

Engine fleet management

Customized, immediate and proactive MRO planning options with our CORTEX application.



Engine maintenance is complex and costly. And selecting the best possible maintenance approach across the lifecycle of a single engine is enough of a challenge. But for a complete fleet, this increases almost exponentially.

Financial, technical, operational, environmental, and market considerations vary continually. Even a single variable can shift a plan entirely. Which

is why MTU's smart system, CORTEX, an intelligent maintenance costing and planning tool, is here to help.

Our new service reduces maintenance and operating cost and increases dispatch reliability by combining MTU's technical expertise with data, algorithms and artificial intelligence.

CORTEX provides

- Detailed and precise planning for multiple scenarios across the lifecycle
- Budget based maintenance strategies
- Real-time insight into fleet status
- Automated workscoping down to modular level, also accounting for lease return conditions
- Material forecasts including scrap rate, LLPs and used serviceable material
- Overview of remaining life until phase-out
- Calculation of spare engine requirements and adjustment of plan according to spares availability
- Performance cockpit for precise on-wing time prediction, deterioration rates and fuel burn

Your benefits

- Reduced maintenance costs across lifetime
- Accurate, ad-hoc information for decision making and budget planning
- Mitigated risk and increased engine value
- Improved dispatch reliability and fuel burn
- Fewer unscheduled removals
- Expert MTU recommendations



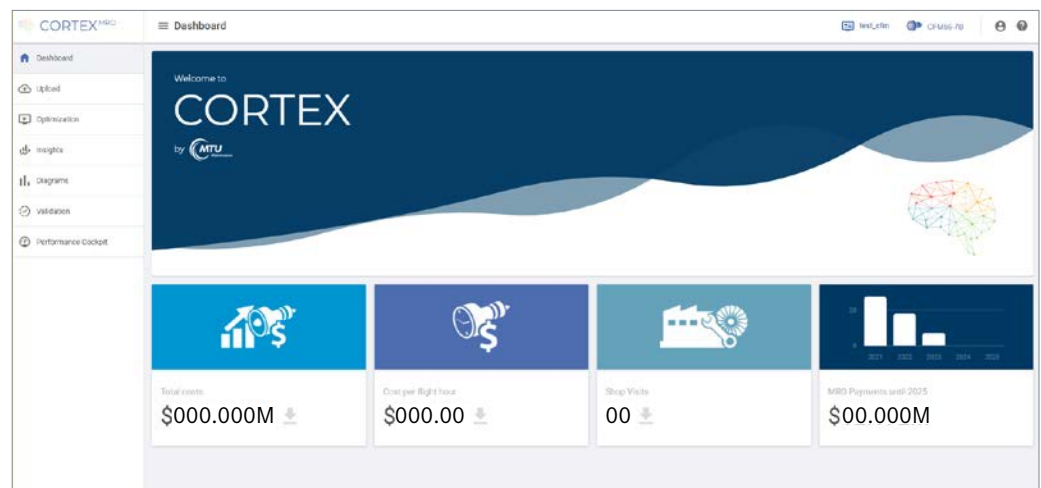
Currently, our software is available for CFM56, GE90 and V2500 engines. We are continually adapting, developing and expanding the software to include more technical depth, a broader portfolio and customer feedback. It will also form an integral part of the digital ecosystem we are developing to enhance the customer experience and connect people, products and processes.

MTU not only reduces costs by providing a fast, accurate and transparent engine maintenance strategy. As a global MRO provider, lessor and asset manager, we also execute it. Contact us and find your solution today.

