
AMORPH.pro SMARTUNIFIER

SMARTUNIFIER Changelog

Amorph Systems GmbH

October 11, 2023

CONTENTS

What has changed in 1.8.0	1
What has changed in 1.7.0	1
What has changed in 1.6.0	2
What has changed in 1.5.0	3
What has changed in 1.4.0	4
What has changed in 1.3.0	4
What has changed in 1.2.0	5
What has changed in 1.1.6	5
What has changed in 1.1.5	6
What has changed in 1.1.4	6
What has changed in 1.1.3	7
What has changed in 1.1.2	7
What has changed in 1.1.1	8
What has changed in 1.1.0	8
What has changed in 1.0.1	8
What has changed in 1.0.0	9

What has changed in 1.8.0

Added

- Added: Deployment Agent that allows to deploy and monitor SMARTUNIFIER Communication Instances remotely.
- Added: Downloading feature to get the logs of an SMARTUNIFIER Communication Instance via the Deployment view.
- Added: Alert feature, enabling users to monitor running Communication Instances and create customizable alerts to receive notifications in case of errors.
- Added: Validation feature has been added to check the validity of configuration components such as Information Models, Communication Channels, Mappings, Device Types, and Communication Instances, providing assurance that they are free from faults and errors.
- Added: New Communication Channels (Email, InfluxDB V2).

Improvements

- The Credential Manager now has the ability to manage tokens in addition to other credentials.
- To ensure all Communication Instances are properly started after a backup, an automatic restart feature has been implemented for Instances that were started prior to the backup.
- A more robust logging framework has been introduced, resulting in improved performance across the system.
- Visually enhanced dashboard charts for CPU usage, RAM usage, and messages per second to provide an improved overall appearance.

Bug Fixes

- Fixed: Data type handling in the Information Model JSON-Import plugin.
- Fixed: Issue affecting the WebSocket channel's reconnection behavior has been fixed.
- Fixed: Enabled editing of action timeout in SecsGem Channel.
- Fixed: Arrow key logic in Information Model view.

What has changed in 1.7.0

Added

- Added: OPC-UA model import - provides the possibility to generate an OpcUa Information Model using a XML-file or connecting to the OpcUa server.

Improvements

- Introduced actions with conditions within the Mapping Rule configuration.
- Added option for multi trigger Rule within the Mapping configuration. Simple one to one Mapping of variables.

- Added option to enable consumer/producer for the variable node within the MQTT Communication Channel configuration.
- Extended local deployment to flexibly choose the location of the Instance deployment on your system by adding local endpoints.
- Introduced Deployment states within the Deployment Instance operations.
- Improved Modbus implementation.
- Added tracing support for SECS implementation.

Bug Fixes

- Fixed: Variables under event duplicated when dragging in an action from the tree within Mapping.
- Fixed: Deploying of an Instance parsed the Mapping code.
- Fixed: Error while creating AWS Deployment Endpoint.
- Fixed: Log and status of Instances not working on SSH Deployments.
- Fixed: Temp folder is not cleaned up after restoring a backup.
- Fixed: REST client authentication issue.
- Fixed: Notification issues.

What has changed in 1.6.0

Added

- Added: New trigger types for Rules within the Mapping - [Fixed Rate Scheduler](#) and [Fixed Delay Scheduler](#).
- Added: [Simple Mapping](#) option for data structures of the same type.
- Added: [SSH Deployment](#) that allows to deploy Communication Instances in different networks.
- Added: [Notifications](#) allow another way of monitoring deployed and running Communication Instances states.
- Added: The new SiteWise model export extension makes an integration with AWS IoT SiteWise more easy.
- Added: The new JSON model import extension that allows you to create Information Models automatically based on a given JSON structure.

Improvements

- Introduced configuration field within the Communication Channel configuration to define deviating or unsupported Information Model node naming (e.g., avoid naming conflicts with Scala keywords).
- Added option *TailFromEnd* to the File Tailer Communication Channel.

- Implemented List support for Command Replies.
- You can backup the internal database of the SMARTUNIFIER Manager.
- Improved Dashboard for the monitoring of deployed and running Instances.
- Changed AWS account authentication from profile file to input fields for Access key id and Secret access key.

