



Technical Note

Using EUROMAP 63 Driver Device Diagnostics Output

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Table of Contents

- 1. Overview.....3
- 2. Example Outputs.....3
 - 2.1 Create the Presentation Request File4
 - 2.2 Create the Session Request File4
 - 2.3 Create the Session Response File.....5
 - 2.4 Create the Presentation Response File5
 - 2.5 Create the Application Response File5
- 3. Test the EUROMAP 63-Enabled Machine Response to the Request Files6
- 4. Test the EUROMAP 63 Driver Parses the Response Files6

1. Overview

This document describes how to recreate request and response files with the ThingWorx® Kepware® Server EUROMAP 63 driver diagnostics output for manual testing.

Use the recreated request files with EUROMAP 63-enabled injection molding machines.

Use the recreated response files with the ThingWorx Kepware Server EUROMAP 63 driver.

• For more information on EUROMAP 63 driver, refer to the product manual at www.kepware.com.

• For more information on EUROMAP 63 Specification, refer to EUROMAP documentation.

2. Example Outputs

Change the Diagnostics Viewer to display in ASCII notation by right-clicking the window for the context menu.

For example, a successful read of the ActCntCyc and ActCntCycRej tokens using the IMM1SessionDirectory produced the following six TX events in the diagnostics viewer:

Date	Time	Length	Data
10/31/2018	11:58:05.100 PM	36	C:\IMM1SessionDirectory\0000R000.JOB
10/31/2018	11:58:05.100 PM	38	JOB 0000R000 RESPONSE "0000R000.RSP";<LF>
10/31/2018	11:58:05.100 PM	136	REPORT 0000R000 REWRITE "0000R000.DAT"<LF>START IMMEDIATE<LF>STOP NEVER<LF>CYCLIC SHOT 1<LF>SAMPLES 1<LF>SESSIONS 1<LF>PARAMETERS<LF>ActCntCyc,<LF>ActCntCycRej;
10/31/2018	11:58:05.116 PM	36	C:\IMM1SessionDirectory\SESS0000.REQ
10/31/2018	11:58:05.116 PM	18	00000000 CONNECT;<LF>
10/31/2018	11:58:05.116 PM	33	00000001 EXECUTE "0000R000.JOB";<LF>

The response to this command produced the following nine RX events in the diagnostics viewer:

Date	Time	Length	Data
10/31/2018	11:59:59.234 PM	36	C:\IMM1SessionDirectory\SESS0000.RSP
10/31/2018	11:59:59.234 PM	19	00000000 PROCESSED;
10/31/2018	11:59:59.234 PM	19	00000001 PROCESSED;
10/31/2018	11:59:59.250 PM	36	C:\IMM1SessionDirectory\0000R000.RSP
10/31/2018	11:59:59.250 PM	52	COMMAND 1 PROCESSED "JOB COMMAND" 20181231 23:59:59;
10/31/2018	11:59:59.250 PM	49	COMMAND 2 PROCESSED "0000R000" 20181231 23:59:59;
10/31/2018	11:59:59.266 PM	36	C:\IMM1SessionDirectory\0000R000.DAT
10/31/2018	11:59:59.266 PM	22	ActCntCyc,ActCntCycRej
10/31/2018	11:59:59.266 PM	7	7520,40

2.1 Create the Presentation Request File

1. Create a file named 0000R000.JOB – file name is determined from the diagnostic output.
2. Copy the following two lines from the diagnostics output:

```
10/31/2018 11:58:05.100 PM 38 JOB 0000R000 RESPONSE "0000R000.RSP";<LF>
10/31/2018 11:58:05.100 PM 136 REPORT 0000R000 REWRITE
"0000R001.DAT"<LF>START IMMEDIATE<LF>STOP NEVER<LF>CYCLIC SHOT 1<LF>SAMPLES
1<LF>SESSIONS 1<LF>PARAMETERS<LF>ActCntCyc,<LF>ActCntCycRej;
```

3. Remove the Date, Time, and Length from each line.

```
JOB 0000R000 RESPONSE "0000R000.RSP";<LF>
REPORT 0000R000 REWRITE "0000R000.DAT"<LF>START IMMEDIATE<LF>STOP
NEVER<LF>CYCLIC SHOT 1<LF>SAMPLES 1<LF>SESSIONS
1<LF>PARAMETERS<LF>ActCntCyc,<LF>ActCntCycRej;
```

4. Replace the <LF> notations with an actual linefeed.

```
JOB 0000R000 RESPONSE "0000R000.RSP";
REPORT 0000R000 REWRITE "0000R000.DAT"
START IMMEDIATE
STOP NEVER
CYCLIC SHOT 1
SAMPLES 1
SESSIONS 1
PARAMETERS
ActCntCyc,
ActCntCycRej
```

5. Save the presentation request file.

2.2 Create the Session Request File

1. Create a file named SESS0000.REQ – file name is determined from the diagnostic output.
 - **Note:** Do not put the file in the session directory. This is because the machine will attempt to read this file as soon as it sees it.
2. Copy the following two lines from the diagnostics output:

```
10/31/2018 11:58:05.116 PM 18 00000000 CONNECT;<LF>
10/31/2018 11:58:05.116 PM 33 00000001 EXECUTE "0000R000.IOB";<LF>
```

