

INSIGHTqc

Version 7.0.6

Introduction

This is the software release note for version 7.0.6 INSIGHTqc Controller. This document details the software version, key new features, and upgrade instructions for this release.

1. Release Information

The following software releases are launched as part of this release package.

Controller Versions		
#	Description	Version
1	Application	7.0.6
2	MCE Application	1.1.6
3	OS	1.2.1

Important Notes:

1. Default admin account login (username: admin, password: ingersoll)
2. The format of the access URL for controller will be **http://<ip_address>**
3. Mobile, Tablet and Controller Local screens available for testing
4. All supported browsers can be used
5. JavaScript files are minified
6. User is recommended to clear the browser cache first and then start browsing the Controller using remote browser. (Try Ctrl+Shift+R or Ctrl+F5. It may not always clear the cache, in that case clear browsing data manually using browser settings)
7. Please follow the upgrade instructions for controller software as listed in Section 3.0
 - a. Multiple upgrade steps might be required as outlined by the Software Upgrade Matrix in Appendix A

2. New Features & Improvements, Known Issues

2.1 Enhancements

- Multi Barcode enhancements
- Ability to select Jobs via Barcode with Fieldbus
- Simultaneous use of DIO and Fieldbus for I/O behaviors
- Statistics calculations corrected
- New GSDML file provided for ProfiNet
- Support for multiple Open Protocol connections
- Job Order on Home listed in order of Job ID

2.2 Known Issues and Limitations

1. Fallback Image operation is not functional.
2. After updating to version 6.9.7, reboot the controller.

2.2.1 Fieldbus :

- 100Mbps Ethernet port (ETH2) shall be used for Ethernet/IP and Profinet.
- ProfiNet stack restart is not supported in stack provided by RTA. If Eth1 is to be used for some other functionality, then user needs to change the Fieldbus selection to None OR Ethernet/IP and the controller is required to be power cycled.
- Profinet has passed PI compliance testing.
- Ethernet IP has passed ODVA compliance testing.

2.2.2 Firmware Update

- During Firmware update process, if the remote browser is closed, the Firmware update process completes, but audit log will not be generated for the same.
- In case Firmware Update is initiated from Remote browser, then during the update process the browser buttons, back, refresh should not be used until the update process completes.
- The INSIGHTqc eth1 port runs at 1GBytes/sec and the eth2 Port runs at 100 Mbytes/sec. If you access the INSIGHTqc web page via eth2, there is no issue. However, if access is via eth1, the firmware update process may not complete if the PC LAN connection is also set to 1 GByte per second. If the progress bar remains frozen at 5%, the PC LAN port must be set to 100 Mbytes per second in order for the firmware upload to complete. In Windows 10 go to the Control Panel and select "Network and Internet" then "Network Sharing Center". Select the network connection you are using then select "Properties".

2.2.3 Home Screen Job Search Function

- The ability to search by typing in Job names on the home screen is not functional on a remote Chrome browser. The feature works as expected on the QCD screen. This is believed to be an artifact of a Chrome upgrade.

3. Upgrade Instructions

3.1 Overview

Note: Please refer to the Software Upgrade Matrix (Appendix A) for steps to upgrade firmware to this latest version.

For more details, follow the instruction outlined in the How-To Update the Firmware on INSIGHTqc (see link below) on our customer portal to update the firmware for the INSIGHTqc Corded controller.

<https://irtoolhelp.ingersollrand.com/hc/en-us/articles/360046388214-How-To-Update-the-Firmware-on-INSIGHTqc>

3.2 Update with IRB file

- Download the required IRB file from FTP site.
- Copy the IRB file folder to a USB flash drive.
- Login to the controller local screen as admin.
- From the controller Home screen, go to MENU > SYSTEM MAINTENANCE > FIRMWARE UPDATE screen:



- Connect the USB flash drive with the IRB file to the controller USB port.
- Click on the Upload button to update the software.



- Wait for 5 min until the update completes and 'successfully completed' message is shown.
- Controller will log off automatically.
- Reboot the controller.

4. Appendix A – INSIGHTqc Software Upgrade Matrix

- The matrix below outlines the upgrade path for different version of INSIGHTqc software. For some users with older software version, multiple upgrade steps maybe required.

INSIGHTqc Software Upgrade Matrix		Upgrade from present version on controller								
		5.3.7	6.1.8	6.2.0	6.4.0	6.4.5	6.5.0	6.6.0	6.7.0	>= 6.8.5
To the desired version on controller	5.3.7									
	6.1.8		↓							
	6.2.0		1. IRB file update 2. Reboot 3. IRB INSIGHTqc 6.2.0 update 4. Factory RESET : Yes Clear SATA : No							
	6.4.0		↓							
	6.4.5		↓	↓	↓	↓				
	6.5.0		SW Update: IRB Intermediate ver :6.5.0 Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :6.5.0 Factory RESET : No Clear SATA : No	SW Update:IRB Intermediate ver :6.5.0 Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :6.5.0 Factory RESET : No Clear SATA : No				
	6.6.0		↓	↓	↓	↓				
	6.7.0	↓	↓	↓	↓	↓	↓	↓	↓	↓
	>= 6.8.5	1. Clear SATA : Yes 2. SW Update: USB v6.8.5 3. Factory RESET : Yes Intermediate ver :No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No	SW Update: IRB Intermediate ver :No Factory RESET : No Clear SATA : No

Example 1: To update version 6.4.5 to version 6.8.7, user will need to:

- Step 1: Update from version 6.4.5 to 6.5.0 using the IRB file update method; there is NO need to perform factory reset or clearing the SATA drive.
- Step 2: Update from version 6.5.0 to 6.8.7 using the IRB file update method. Again, there is NO need to perform factory reset or clearing the SATA drive.

