



Introduction to Sametime Links

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Introduction to Sametime Links

Although there are some people out there that are not happy with the speed of innovation around IBM Lotus Instant Messaging and Web Conferencing (known to the world as Sametime), there have been some additions to Sametime that arrived quietly but their impact for customers is huge. There was no trumpet fanfare or big ball to celebrate it's coming out party, but Sametime Links was a huge addition to Sametime 3.0.

What is Sametime Links?

From an end users perspective, Sametime Links provides end users with Sametime "presence" information within a web page. **See Figure 1.** This could be as simple as a name on a page, or can be extended to offer live help to visitors of a web page. For developers Sametime Links is a small, easy to use toolkit, that uses a java applet on a web page to provide access to Sametime services.

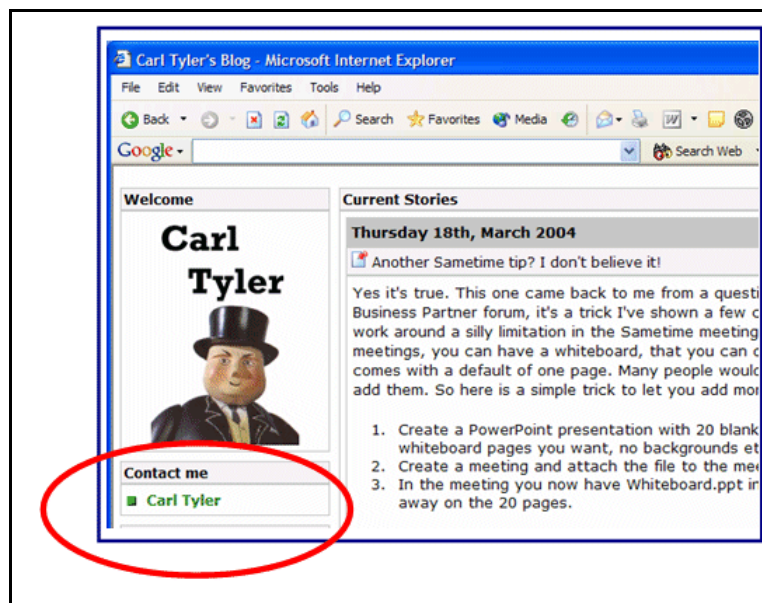


Figure 1

Why use Sametime Links?

One of the reasons customers often choose Lotus Sametime over it's competitors are because of it's flexible tool kits. Sametime offers developers many interfaces; COM, C++ and Java developers all have options with Sametime. Sametime Links extends those options to web application developers, but why would you choose the Sametime Links tool kit over building your own Java applet for example? Well there are a few reasons, the key one for most people being that it's easy to get started, if you know a few HTML tags and can build a web page you can create a web page integrating Sametime Links. A key advantage for web page developers who choose to use Sametime Links over the Java tool kits is that you don't require any compilers or development environment, you can add Sametime Links to a web page using a basic text editor like Notepad. For people unfamiliar with pointing to JAR or CAB files, or adding <APPLET> tags, Sametime Links takes removes all the hard work, by making it easy to add with a couple of Javascript functions.

Don't get me wrong, Sametime Links is not the solution to all the things you may want to do on a web page, there will be times when you want to do low level interaction with the Sametime services and in those cases going straight to the Java tool kits is probably a better choicer, but for those situations where you want IM services, some meeting services and presence information on a web page then Sametime Links is more than capable.

Showing Sametime presence information on a web page

We're going to start off simple, what we'll do now is add Sametime awareness to a web page, to do that there are a few basic things we need, first we need the the obvious, a Sametime Server, you'll need a Sametime 3.0 or later server, you can get away with installing Sametime Links on a Sametime 2.5 server, but come on it's 2004 already and Sametime Links is installed by default with Sametime 3.0 servers and later so saves it you a lot of hassle.

You'll need access to a HTTP server, this could be IIS, Websphere, Apache etc. but as you have a Sametime server already you have easy access to the Domino HTTP services that your Sametime server is running, so we'll use that for now, and you'll need a browser with a Java virtual machine to access the pages.

