



# Technical Release Notes

Version 5.12.19

## *Release Information*



Document: Force-5-12-19-Technical-Release-Notes



Release date: 2023-03-27



Document version: 1.0



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## Overview

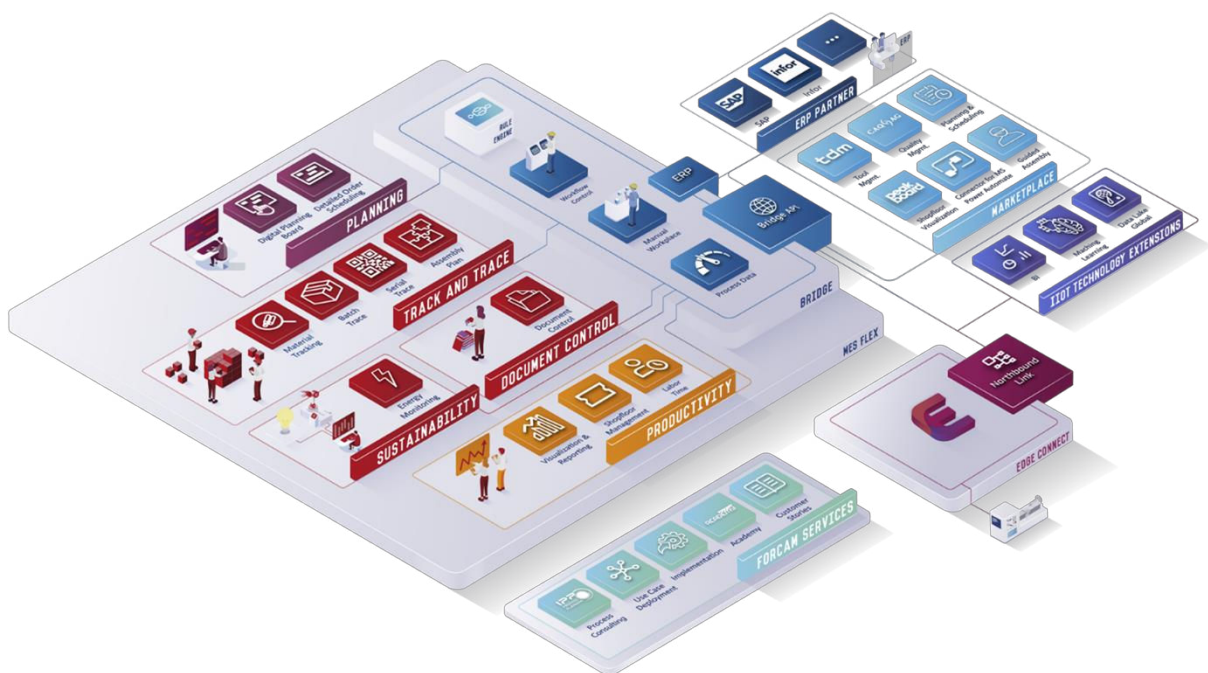
FORCAM provides companies with all the information they need to control and optimize their production. The modular IIoT solution FORCAM FORCE MES FLEX is as flexible as the needs of customers. With a variety of production apps, FORCAM helps companies to make their processes more transparent and improve their workflows. In this way, companies create the basis for optimization measures and sustainable success, thereby ensuring their competitiveness.

FORCAM is always endeavored to optimize the solution FORCAM FORCE MES FLEX further, to enrich it with functions, offering customers consistent growth and greatest possible use. For this purpose, several releases are published throughout the year.

This document lists technical changes during the 5.12.19 release. It provides an overview about configurations and parameters that are new or changed for FORCAM FORCE MES FLEX. For changes in the functionality, please refer to the Functional Release Notes of this release.

Detailed descriptions of the individual functions can be found in the respective product documentation.

 In some cases, there are no technical changes. These are marked accordingly.



## FORCE Common

### Reliable FORCE Startup & Shutdown

Affected module	Affected area	Status
FFSetup	FFStartup	New

#### FFSetup


Options for database check during startup:

Option	Description
Check Connectivity	Whether to check if the database is available or not before starting the FORCE:
Reachability Timeout	Time in seconds to wait for the database to become accessible.
Cancel on Failure	Whether to cancel the startup in case the database does not become reachability within the timeout.

Options for each application (only applications which you have installed on the specific system will show up here):

Option	Description
Enable Startup	When checked the respective application is started by FFStartup, otherwise it is not started and must be started manually if needed.
Sleep Time in Seconds	A time in seconds to sleep after the application has been started. This can help to throttle system load and prevents starting multiple applications at the same time.
Cancel on Failure	When checked the startup process will be canceled when the application is not accessible in the given time. E.g. it does not make sense to continue when the message broker does not start.
Group	All applications assigned to the same group will be started together. The startup process will only continue once all applications from the previous group (group with lower index) are available. This way, it is possible to define the startup order.

