

JACKIE'S Forum

DRDA/DDM Debug Enhancements



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Testing and debugging jobs associated with communications has always been tricky. With V5R1 IBM provided a new diagnostic aid for distributed SQL programs. All jobs that use the DDM/DRDA TCP/IP servers (QRWTSRVR and QRWTLSTN) can be monitored. Many ODBC drivers such as the IBM DB2 ODBC driver will use these servers. The Client Access ODBC driver does not use these servers.

This new diagnostic aid allows for the initiation and collection of the following information:

- Spool joblog before job(s) recycle
- Generate DSPJOB spool file before job(s) recycles
- Trace the DDM/DRDA job(s)
- Start debug for the DDM/DRDA job(s)
- Set a QAQQINI file
- Shadow debug options on AR job

To enable this support for your DDM/DRDA requests you will need to create the data area QRWOPTIONS in library QGPL.

The data area must be 48 bytes long with a type of *CHAR. This information can be collected for all users or for an individual user or for a single IP address. This collection cannot be specified at a program name level. The data area uses the switch setting 'A' to indicate "All Users", 'U' to indicate a user named in the data area and 'I' to indicate the IP addressed referenced in the data area. A blank means that the functionality is not required.

The format of the data area QRWOPTIONS is shown in the table below.

Sample command:


```

CRTDTAARA          DTAARA (QGPL/
QRWOPTIONS) TYPE (*CHAR) LEN (48)
VALUE ( '          JJANSEN
UUUU SN          ' )

```

To disable this function on your system delete or rename the data area QRWOPTIONS. There are PTFs available to enable the majority of this functionality at the V4R5 level.

An easy way to find the output when your job ends is with the command WRKJOB USERID/QPRTJOB.

Having the system automatically start and then bring together job traces and debug information can be extremely helpful when working with distributed SQL. 

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Columns	Content
1 - 15	Client IP address for use with 'I' switches
16	Ignored
17 - 26	User profile name for use with 'U' switches
27	Switch to keep joblog ('A', 'I', 'U')
28	Switch to keep DSPJOB output ('A', 'I', 'U')
29	Switch to trace job ('A', 'I', 'U')
30	Switch to start debug mode ('A', 'I', 'U')
31	Switch to invoke CHGQRYA to set a QAQQINI file ('A', 'I', 'U'). If set the QRYOPTLIB value will be extracted from positions 39-48
32	Switch to shadow client debug options ('A', 'I', 'U')
33	'T' to use old TRCJOB job trace, 'S' to use new STRTRC
34	'N' to suppress the multitude of CPI3E34 messages in the log
35 - 38	Reserved
39 - 48	Library name for Change Query Attributes (CHGQRYA) if column 32 'A', 'I', 'U'