







# Robby Shaver: UI Guy

Interview by Betsy Kosheff

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[Editor's Note: To learn more about Notes R5 client, check out the discussion with Robby in the <u>Developer Spotlight</u>.]

The Notes R5 client goal is a lofty one: deliver the preferred way for users to navigate, organize, and integrate all of their day-to-day information from their business applications and personal life -- including e-mail, calendar and scheduling, personal documents, newsgroups, Web sites, and groupware applications. Making it all intuitive and easy to use for new and existing Notes users is the task before Robby Shaver and his team.

# What are your overall goals for the Notes R5 client?

The number one goal is to just make the client easier. We already have a lot of powerful features -- it's just not always obvious to users how to get to those features. Like if you want to use the calendar and scheduling features, it's not obvious where to go to from the 4.6 workspace. Also, users have found it very difficult to put the mobile features and agent technology to use. So, the number one goal for R5 is to improve ease of use for both the basic tasks, as well as the more powerful features that typically have only been accessible by our very technical population.

# So is this release going to be radically different from Notes 4.6?

Yes and no. We're not introducing change for change's sake -- we're changing only those areas where we know users have trouble, or where we know users want significantly more functionality. Features that work well in 4.6 (and there are lots of them) will continue to work the same way. A lot of the ideas introduced in 4.6 like portfolios are getting extended in R5. When we designed and shipped 4.6, we already had the basic outlines of R5 mapped out, and we made sure that any new 4.6 features would fit smoothly into R5.



### How do you break down the different areas for improvement?

Number one is basic navigation -- how do you get around, how do you know what is out there, and how do you get to it. We want to make it easy for users and organizations to access and organize the information that matters to them, regardless of where that data is stored or what protocol is used to deliver it. End users don't care whether the page they're looking at (and

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want to get back to later) is in Notes, on the Web, or in a newsgroup. They only care about the information on the page, and want a simple and consistent way to get to it.

Number two is the core applications we ship with Notes. We've been focusing on making the functionality more clear, making the forms easier to use, adding some capabilities to the views to make them work better, and then visually improving the whole environment. We've added some new design capabilities like framesets that will let us present things in a much cleaner way.

# What are you doing to improve the design environment?

Well, R5 supports framesets, so you can now partition the UI into as many panes as you desire. Notes R4 has a more narrow design environment in the sense that each application has a similar style to it and unless you use a lot of navigators, they look pretty much the same. Now, with framesets, you can lay out the screen however you want and put different elements on the screen at the same time. It really changes the world of Notes so that the look and behavior of an application can be tailored to the task at hand. Of course, you can still create "classic" Notes applications, but if you need something jazzier or more focused, you'll be able to do that too.

# What's going to be my first impression as a new Notes R5 user?

The first thing you'll notice is that we have upgraded the desktop to be what it has always truly been -- a Bookmarks file. We are combining the way that people work with information, so whether end users are in a browser or the Notes client, they have an easy-to-access Bookmarks file that points them to the places that they feel are important. If you think about it, the Notes desktop has always been a Bookmarks file in that the tabs are folders and the icons are links to databases. There was just no reason for us to stay different than the rest of the world in this space. In the main part of the screen, you'll see a Welcome page, which provides instant access to what's important to you -- like your mail and calendar, and new information in the Notes databases and Web sites that you track.

# Does it look more like a browser?

In some ways, yes. We've incorporated some of the basic browser controls, like Back, Forward, Stop and Refresh (which Notes has always had), into the main window. The first page you see isn't the workspace (which after all, is just a collection of bookmarks to databases); instead, you see the Welcome page. But it's important to keep in mind that the goal here isn't to "look like a browser" -- it's to take the things about the browser that are easy to use, and to get you the most immediate access to the information you care about at the same time. You might call this the "intelligent browser."

[Editor's Note: The following screen shows the new Welcome page.]



#### How is it otherwise different from a browser?

Beyond the fact that Notes handles data from many sources other than the Web, I think the key UI-related thing we're doing is something we call "tabs." Tabs represent the way that we deal with how to flip between your open documents in a way that's graceful. In R5, the Window menu goes away entirely. So, when you open a new document, you don't get a new window; you just get a new tab within the existing window.

#### What's the benefit to the user?

This gives us a more obvious presentation of distinct navigation points than is currently provided either in Notes or in Web browsers. For the most part, Notes R4 creates windows for good reason -- each window represents a significant point along your navigation path or a significant activity that you're engaged in, like composing a new memo, or working with several documents simultaneously. Web browsers provide no mechanism to mark these points, while Notes requires too much effort for the payback because the open window list is hidden. Switching between windows in Notes requires going to the menu and there are, perhaps, too many window management choices. Presenting the "window list" as tabs should solve the problem and give us a significant usability gain over Web browsers.

# Where did this Tab idea come from?

What we were after was to offer the simplicity of a browser-like, single window, but with the recognition that the Notes environment works differently. Unlike with browsers, you create and edit a lot in Notes, so you want separate, discrete pages that you can label and flip between. Then, there needs to be some mechanism to tell us when you're done with the pages so we can process them. For example, do you want to send this memo you just worked on for 30 minutes? Browsers don't deal with this issue very well because they were designed for reading -- not for reading AND creating AND collaborating.

