

Applied Knowledge



NOVAEVO™

“T.consultT, Knowledge & excellence”



Focusing on a specific scope, to build its own unique skills, a mature level of reliability preparation and establishing itself in the market from a world leader in selective market as that of the aerospace and defense: This is the strategy that has guided the evolution of T-consulT, an Italian software house, a start-up founded in 2009.

It is a reality that builds the value of its offer from the applied research, the relationship with the University, strengthening the quality and excellence already acquired by measuring the needs of large customers in the Defence domain.

T.consulT has an offer that is characterized by innovation, specificity and uniqueness in the market.

THE IDEA AND ITS OWN APPLICATION

Some manufactures have a short life, others must take a long time: we do not expect a product widely used will be operative for a lifetime, but will not be feasible to replace a turbine at the first incident.


Some products are relatively simple, others are very complex: a bicycle must be taken with care, but keep an engine in operation requires a different activity.

Some systems may have some failures, or burn out, others need to be operating: a failure to our car should not happen, but it the possibility that we are willing to accept; different is the

case for an aircraft, an excavator or a ship.

There are equipments, environments characterized by complexity and a high value.

These are items such as engines, equipment, systems made to last, but that to be maintained in good operational activities require sophisticated maintenance and logistic support with interventions on components or combinations of elements that can be executed only from a proper configuration management of these systems.



We must move from one corrective operating mode to one of continuous improvement: manage the configuration of the product effectively, it is an essential step in this direction.

For manufacturing companies address these needs has become an inescapable challenge, driven by increasing pressures such as the improvement of product quality and service, reduced costs of design and production, the compression of time to market, the ability to continuously innovate its offering.

When such a system leaves the production lines, enters a life cycle with a periodically interventions upgrade, replacement and integration with other systems and components.

Is a complex cycle which requires a coordinated planning of maintenance, tracking the evolution of delivered configurations, supply of spare parts, management of

possible retrofit cycles, a scenario which starts with the configuration control and extends to the processes of collaborative logistics support with third-party suppliers and partners, because each element is interconnected in a network of integration and mutual dependence.

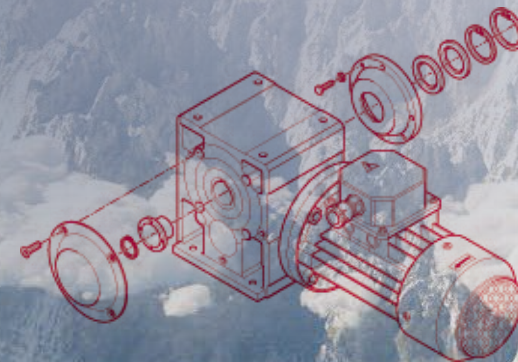
By a proper configuration management activities, depend processes such as: maintenance, modification, procurement and logistic support.

How to organize, how to plan, how implement by reducing the direct and indirect costs?

With a software to manage the activities of Configuration Management and Logistic Support, an application that is

downstream of solutions dedicated to aspects of design and production, an application that inherits and makes all homogeneous the information, such as BOM, and operates in a dynamic way, updating, with respect to all the activities affecting the evolutionary of complex system during its operational life.

Here is the offering of solutions developed by T.consult: support processes and activities of Configuration Management to manage, in a dynamic and integrated way, the logistics support of delivered products and systems for the entire "After Sale" life cycle, whatever their specific feature.



ENGINEERING KNOWLEDGE TO A PRODUCTS LIFE CYCLE CONTROLLED AND MANAGED

T.consult support companies in managing automated processes that ensure the maintenance in operational condition the delivered Configuration of systems and equipments.

T.consult solutions are included in the processes of post-production and after-sale as part of systems for Product Information Management, Configuration Management and Logistic Support

In what environment are designed and implemented these solutions? In the most demanding, difficult and specialist: the Defense market. With T.consult solutions (under the ISO 9000 and AQAP 150) are maintained in operating the FASF missile systems, flagship of the European Air Defense. From the Aerospace and Defense market, the T.consult solutions have been adopted by leading manufacturing companies.

Formalize and extend the processes of configuration management means improving the quality of products. Use the right tools to enable those processes, means attach to quality the profitability.

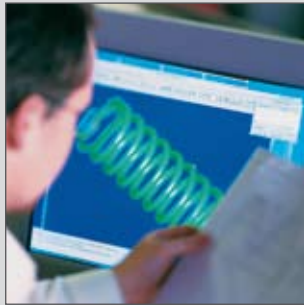


T.CONSULT SOLUTIONS

NOVAEVO™

MAIN MARKETS

Aerospace & Defense
Automotive
Shipbuilding
Appliances
Cosntructors
Industrial Machinery
Transportation



T.consult has developed a series of applications of Product Information Management, Configuration Management and Logistic Support to manage the activities related to the Integrated Logistic Support; solution of excellence in this area is NOVAEVO, an open framework, adaptable and integrated with heterogeneous applications.