Bug Fixes

- Fixed: Deletion of Information Model custom nodes.
- Fixed: Type conversion issues with Milo unsigned types in the OPCUA Communication Channel.
- Fixed: Deadlock issue in the SECS/GEM Communication Channel.
- Fixed: Communication Instances show now the correct state when using a backup of a repository.
- Fixed: UI issue during the offline activation when entering a new license.

What has changed in 1.5.0

Added

- Mappings: Introduced rule scheduler as another trigger option.
- Communication Instance: Added the option to choose the version of the framework which the Communication Instance is using to allow backwards compatibility.
- Deployments: Added bulk actions to deploy, start, stop and delete multiple selected Deployments.
- Deployments: Added VM Arguments to configure the Java Virtual Machine (JVM) for the Communication Instance.
- Deployments - Docker: Introduced possibility to attach volumes to Docker containers.
- Administration - Logging Configuration: Allows to generate customized log4j configurations that can be used when deploying Communication Instances.

Improvements

- Administration - Restore: Introduced progress bar with log viewer for monitoring the restoring process of the repository.
- Communication Channels - REST Client: Introduced option to use parameters within the URL.
- Communication Channels - InfluxDB: Introduced support for Arrays.

Bug Fixes

- Information Models: Children nodes can have now the same name as their parent nodes.

- Administration - SCM (Gitea): Fixed issue of failing API requests when organizations are missing within Gitea.

What has changed in 1.4.0

Added

- Deployments: Introduced log viewer to show logs of deployed SMARTUNIFIER Communication Instances.
- Deployments: Introduced flag “protected” for deployed SMARTUNIFIER Communication Instances - requires a password to apply state changes on deployed Instances.
- Deployment Endpoint - Docker: Added TLS to protect the Docker daemon socket.

Improvements

- Manager: Introduced local Git repository to version SMARTUNIFIER Communication Instances by default. The use of an Gitea repository can be configured optionally.

Bug Fixes

- Communication Channels - SECS: Not reconnecting when first attempt fails.
- Communication Channels - MQTT: Layer connection state not set correctly.
- Manager UI: Fixed Dashboard refreshing issue when Communication Instance changes from Stopped to Started.

What has changed in 1.3.0

Added

- Manager UI: Introduced backup and restore functionality for the SMARTUNIFIER repository.
- Manager UI: Introduced Docker Java Image Manager to support the administration of Docker images for containerized deployments of Communication Instances.
- Manager UI: Introduced clone functionality for configuration components that allows to easily reuse components like Information Models, Communication Channels, Mappings, Device Types, Communication Instances as well as Deployment Endpoints.
- Manager UI: “About SMARTUNIFIER“ Pop-up
- Deployments: Added option to encrypt Communication Instances so that configuration files with sensitive data are secured.
- User Administration: Added support for Windows Active Directory (AD).
- Demonstrator: Added demo guide for high-availability (HA) use cases using a load balancer before two or more SMARTUNIFIER Communication Instances.

Improvements

- Manager UI: Introduced additional “save & close” button for configuration pages to exit the configuration faster.

Bug Fixes

- Communication Channels: Fixed configuration issues on following Communication Channels: REST Client, MQTT and File Reader (JSON, XML, and CSV).
- Communication Channel - SQL Database: Added support for multiple nested lists inside an Information Model.
- Manager UI (macOS): Fixed deployed and started Communication Instance state - After restarting the SMARTUNIFIER Manager the running Communication Instance was not displayed as running.

What has changed in 1.2.0

Important: Breaking Change: This release contains a major update of the SMARTUNIFIER Framework. Instances configured in an older release will not work with this version. Please contact Amorph Systems for guidance on how to migrate SMARTUNIFIER Instances from previous releases.

Improvements

- Improved architecture performance and stability by updating the framework to Scala version 2.13 and Java version 11.
- Communication Channels: Improved configuration of Communication Channels by enhancing the internal process of how the configuration forms are generated.
- Manager UI: Introduced new icons for several menu entries (Information Model, Mappings, Device Type, Instance, Deployment, Deploy and Undeploy) to improve usability.

Bug Fixes

- Manager UI: Fixed small UI styling issues.
- Communication Channel - IsoOnTCPClient: Fixed configuration issue.
- Mapping: Added check to make sure that the Rule name is valid.

