### 32. Can I consolidate data from Microsoft SQLServer or JDEdwards databases too?

Yes, certainly. When DataMigrator is installed with Db2 Web Query Standard Edition, Microsoft SQL Server can also be used as a data source for the ETL process. For Oracle JDEdwards World and EnterpriseOne customers using Db2 for i, the JDE adapter can be added to Standard Edition and subsequently used as a data source with DataMigrator.

Standard Edition also supports accessing data in MySQL, Postgres, and most any other relational data sources through a generic JDBC Adapter.

The IBM Technology Services consulting team also offers solutions for streaming data to open-source Apache Kafka or Camel to facilitate many other targets.

# 33. Do I have to use Db2 Web Query reporting functions as my tool for reporting, or could I use DataMigrator to build a data mart and use any tool against that?

You could definitely use DataMigrator to build a reporting repository in Db2 for i. Once the data is there, any tool that can access Db2 for i could be leveraged, as Db2 for i supports open SQL interfaces such as ODBC and JDBC, Web Service, etc. Db2 Connect clients also support access to Db2 for i.

There are some nice integration points with Db2 Web Query reporting that you may want to consider. For instance, with data migrator, you use the same Developer Workbench licensed client to define the data and process flows. Meta data "synonyms" from Db2 Web Query can be leveraged by DataMigrator, and/or meta data created within DataMigrator can then be leveraged by Db2 Web Query.

Note that you must have one of the Editions of Db2 Web Query installed as a prerequisite for DataMigrator. DataMigrator also requires a license of Developer Workbench. If you already have a license for Developer Workbench you do not necessarily need another one just for DataMigrator.

## Section 3: Db2 Web Query Upgrade and Licensing Considerations

34. Can I just add Run Time Enablement to Express? I don't need the other elements of Standard Edition.

As of June of 2020, you have options to either upgrade into the new RunTime User Edition or upgrade into Standard Edition. Standard Edition is a superset of RunTime User Edition, so if all you need is the concurrent runtime user licensing support the RunTime User Edition provides that at a lower cost than upgrading into Standard Edition. Refer to <a href="http://ibm.biz/db2wq-blog-neweditions">http://ibm.biz/db2wq-blog-neweditions</a>.

35. Can I run V2.3 in 1 core and V2.4 in another core within the same partition?

No, this will not work.

36. What if I JUST want to use Query/400 – the web-based technology of Db2 Web Query is not of interest. Can I still get license keys for Query/400 without having to buy Db2 Web Query and its associated SWMA when I move to a new OS level?

Yes. As of Jan 8, 2019, Query/400 is a completely separate product from Db2 Web Query and is zero cost.

Many companies are moving away from Query/400 because it is antiquated technology. Business and I/T organizations are looking at various modern business intelligence and analytics tools. Most of these tools require (or are implemented) replicating data off of Db2 into another database. This adds complexity and costs whereas Db2 Web Query gives you a choice of operational reporting or creation of a data warehouse or data mart. And it knows and leverages your platform and applications to simplify data analysis.

Benefits of Db2 Web Query over the older Query/400 technology, including:

- More data visualizations (graphs, charts, maps)
- Direct input into spreadsheets with a single step
- Self-service reporting, freeing up valuable I/T resources
- Performance
- Flexibility to maintain reports when underlying database changes are made

• Significantly reduce the number of reports on your system

If you are interested in a discussion about the ease with which you can move from Query/400 to Db2 Web Query, send an email to QU2@us.ibm.com, or check out our consulting services at http://ibm.biz/Db2TechnologyServices.

37. My customer is just now upgrading to IBM i 7.4 and never was shipped the BASE QU2 product but owns Query/400. What will they get Db2 Web Query when they go to 7.4?

No. They will have to select it to add it to the configuration. There have been situations where you owned license rights to Express Edition but have lost visibility to them, either because of a software transfer to a new system, or upgrading of your OS through ESS (ESS does not support upgrades of Db2 Web Query). If you have questions about this, please contact your IBM Business Partner or send an email to QU2@us.ibm.com.

38. I have 4 cores enabled in my system running IBM i, but only want to license 1 core of Db2 Web Query. Do I have to manage to this licensing agreement or does the system automatically cap it at 1 core?

Db2 Web Query leverages the IBM i workload capping capabilities to enforce the number of cores you have licensed the product to. If you've only licensed to 1 core but have 4 available on your system, the workload is automatically restricted to a maximum of 1 core's worth of processing and will not exceed that.

39. I have a system with 2 LPARs. One LPAR is for development, and we have 1 core allocated to it. The other is production with 3 cores allocated. I would like to run Db2 Web Query in both partitions. Do I need 2, 3, or 4 cores licenses of Db2 Web Query to support this?

You would need a minimum of 2 core licenses to support each of the LPARs. You would not need more than 2 unless workload requirements suggested you may benefit from having more cores in your production environment.

The discussion about multiple LPARs can get a bit complex as you start having scenarios of less than a full core allocated to an LPAR and whether the cores are defined as capped or uncapped.

Refer to the Workload Capping document on our wiki, <a href="https://www.ibm.com/support/pages/node/1282282">https://www.ibm.com/support/pages/node/1282282</a>.

40. I recently acquired a System i CBU (Capacity Backup) Edition for High Availability purposes. Can I install Db2 Web Query on both my production machine and my backup box?

Db2 Web Query is treated like other System i software in the case of a disaster recovery scenario, which is to say that you can run Db2 Web Query in the production environment and have it installed on the HA/DR (including a CBU or designated backup box) but only used there in the case of a failover situation. In other words, the single license of Db2 Web Query and the user licenses are transferable to the HA/DR box in the case of a failover. Temporary keys can be obtained for the backup/CBU system by contacting your IBM Business Partner.

If you plan to run Db2 Web Query concurrently in both the production box and the CBU server then 2 server licenses and 2 sets of users would be required.

41. Where can I get some assistance in migrating from a previous version of Db2 Web Query to V2?

IBM's Db2 for i Technology Services team offers a 16-hour remote service to help clients migrate Db2 Web Query. This service supports multiple migration options, including same system upgrades, or migrating from one system to another. It also includes an overview of what's new in the new version and can be customized to your situation. IBM also offers a migration tool for such situations that require a save/restore type operation specific to Db2 Web Query.

If you are interested in getting some assistance with migration, send an email to <a href="QU2@us.ibm.com">QU2@us.ibm.com</a> with a subject line of "where can I find more info about migrating Db2 Web Query to a new version and/or system."

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