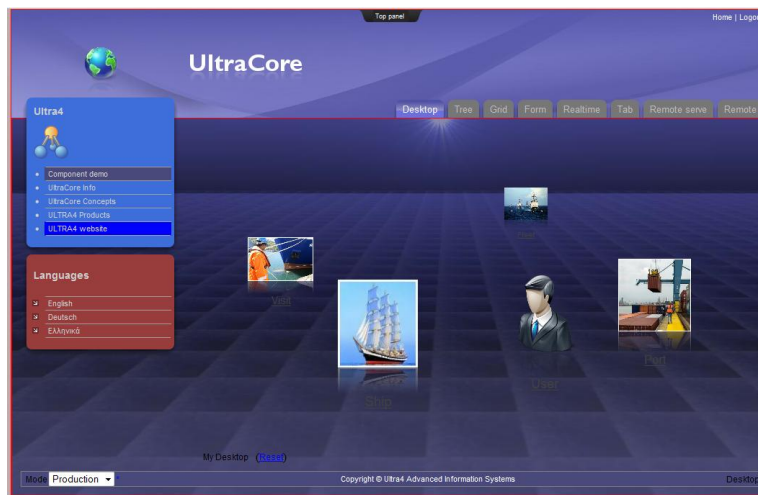




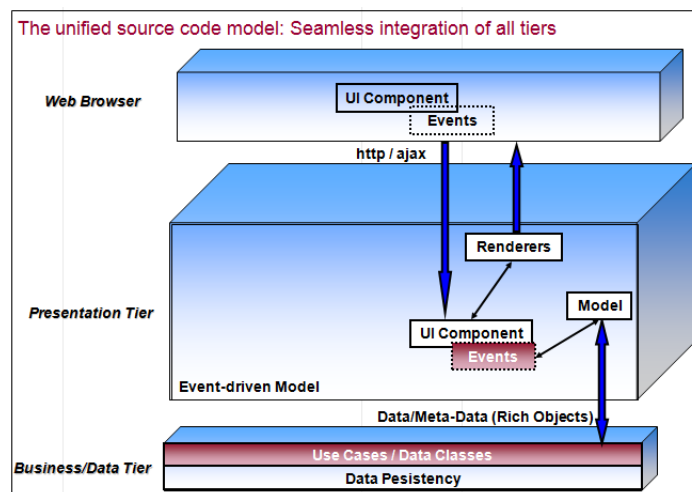
The Rich Internet Applications development platform

UltraCore is more than a framework; it is a complete end-to-end platform for implementing, extending, integrating, deploying and managing next-generation web-based business applications:



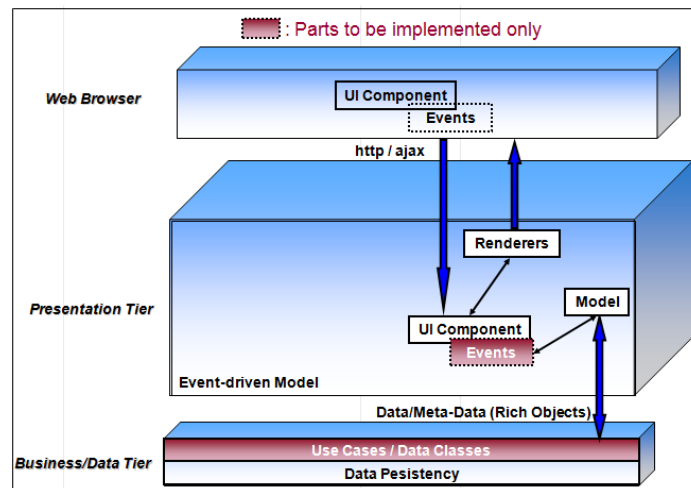
UltraCore provides **source code architecture** and an extensive **core software infrastructure** that offers out-of-the-box all the concepts and a big number of basic software components you need in order to build web applications of excellent quality within shortest time.

How is this possible? **UltraCore** is an end-to-end development platform that integrates seamlessly all the tiers of a web application in a **unified source code model**. It furthermore offers out-of-the-box almost all the core functionality needed by modern web-based business applications (e.g. web templating engine, advanced UI components, AJAX, advanced data model, object-relational mapping, reporting, auditing, asynchronous job processing, user management, security, logging, and much more).



With **UltraCore** any developer can program web applications even if he is not familiar with web technologies at all: All he needs is basic knowledge in Java and Relational Databases.

UltraCore development takes place at a high-level of technological abstraction within a predefined code model architecture that covers all the needs of modern business applications: **The developers concentrate in the implementation of business logic and the design of an appealing presentation instead of bothering with low-level technicalities and “reinventing the wheel”:**



Based on the Java EE technology, **UltraCore** enables the development of high-quality multi-tiered applications that have a cutting-edge web browser-based user interface and are additionally accessible via alternative telecommunication channels like telephone (IVR & Text To Speech), mobile phone (SMS and Mobile Web) or mobile devices (palmtops, etc.).

