

# MCSA – Quick Start

## Your First Analysis in 2 Minutes

Dr. Wolfgang Freese

April 2026

## MCSA Quick Start

### What You Need

1. A browser (Chrome, Firefox, Safari, Edge)
2. An ArchDSL file (.txt) that describes your system – or use the included example

No download, no installation, no account required.

### How It Works

#### Step 1: Open MCSA Web

Open in your browser:

**<https://mcsa.appliedfusa.de>**

You will see an upload page with the MCSA logo.

#### Step 2: Upload Your File

Click “**Eingabedatei (.txt)**” and select your ArchDSL file. If you don’t have one yet, use the example file `SensorVoting.txt` (available under *Dokumentation* on the website).

#### Step 3: Start Analysis

Leave the **Order** parameter at the default value (3), or choose a value between 1 and 10 – higher values find more failure combinations but take longer.

Click “**Analyse starten**”.

You will see the console output live in your browser. After a few seconds, a green **download button** appears.

#### Step 4: Download Results

Click “**Ergebnisse herunterladen (ZIP)**”. The ZIP file contains:

File	Content
MCSA_<Name>_<TLE>.txt	Minimal Cut Sets
kpi_cca_<Name>_<TLE>.txt	KPI report with recommendations

**Results are not stored on the server** – they are transferred exclusively to your browser and deleted immediately afterwards.

## Reading the Results

Open `kpi_cca_<Name>_<TLE>.txt` – it contains the top recommendations with priority. Events marked with [SPOF] (Single Point of Failure) should be addressed first.

The **KPI table** ranks all basic events by several criteria:

- **FCI** – Contribution of the event to the TLE probability
- **RRW** – Gain from a perfect safety mechanism
- **IMP** – Improvement from a factor-10 failure rate reduction
- **SEN** – Effort required for a 10% TLE reduction
- **PRIO** – Overall priority (0 to 1)

The **full version** additionally provides a fault tree visualization as a DOT file (Graphviz-compatible) and access to the Tool Qualification Report for standards-compliant use in ISO 26262 / IEC 61508 projects. The full version is currently being prepared.

## Registration (optional)

Without registration, you can run up to **3 analyses per day** with up to **10 functions** per architecture (Lite version).

For unlimited Lite analyses, register for free: Enter your email address and click “**Link senden**”. You will receive a login link by email (magic link, no password needed).

The **full version** (no function limit, with fault tree visualization and Tool Qualification Report) is available as a paid subscription.

## Next Steps

Further documentation is available under **Dokumentation** on the website (<https://mcsa.appliedfusa.de/download>)

- **Handbook** – Detailed guide with examples
- **ArchDSL Reference** – All language constructs for architecture description
- **KPI Reference** – Definitions and interpretation of all metrics