What has changed in 1.1.6

Added

- Security Improvement: Encryption of credentials.
- Communication Channel: Simplified Communication Channels configuration using pre-configured Channel Types.

Bug Fixes

- Information Model: Removed Simple Type as data type for Events and Commands.
- Information Model: Ensure that “Save” button is only enabled when all mandatory fields are filled.
- Communication Channel: OPC-UA Client configuration issues.
- Communication Channel: File Consumer file handling when error occurs in the communication.
- Communication Channel: MQTT layer reconnects when no disconnect buffer is used.
- Device Type: Enable the configuration of the Communication Channels before saving the new Device Type.
- Instance: Fixed Instance starting issue.

What has changed in 1.1.5

Added

- Import/Export functionality for SMARTUNIFIER Artifacts (Information Models, Communication Channels, Mappings, Device Types, Instances, Deployment Endpoints, Deployments) to allow transfer of artifacts in a simplified way.
- Communication Channel: Source code editor that displays the Channel configuration in JSON format.
- Security: Encryption of databases.

Improvements

- Communication Channel - SQL Databases: Handling of infinity values.

Bug Fixes

- Deployment: Fixed configurable refresh on deployment page.

What has changed in 1.1.4

Added

- Mapping: Option to enable/disable rules.
- Communication Channel - InfluxDB: Added Tags and allowing the renaming of variables via configuration.
- Communication Channel - SECS: Added SECS as a new Communication Channel type.
- Deployment - AWS: Introduced deployment of Instances on AWS using Fargate.

Improvements

- Manager UI: Updated to Angular version 11 to improve performance and usability.

Bug Fixes

- Framework: Paths that are containing the SMARTUNIFIER Manager are now allowed to have spaces in it.
- Information Model: Fixed Copy and Paste issues of Nodes in the model editor.
- Communication Channel - SQL Database: Supports now all kinds of connection paths.
- Device Type: Alphabetically sorted list of Mappings.

What has changed in 1.1.3**Added**

- Mapping: Introduced check that shows if a Rule is valid or invalid.
- Deployment: Added more default logging settings (Info, Debug, Trace, Warning).
- Deployment - Docker: Introduced health check for containers in order to determine whether the resource is operating normally.
- Repository: Added option to reindex (update) all implementations that are stored in the repository.

Improvements

- Communication Channel - MariaDB: Updated driver to version 2.6.2.

Bug Fixes

- Information Model: Fixed renaming of complex variable MemberType to make sure all dependent nodes are updated to the new name.
- Communication Channel: Fixed duplication of Communication Channels when clicking on “save”.
- Device Type: Fixed several UI issues when clicking on “apply” and “save”.

What has changed in 1.1.2**Added**

- Manager UI: Added group filter for all artifacts.
- Communication Channel - MQTT: Buffering of messages when MQTT Client is not connected.

Improvements

- Communication Channel - SQL Database: Simplified configuration.

Bug Fixes

- Communication Channel - MQTT: Added ID to the MQTT persistence folder to avoid multiple clients conflicts.

- Instance: Prohibit Instance from stopping in case another Thread is running in a Channel Implementation.

What has changed in 1.1.1

Added

- Added Port and IP of the SMARTUNIFIER Manager to the application.conf file.

Improvements

- Communication Channel: Introduce default configuration for Channels.

Bug Fixes

- Instance: Ensure that multiple used Communication Channels have only one configuration.
- Device Type: Fixed long loading time when accessing Rules in the Mapping.

What has changed in 1.1.0

Added

- Mapping: Allow the synchronous execution of commands.

Improvements

- Communication Channel - File Consumer: Improved logging and formatting of parsed files.

Bug Fixes

- Information Model: Fixed icon of model node "Array".
- Communication Channel - SQL Database: Fixed reconnect when connection to the database is lost.

What has changed in 1.0.1

Added

- Instance: Added schema validation for configuration values in Instances.

Improvements

- Manager UI: Updated to Angular 9 - making use of several performance increasing features.
- Communication Channel - OPCUA: Allow configuration of subscription attributes.

Bug Fixes

- Communication Channel: Removed null values from the configuration.

