TOTALFLOW
Technical Bulletin 119

Local/Remote PCCU Protocol Switch Issue Related to the CB180, CB181 and 6400 Flow Computers

Totalflow Technical Bulletin

Version 1.0, Revision AA (29 October 2004)
1. Purpose
To describe a potential data logging problem with 6400 and 6700 Flow Computer units. This bulletin does not pertain to the Xseries and microFLO products!

2. Description
A problem has been reported that pertains to a small number of 6400 and 6700 Flow Computers. Potentially the Flow Computer could stop logging historical data after the user has performed a local DB2 or trend collection. The problem is extremely rare and tests have shown that many transitions from local connection (normal PCCU functions including entry, monitor, calibration) to DB2 or trend collections are required to stop historical logging.

This problem does not exist if performing DB1 (old database) collections.

3. Symptom
Flow computer stops logging historical data after a local DB2 historical or trend data collection. When this occurs the local Flow Computer display stops scrolling. A gap is created in the historical data from the time the lockup occurs to whenever the meter stops logging again. Either a local connection using the PCCU cable or warm starting the Flow Computer resets the unit and it should begin logging again. See DB2 example below:

In the above daily s a gap between 9/17 and 9/27 where the Flow Computer stopped logging historical data.
Comparing the events file below along with the hourly data logged on the 17th shows a correlation between the DB2 collection on 9/17 @ 14:01 and the last data logged at 14:02 on the same day.

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Event Description</th>
<th>Old Value</th>
<th>New Value</th>
<th>Seq</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/16/2004 14:49:11</td>
<td>Local database collection</td>
<td>-3.0000</td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>9/01/2004 14:37:06</td>
<td>Local database collection</td>
<td>-3.0000</td>
<td></td>
<td>65</td>
</tr>
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<td>9/17/2004 14:00:32</td>
<td>Local database collection</td>
<td>-3.0000</td>
<td></td>
<td>66</td>
</tr>
<tr>
<td>9/17/2004 14:01:09</td>
<td>Local database collection</td>
<td>-3.0000</td>
<td></td>
<td>67</td>
</tr>
</tbody>
</table>

This problem only occurs on a small number of Flow Computers and can be identified by verifying the Flow Computer continues to scroll data on the display after a DB2 or trend collection.

4. **Workaround**

If data logging stops, connecting to the local PCCU connector or warm starting the unit will force the Flow Computer to begin logging historical data again.

5. **Conclusion**

This database logging issue will only occur in a very small number of devices. We do not think this problem is wide spread due to the number of local connections and DB2 collections required to reproduce this problem by ABB. Customers can identify Flow Computers with this issue by running a missing data report and looking for missing daily records and then comparing the last log record stored with the local collection date/time. If the symptom is confirmed then this particular meter has the “PCCU Local/Remote Protocol Switch Data Lock-Up” problem and you will either need to perform one of the workarounds mentioned above or replace the EPROM.

The following EPROMs corrected this logging:

6400 (2015333-00x) EPROM = 2015494-017 or later, Two digit revision code “ET” or later
6600 CB-180 (2012803-00x) EPROM = 2015376-012 or later, Two digit revision
code “SU” or later
6700 w/o Expanded I/O (2015382-00x) EPROM = 2015489-019 or later, Two digit revision code “DR” or later
6700 w/Expanded I/O(2015382-00x) EPROM = 2015490-017 or later, Two digit revision code “VR” or later

**Note:** The two digit revision code is displayed when polling units using WinCCU and DB1 database. Other less frequently used EPROMs have also been updated to include this correction. Call Customer Service if your particular EPROM does not show up in the list above.

To assist our technical staff please refer to this particular problem using this internally recognized phrase:

” **PCCU Local/Remote Protocol Switch Data Lock-Up”**

ABB will update any EPROMs that exhibit the symptoms described above at no charge. Please call our technical service staff at (800) 442-3097 option 1,2 for upgrade information.