

ITS World 2009 - Stockholm

Intempora S.A.

multisensor software solutions

RTMaps

A development tool in use in cooperative projects

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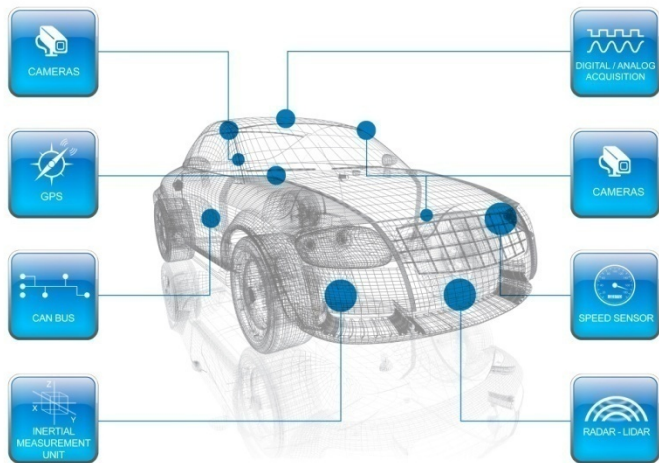
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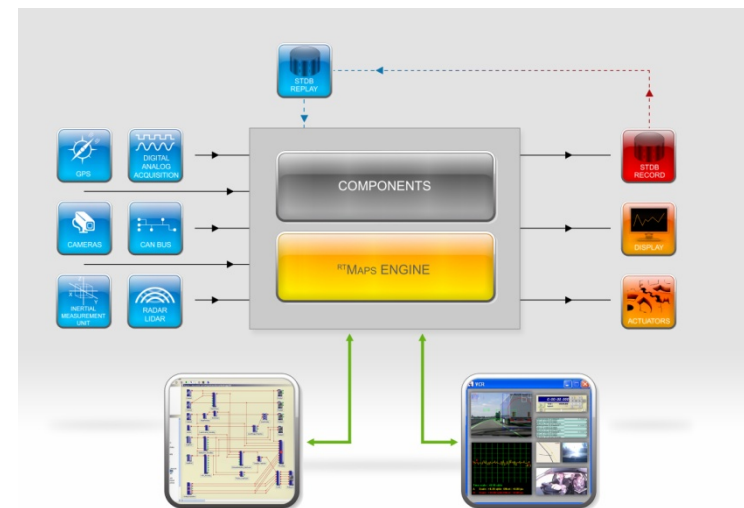


RTMAPS: A MODULAR DEVELOPMENT TOOL FOR MULTISENSOR APPLICATIONS

- **RTMaps : Real Time, Multisensor, Advanced Prototyping Software**
(nothing to do with digital maps...)
- **An advanced software environment dedicated to R&D**
 - acquire asynchronous multisensor data
 - timestamp data for data fusion, remote control...
 - record / replay STDB (synchronized timestamped databases) scenarios
 - graphical modular programming



*Advanced Driver Assistance Systems
Real time multisensor acquisition*



*Component Based Programming
Components developed in C++*

SOME SUPPORTED PLATFORMS FOR EMBEDDED VERSIONS



OBU by Intempora

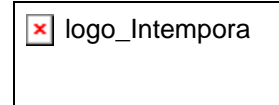
*PDA / Smartphone
Windows Mobile 5
et 6 (Windows CE)*



