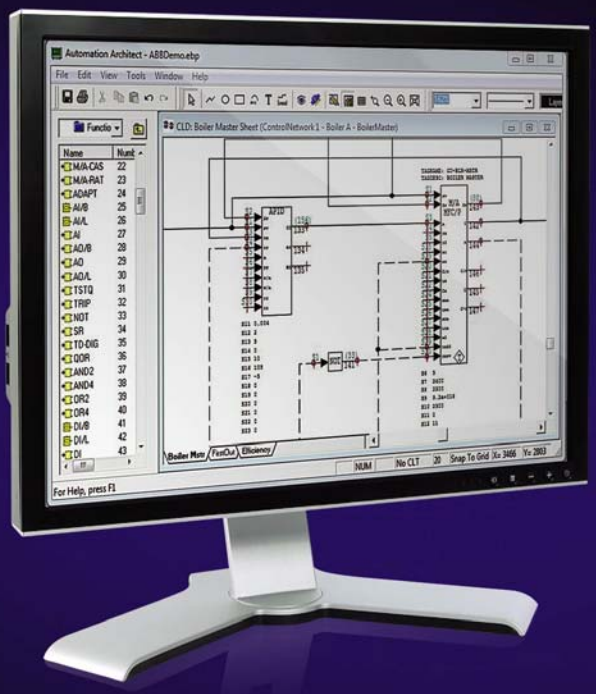

Symphony Plus

S+ Engineering: Harmony Gateway Software 6.0 Release Notes

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1. INTRODUCTION

This document describes the release of the S+ Engineering: Harmony Gateway Software version 6.0. It is recommended to read this instruction in its entirety before installing the BRC-410, HPG-800 or HPC800 module or Harmony Gateway software (HGS). HGS 6.0 encompasses the software components and fixes up to and including 5.1 SP2.

1.1 Functionality Changes

Harmony Gateway software version 6.0 adds the following functionality:

- Support for up to eight (8) Modbus TCP Servers and one hundred twenty eight (128) Clients (applicable for the HPC800 module only).
- Support for the Harmony Process Controller (HPC800) Module.
- Support for 10,000 points (applicable to the HPC800 module only).
- On/Off Client connection scan for pre-configuring at the unit level within a Client connection and adding units during commissioning. This functionality permits a function block to turn off a client connection from sending a Modbus command to a unit.
- Triggered Write (FNC 5, 6, 15, 16) allows the function block to control precisely when the write command is sent.
- Optionally each command (all FNC's) can have a separate enable block if the Trigger option is not used.
- A Client Connection Status Page tab has been added to the Monitor Link Status Window to monitor the status of the 128 available clients.
- Client Heartbeat Timeouts: The Heartbeat Parameter Table enables an individual unit timeout and a quality override block for each Heartbeat to be configured. There can be 256 individual Heartbeat Timeouts. Individually configured Override Blocks replace the global override feature previously defined at block 31022.

  NOTE: Configurations that previously used block 31022 must reconfigure the Heartbeat using the Heartbeat Parameter Table.
- The status of each Modbus command can be monitored if required. If the redundancy option is selected, then the status output contains the Modbus Reply status for both the primary and secondary TCP ports. A Composer macro "HGS_CMD_STATUS" can be used to separate the status for each port.

  The status output for the ports is as described in Table 1.

Table 1: Command Status Values

Modbus Replies	Reply Status Value
NO_ERROR	0
ILLEGAL_FUNCTION	1
ILLEGAL_DATA_ADDRESS	2
ILLEGAL_DATA_VALUE	3
SLAVE_DEVICE_FAILURE	4
ACKNOWLEDGE	5
SLAVE_DEVICE_BUSY	6
NEGATIVE_ACKNOWLEDGE	7
MEMORY_PARITY_ERROR	8
TIMEOUT	16
CORRUPTDATA	32
SENT	64
INITIALIZING	128
DISABLED	255

- Disconnect /Connect toggle to start and stop communication with the Logical ICI has been added to the Tools menu.
- Improved Verify Loaded Configuration. Differences are logged to a text file for the user to view.
- HGS 6.0 uses MS Access 2007, all previous HGS configurations must be converted when upgrading using the HGS MDB Convert Utility.
- Removal of redundancy option in Module Licensing view. All software can run within redundant modules. This includes single interface licenses upgraded to version 6.0 from previous versions of software. One license per module/redundant pair is required.

1.2 Fixed Issues

The following issues are corrected with the release of Harmony Gateway software version 6.0.

