

# TRAMP: Traveling Repair and Maintenance Platform

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## TRAMP

### Mission Statement for Teams

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# TRAMP: Traveling Repair and Maintenance Platform

## Goals of the Presentation

- ∨ Mission Statements for the teams:
  - § Service teams:
    - ¥ How to assist the development teams
  - § Development teams
    - ¥ Which SS-Services have to be delivered to realize the scenario?
    - ¥ Interaction with other subsystems
- ∨ Call for information

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## Global Software Engineering

Service Team (1)

### § Services:

¥ Analyze and improve:

¥ - Infrastructure for communication

¥ - Development processes

¥ Implement a system for distributed formal reviews

### § Call for Information:

¥ Problems / feature requests concerning the infrastructure of the BBoard

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## Testing

Service Team (2)

### § Services:

- ¥ Find proper tools for testing
- ¥ Support other teams by installation and learning of the testing tools

### § Call for Information:

- ¥ Programming languages used by each team
- ¥ What should be concretely tested

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## Wearable

Service Team (3)

### § Services:

- ¥ Provide the underlying platform for the actual application
- ¥ Consult other teams on software available for LINUX on StrongARM
- ¥ Establish a build environment on the provided platform

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## Application

Development Team (1)

### § Services:

- ¥ Authoring of UIs for mobile maintenance applications(IETMs)
- ¥ Configuration with XML documents of all system components
- ¥ Design the final scenario

### § Interaction with other subsystems:

- ¥ With all other subsystems
  - ∅ Application is the glue between modules

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## User Interface

Development Team (2)

### § Services:

- ¥ Multi-modal User Interaction: Input / output Channels
- ¥ Display of IETMS
- ¥ Interface to expert system and to Trackers
- ¥ Support navigation

### § Interaction with other subsystems:

- ¥ Get the user position data from the Context team for navigation
- ¥ Fed with taskflows (IETMS and DWARF taskflows) from the Session subsystems

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## Context

Development Team (3)

### § Services:

- ¥ Information about user's current position
- ¥ Tracking of optical markers (e.g. open fuse box)
- ¥ Route planning (navigation system)

### § Interaction with other subsystems:

- ¥ Send position data to:
  - UI: navigation
  - Session: trigger transition in taskflows



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## Session Management

Development Team (4)

### § Services:

- ¥ Store taskflow in a DB
- ¥ Deliver the appropriate taskflows (right time, right content)
- ¥ Synchronize taskflows of different users
- ¥ Two kinds of taskflows:
  - **IETMs**: detailed taskflows for repairing
  - **DWARF TFE** (=TaskflowEngine): the big taskflow that contains IETM descriptions

### § Interaction with other subsystems:

- ¥ With UI and Context teams

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## Network

Development Team (5)

### § Services:

- ¥ Provide wireless network technologies (e.g. UMTS, GSM, WaveLANÉ )
- ¥ Data communication
- ¥ Select middleware to connect all the other modules (plug & play)

### § Interaction with other subsystems:

- ¥ With all other subsystems

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## An intro to the scenario play

- § What subsystem services are needed in each part of the scenario.