The **key benefits** of **UltraCore** are:

- **You develop 2 to 4 times faster / with up to 3 X smaller development teams ...**

compared to conventional web development (for example PHP, Java EE, .NET, ASP.NET, etc.) and **2 to 3 times faster** compared to framework-based development (for example Spring with JSF, SEAM, Ruby On Rails, Wicket, JSF-centered frameworks, PHP/Symfony, etc.).

How is this achieved? By following the **UltraCore** unified source code model that avoids “breaks” between the technologies used in each tier you save the time and the resources you would otherwise need to map between the heterogeneous components and APIs used in each tier. Furthermore, by using the extensive out-of-the-box core functionality needed by modern web-based business applications and the end-to-end automated testing provided by **UltraCore**, you save effort of integrating heterogeneous software modules as well as manual testing effort.

- **... generically instead of heroically ...**

UltraCore prevents you from the annoying experience of developing with an overloaded team of programmers attempting to integrate a bunch of technologies and receiving a rigid, over-priced, long time-to-market implementation, without ever reaching the desired quality and efficiency level.

How is this achieved? By raising the level of abstraction and hiding in this way the complexity of the underlying technologies while fully leveraging their advantages. Cost- and time consuming in-depth learning of new techniques with questionable implications for the implementation quality, is no longer needed.

- **... remaining in-time and in-budget ...**

“Software customers continue to be disappointed: Despite of extensive investment of time and money, over 30 percent of the projects will be canceled before they're completed, and more than half of the projects will cost nearly twice their original estimates” (The Standish Group, www.standishgroup.com). With **UltraCore** you will be able to deliver the functionality agreed with your customers while remaining in-time and in-budget.

How is this assured? **UltraCore** is based on many years of experience in the development of business applications and has already been successfully applied in many projects of different domains (Telecommunications, Logistics, Banking, Finance, Marketing, etc.) by a variety of development teams. These projects have confirmed that **UltraCore** equips development teams with such a lead that minimizes the risk of exceeding time- and budget.

- **... by keeping total control over your source code ...**

The **UltraCore**[™] code model organizes the application software in a way that makes it easy to **recognize and modify source code developed by others**. In this way you can easily **survive staff changes** and **escape maintenance problems**. Furthermore, the entire **UltraCore** source code can be purchased. In this way you will be able to adapt **UltraCore** to your special needs and avoid a lock-in-effect.

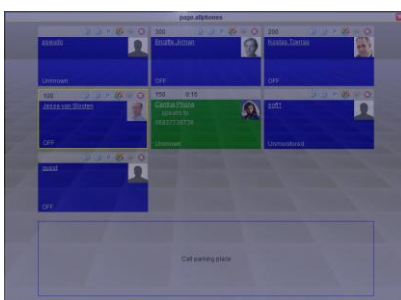
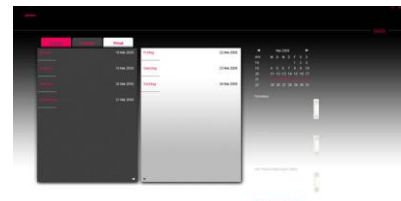
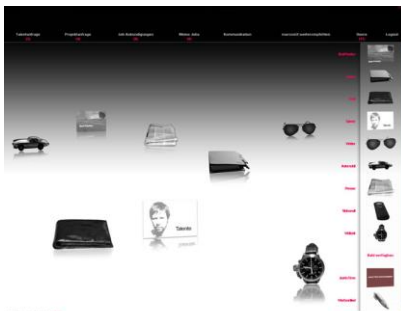
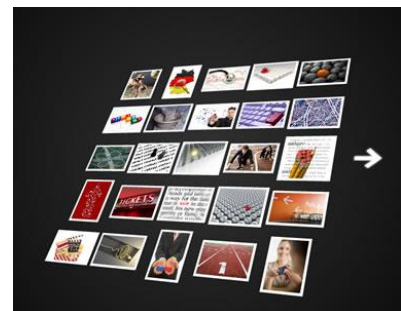
- **... with minimal training effort for your team.**

With the on-the-job know-how transfer provided by **ULTRA4** and the documentation shipped with **UltraCore**, team members can become productive and start working in particular projects already after 1-2 weeks. While working in projects, the know-how transfer is completed in approximately 2 months.

- **You achieve high-quality user interaction ...**

Applications developed with UltraCore™ provide a **rich user experience** that is **comparable or even superior to the user's experience in desktop applications**. With UltraCore™ you can easily build applications with features like **drag and drop, asynchronous page block updates (AJAX), desktop-like organization of information items, visual and cinematic effects**, etc.