What has changed in 1.0.0

Added

- Added Device Type feature. Enables the possibility to group similar integration scenarios and the creation of multiple Instances based on a Device Type.
- Deployment - Docker: Added Docker deployment of Instances.

Improvements

- Communication Channel: Sort list of Channel Types alphabetically.

Bug Fixes

- Information Model: Removed simple data types when creating a new Event/Command.
- Mapping: Introduced check that evaluates if a Rule name already exists.

What has changed in 1.8.0

Added

- Added: Deployment Agent that allows to deploy and monitor SMARTUNIFIER Communication Instances remotely.
- Added: Downloading feature to get the logs of an SMARTUNIFIER Communication Instance via the Deployment view.
- Added: Alert feature, enabling users to monitor running Communication Instances and create customizable alerts to receive notifications in case of errors.
- Added: Validation feature has been added to check the validity of configuration components such as Information Models, Communication Channels, Mappings, Device Types, and Communication Instances, providing assurance that they are free from faults and errors.
- Added: New Communication Channels (Email, InfluxDB V2).

Improvements

- The Credential Manager now has the ability to manage tokens in addition to other credentials.
- To ensure all Communication Instances are properly started after a backup, an automatic restart feature has been implemented for Instances that were started prior to the backup.
- A more robust logging framework has been introduced, resulting in improved performance across the system.
- Visually enhanced dashboard charts for CPU usage, RAM usage, and messages per second to provide an improved overall appearance.

Bug Fixes

- Fixed: Data type handling in the Information Model JSON-Import plugin.
- Fixed: Issue affecting the WebSocket channel's reconnection behavior has been fixed.

- Fixed: Enabled editing of action timeout in SecsGem Channel.
- Fixed: Arrow key logic in Information Model view.

What has changed in 1.7.0

Added

- Added: OPC-UA model import - provides the possibility to generate an OpcUa Information Model using a XML-file or connecting to the OpcUa server.

Improvements

- Introduced actions with conditions within the Mapping Rule configuration.
- Added option for multi trigger Rule within the Mapping configuration. Simple one to one Mapping of variables.
- Added option to enable consumer/producer for the variable node within the MQTT Communication Channel configuration.
- Extended local deployment to flexibly choose the location of the Instance deployment on your system by adding local endpoints.
- Introduced Deployment states within the Deployment Instance operations.
- Improved Modbus implementation.
- Added tracing support for SECS implementation.

Bug Fixes

- Fixed: Variables under event duplicated when dragging in an action from the tree within Mapping.
- Fixed: Deploying of an Instance parsed the Mapping code.
- Fixed: Error while creating AWS Deployment Endpoint.
- Fixed: Log and status of Instances not working on SSH Deployments.
- Fixed: Temp folder is not cleaned up after restoring a backup.
- Fixed: REST client authentication issue.
- Fixed: Notification issues.

What has changed in 1.6.0

Added

- Added: New trigger types for Rules within the Mapping - [Fixed Rate Scheduler](#) and [Fixed Delay Scheduler](#).
- Added: [Simple Mapping](#) option for data structures of the same type.
- Added: [SSH Deployment](#) that allows to deploy Communication Instances in different networks.
- Added: [Notifications](#) allow another way of monitoring deployed and running Communication Instances states.
- Added: The new SiteWise model export extension makes an integration with AWS IoT SiteWise more easy.
- Added: The new JSON model import extension that allows you to create Information Models automatically based on a given JSON structure.

Improvements

- Introduced configuration field within the Communication Channel configuration to define deviating or unsupported Information Model node naming (e.g., avoid naming conflicts with Scala keywords).
- Added option *TailFromEnd* to the File Tailer Communication Channel.
- Implemented List support for Command Replies.
- You can backup the internal database of the SMARTUNIFIER Manager.
- Improved Dashboard for the monitoring of deployed and running Instances.
- Changed AWS account authentication from profile file to input fields for Access key id and Secret access key.

Bug Fixes

- Fixed: Deletion of Information Model custom nodes.
- Fixed: Type conversion issues with Milo unsigned types in the OPCUA Communication Channel.
- Fixed: Deadlock issue in the SECS/GEM Communication Channel.
- Fixed: Communication Instances show now the correct state when using a backup of a repository.
- Fixed: UI issue during the offline activation when entering a new license.