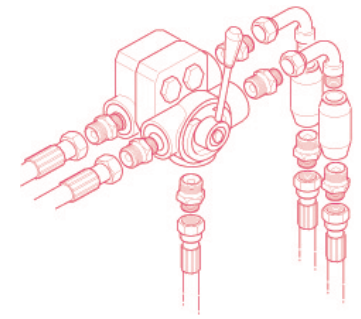
NOVAEVO is composed by the following Modules and Functions:

CONFIGURATION MANAGEMENT

Applicable and Applied Configuration Management
Master info Management
Industrial Document Management
IETP/DM data Management

Configuration Change

Class 1 Configuration Change Management
Assessment Configuration Review (Applicable Configuration evolution)
TDP Management
Application Configuration Management (Applied Configuration evolution)
Class 2 Configuration Change Management
Obsolescence Management
Retrofit Cycle Management



Logistic Support

Logbook Management (As-Maintained Configuration Management)
Work Order and Kit application
Technical Facts Management
Technical Query Management
Repair/Replacement Management
Spare Part Management

Management & Decision Support

Technical Facts Review Meeting Mngt
Obsolescence Management
Technical Publication Management
Technical Queries Review Meeting Mngt
System Evolution Dashboard



NOVAEVO

NOVAEVO (Network Oriented Virtual Application) is a software application that automates the management of the "After Sale" life cycle of complex products and systems. NOVAEVO covers all processes of an OEM in the management and control of the As-Delivered / As-Maintained Configuration, through verification of the applicability of changes due to ECO (Engineering Change Order) and the management of the related Retrofit cycles. The result of a Configuration Control process impacts on the ILS through the update of all data needed for the Logistic Support processes (Technical Facts, Repair/Replacement, Spare Part and Field Assistance).

The Suite allows to align, both, the data of a basic product (defined in the Applicable Baseline Configuration) with the configuration produced (Applied Configuration) identifying differences in order to take corrective action, if any.

The suite allows an OEM to create a "bridge" towards its customers need to manage the tracking of changes during the entire life cycle.

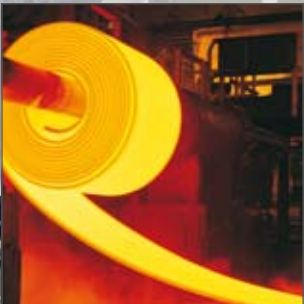
It is a customizable framework of applications in client / server, also accessible via WEB. NOVAEVO have been developed based on J2EE technology that enables the architecture to be: open, scalable, flexible and modular, and to integrate heterogeneous applications using standard XML Connector and / or specific adapter.

NOVAEVO allows user to manage the As-Delivered Configuration with the final goal to track and verify the

applicability of product evolutions.

Retrofit cycle are managed to apply the verified change with respect to the customer need and to the product evolution.

NOVAEVO allows user to track the changes associated to the technical documentation (specifications, drawings, tables, software documentation, manuals etc.), or to align informations related to the maintenance and technical assistance, the logistics activities (spare parts, inventory availability, timing, Etc.) activities for supply of materials (alternative and interchangeable).



NOVAEVO OBSOLESCENCE MANAGEMENT

NOVAEVO Management & Decision Support Obsolescence Management is the module allowing user to manage the obsolescence process:

Management of Obsolescence publication,

Management the Obsolescence meeting and management and monitoring of the Obsolescence Database,

Management of the alert (Obsolescence Report)

Obsolescence Solution type:

SAME COMPONENT, when the obsolescence is resolved by acquiring enough instances of the same component:

Existing Stock, existing stocks are used;

Last-time buy, a final order is sent to the supplier to ensure enough stock availability for the remaining life time of the system;

Authorized aftermarket, the item is acquired from alternative but authorized manufacturer when the OEM has ceased the production;

Cannibalization, the obsolete item is recovered from other existing systems;

FORM/FIT/FUNCTION REPLACEMENT, when the obsolete item is replaces with an existing alternative item:

Alternate, when the obsolete item is replaced with another article having t same FFF;

Equivalent, when the replacement is identical to the obsolete item;

Emulation, when an hardware or software component is developed to replace the obsolete one, with identical form/fit/function

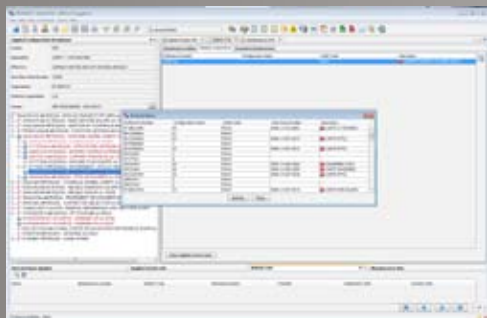
Redesign, when a configuration evolution is proposed to solve the obsolescence and thus an engineering change order is started

Major, when the required configuration change is class 1

Minor, when the required

configuration change

is class 2



NOVAEVO IETP

NOVAEVO IETP solution IS born from the same approach that characterizes NOVAEVO and are derived from this, packaged application modules targeted at best practice focused on individual aspects.

