DB2 Web Query
5250 Reporting Extension
Usage Instructions
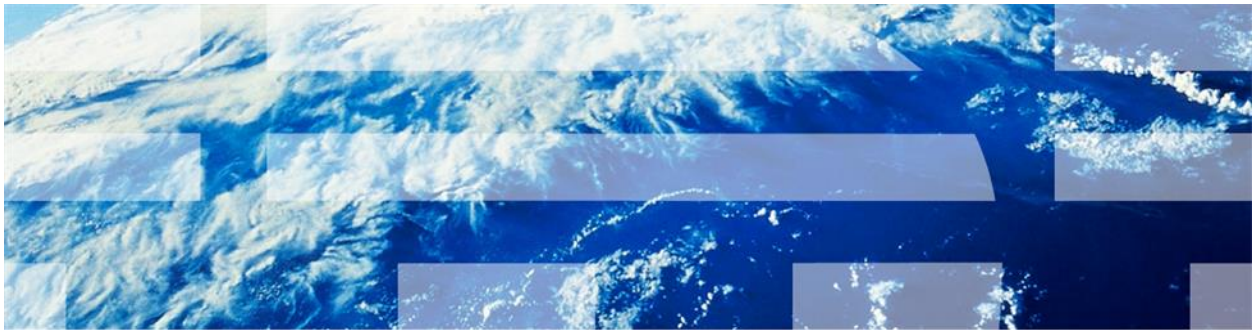
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Contents

Overview

The DB2 Web Query 5250 Reporting Extension allows a Web Query executable to be run and the output directed to a user. This Web Query executable can be a:

- Report
- Graph
- Compound document
- DataMigrator flow

There are limitations to the items that can be run. The types of items that cannot be run via this extension are reports that include OLAP, on demand pages, InfoMini, or HTML Composer dashboards. The result can be sent to or saved as:

- Email
- IBM i integrated file system
- FTP server

This document contains the information for using the DB2 Web Query 5250 Reporting Extension.

Part 1: Setup

There is very little setup needed to use the 5250 Reporting Extension. However, it does require an IBM i user profile and password to run. Additionally, if you use the FTP server option, we need the FTP server's user profile and password. To avoid having this sensitive information in the clear in the CL command itself, we store this in a validation list object. This is an encrypted object that allows the operating system to access the stored data while other users cannot.

As you may have multiple users running the extension or may need different credentials for the FTP server, you can create as many of these user profile and password objects as needed. To create one of these objects, just use the CRTWQPWD command. Give the object a name, the user profile, and the password. Note that if your IBM i (or FTP server) requires mixed case or case sensitive passwords, be sure to store them here with the correct case. If your user profile or password should change, you will also need to run this command again to update the new information into the stored item. The command will automatically replace the existing saved validation list, if it exists.

Part 1.1: Sample command

CRTWQPWD VLDL(MYUSRPRF) USER(MYUSRPRF) PASSWORD(mypassword)

CRTWQPWD VLDL(MYFTPUSR) USER(MYFTPUSR) PASSWORD(mypassword)

Part 2: Running the command for reports

Once we have the validation list stored, we are ready to run the report. The command we use is RUNWQFEX. Press F4 to prompt this command. We will now discuss each parameter and how to use it. You can also find this information in the online help text by pressing F1 on any parameter.

The first parameter is the WQ validation list created above. This is for the sign on to the IBM i system and will be the user that the report is run as. This means that the user profile stored needs to be:

- Licensed to use DB2 Web Query
- Has access to the domain containing the report
- Is authorized to all assets required to complete the report – tables, views, stored procedures, etc.

The WQ Validation List is a required parameter.

Example value: WQVLDL(MYUSRPRF)

The next parameter specifies the item to be run by the full path of the report. You can find these by right clicking on each in DB2 Web Query and selecting "Show Path".

