

150 years



## User Report SAP Work Manager

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# Project Profile Maintenance & Repair (W&I)

- Targets:
  - To mobilize maintenance processes in the Ludwigshafen plant
  - To cover different processes while adhering close to the SAP standard
  - To use different devices (tablet & smartphone incl. Ex-certification)
- Project phases:
  - Phase 1: Basic version on Windows Mobile devices, replacement of the legacy solution
  - Phase 2: Extended version running on Android
- Target employees:
  - 200 maintenance technicians in the Ludwigshafen plant

# Technical Process Overview W&I-Solution

## SAP Work Manager Work Order Process

Extensions to use notifications at operation level, mass function for work order transfer to colleague, characteristic value changes

## SAP Work Manager Notification Process

Extensions to enter characteristic values for notification positions, add fotos

## SAP Work Manager CATS-Process

Time confirmations for colleauges

## SAP Work Manager Backend Configuration

Usage of legacy configuration tables, performance improvement via custom tables

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# Mobile Devices



Motorola Windows Mobile devices



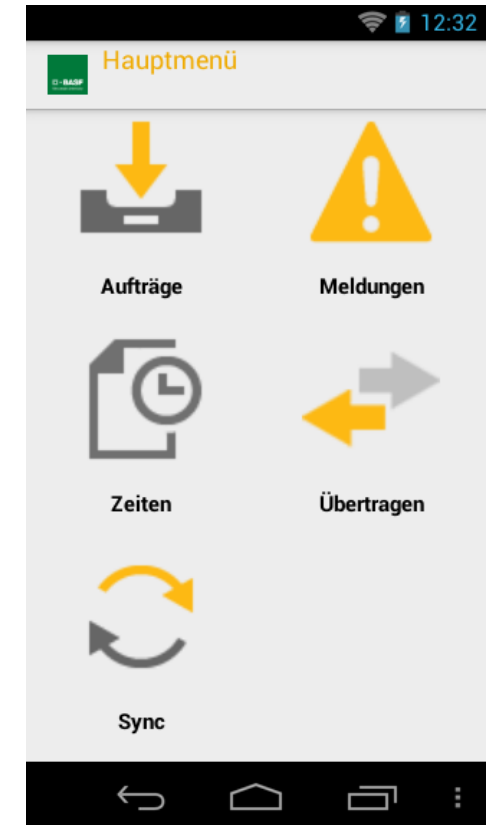
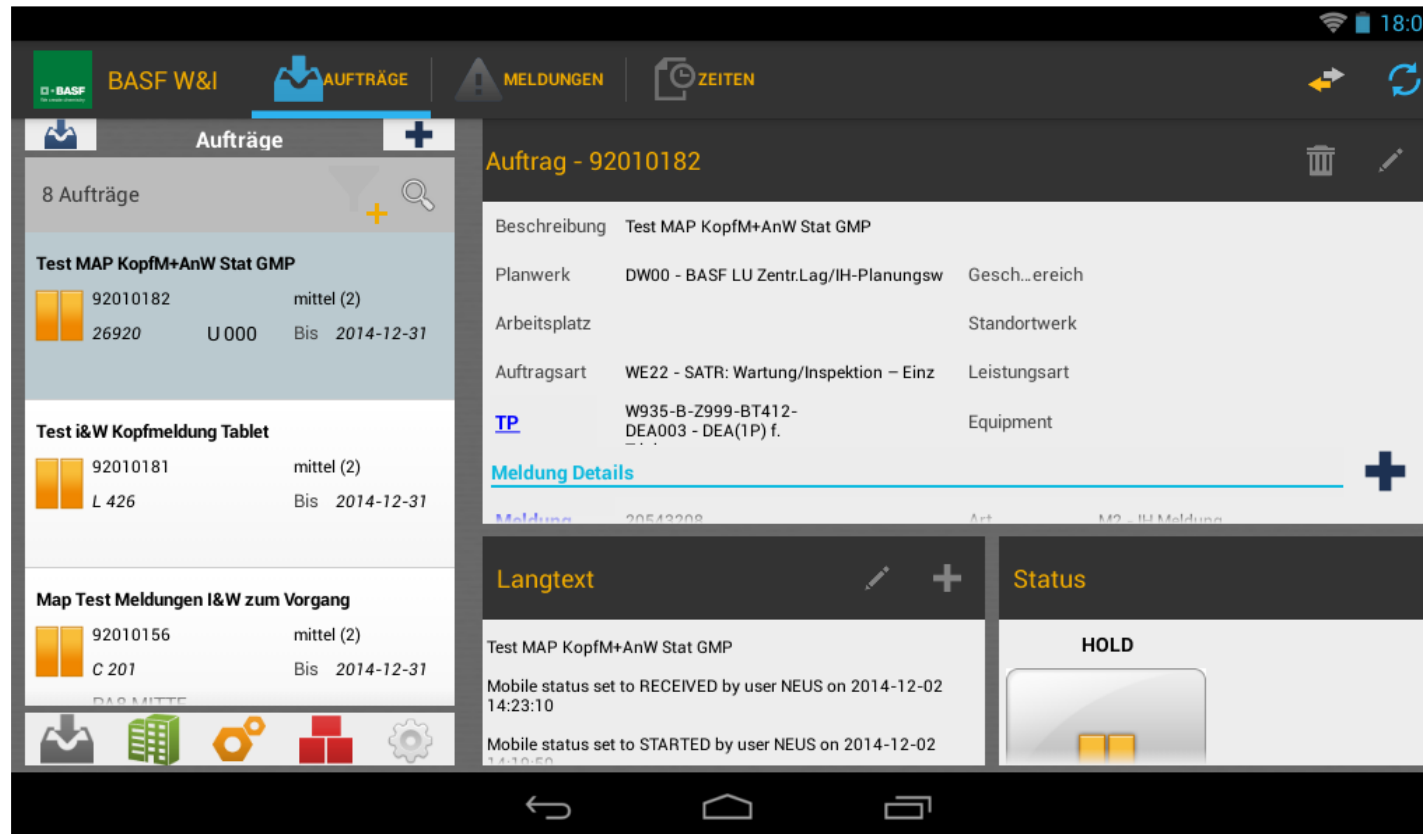
Getac Ex-Tablet Z710