PC104



Qwerk



APPLICATION DOMAINS



ADAS Systems Development



Behaviour Analysis



ADAS Systems Development



Virtual & Augmented reality

A FEW REFERENCES



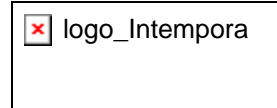
RENAULT

THALES

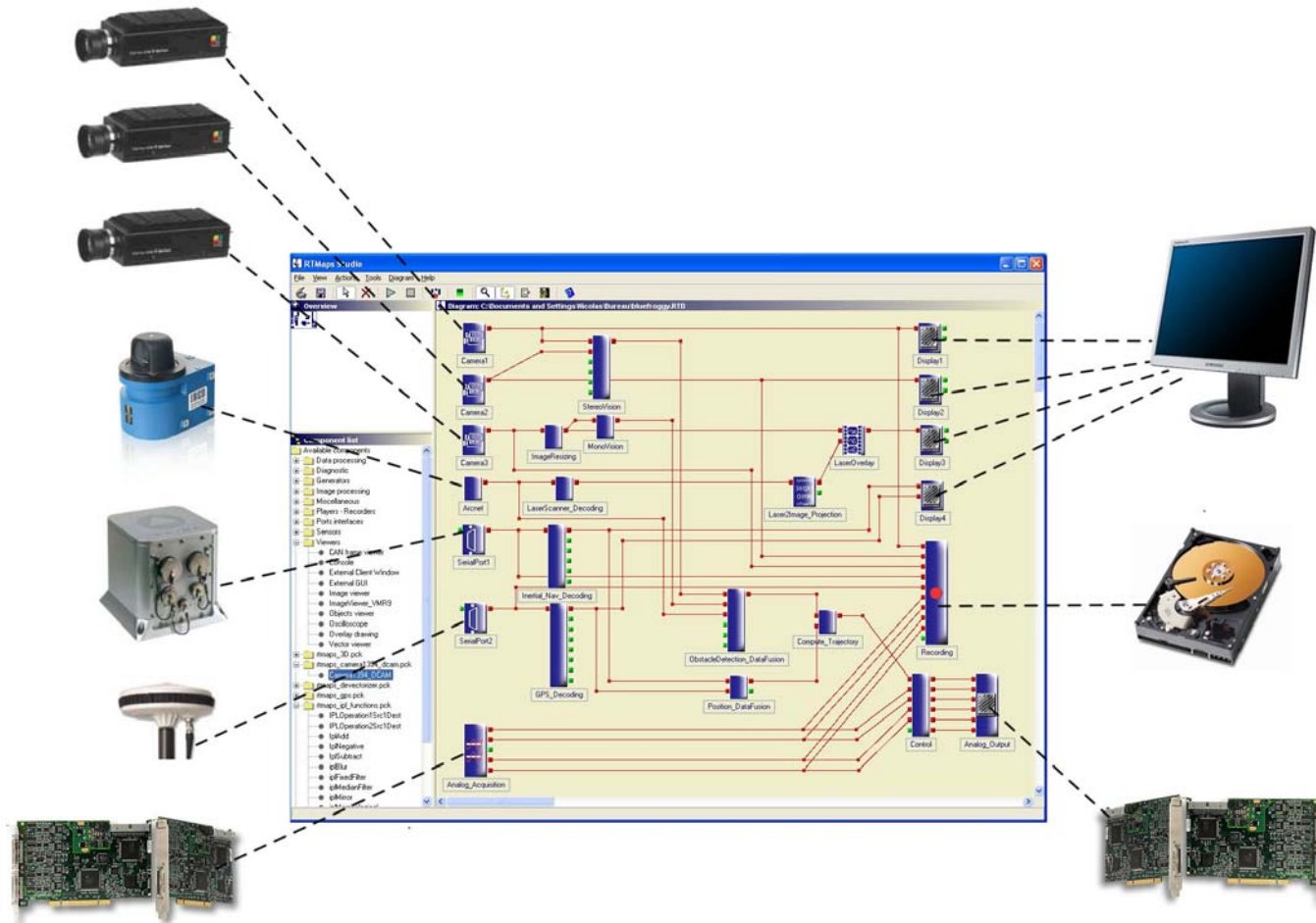


PSA PEUGEOT CITROËN

ICHIKOH



WORDS ARE CHEAP : NOTHING BEATS A LIVE DEMO



COMMON ISSUES IN COOPERATIVE RESEARCH PROJECTS

- **Different partners mean**
 - Different locations
 - Different skills
 - Different equipment
- **Requirements**
 - Capitalize developments
 - Integrate them in a common platform
 - Use tools that enable « off-line » developments (simulators, replay)

RTMAPS IN USE IN THE CVIS-POMA EUROPEAN PROJECT



- **CVIS - Cooperative Vehicle-Infrastructure systems :**
 - a European IP project
 - <http://www.cvisproject.org>
- **POMA – Positioning and Mapping**
 - a CVIS subproject
 - one of the core techs which makes the CVIS platform
 - partners: *Navteq, TeleAtlas, Logica, DLR, LCPC, UTC, Intempora, Thales, Mizar, ISMB* with various roles.
 - Development of hybrid fusion for accurate and high speed positioning with low-cost sensors, map-matching functions