Example value: FULLPATH('IBFS:/WFC/Repository/mytoplevelfolder /my_report.fex ')

The next parameter is the additional parameters section. This parameter is optional, depending on whether the report has input parameters. It allows you to pass in one or more values for the report to use when running. Here, list each Web Query variable, starting with an ampersand (&), remembering they are case sensitive, an equals sign (=), and their value. This final value must be properly encoded. This means any reserved characters (! * ' ( ) ; : @ $ + , / ? # [ ] & = [except the & in front of the variable name and the = between the variable name and value, only the value portion is encoded]), spaces (use + or %20), and Unicode characters greater than x'7F' (U+20AC) need to be changed. Please see the help text for more details on this. If you need to pass multiple parameters, just run them together. If you need to pass multiple values for a single parameter, just repeat the variable string once per value. This parameter is optional, based on if the report requires values or not.

Example value: PARAMETERS('&Country=United+States')

Example value: PARAMETERS('&Country=United+States&State=Minnesota')

Example value: PARAMETERS('&Country=United+States&Country=France')

The next parameter determines the type of output. You can select *EMAIL, *FTP, or *FILE. Based on this selection, the additional parameters that are required changes. See the three sub-sections below, based on the choice made here. This parameter is required.

*Example value: OUTPUT(*EMAIL)*

The next parameter, FORMAT, is required and applicable only if the report has User Selection enabled. It specifies the output format for the report.   Possible values are:

*HTML
*AHTML
*FLEX
*PDF
*APDF
*EXL2K
*EXL2KFORMULA
*XLSX
*EXL07FORMULA
*PPT

There is only one more general parameter at the very end. This is the debug parameter. Use this when guided by support to get detailed troubleshooting information about problems that arise when using this command. The default is *NO, meaning no debug. However, it can be changed to *YES. The log is written to the IFS at /QIBM/UserData/qwebqry/extensions/runwqfex.log. This parameter is required, but has the default of *NO so it does not have to be set manually.

*Example value: DEBUG(*YES)*

Part 2.1: Additional parameters for *EMAIL

The first parameter for email is the recipient. This can be one or more email address, separated by a comma. This parameter is required for the *EMAIL option.

Example value: RECIPIENT(jsmith@mycompany.com)

Example value: RECIPIENT('jsmith@mycompany.com,sbrown@mycompany.com')

The second parameter is the sender or from address. This could be a fictional address, a help desk, or perhaps someone in the area that could answer questions about the report's content. This parameter is required for the *EMAIL option.

Example value: SENDER(mjones@mycompany.com)

The next parameter is the subject line for the email.   This parameter is optional for the *EMAIL option.

Example value: SUBJECT('Weekly Status Report')

The next parameter is the SMTP email server to send the email. This could be the local IBM i or a remote system. You can use an IP address or DNS name. If you use a DNS name, make sure the IBM i can resolve that name. You can use the PING command to test that. If you are sending emails to addresses not controlled by that SMTP server, you may run into an issue with relaying being blocked.

Talk to your email server administrator about this issue if you are sending emails outside of your company. For example, your SMTP server is for mycompany.com. Sending to an address anything@mycompany.com would be fine. However, if sending to anything@gmail.com, it could be blocked if relaying is prevented. This parameter is required for the *EMAIL option.

Example value: ESERVER(smtp.mycompany.com)

Example value: ESERVER(1.2.3.4)

The next parameter is for the body of the email. Here you can include information about what the report is, who is responsible, contact info, etc. This parameter is optional for the *EMAIL option.

Example value: BODY('Please find the weekly status report attached.')

The final parameter for email is the report style. This parameter determines if the report is embedded in the email body directly or included as an attachment. The default on this parameter is *ATTACHMENT. Depending on the report type, this may or may not be an option. Any style other than HTML output will always be sent as an attachment, regardless of this setting. If the output is HTML, then setting this parameter to *INLINE will put the report in the body of the message instead of as an attachment. This parameter is required for the *EMAIL option but does have a default so no changes are required.

*Example value: STYLE(*INLINE)*

Part 2.1.1: Sample command
RUNWQFEX WQVLDL(MYUSRPRF) FULLPATH('IBFS:/WFC/Repository/mydomain/sd_reports/ myreportfldr/my_report.fex') PARAMETERS('&Country=United+States') OUTPUT(*EMAIL) RECIPIENT(jsmith@mycompany.com) SENDER(mjones@mycompany.com) SUBJECT('Weekly Status Report') ESERVER(smtp.mycompany.com) BODY('Please find the weekly status report attached.')