i.Safe Ex-Smartphone INNOVATION 2.0

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# Processes on the Mobile Device



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# Notification Process (I/III) – Viewing a Position

The screenshot displays the BASF W&I mobile application interface. At the top, there's a header with the BASF logo, 'BASF W&I', and navigation tabs: 'AUFTRÄGE', 'MELDUNGEN' (active), and 'ZEITEN'. Below the header, a sub-header shows 'Positionen' with a plus icon. The main content area is divided into two panels. The left panel, titled '3 Positionen', lists three items: 'Hydraulikfehler' (0001 Teil Gr...e Schaden BA1 - blockiert/ hängt/ schwergängig), 'Ölleck' (0002 Teil Gr...e Schaden BA4 - verformt/ verbogen/ dejustiert), and 'Korrosion am Korpus' (0003 Teil Gr...pe Damage BA6 - verschlissen/ abgenutzt). The right panel, titled 'Mldg Pos. - 0003', shows details for the selected position. It includes a 'Beschreibung' field with 'Korrosion am Korpus', a 'Sort Nr.' field with '0003', and a 'Teil Details' section with 'Gruppe' and 'Catalog B'. Below this is a 'Schaden Details' section. At the bottom of the right panel, there's a 'Position Langtext' section with the text 'Korrosion am Korpus wahrscheinlich durch hohe Luftfeuchte vor der Produktionsphase.' The bottom of the screen features a navigation bar with four icons: a warning triangle, a list icon, a checkmark, and a red triangle. The top right corner shows a status bar with a Wi-Fi icon, a battery icon, and the time '18:58'.