How? UltraCore™ is shipped with over 50 ready-to-use user interface components that face the most demanding interactivity requirements. Furthermore, **UltraCore** supports AJAX (Asynchronous JavaScript and XML), an emerging standard that enables asynchronous user interaction with applications in a web environment, in a way that it can be used by developers without in-depth technical knowledge.



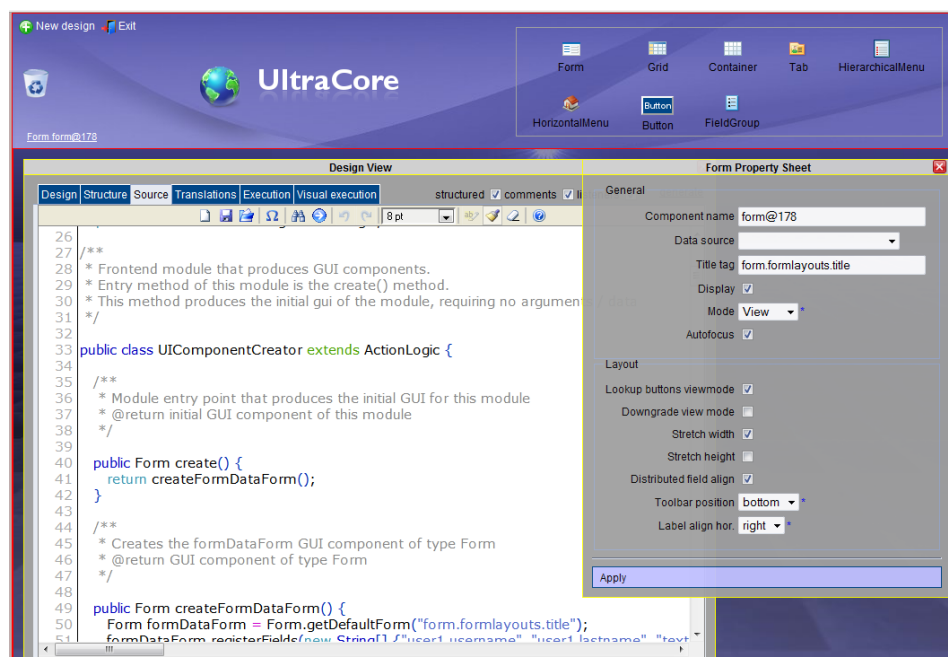
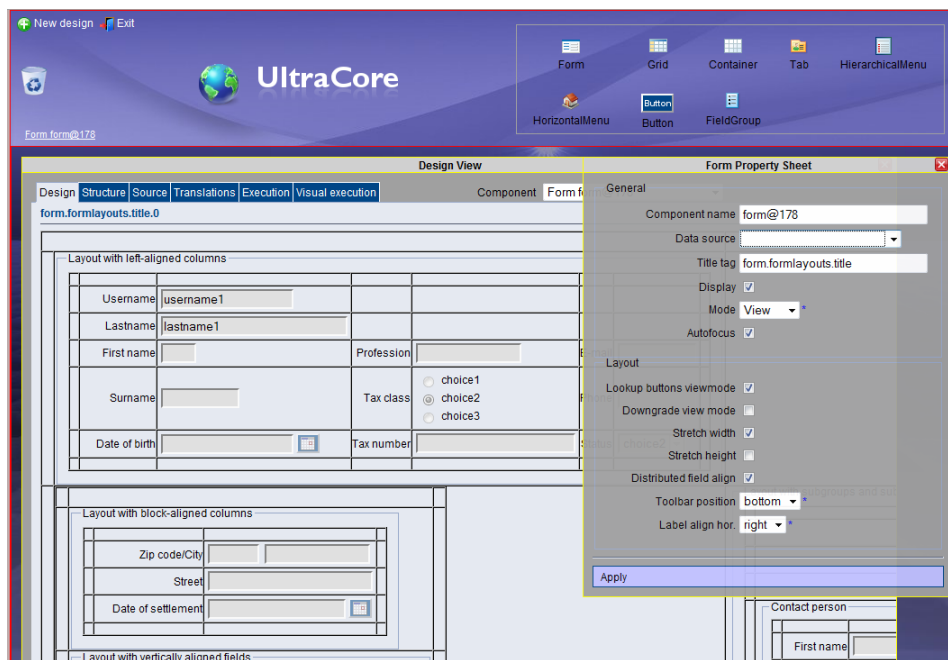
- **... with advanced web templating, ...**

UltraCore templating goes much further than just styling. Apart from styling colors and fonts of elements it is possible to define also the position of elements and the overall page layout.

UltraCore templates can be directly previewed in Internet browsers. **UltraCore** comes out-of-the-box with 3 well-defined templates, including one sophisticated template with a 3D look (Perspective Desktop exceptionally designed). Apart from these templates, also any other template can be used (for example highly-designed Joomla templates may be directly used). Given a web template, the **UltraCore templating engine injects user interface components or parts of components into it at runtime**, providing in this way a universal solution for the accomplishment of a rich user experience.