What has changed in 1.5.0

Added

- Mappings: Introduced rule scheduler as another trigger option.
- Communication Instance: Added the option to choose the version of the framework which the Communication Instance is using to allows backwards compatibility.
- Deployments: Added bulk actions to deploy, start, stop and delete multiple selected Deployments.
- Deployments: Added VM Arguments to configure the Java Virtual Machine (JVM) for the Communication Instance.
- Deployments - Docker: Introduced possibility to attach volumes to Docker containers.
- Administration - Logging Configuration: Allows to generate customized log4j configurations that can be used when deploying Communication Instances.

Improvements

- Administration - Restore: Introduced progress bar with log viewer for monitoring the restoring process of the repository.
- Communication Channels - REST Client: Introduced option to use parameters within the URL.
- Communication Channels - InfluxDB: Introduced support for Arrays.

Bug Fixes

- Information Models: Children nodes can have now the same name as their parent nodes.
- Administration - SCM (Gitea): Fixed issue of failing API requests when organizations are missing within Gitea.

What has changed in 1.4.0

Added

- Deployments: Introduced log viewer to show logs of deployed SMARTUNIFIER Communication Instances.
- Deployments: Introduced flag “protected” for deployed SMARTUNIFIER Communication Instances - requires a password to apply state changes on deployed Instances.
- Deployment Endpoint - Docker: Added TLS to protect the Docker daemon socket.

Improvements

- Manager: Introduced local Git repository to version SMARTUNIFIER Communication Instances by default. The use of an Gitea repository can be configured optionally.

Bug Fixes

- Communication Channels - SECS: Not reconnecting when first attempt fails.

- Communication Channels - MQTT: Layer connection state not set correctly.
- Manager UI: Fixed Dashboard refreshing issue when Communication Instance changes from Stopped to Started.

What has changed in 1.3.0

Added

- Manager UI: Introduced backup and restore functionality for the SMARTUNIFIER repository.
- Manager UI: Introduced Docker Java Image Manager to support the administration of Docker images for containerized deployments of Communication Instances.
- Manager UI: Introduced clone functionality for configuration components that allows to easily reuse components like Information Models, Communication Channels, Mappings, Device Types, Communication Instances as well as Deployment Endpoints.
- Manager UI: “About SMARTUNIFIER“ Pop-up
- Deployments: Added option to encrypt Communication Instances so that configuration files with sensitive data are secured.
- User Administration: Added support for Windows Active Directory (AD).
- Demonstrator: Added demo guide for high-availability (HA) use cases using a load balancer before two or more SMARTUNIFIER Communication Instances.

Improvements

- Manager UI: Introduced additional “save & close” button for configuration pages to exit the configuration faster.

Bug Fixes

- Communication Channels: Fixed configuration issues on following Communication Channels: REST Client, MQTT and File Reader (JSON, XML, and CSV).
- Communication Channel - SQL Database: Added support for multiple nested lists inside an Information Model.
- Manager UI (macOS): Fixed deployed and started Communication Instance state - After restarting the SMARTUNIFIER Manager the running Communication Instance was not displayed as running.

What has changed in 1.2.0

Important: Breaking Change: This release contains a major update of the SMARTUNIFIER Framework. Instances configured in an older release will not work with this version. Please contact Amorph Systems for guidance on how to migrate SMARTUNIFIER Instances from previous releases.

Improvements

- Improved architecture performance and stability by updating the framework to Scala version 2.13 and Java version 11.
- Communication Channels: Improved configuration of Communication Channels by enhancing the internal process of how the configuration forms are generated.
- Manager UI: Introduced new icons for several menu entries (Information Model, Mappings, Device Type, Instance, Deployment, Deploy and Undeploy) to improve usability.

Bug Fixes

- Manager UI: Fixed small UI styling issues.
- Communication Channel - IsoOnTCPClient: Fixed configuration issue.
- Mapping: Added check to make sure that the Rule name is valid.

What has changed in 1.1.6

Added

- Security Improvement: Encryption of credentials.
- Communication Channel: Simplified Communication Channels configuration using pre-configured Channel Types.