Positionen	Details	Ursachen	Maßnahmen	Aktionen	Klassifizierung
3 Positionen					
<b>Hydraulikfehler</b>					
0001 Teil Gr...e					
Schaden BA1 - blockiert/ hängt/ schwergängig					
<b>Ölleck</b>					
0002 Teil Gr...e					
Schaden BA4 - verformt/ verbogen/ dejustiert					
<b>Korrosion am Korpus</b>					
0003 Teil Gr...pe					
Damage BA6 - verschlissen/ abgenutzt					

Mldg Pos. - 0003	
Beschreibung	Korrosion am Korpus
Sort Nr.	0003
<b>Teil Details</b>	
Gruppe	Catalog B
<b>Schaden Details</b>	
<b>Position Langtext</b>	
Korrosion am Korpus wahrscheinlich durch hohe Luftfeuchte vor der Produktionsphase.	

Jump to  
classification data

View/change the  
notification data  
coming from SAP

150 years

# Notification Process (II/III) – Showing the Characteristics

The screenshot shows a mobile application interface for 'Klassifizierung' (Classification). The top bar displays the BASF logo and the title 'Klassifizierung'. Below the title, there is a section for '1 Klassifizierungen' (1 Classifications) with a sub-section 'Inspek Gebläse' (Inspect Blower) and details 'KI...e W16' and 'Art 015'. The main content area is divided into two columns. The left column is titled 'Merkmale' (Characteristics) and lists several items: '1DICHTHEIT' (1 Tightness), 'Gehäuse ok' (Housing ok), 'Wellendurchführung ok' (Shaft passage ok), 'Motoranschlusskasten ok' (Motor connection box ok), 'Schmiereinheit ok' (Lubrication unit ok), and 'Anschluss Rohrleitung' (Connection pipe). The right column is titled 'Werte' (Values) and is currently empty. The bottom of the screen shows a standard Android navigation bar with back, home, and recent apps buttons. Two orange arrows point from text boxes on the right to the '1DICHTHEIT' row and the 'Merkmale' header.

Merkmale	Werte
1DICHTHEIT	
Gehäuse ok	
Wellendurchführung ok	
Motoranschlusskasten ok	
Schmiereinheit ok	
Anschluss Rohrleitung	

Usage of characteristics like a checklist

Selection of the first characteristic to start

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# Notification Process (III/III) – Value Entry

The screenshot shows a mobile application interface for value entry. The top bar is dark grey with the BASF logo on the left, navigation arrows in the center, and buttons 'Fertig' and 'Abbrechen' on the right. The main area is light grey and displays the following information:

- Klasse:** Inspek Gebläse
- Merkmal:** Wellendurchführung ok
- Wert:** A dropdown menu is open, showing two options: 'in Ordnung' and 'Wellendurchführung undicht'.

The bottom bar is dark grey and contains three white icons: a back arrow, a home icon, and a recent apps icon.

