

Migration guide to SiteManager ORMSM13xx series

Step-by-step guide to migrate from SiteManager ORMSM11xx to SiteManager ORMSM13xx series

1 Introduction

This document provides guidance with the migration process from any of the SiteManager ORMSM11xx variants to the SiteManager ORMSM13xx variants to avoid unnecessary complications. Other approaches (e.g. project update via USB stick) may work as well but were not tested and are therefore the customer's responsibility.

In this guide, we are distinguishing between the following procedures depending on the different life cycle scenarios. For all the scenarios we assume that the machine builder wants to make use of the seamless integration of the SiteManager in Automation Studio for automatic configuration and/or I/O mapping reasons.

2 Products

2.1 ORMSM11xx - discontinued

Order number	Short description
ORMSM1115	Secure Remote Maintenance -SiteManager, LAN 1x Ethernet 100Base-T uplink port, 5 device agents, integrated firewall, 2x digital inputs, 2x digital outputs, 24 VDC
ORMSM1135.4G	Secure Remote Maintenance -SiteManager, LTE/4G/3G; for global, 1x Ethernet 100BASE-T uplink port, 1x GPRS/3G/4G uplink port, 5 device agents, 2x digital inputs, 2x digital outputs, 24 VDC
ORMSM1145	Secure Remote Maintenance -SiteManager, WiFi 1x Ethernet 100Base-T uplink port, 1x WiFi uplink port, 5 device agents, integrated firewall, 2x digital inputs, 2x digital outputs, 24 VDC

2.2 ORMSM13xx - successor

Order number	Short description
ORMSM1315	Secure Remote Maintenance -SiteManager, LAN, 1x Ethernet 100Base-T uplink port, 3x Dev port, 10 device agents, integrated firewall, 2x digital inputs, 2x digital outputs, 24 VDC
ORMSM1335.4G	Secure Remote Maintenance -SiteManager, LTE/4G; for global, 1x Ethernet 100BASE-T uplink port, 1x GPRS/3G/4G uplink port, 3x Dev port, 10 device agents, integrated firewall, 2x digital inputs, 2x digital outputs, 24 VDC
ORMSM1345	Secure Remote Maintenance -SiteManager, WiFi, 1x Ethernet 100Base-T uplink port, 1x WiFi uplink port, 3x Dev port, 10 device agents, integrated firewall, 2x digital inputs, 2x digital outputs, 24 VDC

3 Migration procedures

3.1 New machine designs

A machine builder wants to design and commission new machines using a new machine design and wants to use the new SiteManager ORMSM13xx variant. We assume the machine builder wants to make use of the seamless integration of the SiteManager in Automation Studio for automatic configuration and/or I/O mapping reasons.

3.1.1 Steps for new machine designs

- The new SiteManager version must be configured in Automation Studio's "Physical View / System Designer".
- The configuration of the device agents can be achieved via the SiteManager GUI manually and automatically via GateManager "Actions".

If a customer doesn't want to use the automatic configuration and I/O mapping, he shall follow the manual "SiteManager_1315-1335-1345_Initial-Setup.pdf"

<https://www.br-automation.com/download/10000759641>

3.2 Existing machine designs

A machine builder wants to design and commission new machines using an existing machine design and wants to use the new SiteManager ORMSM13xx variant. We assume the machine builder already makes use of the seamless integration of the SiteManager in Automation Studio for configuration and/or I/O mapping reasons in his current machine design.

3.2.1 Steps for existing machine designs

- Open the current Automation Studio project and replace the currently configured SiteManager with the "new" SiteManager ORMSM13xx in Automation Studio's "Physical View / System Designer". The SiteManager's configuration itself may stay the same. This enables automatic SiteManager configuration at machine boot-up by the PLC.
- The configuration of the device agents can be achieved via the SiteManager GUI manually and automatically via GateManager "Actions".

If a customer doesn't want to use the automatic configuration and I/O mapping, he shall follow the manual "SiteManager_1315-1335-1345_Initial-Setup.pdf"

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3.3 Brownfield maintenance

A machine builder wants to replace a SiteManager ORMSM11xx that is currently installed in the field with a SiteManager ORMSM13xx. In this scenario, we're assuming that the SiteManager is broken, the SiteManager's status is down and it is therefore offline. We're also assuming that the machine builder is using I/O mapping functionality. As a sidenote, any of the SiteManager variants have "supervised mode" permanently deactivated, which means a device exchange does not disturb machine operation. The GateManager (B&R GateManager hosted service or GateManager software) provides an automatic feature to replace a SiteManager and restore its configuration. The GateManager also

automatically stores the configuration of the SiteManager (network configuration, configured agents / features like DCM, usage history and audit logs).