Bug Fixes

- Information Model: Removed Simple Type as data type for Events and Commands.
- Information Model: Ensure that “Save” button is only enabled when all mandatory fields are filled.
- Communication Channel: OPC-UA Client configuration issues.
- Communication Channel: File Consumer file handling when error occurs in the communication.
- Communication Channel: MQTT layer reconnects when no disconnect buffer is used.
- Device Type: Enable the configuration of the Communication Channels before saving the new Device Type.
- Instance: Fixed Instance starting issue.

What has changed in 1.1.5

Added

- Import/Export functionality for SMARTUNIFIER Artifacts (Information Models, Communication Channels, Mappings, Device Types, Instances, Deployment Endpoints, Deployments) to allow transfer of artifacts in a simplified way.
- Communication Channel: Source code editor that displays the Channel configuration in JSON format.
- Security: Encryption of databases.

Improvements

- Communication Channel - SQL Databases: Handling of infinity values.

Bug Fixes

- Deployment: Fixed configurable refresh on deployment page.

What has changed in 1.1.4

Added

- Mapping: Option to enable/disable rules.
- Communication Channel - InfluxDB: Added Tags and allowing the renaming of variables via configuration.
- Communication Channel - SECS: Added SECS as a new Communication Channel type.
- Deployment - AWS: Introduced deployment of Instances on AWS using Fargate.

Improvements

- Manager UI: Updated to Angular version 11 to improve performance and usability.

Bug Fixes

- Framework: Paths that are containing the SMARTUNIFIER Manager are now allowed to have spaces in it.
- Information Model: Fixed Copy and Paste issues of Nodes in the model editor.
- Communication Channel - SQL Database: Supports now all kinds of connection paths.
- Device Type: Alphabetically sorted list of Mappings.

What has changed in 1.1.3

Added

- Mapping: Introduced check that shows if a Rule is valid or invalid.
- Deployment: Added more default logging settings (Info, Debug, Trace, Warning).
- Deployment - Docker: Introduced health check for containers in order to determine whether the resource is operating normally.
- Repository: Added option to reindex (update) all implementations that are stored in the repository.

Improvements

- Communication Channel - MariaDB: Updated driver to version 2.6.2.

Bug Fixes

- Information Model: Fixed renaming of complex variable MemberType to make sure all dependent nodes are updated to the new name.
- Communication Channel: Fixed duplication of Communication Channels when clicking on “save”.
- Device Type: Fixed several UI issues when clicking on “apply” and “save”.

What has changed in 1.1.2

Added

- Manager UI: Added group filter for all artifacts.
- Communication Channel - MQTT: Buffering of messages when MQTT Client is not connected.

Improvements

- Communication Channel - SQL Database: Simplified configuration.

Bug Fixes

- Communication Channel - MQTT: Added ID to the MQTT persistence folder to avoid multiple clients conflicts.
- Instance: Prohibit Instance from stopping in case another Thread is running in a Channel Implementation.

What has changed in 1.1.1

Added

- Added Port and IP of the SMARTUNIFIER Manager to the application.conf file.

Improvements

- Communication Channel: Introduce default configuration for Channels.

Bug Fixes

- Instance: Ensure that multiple used Communication Channels have only one configuration.
- Device Type: Fixed long loading time when accessing Rules in the Mapping.

What has changed in 1.1.0

Added

- Mapping: Allow the synchronous execution of commands.

Improvements

- Communication Channel - File Consumer: Improved logging and formatting of parsed files.

Bug Fixes

- Information Model: Fixed icon of model node “Array”.
- Communication Channel - SQL Database: Fixed reconnect when connection to the database is lost.

What has changed in 1.0.1

Added

- Instance: Added schema validation for configuration values in Instances.

Improvements

- Manager UI: Updated to Angular 9 - making use of several performance increasing features.
- Communication Channel - OPCUA: Allow configuration of subscription attributes.

Bug Fixes

- Communication Channel: Removed null values from the configuration.

What has changed in 1.0.0

Added

- Added Device Type feature. Enables the possibility to group similar integration scenarios and the creation of multiple Instances based on a Device Type.
- Deployment - Docker: Added Docker deployment of Instances.

Improvements

- Communication Channel: Sort list of Channel Types alphabetically.

Bug Fixes

- Information Model: Removed simple data types when creating a new Event/Command.
- Mapping: Introduced check that evaluates if a Rule name already exists.