3. Remove the Date, Time, and Length from each line.

```
00000000 CONNECT;<LF>
00000001 EXECUTE "0000R000.JOB";<LF>
```

4. Replace the <LF> notations with an actual linefeed.

```
00000000 CONNECT;  
00000001 EXECUTE "0000R000.JOB";
```

5. Save the session request file.

2.3 Create the Session Response File

1. Create the session response file named SESS0000.RSP – file name is determined from the diagnostic output.
 - **Note:** Do not put this in the session directory until needed.
2. Copy the following two lines from the diagnostics viewer:

```
10/31/2018 11:59:59.234 PM 19 00000000 PROCESSED;  
10/31/2018 11:59:59.234 PM 19 00000001 PROCESSED;
```

3. Remove the Date, Time, and Length from each line.

```
00000000 PROCESSED;  
00000001 PROCESSED;
```

4. Save the session response file.

2.4 Create the Presentation Response File

1. Create the presentation response file named 0000R000.JOB. The file name is determined by the diagnostic output
2. Copy the following two lines from the diagnostics viewer:

```
10/31/2018 11:59:59.250 PM 52 COMMAND 1 PROCESSED "JOB COMMAND" 20181231  
23:59:59;  
10/31/2018 11:59:59.250 PM 49 COMMAND 2 PROCESSED "0000R000" 20181231
```

3. Remove the Date, Time, and Length from each line.

```
COMMAND 1 PROCESSED "JOB COMMAND" 20181231 23:59:59;  
COMMAND 2 PROCESSED "0000R000" 20181231 23:59:59;
```

4. Save the presentation response file.

2.5 Create the Application Response File

1. Create the application response file named 0000R000.DAT – file name is determined from the diagnostic output
2. Copy the following two lines from the diagnostics viewer:

```
10/31/2018 11:59:59.266 PM 22 ActCntCyc,ActCntCycRej  
10/31/2018 11:59:59.266 PM 7 7520,4023:59:59;
```

3. Remove the Date, Time, and Length from each line.

```
ActCntCyc,ActCntCycRej  
7520,40
```

4. Save the application response file.

3. Test the EUROMAP 63-Enabled Machine Response to the Request Files

1. Save the 10-line JOB file from the above example to the session directory that the injection molding machine is configured to watch.
2. Save the 2-line REQ file to the same session directory as the JOB file.
3. The EUROMAP 63-enabled machine should read these files and provide three response files.

4. Test the EUROMAP 63 Driver Parses the Response Files

1. Configure a EUROMAP 63 channel and device with an accessible session directory.
 - a. In this example, the job name (0000R000) indicates it is for the first device on the first channel (first three digits are channel id in hex, fourth digit is device id in hex). If the customer diagnostics has a job name with different numbers, then more channels and devices may be necessary in the project to get the file name to match. For example, job name 0024R000 is for the fifth device on the third channel.
 - b. In this example, the session number is 0000, which is included in the default session number range configured on the device. If multiple devices share the session directory, they each need a unique session number range that does not overlap another device. Ensure the device contains the session number indicated in the customer's diagnostics output.
2. Disable the **Prevalidate Tags** device property. If enabled, the first command would be GETID instead of REPORT. The response files in this example are for a REPORT request, as indicated by the R in the job name.
 - a. **R** indicates **REPORT**, which is a read request.
 - b. **P** indicates **GETID**, which is used to pre-validate tags and auto generate tags.
 - c. **S** indicates **SET**, which is a write request.

3. Create the following tags.

Address	Datatype	Access
ActCntCyc	DWORD	Read/Write
ActCntCycRej	DWORD	Read/Write

4. Navigate to **Administration Menu | Settings... | Runtime Process | Process Mode** and select Interactive from the dropdown menu.
5. Start the Runtime. In this example, the transaction id is 000 (the last three digits in the job name 0000R000)
6. Start the Quick Client from the Administration Menu.
7. From the Quick Client, access **Edit | New Server Connection** to add a new server connection.
8. Create a **New Group**.
9. Add the two items from step 3, and set them to Inactive. Verify the Active checkbox is not enabled.
10. Copy the three response files from the above example (SESS0000.RSP, 0000R000.RSP, and 0000R000.DAT) to your clipboard.
11. Navigate to the session directory that is configured in the **Session File Directory Path** device property.
12. From the Quick Client, select and right-click both tags to access the context menu and select **Asynchronous Read**.
13. Notice the session directory now contains two files: SESS0000.REQ and 0000R000.JOB.
14. Before the 60-second request timeout elapses, paste the three copied response files to the session directory.
Note: The driver will delete these files when the transaction completes. Save the originals elsewhere if you wish to retain them.
15. Delete the SESS0000.REQ file.
16. If the driver can parse all three response files and no errors are returned from the device within the files, the tags in the Quick Client should receive values and good quality. In this example, the value of the ActCntCyc tag is 7520 and the value of the ActCntCycRej tag is 40.
17. If the session or presentation response files contain error messages or the driver fails to parse any of the response files, a message is posted to the event log in the configuration application and the tags will have bad quality.