



PRESS RELEASE

Section Real time distributed application development
Life cycle optimisation
Communication processors
Real time systems
Key words Speed / Transmission security
Sophisticated processing
General purpose Aeronautic

Subject : To ease the development of distributed computer systems by simplifying application and real time communication development

Wind River and Arion Entreprise combine their respective technologies - Workbench, Arinc653...and Arion-Network

In the framework of a partnership destined to remedy both the technical difficulties encountered during the different phases of real time distributed application development and the inherent workload, Wind River and Arion Entreprise are combining their know-how to present an open and deterministic "platform" which brings together their respective technologies such as the operating system Arinc653 and the development environment Workbench on the one hand, and the real time communication structure (hardware and software) Arion-Network, on the other

The objective of this easy to implement solution, COTS, is to simplify both application and real time communication development whilst ensuring total synchronisation of the applications concerned.

Wind River provides application development simplification via the Arinc653, VxWorks5.x, and VxWorks6 operating systems together with the API definitions and the Workbench, System Viewer, Diagnostics development environments.

For its part, Arion Entreprise provides real time communication simplification with the implementation of a secure database (a veritable "safe" guaranteeing total data integrity.) It also proposes distributed IPC mechanisms in a heterogeneous environment and ensures the determinism and security of the data streams. The communication can be easily set-up and customised using XML tables

As an example, combining the technology of Arion-Network with the real time operating system Arinc653 would allow the creation of a distributed real time system in which the different applications are managed in real time, that is to say using the same system clock, whether they are local or remote. Arion-Network extends the properties of the standard Arinc by synchronising the local OS, plus or minus a few microseconds, and by providing a unique distributed database to the whole system

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Features and advantages of the solution COTS, which combines the technologies of Wind River and Arion Entreprise :

1) Permits application development for heterogeneous systems (hardware and software), integrates several applications in the same machine, guarantees total transparency concerning the physical location of applications within the system, removes hardware platform dependency for the applications

2) Simultaneously, communication between distant machines is characterised by the quality of the service offered in terms of performance, determinism, and synchronisation. The solution guarantees secure data delivery, supplies distributed IPCs in a heterogeneous environment, and can also ensure correct Input/ Output management due to **Arion-Network** acting as a data concentrator

3) The separation of application layer from the communication layer, as implemented in the solution, guarantees total independence between the two entities.

4) Using the same development environment simplifies the life cycle of the application by easing analysis and integration (uniform data access and availability throughout the system).

On a last note : the partnership between Wind River and **Arion Entreprise** originated due to a simple fact : among 10 000 computer projects analysed (Standish Group study in 2000), the development costs of a real time distributed application were 145% higher and delivery delays were 163% longer than the original estimations. There is still a long way to go and much progress to be made. The new solution Wind River / **Arion Entreprise** responds to the required needs

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January 2007

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In Short... :

Arion Enterprise :

Founded in mid 2003 by two engineers experts in real time computer techniques and system security for railway transport systems

Arion Enterprise is a European pioneer for on-board microcomputer applications based on the integration of Programmable Electronic Components (SOPC).

Arion Enterprise also innovates in the domain of real time communication between computers and has developed a new generation of universal communication co-processors - range Arion

- Bringing speed, transmission security, intelligence (sophisticated processing, virtual MMU), general purpose and transparency.....2006 marks the introduction of the Arion-100.

Wind River :

Wind River is a world leader in software optimisation (DSO : Device Software Optimisation). Wind River gives companies the opportunity to develop and use, quickly and more cost effectively, reliable software for their automated systems. **Wind River** platforms are pre-integrated, standardised and adapted to all needs in terms of software development. Companies can develop their software solutions more efficiently and hence optimise the reliability of their automated systems. Founded in 1981, Wind River is based in Alameda, California, and has offices throughout the world.