



# Project „Flexible Assembly Processes for the Car of the Third Millennium (MyCar)“

## **Problem Description (High Level)**

Equipment Maintenance Monitoring SW

CASP

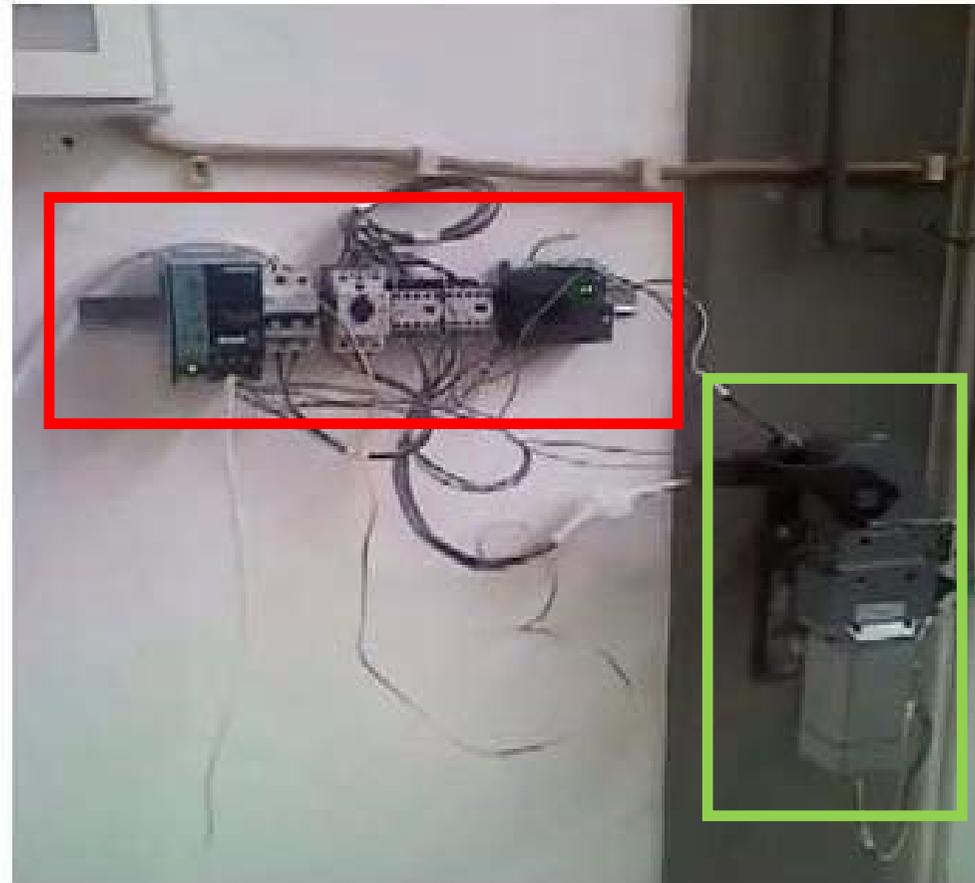


# Equipment Maintenance concept

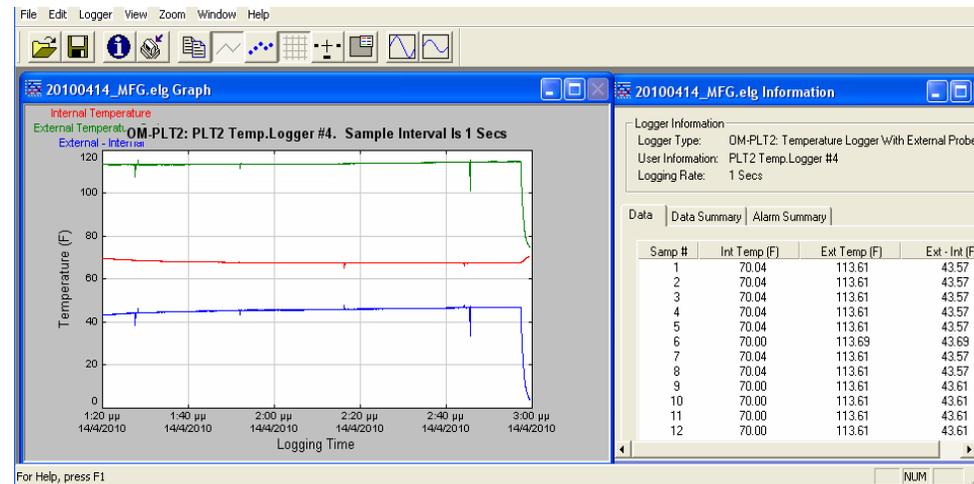
## Monitoring of the Clamp

Installation of the:

- Clamp
- PLC
- Monitoring sensors
  - Temperature
  - Current
  - Voltage
  - Power



