



## 1 General principles

Learn about the Urbi architecture, its principal components and features. Discover what you will be able to achieve thanks to Urbi.

- Client/Server architecture
- Object oriented script language
- Bindings with common languages
- Distributed plugin system

## 2 Robot control with urbiScript

urbiScript is a powerful script language, specially made to ease parallel and event-based programming. Learn the new programming paradigm for urbiScript, and use Urbi advanced features.

- Basic features
- Object programming
- Time control
- Parallelism
- Concurrent access control
- Event-based programming
- Task control

## 3 Behavior development with Urbi Studio

Urbi Studio is a graphical tool suite especially made to allow quick and easy development. Graphically design your behaviors and animations, and fine tune the internals with urbiScript.

- Robot remote control
- Motion creation
- Hierarchical finite state machines
- Debugging
- Deployment



## 4 Application programming interface

Integrate Urbi into any application and communicate with an Urbi-driven system. Send orders and get results transparently, be notified of events and react accordingly.

- Synchronous access
- Asynchronous access
- Complex data types
- Callbacks
- Notifications

## Next session : April 27-28, 2009

<b>Duration</b>	2 days
<b>Prerequisite</b>	<ul style="list-style-type: none"> <li>• Object-oriented language basis (Java, C++)</li> <li>• Strong experience in one programming language</li> </ul>
<b>Price</b>	1790 euros exc. VAT (for a 2 days session) limited number of participants
<b>Apply</b>	for more information : training@gostai.com

## 5 Plugin creation and integration

Extend your scripts and behavior with existing code in any language. Benefit from other products, reuse your previous work. Distribute your components transparently on many servers and devices.

- Algorithm integration
- Remote components
- Embedded components

## 6 Urbi in a simulated environment

Do not do twice what is needed once. Quickly prototype your components and behaviors, test them in a simulation, debug, and use real hardware only when needed.

- Webots
- Agile development
- Infrastructure and behavior testing
- Reduce development time and costs

## 7 Urbi on a custom robot

Urbi is universal. Use it on any robot, with any software any hardware. Adapt the architecture depending on your needs.

- Sensor access
- Effector control
- Low cost robot support
- The right architecture
- Good and bad practices