Table 2: Fixed Issues

Issue	Correction of Issue
Modbus TCP Client Connection Configuration screens do not resize. HGS-UI-001	Each of the three sections of the Modbus TCP Client Connection Configuration screen can be dragged to a size chosen by the user.
Wrong Status Index is created for default Client Connection records. The first default client is called Client1 with a Status Index of 0 but Client2 is assigned a Status Index 2 instead of 1. HGS-OP-011	The index number is now correct which is one (1) less than the default client number.
The **Tools > Initialize** or **Reinstall** or **Verify** or **Monitor > Module Address** dialog box cannot be moved. HGS-UI-002	The dialog boxes can be moved within the HGS menu system.
The **Tools > Initialize** or **Reinstall** or **Verify** or **Monitor > Module Address** dialog box Control Network, Control Unit, and Controller Fields should be dimmed as they are no longer modified here. HGS-OP-012	The Module address can now only be configured/modified in the **Configuration > HGS Module Address** dialog box. The documentation has been modified to reflect this change.
Records copied from Excel and back into the mapping add an extra record. Excel adds an extra CRLF which is treated as another record when pasting. HGS-OP-013	A record is no longer appended to the mapping records when copying records from Excel back into the mapping.
The Error Log messages have the word *initialized* misspelled. HGS-OP-014	The word *initialized* is now spelled correctly.
In the Modbus TCP Client screen, right-clicking on a record for the cut/copy/append dialog box it is displayed at the top of the screen display. HGS-UI-003	The cut/copy/append dialog box is now displayed beside the record chosen.
The module HPG800/BRC410 can red light with LED's 3,5,6, if HGS is started with the Ethernet cable disconnected. It can also occur if there is an extra Invoke C added to the function block configuration. HGS-OP-015	A divide by zero error has been corrected.

Table 2: Fixed Issues (Continued)

Issue	Correction of Issue
When there is an Invoke C error, the message is incorrect. HGS-OP-016	The correct error message is now logged.
Add and Modify module license features function differently. When modifying the loop/pcu/module of an existing module license by clicking **Accept**, it prompts whether the loop/pcu/module is correct. If the answer is yes it then goes to the “Testing" dialog box, but if the answer is no it states that the module address is not saved and then closes all dialog boxes. HGS-OP-017	Both Add and Modify module license features function the same.
Edit and View license menu functions provide the same features and functions. The View of the license strings is redundant as the same information is available from the Edit submenu under licenses. HGS-UI-004	The View submenu under Licenses has been removed. The Edit submenu provides the functions Add/Modify/Delete, all licenses and features can be viewed.
Harmony Gateway Software will not reconnect to a Client after TCP failure due to a command reply timeout. This will only happen if all commands on a TCP Client Configuration in HGS are of a write type FNC's 5, 6, 15, or 16. HGS-OP-018	This has been corrected and the HGS software will not disconnect if the TCP Client Configuration types are all writes types.

1.3 Manual

The manual has been reconfigured to provide a cohesive view of the software and its configuration.

1.4 Compatibility

1.4.1 HGS Compatibility

Harmony Gateway Software version 6.0 can co-exist on the same server machine based on computer capacity with the following versions:

- HGS 5.1
- HGS 5.1 SP1
- HGS 5.1 SP2
- GPI 4.0
- GPI 4.0 RU1

All software manuals must be referenced for computer requirements.

1.4.2 Firmware Compatibility

The firmware compatibility for Harmony Gateway Software are as follows:

- The Harmony Gateway module (HPG-800) requires firmware revision L_9 or later.
- BRC-410 (firmware M_0).

  NOTE: For the HPG-800 and BRC-410 rev M_0, only use the Test and Accept when doing online configuration. Users should be aware of possible Bad Quality of values when performing a Go Back or Additional during online configuration.

- The BRC-410 (firmware M_1) is required in order to use the Online Configuration Go Back or Additional features. Refer to the module hardware instructions for additional hardware and firmware requirements.
- HPC800 (firmware A_2).

1.4.3 Engineering Tools Compatibility

The Harmony Gateway Software is compatible with Composer versions 5.1 SP2 and 6.0 or later.

Composer 5.1 SP2 is required when running Windows Server 2008 or Windows 7 (32-bit), using either the HPG-800, or BRC-410 module and the Harmony Gateway software.

Composer 6.0 or later is required when running Windows Server 2008 or Windows 7 (32-bit or 64-bit), using the HPG-800, BRC-410, or the HPC800 module and the Harmony Gateway software.

2. INSTALLATION

Harmony Gateway Software version 6.0 is available as a download from ABB SolutionsBank (*Control Products & Systems \Symphony Plus\Engineering\Symphony Plus - Composer Harmony*).

Follow the given steps to download the software:

1. Download the **SetupHGS60.msi** from ABB SolutionsBank.
2. Copy the file to the local machine where HGS 6.0 is to be installed.
3. Run the **SetupHGS60.msi**.

NOTE: Previous Composer project files must be converted with Composer 6.0 and previous HGS project files must be converted using the HGS 6.0 MDB Convert Utility.

Licenses are available from the ABB Software License Administration System.

3. RELATED DOCUMENTS

ABB documentation can be found in the ABB Library or SolutionsBank (http://solutionsbank.abb.com). The following table lists additional documents that relate to Harmony Gateway Software.

Table 3: Harmony Gateway Related Documents

Document Number	Document Title
2VAA002581-600	S+ Engineering: Harmony Gateway Software Version 6.0 User Manual
3BUA001154R0001 Rev B	Harmony Gateway Module (HPG-800) User Manual
2VAA000720R0001	S+ Control: P-HC-BRC-41000000 Bridge Controller with Ethernet User Instruction
2VAA001586	S+ Control: HPC800 Harmony Process Controller User Manual

4. SUPPORT

Contact ABB technical support for assistance in problem reporting.

5. REVISION HISTORY

Rev.	Description	Date / Initial
Initial	S+ Engineering: Harmony Gateway Software version 6.0 Release Notes	01/2013 / LT

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