4D Web 2.0 Pack
Rich Internet and Mobile applications made simple

4D Ajax Framework
4D Ajax for Dreamweaver
4D for Flex
The phenomenon known as Web 2.0 is more than just the web today.

Reaching far beyond the browser, this name for live, interactive, user-manipulable data has come to define RIAs (Rich Internet Applications) and RDAs (Rich Desktop Applications). These represent a new generation of Internet-compatible applications that can be implemented across multiple platforms on personal computers, as well as mobile devices (PDAs, smartphones, etc.).

Users are demanding more from their solutions today. On top of having stores of reliable data, they want access to it from as many places as possible, by as many means as possible. In an increasingly mobile, connected world, your customers demand the latest technologies to access their data via Firefox, Safari, Adobe AIR, iPhone, Flex, Google Gears, HTML 5, online, offline – you name it!

4D Web 2.0 Pack is the fastest way for 4D developers to get their applications into the Web 2.0 world, often with hardly any new code at all.

In fact, 4D Web 2.0 Pack allows 4D applications go online and mobile without any knowledge of HTML, CSS, JavaScript, Flash, etc. However, it’s flexible enough to accommodate those who do know these technologies, allowing them to seriously customize their implementations to deliver beautiful, powerful solutions.

“4D WEB 2.0 PACK PROVIDES THE NECESSARY TOOLS FOR DEVELOPERS TO QUICKLY – AND PROFESSIONALLY – BRING THEIR APPLICATIONS TO THE WEB. IT’S A REQUIRED PRODUCT IF YOU ARE SERIOUS ABOUT Harnessing the Power of 4D and Web 2.0!”

Steve Orth
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What is AJAX?

While there is no official definition of AJAX, the term was first coined as an abbreviation of “asynchronous JavaScript and XML” as a means of creating Web and Rich Internet Applications.

In reality, it goes well beyond those two technologies to include CSS, XHTML, DOM (document object model)… none of which you actually have to learn to use 4D Ajax Framework!
OBJECTS OF DESIRE

Say goodbye to clumsy web forms – and the error pages that accompany them. In addition to interface objects that faithfully replicate their desktop counterparts (see box), 4D Ajax Framework provides the logic to make these objects work as a user would actually expect. Start entering text in a search field, and the results appear as you type.

Enter data in a form, and instantly have it validated without pressing a “submit” button. Scroll down a page in a data grid, and have the requested information load in an instant, rather than waiting for pages and pages of data to download first. Pull up a dashboard to get live business intelligence data in an instant.

Not only can all of these objects be mixed and matched with one another to your liking, they can also run alongside objects from other popular AJAX frameworks (i.e. jQuery) so you can build incredibly customized solutions, or integrate 4D with existing solutions.

And – perhaps above all – these objects are functional and beautiful. That way they’ll be right at home on the slickest new hardware, from a sleek tablet to a tiny iPod Touch.
Build web applications using 4D Ajax objects without any hand-coding!

4D Ajax Framework makes the process of turning your 4D application into an AJAX-powered web application easy. 4D Ajax for Dreamweaver makes it even easier.

Admittedly, creating a web app from scratch can be a bit daunting for those not familiar with web technologies such as HTML, JavaScript, or CSS. On the other hand, web designers who are not experienced 4D developers may need a little extra assistance in adding 4D Ajax objects into their websites.

Either way, you can easily take advantage of Adobe Dreamweaver™ CS3’s WYSIWYG interface. 4D Ajax for Dreamweaver puts all of 4D Ajax Framework’s powerful objects in an intuitive tool palette, where you merely have to click once to import a 4D structure, to create a log-in panel, or to insert grids, calendars, hierarchical lists, image matrices, charts, and dashboards.

All of 4D Ajax Framework’s powerful interface elements are at your fingertips.

Being that every 4D Ajax object is customizable, adjusting parameters is as simple as filling in the fields of an object inspector.

Drag your objects around the screen. Adjust their sizes. Change their appearance. The look of your finished product is limited only by your imagination. Use Dreamweaver’s WYSIWYG layout features to mix, match, and place the elements you need, and even use other external sources to create your own “mash-ups.”