# Equipment Maintenance concept



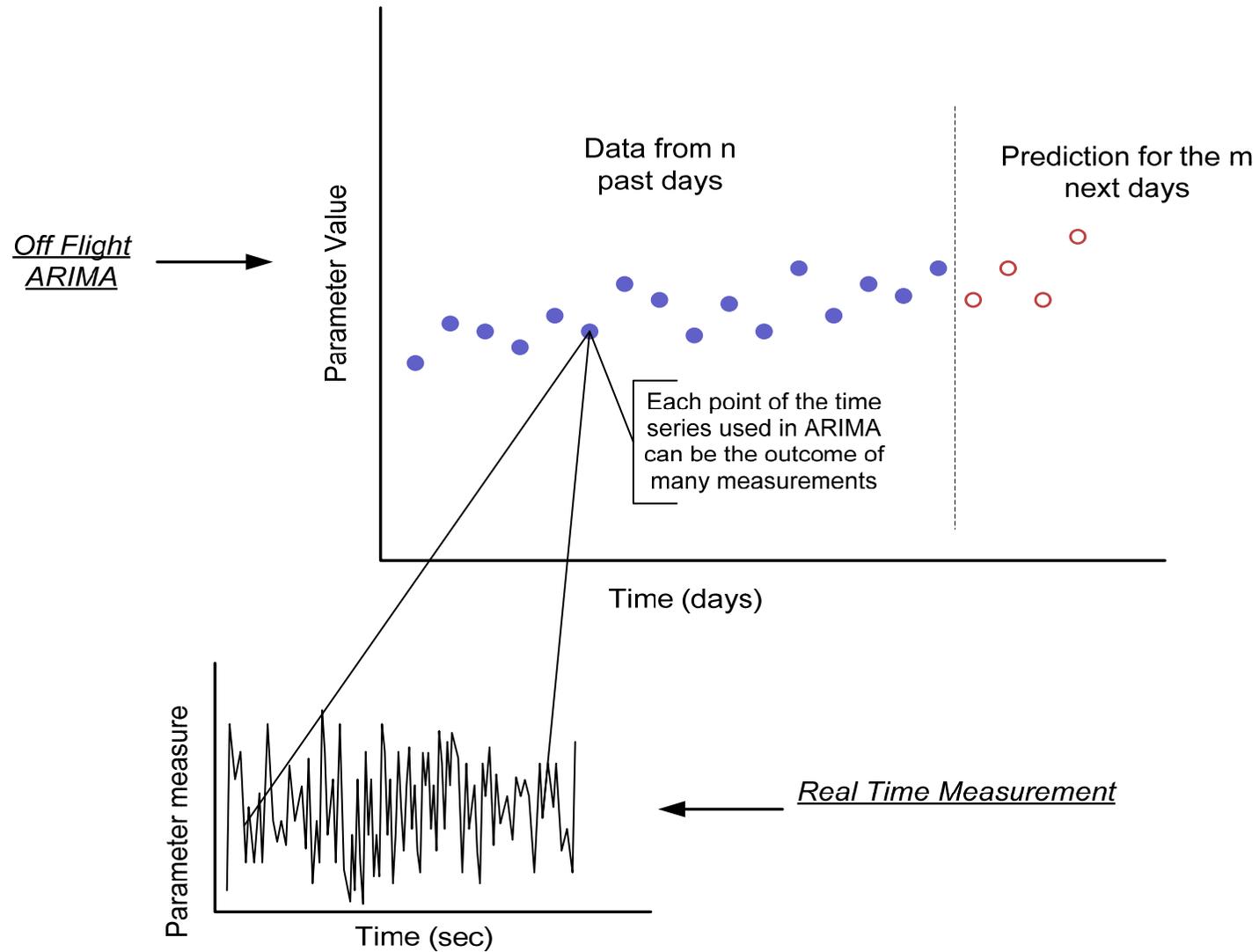
## Monitoring sensors and Maintenance SW Communication