Options for sending a status mail after start/stop.

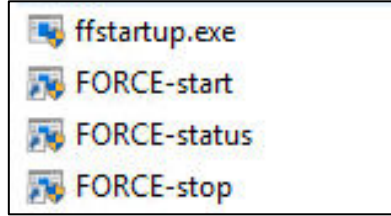
 Sending e-mails will only work when an e-mail server is configured. This can be done on the e-mail editor page.

Option	Description
E-Mail Recipients	Comma separated list of email addresses which are used to send a status e-mail to;
E-Mail Sender	E-Mail address that is used as a sender;

The resulting configuration is stored in *config/ffstartup.properties* file.

### FFStartup

The `ffstartup.exe` is copied to the app directory and shortcuts are created. It expects a `config/ffstartup.properties` file to use for the startup process.



File	Description
<code>ffstartup.exe</code>	Application that starts and stops the FORCE in the correct order.
<code>FORCE-Start</code>	Shortcut to call <code>ffstartup.exe</code> with start command. This will start the FORCE applications.
<code>FORCE-Status</code>	Shortcut to call <code>ffstartup.exe</code> with stop command. This will stop the FORCE applications.
<code>FORCE-Stop</code>	Shortcut to call <code>ffstartup.exe</code> with status command. This will show the system status of the applications.

FFSetup will also create a scheduled task name "forceStart" for FFStartup (this can be checked in the Windows application "Task Scheduler"), which will automatically run `ffstartup.exe` so that all defined applications are started, i.e., when the machine is restarted the FORCE will become available automatically.

### Corrupt Database in SFT

Affected module	Affected area	Status
Workbench/FFSetup	SFT	-

Please be aware while updating from version below 5.11.36 or below 5.12.10 you might have a database that is corrupted with many dead literals. This can lead to failing restarts or updates of the system.

#### Is my system affected?

You can use the following SQL code to determine if your system is affected by the issue:

```
SELECT COUNT(*) FROM FF_MD_LITERAL_TEXT WHERE KEY1 = 'webtouch' AND key2 = 'template' AND KEYS = 'auto'
```

If the result is in the 100.000th or beyond, you should consider taking a backup of the terminal templates through export.

## Counter Measures

While updating customer systems from a version below 5.11.36, you should consider checking the number of literals in a system. If the system is affected from this issue, you will have 100,000th or entries beyond that in FF\_MD\_LITERAL\_TEXT table, which causes millions of entries in the FF\_MD\_LITERAL\_TRANSLATION table.

### Backup

Before stopping the system you should export all your terminal templates.

The terminal literals translations can be determined using the following SQL code:

```
-- literal texts from templates:
SELECT * FROM FF_MD_LITERAL_TEXT WHERE KEY1 = 'webtouch' AND key2 = 'template' AND KEYTYPE = 'auto'

-- associated translations:
SELECT COUNT(*)
  FROM FF_MD_LITERAL_TRANSLATION WHERE LITERAL_TEXT_ID in (
    SELECT ID FROM FF_MD_LITERAL_TEXT WHERE KEY1 = 'webtouch' AND key2 = 'template' AND KEYTYPE = 'auto'
  )
```

Use the following SQL code to delete template literals:

```
-- associated translations:
DELETE FROM FF_MD_LITERAL_TRANSLATION WHERE LITERAL_TEXT_ID in (
  SELECT ID FROM FF_MD_LITERAL_TEXT WHERE KEY1 = 'webtouch' AND key2 = 'template' AND KEYTYPE = 'auto'
)

-- literal texts from templates:
DELETE FROM FF_MD_LITERAL_TEXT WHERE KEY1 = 'webtouch' AND key2 = 'template' AND KEYTYPE = 'auto'
```

Eventually your system should start again and you can import your terminal templates.

## Productivity

### New Activity Step FindSuccessorOperations

Affected module	Affected area	Status
Workbench	Shopfloor Terminal Configurator	New

None.

### Removal of Create workplace UI

Affected module	Affected area	Status
Workbench	Workplace Configuration	Changed

The rights/permissions are automatically removed if they were assigned. With a migration script the UI part is removed from the functional tree configuration, if the UI was assigned to the tree separately.

### Replacement of Shift Assignment in Week Definition

Affected module	Affected area	Status
Workbench	Shift Calendar	Changed

None.

## Appendix

Abbreviation/Term	Meaning
UI	User Interface
SFT	Shopfloor Terminal
SQL	Structured Query Language