Example 2: To update version 6.7.0 to version 6.8.7, user will need to:

- Step 1: Update from version 6.7.0 to 6.8.7 using the IRB file update method; there is NO need to perform factory reset or clearing the SATA drive.

5. Appendix B – PFOP MIDs

Note:						
1	Functionality supported		New MIDs in Release 2.6			
0	Functionality partially supported OR Functionality has known issues		New MIDs in W10 - Release 1.6			
			New Revs of W7 in W10			
MID	Description	ACOP-W07 Rev Level	ACOP-W10 Rev Level	ACOP-Release 2.6 Rev Level	QCD	INSIGHTqc Comments
1	Communication start	3	5		1	
2	Communication start acknowledge	3	5		1	
3	Communication stop	1	1		1	
4	Command error	1	1		1	
5	Command accepted	1	1		1	
8	Trace data Subscribe	N/A	N/A		0	Partially supported only for Trace subscription: (As per <i>OpenProtocol_Specification_9836 4415 01 2.6 "MID 0008 Application data message subscription "</i>) Issue: Showing Extra data field for subscription of trace
9	Trace data unsubscribe	N/A	N/A		0	Partially supported only for Trace Unsubscription: (As per <i>OpenProtocol_Specification_9836 4415 01 2.6 "MID 0009 Application data message unsubscription "</i>) Issue: Showing Extra data field for subscription of trace
10	Parameter set numbers upload request	1	1		1	
11	Parameter set numbers upload reply	1	2		1	
12	Parameter set data upload request	1	3		1	
13	Parameter set data upload reply	1	4		1	
14	Parameter set "selected" subscribe	1	1		1	
15	Parameter set "selected"	1	1		0	Issue: MID0015 retry does not happen when job is already selected
16	Parameter set "selected" acknowledge	1	1		1	
17	Parameter set "selected" unsubscribe	1	1		1	
18	Select Parameter set	1	1		1	
19	Set Parameter set batch size	1	1		1	
20	Reset Parameter set batch size	1	1		1	

30	Job numbers upload request	1	1		1	
31	Job numbers upload reply	1	1		1	
32	Job data upload request	1	3		1	
33	Job data upload reply	1	3		1	
34	Job "info" subscribe	1	1		1	
35	Job "info"	1	1		1	
36	Job "info" acknowledge	1	4		1	
37	Job "info" unsubscribe"	1	1		1	
38	Select Job	1	2		1	
39	Job restart	1	2		1	
40	Tool data upload request	1	1		1	
41	Tool data upload reply	2	5		1	
42	Disable tool	1	1		1	
43	Enable tool	1	1		1	<p>Known Limitation:</p> <p>1) If the tool is enabled using PFOP, then if the OP communication is closed without sending disable command, tool is still enabled.</p> <p>2) On sending Job Reset, Batch Reset commands while tool is In Cycle for PFOP/FOP Results are showing wrong. Fix is available next build, like next cycle onwards the cycle status should be updated as per the command already sent.</p>
50	Vehicle Id Number download request	1	1		1	
51	Vehicle Id Number upload subscribe	1	1		1	
52	Vehicle Id Number upload	2	2		1	
53	Vehicle Id Number upload acknowledge	1	1		1	
54	Vehicle Id Number upload unsubscribe	1	1		1	
60	Last tightening result data subscribe	5	9		0	<p>Issue: Torque fields are not rounded before Truncating</p>
61	Last tightening result data upload	5	9		0	<p>Issues:</p> <p>1) Controller retry sending MID0061 tightening data continuously when Keep alive is sent in between the retries</p> <p>2) If ACK for an EOR is delayed, PFOP does not send retry EOR messages to integrator for subsequent EORs</p> <p>3) Incorrect JOB ID and Pset ID is shown</p>
62	Last tightening result data acknowledge	1	1		1	
63	Last tightening result data unsubscribe	1	1		1	
64	Old tightening result upload request	4	6		1	

65	Old tightening result reply	4	6		1	
70	Alarm subscribe	1	2		1	
71	Alarm Upload	1	2		0	Issue: Error code for 'Stats alarm' and 'PM alarm - Grease Tubenut head' is not unique."
72	Alarm Upload acknowledge	1	1		1	
73	Alarm Unsubscribe	1	1		1	
74	Alarm Acknowledged on torque controller	1	1		0	Issue: MID0074 and MID0075 - 'Alarm acknowledge on controller functionality incorrect."
75	Alarm Acknowledged Ack	1	1		0	Issue: MID0074 and MID0075 - 'Alarm acknowledge on controller functionality incorrect."
76	Alarm Status	1	1		0	Issue: Error code for Statistics alarms are always obtained as E001,Unable to differentiate between the different type of Stats alarms"
80	Read time upload request	1	1		1	
81	Time upload reply	1	1		1	
82	Set Time in the Torque Controller	1	1		0	Issue: QCD Controller logs out on sending MID 82 (time set)
127	Abort job	1	1		1	
250	Selector socket info subscribe		1		1	
251	Selector socket info		1		1	
252	Selector socket info acknowledge		1		1	
253	Selector socket info unsubscribe		1		1	
410	AutoDisable settings request	1	1		1	
411	AutoDisable settings reply	1	1		1	
900	Trace			1	0	Issues: 1) MID0900 - Resolution fields are not available 2) Number of PIDs always shown as 000 and no variable data fields are obtained. 3) Incorrect torque value in trace samples are obtained 4) Incorrect angle sample in trace curve obtained when angle is programmed more than 655 degree 5) MID0900 - Torque units other than Nm are not supported
9999	Keep alive message	1	1		1	

6. Revision History

Revision History

Version	Date	Summary of Changes	Author
0.01	4/12/22	Final	Mike Zalot