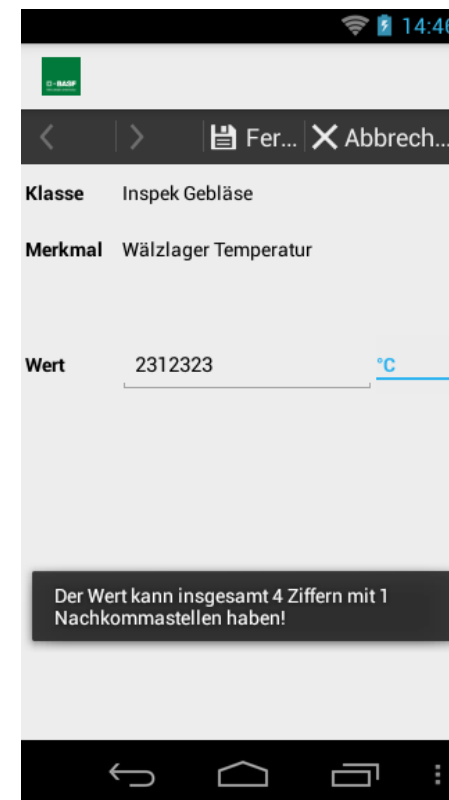
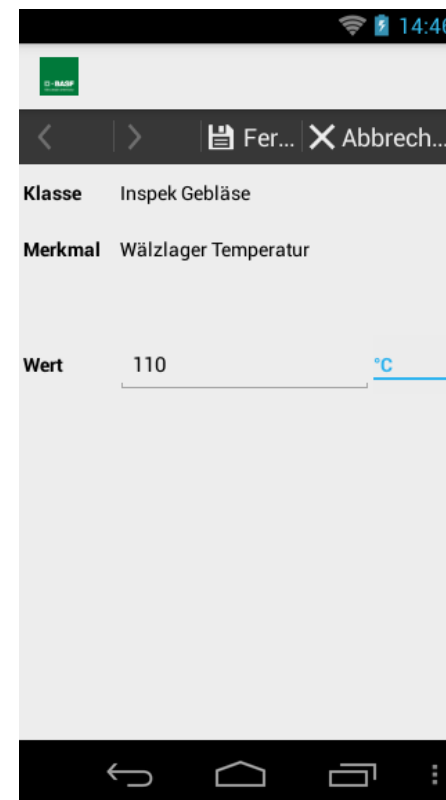
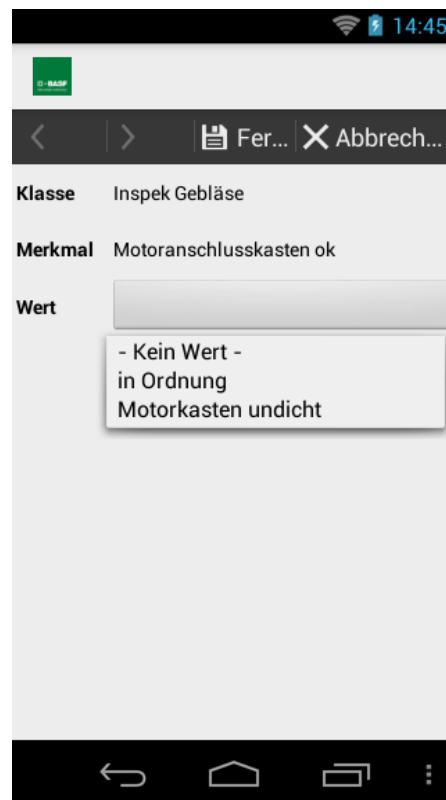
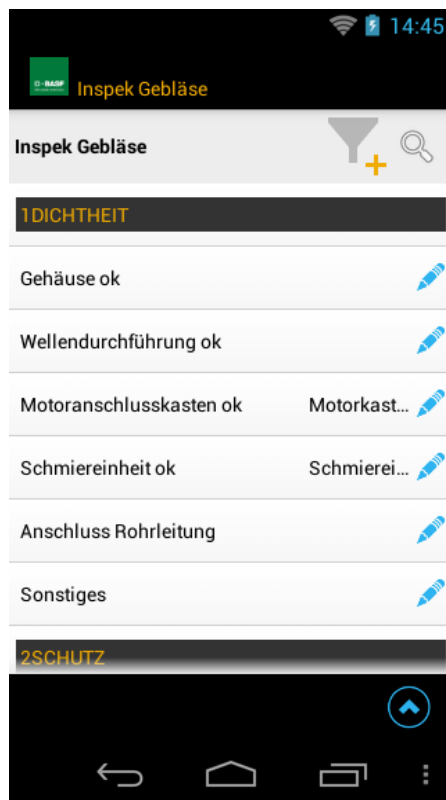
Jump to the next characteristic to continue

Selection of the possible values as defined in SAP

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# Characteristics List on a Smartphone



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**BASF**  
We create chemistry

# Work Order Process (I/II) – Showing Operations

The screenshot displays the BASF W&I mobile application interface. The top navigation bar includes the BASF logo, the text 'BASF W&I', and several menu items: 'AUFTRÄGE' (Orders), 'MELDUNGEN' (Reports), and 'ZEITEN' (Times). The status bar at the top right shows the time as 18:32.