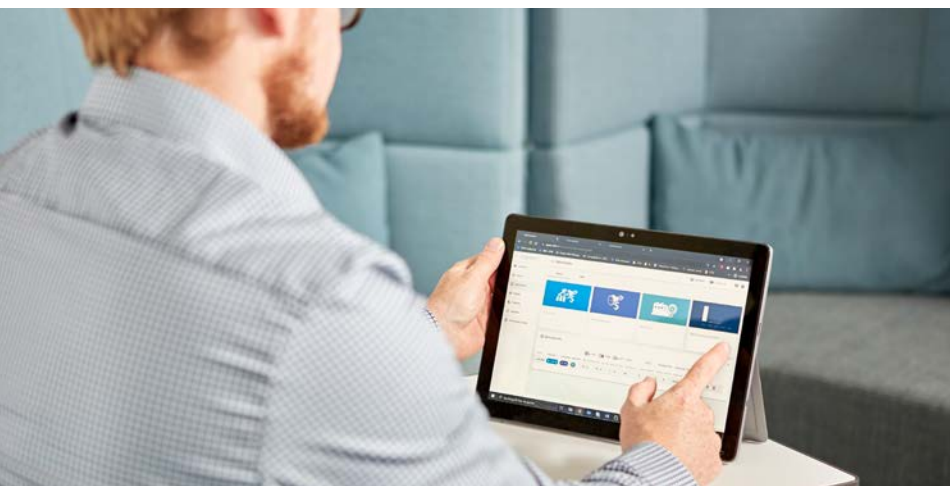
More than just a software

CORTEX provides cost-effective, flexible and living engine maintenance strategies unique to your needs. But it is MTU's experts with knowledge gained from over 20,000 shop visits

in over 40 years, who analyze and validate these scenarios. Meaning we can make solid recommendations and decide on the best path of action with you.



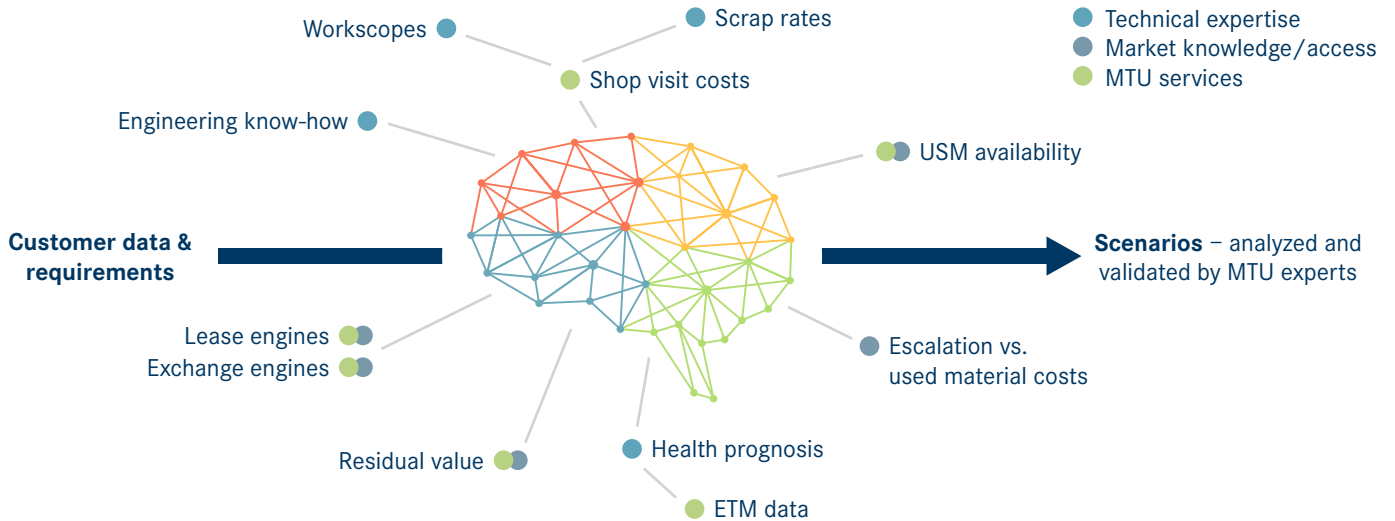
Our tool enables you to unlimitedly tweak variables in your planning scenarios and see how this would affect MRO and in turn, significantly reduce cost.



Features

- Performance cockpit with EGT margin, deterioration rates and fuel consumption
- Visualized maintenance plan and detailed reports
- Overview of remaining life until phase out
- Workscopes down to module levels
- LLP pricing forecasts
- Scrap rate predictions
- Used serviceable material predictions
- AD and SBs included

How it works



1. Data from your fleet including operational parameters and cost structures is fed into the system – these can be updated continuously
2. Over 40 different engine configurations are taken into account by our system
3. This is combined with MTU's engine trend monitoring, shop visit experience and existing data pool
4. Variables such as downtime, usage, contract length, green-time, engine ownership and leasing requirements can be selected and personalized
5. Optimization parameters such as LLPs and use of serviceable material or green-time engines can also be adapted
6. Once settings have been chosen, the numbers are then crunched by our artificial-intelligence assisted algorithms to play out the billions of options for engines
7. CORTEX produces improved, relevant results right down to a LLP level in a matter of seconds. This also includes estimated cost per flight hour, number of shop visits over contract period, analysis according to selected KPIs and expected spare engine needs
8. MTU experts review the MRO scenarios and validate them
9. These scenarios are discussed with you to help you make the best decision for your fleet