Part 2.2: Additional parameters for *FTP
The first parameter is the FTP server. This could be the local IBM i or a remote system. You can use an IP address or DNS name. If you use a DNS name, make sure the IBM i can resolve that name. You can use the PING command to test that. This parameter is required for the *FTP option.

Example value: FSERVER(ftp.mycompany.com)

Example value: FSERVER(1.2.3.4)

The second parameter is the FTP validation list. This is for the sign on to the FTP server. This can be the same validation list as used in the very first parameter or a different one. This parameter is required for the *FTP option.

Example value: FTPVLDL(MYFTPUSR)

The next parameter is the directory on the FTP server. We do a CD (change directory) to this value so it can be a relative or absolute path. Please make sure that this directory exists as we do not create it, simply change to it. Also, make sure that the profile used to make the FTP connection has write authority to this directory. This parameter is required for the *FTP option.

Example value: FTPDIR('/public_html/reports')

The final parameter is the file name. This will be the name of the file on the FTP server. It defaults to *DEFAULT. This means the command will build a name for the file that is the report name (from the 4th parameter), year, month, date, hour, minute, and second separated by underscores (_) and the correct file extension for the report type (.html for HTML, .xls for Excel, etc.). This parameter is required for the *FTP option but does have a default so no changes are required.

Example value: FTPFILE(weekly_report)

Part 2.2.1: Sample command
RUNWQFEX WQVLDL(MYUSRPRF) FULLPATH('IBFS:/WFC/Repository/mydomain/sd_reports/
myreportfldr/my_report.fex') PARAMETERS('&Country=United+States') OUTPUT(*FTP)
FSERVER(ftp.mycompany.com) FTPVLDL(MYFTPUSR) FTPDIR('/public_html/reports')
FTPFILE(weekly_report)

Part 2.3: Additional parameters for *FILE
The first parameter is the directory in the IFS. We do a CD (change directory) to this value so it can be a relative or absolute path. Please make sure that this directory exists as we do not create it, simply change to it. Also, make sure that the profile used to run the command has write authority to this directory. This parameter is required for the *FILE option.

Example value: FILEDIR('/www/webroot')

The final parameter is the file name. This will be the name of the file in the IFS. It defaults to *DEFAULT. This means the command will build a name for the file that is the report name (from the 4th parameter), year, month, date, hour, minute, and second separated by underscores (_) and the correct file extension for the report type (.html for HTML, .xls for Excel, etc.). This parameter is required for the *FILE option but does have a default so no changes are required.

Example value: FILEFILE(weekly_report)

Part 2.3.1: Sample command
RUNWQFEX WQVLDL(MYUSRPRF) FULLPATH('IBFS:/WFC/Repository/mydomain/sd_reports/
myreportfldr/my_report.fex ') PARAMETERS('&Country=United+States') OUTPUT(*FILE)
FILEDIR('/www/webroot') FILEFILE(weekly_report)

Part 3: Running the command for DataMigrator flow
Besides using DB2 Web Query 5250 Reporting Extension to run reports, users can also use that to run DataMigrator flow. When running a DataMigrator flow, parameters of the command being used are just WQVLDL, FULLPATH, PARAMETERS and DEBUG. WQVLDL and FULLPATH are required, PARAMETERS and DEBUG are optional.

The WQ Validation List is a required parameter. Refer to Part 2 for details.

The FULLPATH parameter specifies the item to be run by the full path of the flow. To find the FULLPATH for a flow, right click on a flow in Data Management Console, select Properties, and then you can find the flow's Physical Location.

Example value: FULLPATH('/qibm/userdata/qwebqry/apps/demo/flow01.fex')

If there are parameters defined for the flow, then PARAMETERS should be specified. Refer to Part 2 for details.

If DEBUG(*YES) is specified. The log is written to the IFS at /QIBM/UserData/qwebqry/extensions/runwqfex.log.

*Example value: DEBUG(*YES)*

Part 3.1: Sample command

RUNWQFEX WQVLDL(MYUSRPRF) FULLPATH('/qibm/userdata/qwebqry/apps/demo/flow01.fex')