The left sidebar, titled 'Vorgänge' (Operations), lists two operations:

- Operation 0040:** IW:Pumpen DEA(1P)\_TGA\_F\_6m, SSG00T1. It shows a 'Fertig' (Finished) checkbox, a start time of 15.10.14 15:22:59, and a finish time of 15.10.14 15:23:00. A blue arrow points from this operation to the main content area.
- Operation 0030:** IW:Pumpen DEA(1P)\_TGA\_F\_6m, SSG00T1. It shows a 'Fertig' checkbox, a start time of 15.10.14 15:22:58, and a finish time of 15.10.14 15:22:58.

The main content area, titled 'Vorgang - 0040', displays details for the selected operation:

- Beschreibung:** IW:Pumpen DEA(1P)\_TGA\_F\_6m
- Arbeitsplatz:** Standortwerk
- Steuer...lüssel:** Sortierfeld 0040
- Meldung Details:** A section with a table showing 'Meldung' and 'Art'.
- Vorgang Langtext:** A section with a plus sign icon.
- Status:** A section with a plus sign icon and a 'Zeit erfassen' (Record Time) button.
- Fertig:** A button to confirm the operation.

The bottom of the screen features a navigation bar with icons for 'AUFTRÄGE', 'MELDUNGEN', 'ZEITEN', and a settings gear icon.

Usage of the SAP operations to work on different objects in one work order

Confirm the operation to start the confirmation screen flow

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# Work Order Process (II/III) – Time Confirmation

The screenshot shows a mobile application interface for time confirmation. At the top, there is a status bar with a signal icon, a battery icon, and the time 18:32. Below this is a header bar with the BASF logo on the left and the text 'Arbeitstag: 26.01.15' in the center. The main content area is divided into several sections: 'Stunden' (Hours) with two input fields showing '00'; 'Leistungsart' (Type of work) with a dropdown menu showing 'W - WERKSTATT-STD. G'; 'Auftrag' (Order) with a text field showing '92007882'; 'Vorgang' (Process) with a dropdown menu showing '0040'; 'Arbeiter' (Worker) with a text field showing 'Steffen Neu'; and 'Kurztext' (Short text) with a text area. At the bottom, there is a navigation bar with three icons: a back arrow, a home icon, and a list icon. Two orange lines point from text boxes on the right to the 'Stunden' and 'Arbeiter' fields.

Arbeits-BASF Arbeitstag: 26.01.15

< > Fertig X Abbrechen

Stunden

00 00

Leistungsart

W - WERKSTATT-STD. G

Auftrag

92007882

Vorgang

0040

Arbeiter

Steffen Neu

Kurztext

Manual entry of the work times (no automatic time confirmation)

Possibility to book time for a fellow technician

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# Work Order Process (III/III) – Simple Failure Notification