3.3.1 Steps for brownfield migration

3.3.1.1 Pre-configuration

- SiteManager ORMSM13xx, which is at the machine builder's site, should be pre-configured with the GateManager address, appliance name and domain token prior shipment to the end user.
- Now the SiteManager is ready to be shipped to the end user. In this case it is assumed that thereafter the end user configures the broadband network connection. Alternatively, the broadband network connection may be configured by the machine builder already. Depending on who will provide the SIM card.
- To automate the process of pre-configuring more than one SiteManager, the machine builder can write a dummy PLC application with the correct configuration and therefore pre-configure them via Automation Studio / Runtime.
- If the SiteManager was already shipped to the end user, the service technician at the end user's site needs to configure everything, meaning the configurations mentioned above and the broadband network connection for remote connection to the GateManager.

Further details can be found in the manual "SiteManager_1315-1335-1345_Initial-Setup.pdf"
<https://www.br-automation.com/download/10000759641>

3.3.1.2 Replacement

This step will replicate the complete SiteManager configuration (network configuration, configured agents and features like DCM) as well as the usage history and audit logs to the "new" SiteManager.

- Open the GateManager GUI / web interface, click "Replace" in the overview of the "old" SiteManager and follow the instructions for the process provided by the GateManager.
- After successful replacement it takes some 2-5 minutes until the correct agents are visible again in the GateManager GUI / web interface. You may now delete obsolete agents.

The "Replace" button (see figure 1) appears only in the GateManager GUI / web interface if the SiteManager is offline (after a timeout of 9 mins).

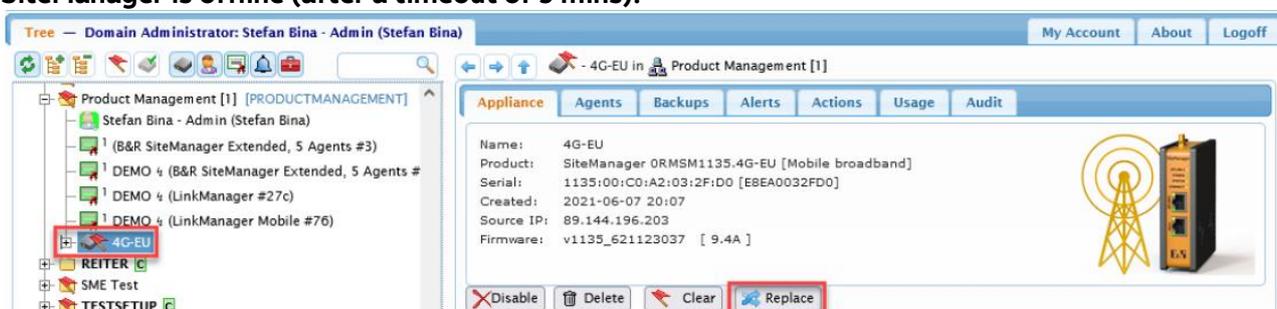


Figure 1 "Replace" SiteManager button in GateManager GUI / web interface

3.3.1.3 I/O mapping

If a customer doesn't make use of I/O mapping, this step can be skipped. In this step we explain how to update the Automation Studio project to make use of the I/O mapping again.

- The new "SiteManager ORMSM13xx" version must replace the currently configured SiteManager in Automation Studio's "Physical View / System Designer".
- Then establish a LinkManager connection and upgrade the project as usual.
- If the "module OK" flag is still "false" it is necessary to hard-reset the SiteManager (5 sec press on reset button) and have it reprogrammed by the PLC again in order for the PLC to accept the new device. Before you press reset button, please ensure that the SiteManager network configuration in the Automation Studio project is valid. During that process, the SiteManager will reboot two times (automatically).
- After a successful boot-up of the SiteManager go to the GateManager GUI / web interface to restore the most recent SiteManager backup. A refresh of the GateManager GUI / web interface might be needed to see the correct appliances / agents configured in the SiteManager.
- To verify the correct behavior, connect to the PLC via LinkManager and check that the "module OK" flag is true.

Only after successful completion of these steps will functionalities like "uplink status" or the "remote management control 1" input be accessible again.