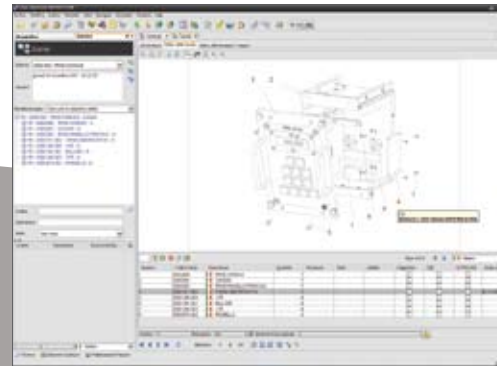
NOVAEVO Technical Publications allows to:

Integrate the IETP Publication DB with NOVAEVO in order to keep information for IETP Configuration Management,

WEB services connectors in order to update the IETP DMRL after conclusion of a Configuration evolution (ODE) (Data Modules are part of NOVAEVO TDP & Kit modules),

install published IETP into NOVAEVO+ in order to let user access by remote application (no more need to print and distribute hard copy-DVD),

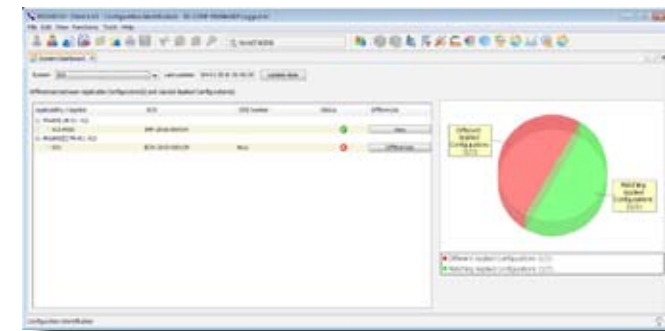
Manages impacts of evolution on DM's list



NOVAEVO CONFIGURATIONS AUDIT

Configuration Compare is a NOVAEVO Module which allow users to compare an Applicable Configuration to another one, in order to manage the Configurations Audit & Evolutions.

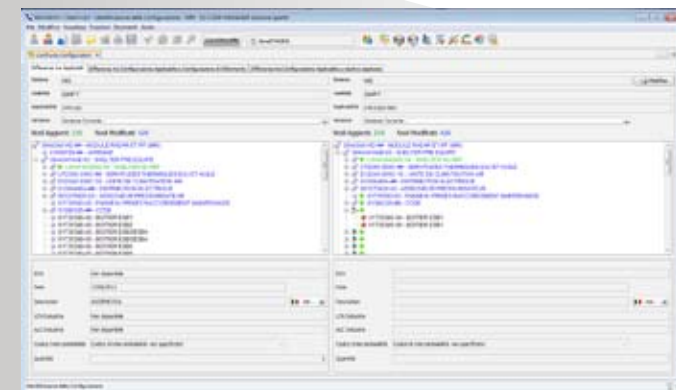
Configuration Compare it allows users to manage the Applicable vs Applied alignment for Retrofit Cycle. Used by Configuration manager to check for Audit cycles.



NOVAEVO TECHNICAL FACTS

NOVAEVO Technical Fact Management process (which includes the Field Technical Assistance), allows the field personnel to handle the requests towards the supplier in order to:

- bring to the attention of higher logistics echelon, with the aim of informing the industry, of a fault resolution (hw or sw), to manage the evolution of Applicable Configuration, if needed,
- ask for answer in solving a problem,
- request for an on-Field technical assistance,
- Inform of a technical publication errata/corrige,
- Detail information for Repair requests.



Why T.consult ?

For a large organization, control and manage the configuration of complex equipment, plant and systems means optimizing the maintenance and logistical support, while ensuring a sustainable life cycle.

Needless to say that this translates into substantial savings of resources and time (cost reduction), as well as a visible return in terms of operational efficiency (increase in operating margin) and the level of service towards their customers (loyalty).

For a manufacturing company have a system capable of automating the documentation produced by integrating the technical drawings with a separate production BOM is a way to optimize the work and to save resources, and can turn in point for the development of innovative maintenance services of equipments and for the distribution and sale of spare parts.

NOVAEVO™ manages the evolution of the Applicable/ Applied Configurations in order to define the necessary parameters for proper logistic support, allowing, thus, to mitigate inconsistencies and loss of information during the entire life cycle of systems operating within the Aerospace / Defense Domain

T.consult solutions provide a rapid return on investment and allow you to reach new levels of efficiency and value for money.

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