RTMAPS IN USE IN THE CVIS-POMA EUROPEAN PROJECT



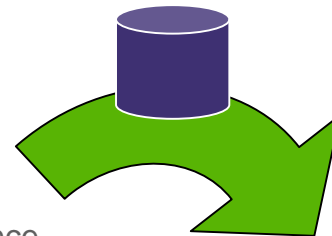
1 - Test sites

Sensors data recording sessions

Berlin, DLR

Gothenburg, Volvo - Science Park

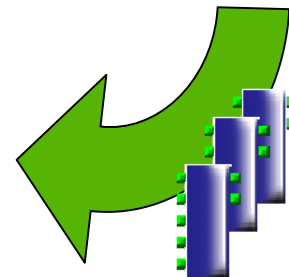
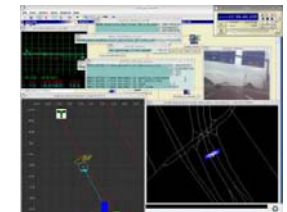
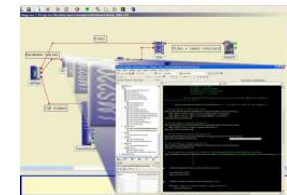
Versailles-Satory, LIVIC



2 - Partners offices

Algorithms development on desktop in replay mode

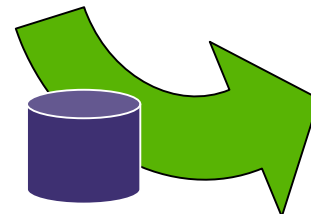
Thales, LIVIC/LCPC, UTC/CNRS, Navteq, TeleAtlas, ISMB



3 - Test sites

Algorithms integration

POMA system runs



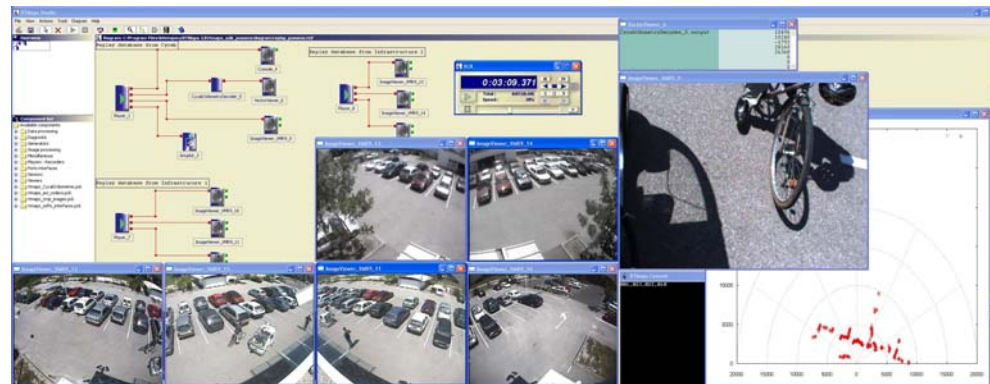
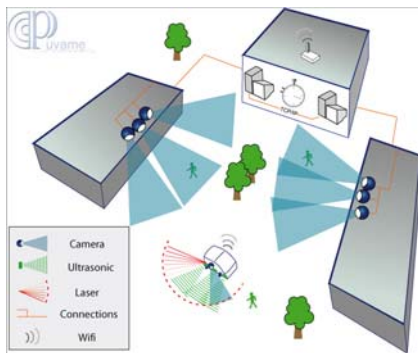
4 - Partners offices

Validation



RTMAPS IN USE OTHER RESEARCH PROJECTS

- **PUVAME – French PREDIT**
 - <http://www.intempora.com/ENG/references/puvame.php>
 - Cooperative vehicle and infrastructure systems for detection of collision risks with pedestrians



- **CARSENSE** - <http://www.carsense.org>
- **ARCOS** - <http://www.intempora.com/ENG/references/arcos.php>



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THANK YOU !
QUESTIONS ?

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