

Press Release

The IRT SystemX and Krono-Safe are joining forces to launch the “Krono-Safe@SystemX” laboratory to expand research in the field of real-time operating systems and formal methods

Palaiseau, 23 February 2016 – SystemX, the only Technological Research Institute (IRT) in Ile-de-France dedicated to the digital engineering systems of the future, and Krono-Safe, a software publisher specialised in real-time operating systems, have signed a joint contract to carry out research in the field of real-time operating systems and formal methods.

Real-time operating systems, mainly used in the transport, energy and security industries are systems which are designed to operate in an environment subject to time constraints. A real time system must therefore operate reliably under specific time constraints. In other words, it must be able to satisfactorily process information received at well-defined time intervals.

Eric Perrin-Pelletier, CEO of the IRT SystemX and Didier Roux, CEO of Krono-Safe are therefore combining their efforts to develop the technologies required to meet the challenges posed by formal methods considered to be of key importance for the automotive, aeronautics, railway and industrial equipment markets, which integrate them into the development processes of their embedded systems. This contributes to the control of industrial and technological risks and helps to ensure absolute safety in operation, greater reliability and lower costs.

As part of its research and development strategy, Krono-Safe wishes to “boost” its long-term research skills by using the services of the IRT SystemX to:

- carry out proof of concepts at TRL 3-4-5 (*Technology Readiness Level*),
- benefit from support in terms of making strategic technological choices,
- implement existing technologies for innovative case studies.

“Our objective is to offer our customers, large industrial accounts, appropriate solutions to carry out the integration phases of their software into their hardware quickly and safely,” Didier Roux explained. “The challenges of the industrialists therefore require specialised research skills in several disciplines. The collaboration with the IRT SystemX thus meets these objectives by creating value. Moreover, this collaboration is a natural step following on from the positive experience of the work carried out for the Reliability and Safety of Operation project (FSF) in the past 3 years.”

“This type of collaboration creates a virtuous circle of research and innovation,” Eric Perrin-Pelletier said. “The industrial needs raise new scientific challenges, which lead to innovations that industry will develop. Establishing a partnership with an actor like Krono-Safe confirms the recognition of the dynamism and the model of our technological research institute.”

This laboratory will bring together 3 people from the two entities. The work will be carried out on the premises of the IRT SystemX in Palaiseau in order to pool skills and promote multidisciplinary.

About the IRT System X

Located on the plateau of Paris-Saclay, the IRT SystemX is designed to be an accelerator of digital transformation. Focused on the digital engineering systems of the future, its research projects cover the scientific and technological challenges of the industrial sectors of transport and mobility, energy, digital security and communications. They respond to the challenges faced by industrialists in the design, modelling, simulation and testing phases of the future products and services that are increasingly integrating digital technologies.

Changes in technologies and the need to integrate them mean that the new "Digitalisation" paradigm must be taken into account through a "systems" or even "systems of systems" approach. The IRT's 2016-2020 road map is built around 4 programmes: systems engineering, autonomous transport, smart territories and digital infrastructure. Today, SystemX has launched 17 projects, involving 58 industrial partners, 14 academic partners and 250 staff, including 80 of its own resources.

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About Krono-Safe

Krono-Safe develops and markets a software suite, Asterios, centred around a unique real-time operating system for safety-critical real-time embedded systems, providing an integrated development environment (IDE) to simulate exhaustively and automatically integrate the application into the hardware target.

Asterios guarantees the execution predictability of high-demanding critical real-time applications on single-core and multi-core processors.

Krono-Safe serves primarily the transport (automotive, railways and aeronautic), industrial automation, defence, spatial and health sectors. The ASTERIOS suite has unique strengths among the solutions proposed on the market, validated by industrial leaders such as Schneider Electric, Delphi, Alstom and Safran.

Krono-Safe is a limited company (SA), located at 86 rue de Paris, 91400 Orsay, France.

For more information: www.Krono-Safe.com

Krono-Safe

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