Position hinzufügen

20543325 Position

0004

Teil

Gruppe -- Auswahl Gruppe

Teil -- Auswahl Teil

Langtext

Schaden

Gruppe ZIH-BILD

Schaden -- Auswahl Schaden

Beschreibung

Fertig

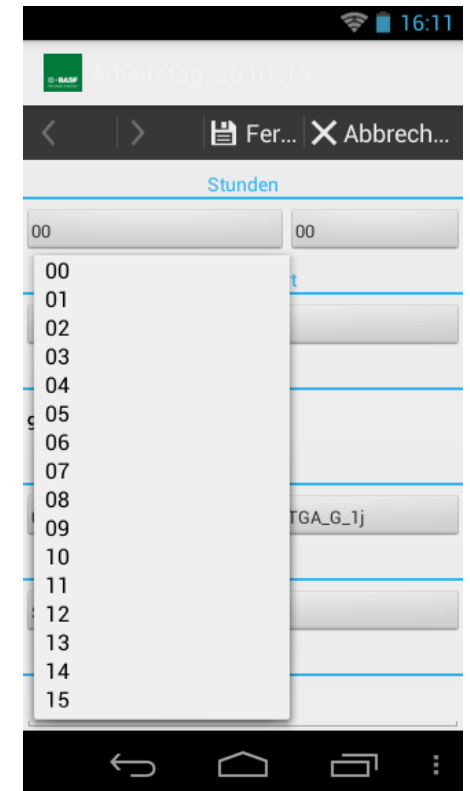
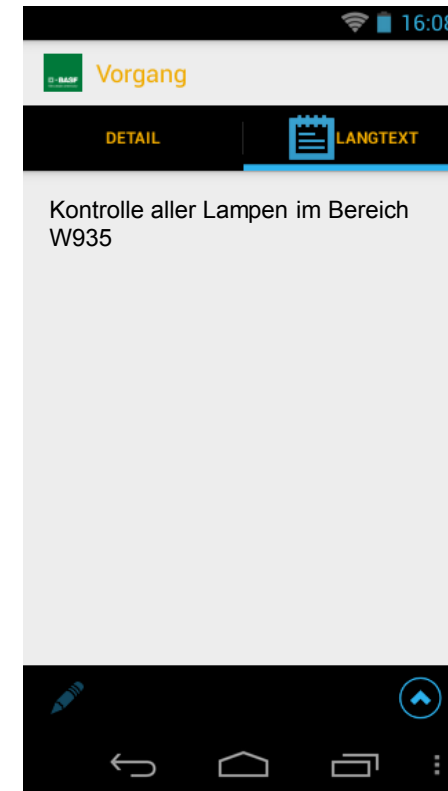
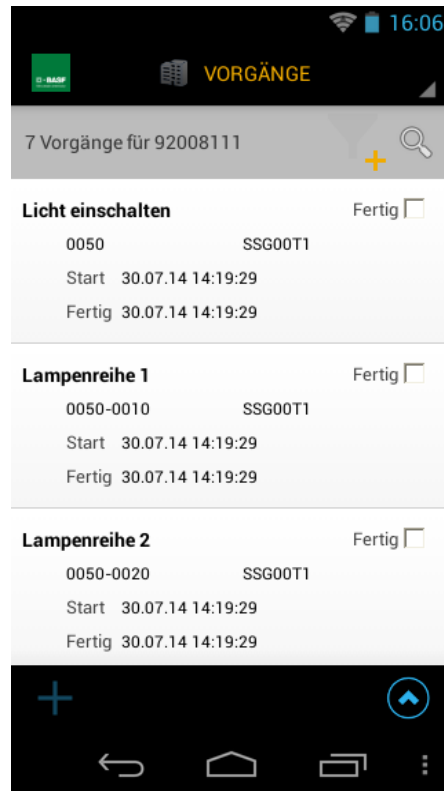
Abbrechen

Automatic display  
of the assigned  
notification

In case any issue  
where found, a  
failure notification  
is directly created

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# Work Order Process on a Smartphone



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# Experience Gained During the Mobile Maintenance Project with SAP Work Manager

- Long cycle to clarify functional requirements via pilot phases and selective roll-outs
- Internal alignment required to setup the system landscape
- Changes on the mobile client to improve the user experience (e.g. for fault documentation)
- Good and tight cooperation with the external implementation partner
- Improvement of the maintenance process for the technicians

*The changes to the mobile client where mainly done to show relevant customer-specific fields and to support BASF-specific processes, which are not part of the SAP Work Manager standard.*

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## Next Steps Regarding the W&I-App

- Roll-out of the phase 2 application the Ludwigshafen plant
- Upgrade of the SAP Work Manager to the current version (SMP 3.0 & SAP Work Manager 6.2) as a global template
- Improvement of the rounds functionality for North American plants
- Workshops with further european plants to discuss possible roll-outs

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# We are happy to answer your questions



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