

# Mobile Work Permits (M-WP) with RFID

## System Structure

The module "Mobile Work Permits with RFID" (M-WP) complements existing computerized maintenance management systems (CMMS systems). This way the CMMS system reaches to the component on site. An integrated workflow without system discontinuities is thus achieved. It facilitates identifying the correct location of the work permit and detecting existing work permit conflicts.



The module includes the following software components (cf. fig. 1):

- Client application M-WP on the mobile terminal device
- Replication database with M-WP server application on a central server for the supply of data to the mobile terminal devices
- Bidirectional interface to synchronize replication database
- Bidirectional interface with the CMMS system (e.g. SAP, SI<sup>®</sup>, Maximo, or similar)

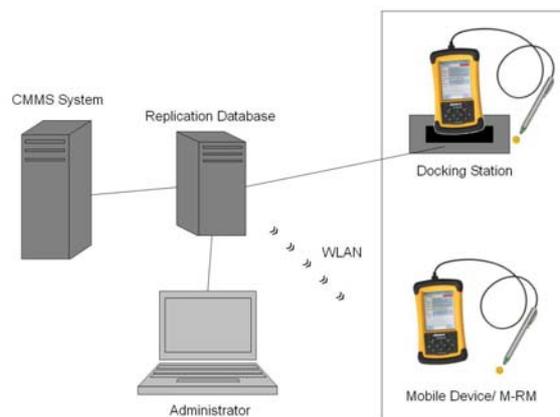


Figure 1: Typical System Configuration

For a quick start, STEAG recommends device types that can be used as PDA (Personal Digital Assistant) and server for the replication database. Different system configurations can be defined in collaboration with the customer, e.g. to continue the use of existing devices. This is possible because only standard components available on the market are used.

## Easy to use

The server application M-WP reads the upcoming work out of the central CMMS system and provides the information in the replication database as downloads for the mobile terminal devices. The users can download the list of measures onto their portable devices by connecting the device via a docking station to the central server. Alternatively, they can synchronize the data by means of a wireless LAN hotspot.

In several overview displays, the user can get informed about the locations of the work permits, the current measures, and the status of their execution.

With RFID-chips attached to the locations, the operator guidance is even simpler.

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This is due to the easy use of the RFID scanner. Hereby the related maintenance plan (cf. fig. 2) is automatically displayed. Misinterpretations are not possible anymore.

The process of work is written on the RFID chip. This logging directly at the workplace on site allows detecting work permits all simultaneously active at the same time in order to indicate on the display when work permits are not possible yet. It is also noted on the RFID-Chip that test runs are active.

## Scope of supply

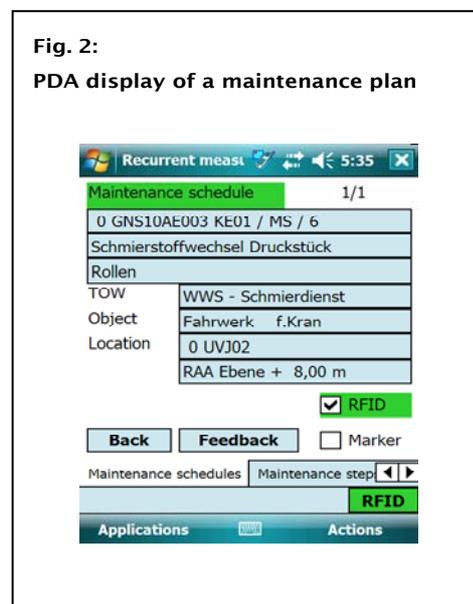
The user is provided with the following functions and information on the mobile terminal device:

- List of work schedules per work step: name of the technical object, the related description, one or more work steps or parts of work
- Unambiguous identification of the locations of work permits by means of RFID in order to prevent wrong work permits
- It is displayed when a connection is not

yet permitted to occur, as long as further work permits are present

- Identifying that test runs are active

**Fig. 2:**  
**PDA display of a maintenance plan**



### Key:

- RFID: Radio Frequency Identification
- M-WP: Mobile Work Permits
- SI®: CMMS-System of STEAG

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