And if you do happen to know your way around HTML, CSS, and other aspects of web design, the possibilities are nearly endless.
Connecting a Flex client to 4D is an exciting prospect, one that’s actually been possible for some time now. Ever since 4D’s adoption of Web Services, Flash-based media have been able to access 4D data, whether through the integrated SOAP server or over XML via HTTP. In fact, we like to say that 4D and Flex are “old friends,” having had a history of moderate data exchanges.

What’s really exciting and new is that 4D for Flex takes advantage of 4D v11 SQL’s native SQL database to provide a direct, speedy, and robust SQL connection between 4D and Flex. Compact data transferred in a binary format allows much larger, higher-traffic projects to be realized, therefore providing you another serious avenue to deliver your applications.

Because of its basis in Flash, applications can be executed wherever the Flash Player is present, and thus run — with very consistent look and behavior — on numerous platforms from browsers to mobile phones to operating systems like Linux.

Due to its visual nature, Flex has typically been used as the front-end to three-tier enterprise solutions. Data has essentially been served up from a database application on the back-end to the Flex front-end via a conduit such as a J2EE application server.
4D for Flex changes that, allowing you to build a fully functional Web/Rich Internet application that interacts directly with your core 4D application.

Its 4D component library is referenced directly in the Flex environment. The component invokes a SQL Service that directly executes a SQL request at the 4D Server level, and thus returned directly to the Flex front-end, effectively cutting out the “middle man.”

Thanks to the component, the returned SQL result set is natively handled in Flex to be displayed and manipulated in the interface objects provided in the 4D for Flex library. And because the data is handled at a native level, all of Flex's own interface elements are at your disposal.

Furthermore, 4D for Flex allows users to execute 4D application logic from the client end. 4D methods can be set to be “Available through SQL,” and a Flex client can send the SQL request to execute the method.

For the 4D developer, setup is extremely simple. One need only open a port on 4D Server reserved for SQL connections, and the database can be used without a single modification to the code. Security continues as before – just as the 4D administrator has intended.

Despite its simplicity, there is a lot of power involved. Using the lingua franca of SQL, data can be totally manipulated on the Flex side by using powerful commands. Data can be batch-updated with the “Bulk and Modify” function, or collected for a consolidated transaction by the “Select for Update” function. With 4D's SQL core and 4D for Flex acting as a conduit, the power of SQL is right there in any Flex application.

4D for Flex brings together two huge, passionate groups of developers who can mutually benefit from one another's talents. Flex developers can find in 4D developers the kind of robust, rapid back-ends that are the result of years of dedicated work; 4D developers can find in Flex developers a creative, dynamic channel to bring their applications into even more users' hands. A front-end developed with Flex will be immediately available as a fully functional application in any browser, as a standalone application generated for Adobe AIR runtime.

Of course, the concept is exactly what you should expect from 4D. Keeping in line with our longstanding philosophy, 4D for Flex is another way for you to use your one, core application and deploy it in various ways. We're delighted to bring Adobe's Flash and Air technologies into the family.
SYSTEM REQUIREMENTS

4D AJAX FRAMEWORK

DEVELOPMENT

- 4D Developer Edition 2004.7 or 4D Developer Professional v11 SQL
- 4D Server Developer Edition 2004.7 or 4D Team Developer Professional v11 SQL

DEPLOYMENT

- 4D Server 2004.7 or v11 SQL
- 4D Web Server 2004.7 or v11 SQL

BROWSERS

- Internet Explorer 7
- Mozilla Firefox 2
- Safari 2
- iPhone or iPod Touch (firmware version 1.1)

4D FOR FLEX

DEVELOPMENT

- Adobe Flex Builder 3

DEPLOYMENT (Server-side)

- 4D Server v11 SQL

DEPLOYMENT (Client-side)

- Adobe Flash Player 9
- Adobe AIR

4D AJAX FOR DREAMWEAVER

- Adobe Dreamweaver™ CS3

4D Web 2.0 Pack is available for one-time purchase, with regular updates and expansion on a subscription basis. It carries a development license, with a no-hassle deployment feature. You can take advantage of the existing Web and SQL connections allowed by your current 4D deployment product. Please contact your 4D representative for pricing information.

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