



**Intespace**, Press Release of April 18<sup>th</sup> 2008

Activity: **test centre specialised in supplying environment services end engineering**

Subject: **client solution**

## **Docking of the European cargo ATV to the International Space Station: EADS Astrium selects **DynaWorks®****

**DynaWorks®**, the management and analysis of test results and data software developed by **Intespace**, played an important role during the docking of the ATV supply craft to the International Space Station (ISS). **DynaWorks®** was selected by EADS Astrium, European leader and number 3 in the world in the space industry, for sharing and managing flight data from the ATV mission.

### **1 – A final test just 11 metres from the ISS**

The European ATV (Automated Transfer Vehicle) supply craft named “Jules Verne” successfully docked to the International Space Station (ISS) last Thursday April 3<sup>rd</sup> 2008.

This entirely automated supply craft, launched on March 9<sup>th</sup> 2008 on an Ariane 5 rocket from the Kourou base in French Guyana, undertook a final test with great precision which brought it to just 11 metres from the ISS. During this test, the ATV used its laser guidance system for the first time.

*“It’s a world first in automated spatial meetings using optical sensors since the first presentation of GPS navigation between the Jules Verne and the Station, carried out successfully on Saturday” announced Nicholas Chamussy, head of the project at Astrium, subsidiary of European Group EADS, which built the ATV.*



Photo courtesy of ESA/DUCROS David, 2007

## 2 - DynaWorks® Enterprise Edition at the heart of the mission's data

EADS Astrium has a high performing tool, **DynaWorks® Enterprise Edition**, developed by **Intespace**. This product was selected to develop the Generic Kernel software application, the processor core of all data linked to the ATV mission.

This application is designed for professionals of the European space agency and EADS Astrium installed at the Toulouse (ATV-CC) control centres and Mureaux in the Paris region. All flight parameters (numerous tera-octets for the duration of the mission with a load of more than 10 giga-octets per day) are stored in real or non-real time in a **DynaWorks®** database which is then made available for display and analysis at the technical stations.

**Intespace** has also developed visual displays and additional analysis tools for the specific needs of the different tasks (thermals, power, propulsion, configuration, attitude and control, communication, trajectory/flight path, telemetry...)

## 3 – A common test data management solution

**DynaWorks®**, a software program developed by **Intespace** since 1988, thanks to its task modules, enables the user to deploy, in a simple and controlled manner, a common tool for the management and analysis of data from the different tests. The solution offered by **Intespace** is based on a “standard” software market package which requires few specific developments and moreover offers the commitment of **Intespace** to further developments of the software and its operational maintenance for a 15 year period.

The **DynaWorks®** functions supplied within the framework of this project respond to the needs of EADS Astrium :

- acquisition of data from the ATV control center,
- transmission of data towards task tools,
- processing of the parameters,
- launch of programmed processing,
- communication with the real-time simulation tools,
- loading of a database in real-time (data concerning telemetry, remote controls and other flight parameters originating from different sources),
- visual display of data imported in real or non-real time.

The ATV project allows **DynaWorks®** to strengthen its position in the telemetry management and analysis market.

**DynaWorks®** is used by more than 150 companies in Europe, Russia and China. Furthermore, **Intespace** is used by numerous engineering departments and test centers in the aeronautical, defence, energy and transport fields, and also by big industrial groups for processing simulation and test results.

## 4 - Intespace: a benchmark in the field of tests

Subsidiary of EADS Astrium, **Intespace which has obtained ISO 9001 / EN 9100 certification**, offers space, aeronautical and defence industries a complete range of tests for all environment types: vibration, shocks, acoustics, physical-measurements, thermal vacuum, climatic, solar simulation, electromagnetic compatibility, and radio-frequency.

Its test means cover a wide spectrum of performance levels and adapted to all sizes of equipment, from the smallest to the most complete systems. This enables the user to carry out tests in adherence to the regulations which are applicable in the space, aeronautical, automobile and industrial sectors.

The 3 main activity areas of **Intespace** are focused on a test center in Toulouse, of the **DynaWorks®** software package for the development and supply of IT solutions for managing technical data, and engineering services at centres and test means.

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