

SWAT

SPECIAL WORKFLOW AND TECHNOLOGY

THE PROCESS
MINING
HACKATHON

Capgemini engineering



MISSION BRIEF

Gear up, agents! Your first mission: extract, rebuild, visualize, and strike with data precision.

Process Mining is your tactical tool. It unfolds in 4 critical steps:

- Data Extraction – Pull intelligence from ERP, PLM, MES systems. Accuracy is survival.
- Reconstruct Data – Align logs, timestamps, and IDs to rebuild the battlefield map.
- Visualize Data – Deploy process maps to expose hidden choke points and deviations.
- Analyze Data – Identify root causes, compliance gaps, and inefficiencies. Deliver actionable insights fast.



THE CHALLENGE

Clock is ticking. Failure is not an option.

Neutralize inefficiencies before Air+ goes down

- Mission Status: CRITICAL
- Air+ is on the brink. Delays, cost overruns, and quality failures threaten survival.
- Your Task Force Goal: Detect bottlenecks crippling production.
- Correlate design, planning, and shop-floor execution. Deliver immediate recommendations to restore operational efficiency.
- Timeframe: 48 hours. No second chances.

TACTICAL ASSETS: CHOOSE YOUR BATTLE

Pick your battlefield, soldiers.

*Code, data, mechanics, or finance ??? ...choose wisely and
strike hard!!*

Your team must select ONE strategic challenge:

1. **Software Engineering & AI:** Develop a solution using Process Mining to optimize aircraft assembly.
2. **Data & AI:** Use AI to optimize the assembly process of Air+.
3. **Modeling & Digital Mechanics:** Reduce the mass of a 3D-printed mechanical part. STEP file and specs provided.
4. **FinTech:** Propose cost-reduction strategies for production and aircraft.





INTEL AND MISSION SUCCESS CRITERIA

Mission success is measured in impact.

Deliver fast, deliver smart, and bring Air+ back to life

Intel Provided:

- ERP_DATASET - PLM_DATASET - MES_DATASET - 3DXML Aircraft File STEP and CAD File

Evaluation Parameters:

- Depth of Analysis – How far you dig into the data battlefield.
- Innovation – Creative tactics for process mining and visualization.
- Business Impact – Potential to save Air+ from collapse.
- Immediate Feasibility – Solutions deployable within 48 hours.
- Cross-System Integration – Linking ERP, PLM, MES insights for a holistic view.



Agents, the clock is ticking!!

Complete your mission, and save Air+

Scan the QR code for full intel and operational details!!



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