Would you say that in designing the UI you were driven more by trying to incorporate browser-like functionality into Notes, or were you able to step back and start with a clean slate to develop something you feel people can use to manage the glut of desktop information in a better way?

A little of both. The key thing browsers made clear to us is that Notes was making the simple act of reading and finding stuff harder than it needed to be. The single click of the browser world certainly makes it easier to get places. So we wanted to take as much as we could from browsers. But we also kept in mind what people use Notes for and why that's been successful. And obviously, we want to expand the potential base of users, too. We're

taking a bit of a leap with this release in order to make Notes more approachable and useful to more people.

# Getting back to the Welcome page -- what's the thinking behind this approach?

You mentioned information glut earlier. The Welcome page is designed to help folks bubble up what's most important to them. We wanted to provide users as well as administrators with the tools to create an executive summary of the information they most care about. This summary can include things like new mail and corporate news announcements, but also notify users of new or modified documents from shared databases, perhaps based on criteria that the user sets, plus public information, like stock quotes or local weather. And we wanted to deliver the information in realtime, or as close to it as we can get.

#### How does it work in realtime?

Well, the idea is that each section can get updated separately. So if the information is on the Web, it gets updated at whatever interval the information provider is capable of updating it. The Notes stuff will be as realtime as we can make it.

#### Is it server-initiated?

No, it's being pulled together by the Notes client. There are a couple of models for how notification can happen. One is that the client goes and asks the server "Hello, do you have anything for me? Here's who I am, and I asked you to keep track of X things for me." The server creates whatever information you asked for and then continues to feed you information based on that criteria. Another model is where the client is up and has an open connection with the server, and if any events take place on the server that are of interest to the client, the server just sends the information right down. So, at that point, it does become realtime.

# What sources can data be integrated from -- can it be relational data stored in non-Notes databases?

Yes, you can gain access to any information that Domino and Notes can. Since Domino has access to RDBMS systems like DB2, PeopleSoft, SAP, and so on, the Notes R5 client can also pull information from those sources.

# How customizable is the Welcome page?

It's customizable at a couple of levels. There's a database template pulling it all together, so in a sense, it is just another Notes application. A company can customize the template and alter how much end users can do with it. And then there is end user personalization. You'll be able to add any database that you want. If you want some databases that already exist, you can subscribe to those, too. The designer of the database can just create a subscription form that is tailored to the database and says what the fields of interest are. So, for example, I subscribe to an SPR (Software Problem Report) database that contains bugs, and I can fill out a form that says to notify me whenever the "assigned-to" field has my name in it. For pre-R5 databases, you'll be able to reference generic fields (such as, Author fields).

#### Can administrators control who has access to which services?

Definitely. Designers will be able to create subscriptions that are not personalizable. That is, the subscription shows up in the subscriptions list, but the user can only enable or disable it, not personalize it. In addition, adminstrators will be able to limit or prohibit subscriptions on particular servers or databases.

# Is most of the Welcome page technology on the client side?

Not really. It's definitely an example of where we're able to build a great feature that requires code (and cooperation) between the Notes client and

the Domino server. On the server side, we're adding the capacity to be smarter about delivering content to the client. The server folks have cooked up some very clever ways to pull this off. For example, suppose somebody subscribes to a bunch of databases on a bunch of different servers and then quits the company. Does an administrator have to track these subscriptions down and kill them off one-by-one? Well, the way the server folks are building their side of things, those subscriptions will get purged without administrators taking any action at all. They're also building this capacity to monitor events in a generic way that will let us do a lot of interesting and useful features on the client side in future releases.

# Why didn't you use agents to discover events?

This is really a hard-wired agent written in C code and optimized to perform well. We want this to scale so that if you have a database with hundreds of documents being added to it, and people are asking for a lot of different notifications, you still get the best performance possible. This may mean you have to limit the kind of subscribing that can go on. The main thing is that this isn't push technology, though, this is a thing where an individual can ask for what they want and not have it just driven to them.

# What about mail? Will we see more UI features from cc:Mail?

Yep. We've taken the best features and functionality that have helped to win awards for cc:Mail, and melded them with the features that current Notes users have come to appreciate. So, we're taking the best of both worlds, and are working to improve them even more. For example, you'll see general UI enhancements, like new message creation is now done with a separation between the "header" and the body of the message, and there's more intuitive folder behavior. We're also doing a lot of work to make type-ahead addressing work better, make it easier to specify rules for handling incoming mail, and letting organizations and users specify things like what order to sort messages in.

The industry has been talking about information managers for years. Why do you think it's taken so long to integrate applications like mail, calendar and scheduling, and collaborative applications under a single UI?

Well, I guess I'd say that Notes has been doing it for years. Now, in R5, we have the luxury of working on things like making it simple, extremely functional and performant -- while our competitors are having to work to combine these worlds.

#### **BIOGRAPHY**

Robby Shaver is the designer for the Notes R5 client. He came to Iris in 1996 from Lotus, where he worked for many years coding and designing various parts of Improv, 1-2-3 and SmartCenter. Previously, he was a development manager and product designer at Learningways, an educational software company. He used to be a starving musician.

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