

Microturbo – Safran Group



For Microturbo it was essential to gather technical data in a repository to benefit from a « single version of the truth » in the whole company

About Microturbo

Microturbo is a Safran group company. It is specialized in gas turbine design, development and manufacture. Based in Toulouse, France, Microturbo is a propulsion and non propulsion systems world leader. Microturbo is a recognized world reference due to its 50 years experience in innovative concepts.

Microturbo activity is composed of two product types:

- ⊖ On board power auxiliary for aircrafts and helicopters, as well as for ground applications and start systems.
- ⊖ Turbojet engines for missiles and target drones. Microturbo turbines are part of the wide range of engines for aircraft and aerospace propulsion in Safran group.

Microturbo benefits from a strong collaboration with Safran Group. Safran is an international high-technology leader, in aerospace, defense and safety.

Why Lascom ICS

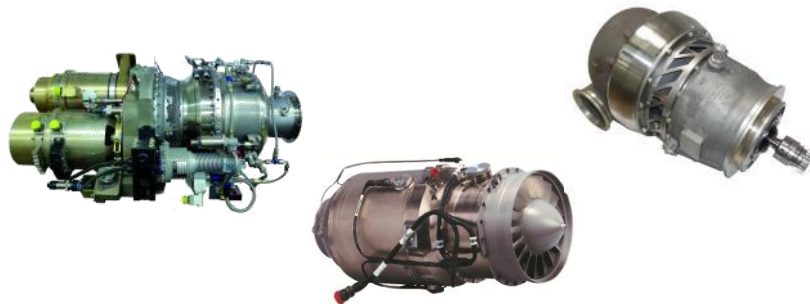
Microturbo products are manufactured in small batches, and are often tailored to fit customers' needs. Some products life cycles exceed 40 years. During this time, it is necessary to produce spare parts, maintain products and care for clients. Consequently, there are lots of machine types, in many versions.

Microturbo was looking for a tool able to provide:

- ⊖ Reliable configuration management
- ⊖ Efficient change management
- ⊖ Document management to attach data and documents to articles and nomenclatures

Microturbo wanted a flexible and scalable tool to fit the company development.

Microturbo has chosen Lascom ICS for its ability to address these issues



Safran Group key figures

- ⊖ €11,700 million turnover in 2011
- ⊖ Leader in public airplanes (more than 100 seats)
- ⊖ 60 000 employees in 57 countries
- ⊖ Leader in landing gear, tires and carbon brakes
- ⊖ Leader in turbines and flight control for helicopters
- ⊖ Leader in biometric ID documentation with finger prints.

Microturbo key figures

- ⊖ 500 employees
- ⊖ More than 12,000 engines and starters manufactured each year
- ⊖ More than 4,000 in-service aircrafts in more than 50 countries
- ⊖ 4 maintenance centers

Lascom ICS Benefits :

- ⊖ Robust configuration management
- ⊖ Accurate technical data from product definition to maintenance
- ⊖ Application flexibility
- ⊖ Advanced technology with ability to deploy SOA

Configuration management to PLM

First, Microturbo implements Lascom ICS in the survey department to manage BOM definition and BOM processes. Documents references are related to items. The platform automatically switches classifications validated in the ERP to the PLM repository.

Second phase involves the establishment of a safe electronic vault. Its purpose is to receive all documents related to items (including plans, specifications, ranges and maintenance manuals). Documents from the quality system are also added to the vault, with a set of procedures and instructions. Today, vault volume is more than 130GB. It is the repository for all technical documents.

Third, the documents approval process is automated. The workflow is user-friendly and composed of a flexible approval process considering each document.

In addition to these phases, Lascom ICS interfaces with the main applications of Microturbo information system. CAD provides plans and templates, ERP receives specifications,, 2D and 3D tools range for manufacturing, installation and repair.

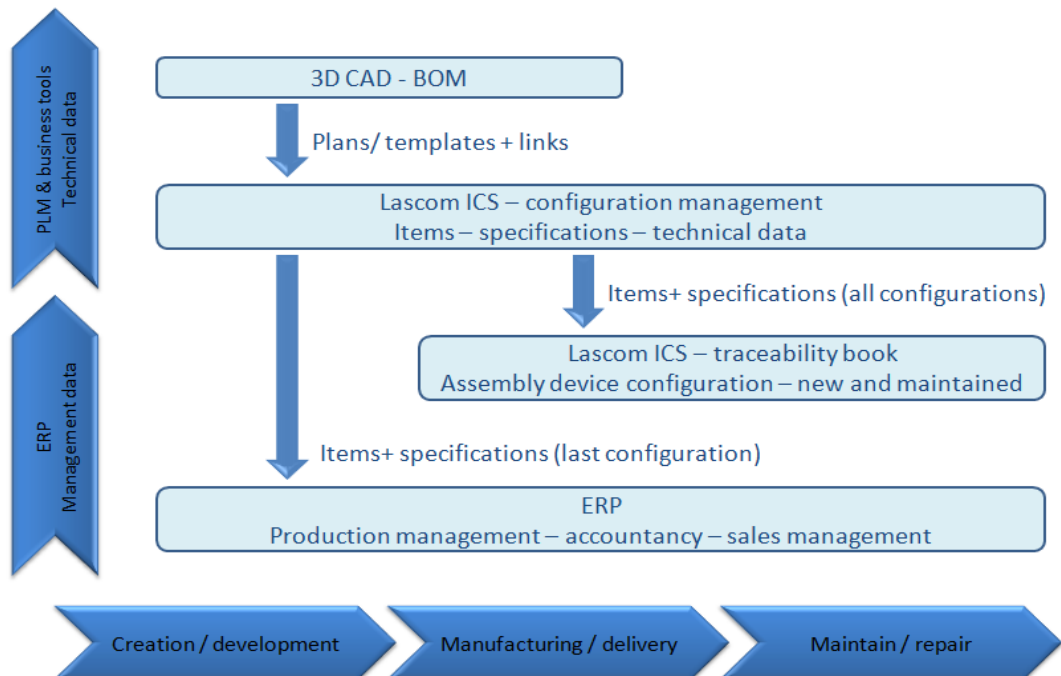
With these developments, a wide range of users benefit from an easy access to technical information. The PLM consists of an intermediary, gathering and distributing data.

In conclusion, thanks to Lascom ICS inner characteristics, Microturbo reached its objectives but also developed a more comprehensive system. Microturbo has now a single repository where all technical data is gathered. It covers the products life cycle and contributes to daily quality improvement.

Assembly devices configuration management

To better manage products, Microturbo wanted to add their "traceability book" documentation to the platform. This documentation outlines the assembly configuration for each device. The application is designed to help operators to install the right configuration and to trace the effective assembly configuration. The application manages new and repaired combinations. The process involves four steps:

- Original reference configuration creation :
When new, it is the last approved configuration. When maintained, the operator asks for a configuration corresponding to the maintained device or part "version".
- Assembly configuration definition :
When new, the operator can adjust the configuration according to interchangeabilities. When maintained, it is more complex. The application helps the operator to develop the target configuration based on parts and modifications to set.
- Assembly configuration implementation :
The operator gives information about assembly parts considering traceability, reference, serial number, batch number.
- Assembly configuration approval :
Quality manager approves assembly device conformity.



Application key figures and facts

- 400 users (about 75% of company's staff)
- • 130 Giga of documents
- • 150 000 files
- • 120 000 items
- • 1,3 million links

Various users: Methods,
manufacturing, installation, repair,
maintenance, program, quality...