• **... integrated Web Applications Designer ...**

The built-in **UltraCore** Web Applications Designer enables the construction of complex screens via a visual development environment featuring drag-and-drop, interactive configuration of controls, automatic generation of source code, direct linking of controls with the underlying code and much more.



- **... and PDF rendering of all your screens.**

Every screen of an application developed with **UltraCore** can be rendered to PDF in form of a report. In this way you achieve independency from problematic behavior of the browser's built-in print functionality and can easily communicate screen contents. Last but not least, you avoid the time- and cost intensive development of (customized) reports for most applications.

- **You furthermore receive end-to-end automated testing, ...**

UltraCore provides you with an end-to-end testing framework, allowing you to **record and play a complete animated test in a web browser, testing through from the web browser to the presentation- to the logic- and the data tier**. At all levels, the testing framework can produce detailed information regarding failures, and will report it nicely on screen and/or in a structured Excel list, including the exact location of the problem in the source code. It is also possible to view detailed test step information (i.e. execution stack and performance information) in form of visual charts.

- **... advanced search and discover functionality, etc.**

"People spend on average 15-30% of their time searching for information, whilst 50% of all searches fail to locate the required information" (The High Cost of Not Finding Information, An IDC White Paper). With **UltraCore** you are able to organize your information (data, web content and documents) in a way that allows for a) **full text search**, b) **search on data and meta data**, c) **"Google like" search** including wildcards, Boolean operators, etc., d) **semantic search** based on terminology databases and e) **search in hierarchically structured web content/pages**.

- **Database independency**

- **Guaranteed compatibility with IE, Firefox and all modern Web Browsers**

- **Monitoring of production systems**

Featuring live statistics on users, sessions, server- and memory load, threads, cache and much more.

- **Out-of-the-box modules for almost any state-of-the-art business functionality**

e.g. Logging, Auditing, Reporting, Notifications, Alarming, User Management with LDAP connectivity, etc.

- **Real-time server push technology**

Real-time server push engine, allowing for pushing events from the server directly to browser clients. The real-time engine supports both streaming and long polling (comet style). The real-time engine comes together with two high-level components that can be used to build full Remote Desktop functionality (see also example figure below, where the desktop of a remote computer is embedded in an UltraCore application). **UltraCore** developers can use the engine to implement further real-time applications like remote presentation with broadcasting to multiple users, conferencing, chat, etc.



- **And all this ... without any lock-in effect.**

The entire source code of **UltraCore** can be purchased together with the complete know-how on the simple extension methodology. In this way, web-technology-aware developers can autonomously extend the core infrastructure in the case **UltraCore** does not cover a particular need, without waiting for new releases. Alternatively to this, customized extensions of **UltraCore** can be outsourced any time to **ULTRA4** at very competitive prices. By following a special procedure, the changing of the **UltraCore** source code by the customer does not affect any warranty or support obligations of **ULTRA4** towards the customer.

... and much more (simply ask us ...)

UltraCore™: YOUR JUMP START IN INTERNET TECHNOLOGY

What do our customers say about UltraCore?

"With UltraCore we succeeded in implementing a comprehensive functionality extent and attaching smoothly a number of external systems within shortest time"

Peter Meyer, Director Workflow and Multimedia, Lufthansa-AirPlus, Neu Isenburg, Germany

"The Status Card Processing & Information System developed with UltraCore is a great success, not only because of the realization of a system that fulfills the customer's functionality needs, but from the customer perspective in particular, due to the punctual delivery"

Thomas Novak, Production Director, Lufthansa-Loyalmaxx, Germany

"We have chosen ULTRA4 and the UltraCore framework because of the technological superiority and the short time-to-market attitude of the company. Especially the advanced user interface capabilities (ajax, drag and drop, etc.) and the possibility of supporting access to portal functionality via multiple channels (phone, SMS, PDAs, etc.) are unique and crucial for a new-generation portal application."

Andreas Halbig von Rooy, Executive Director, GvRmarketing, Frankfurt, Germany

"UltraCore developers concentrate in programming business logic instead of programming low level code", "UltraCore decreases substantially the developer's design effort"

Carsten Hering, Project Manager, Lufthansa-AirPlus, Neu Isenburg, Germany

"The UltraCore code model organizes software in a way that makes it easy to recognize and modify source code developed by others"

Tilo Anschütz, Software Engineer, Lufthansa-AirPlus, Neu Isenburg, Germany

"With UltraCore, even the most inspired design ideas can be implemented with an amazing fidelity"

Marc Würth, Web Designer, GvRmarketing, Frankfurt, Germany

For more information please contact:

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