- Temperature
- Current
- Voltage
- Power

## Data analysis (eg Temp vs Time)

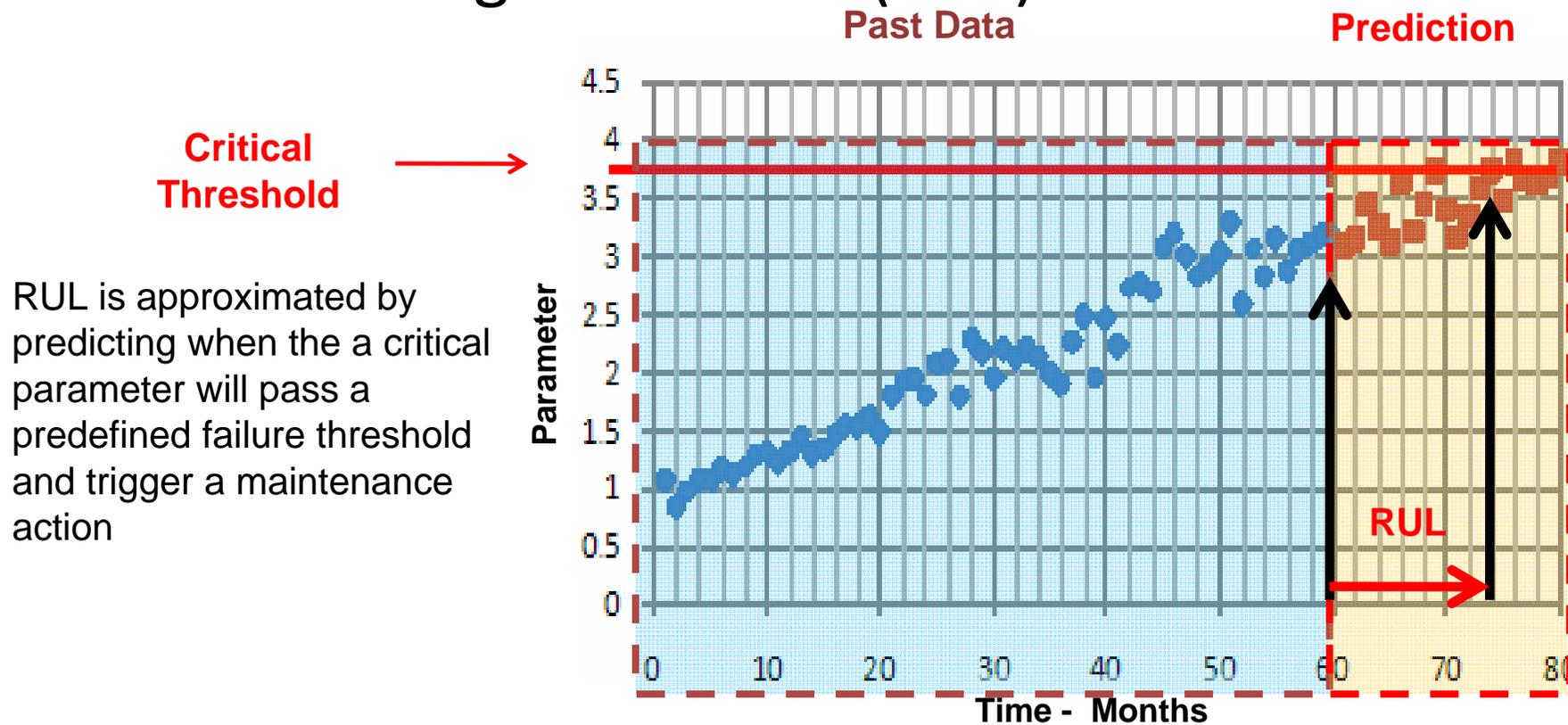
- Filtering
  - Detection of abrupt Changes
- Alerting Responsible Engineer for Probable Breakdown
- RUL estimation (see next slide)

# Equipment Maintenance concept



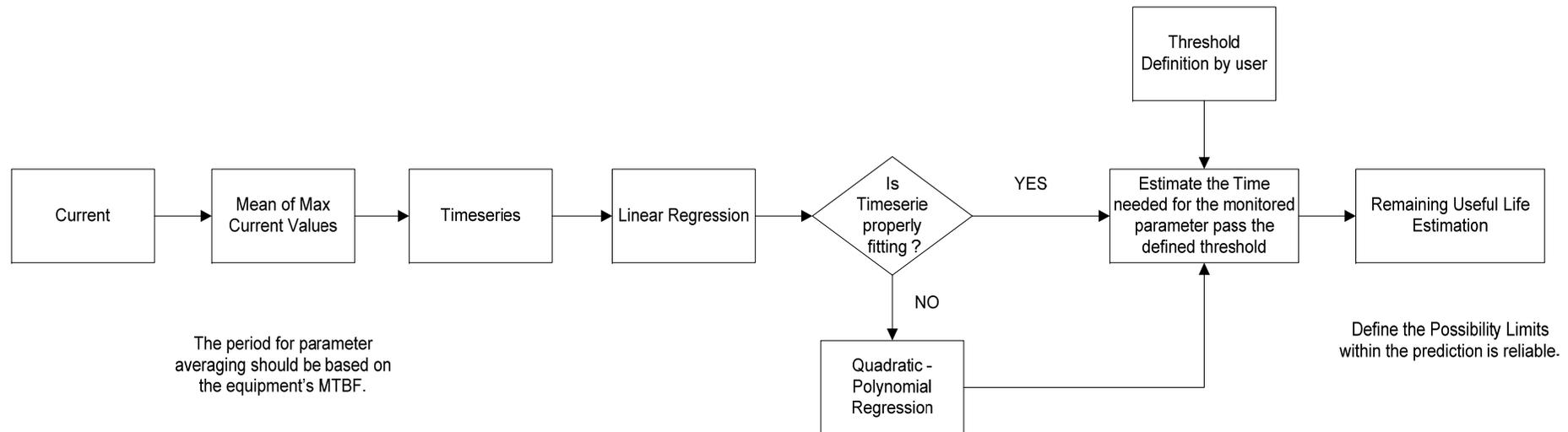
# Equipment Maintenance concept

- Remaining Useful Life (RUL) Estimation



# RUL estimation methodology

- Design of RUL estimation methodology



- Linear and Polynomial Regression Models