Create Sametime Links StyleSheet and Javascript references

To start off we'll create a new HTML page in your Sametime servers HTML directory, which is typically X:\LOTUS\DOMINO\DATA\DOMINO\HTML, call the file STLINKSTEST.HTM, Let's create the file and then we'll go through what each Sametime Links item is responsible for:

```
<html>
<head>

<LINK REL=STYLESHEET HREF="CODEBASE/stlinks.css" TYPE="text/css">

<SCRIPT src="CODEBASE/stlinks.js"></SCRIPT>

<SCRIPT>
setSTLinksURL("CODEBASE");
</SCRIPT>

<SCRIPT>
writeSTLinksApplet("Anonymous User","",false);
</SCRIPT>

</head>

<body>

<SCRIPT>
writeSametimeLink("CN=Carl Tyler/OU=US/O=Instant","Carl Tyler",false);
</SCRIPT>

</body>
</html>
```

Note: Do not try and get clever and combine the sections:

```
<SCRIPT>
SetSTLinksURL("CODEBASE");
</SCRIPT>
<SCRIPT>
writeSTLinksApplet("Anonymous User","",false);
</SCRIPT>
```

Into

```
<SCRIPT>
SetSTLinksURL("CODEBASE");
writeSTLinksApplet("Anonymous User","",false);
</SCRIPT>
```

By doing this Sametime Links will not load successfully.

In this file there are few key parts we need to be concerned with, but before we address what they are. let's explain what CODEBASE is. CODEBASE is the location that the Sametime Links runtime package is located, by default this is:

```
http://<<STSERVERNAME>>/sametime/stlinks
```

Where <<STSERVERNAME>> is the Fully Qualified Host Name of the Sametime server, be aware the runtime files can be placed on a different server to the Sametime Server, so this could be pointing to the files on a different HTTP server. It's a good idea to backup this entire directory before making any modifications to the Sametime Links source files.

Lets take a look at the first part of this HTML file that concerns Sametime Links.

```
<LINK REL=STYLESHEET HREF="CODEBASE/stlinks.css" TYPE="text/css">
```

This line is used to provide a Cascading Style Sheet for the Sametime Link presence indicator, to change items such as the colour of the link or the font used, this file can be changed using a StyleSheet editing tool, or a simple text editor. The next line:

```
<SCRIPT src="CODEBASE/stlinks.js"></SCRIPT>
```

This loads the core Javascript functions for accessing Sametime Links functions, If you find a function within the Sametime Links toolkit that you'd like to modify slightly this is the place to make the change.

```
SetSTLinksURL("CODEBASE");
```

This line sets the base URL for Sametime Links files, it can also be used to specify the default language options and docBase. The language and docBase parameters are optional. By changing the language parameter we can change the default language shown to the user, and by changing the docBase, we can point Sametime links to a different directory for it's HTML source files. The default value for docBase is the value passed as the codebase. As you do more complex things with Sametime Links, you will quickly find that docBase can become your friend, it allows you to use essentially the same code for Sametime Links on pages, but give them a totally different look and feel, by creating new HTML files in their own directories that are referred to with the docBase parameter.

So with the lines above we now have the ability to use Sametime Links on a page, to be of use though, we need to log into the Sametime server. This is done with the line:

```
writeSTLinksApplet("Anonymous User", "", false);
```

WriteSTLinksApplet, has three parameters which are username, password/token and a switch to indicate if the login is by password or token. If no password or token is passed as the second parameter it is assumed to be an anonymous login. By default, a new Sametime server accepts anonymous logins, an Anonymous user is a Sametime user that can access the Sametime server, but has no related directory entry. When logging in as an anonymous user, the first parameter of name is used as a display name for the users Sametime Links session. If you are using Sametime Links within a portal or another Single Sign on Environment, by setting the third parameter to true, you can pass an LPTA Token to the Sametime server to login as a user. For Domino users, there is information in the Sametime Links documentation on how to generate an LPTA token to login to Sametime Links.

In this article, I'm assuming that you can login to Sametime as an anonymous user, if you can't you may want to hard code your name and password into that line for testing purposes.

If no name has been specified as a display name for the anonymous user, the user will be assigned a name like "UserX/Guest", where X increments by 1 with each anonymous login to the server. The Guest option is configurable by the Sametime administrator in the Sametime server configuration.

So with that line, we can get logged into Sametime, but now we need to see if someone is online, so we need to add:

```
writeSametimeLink("CN=Carl Tyler/OU=US/O=Instant", "Carl Tyler", false);
```

This is the code required to add the awareness for Carl Tyler to the web page. The first parameter is the full hierarchical name for Carl Tyler, the second option is the display name that will be shown within the web page. Some people may change this to say something like "HR", "Help Line" or something specific to the page the user is on. The third option specifies whether the name needs to be resolved by the Sametime resolver, by default on a Sametime server, anonymous users cannot access the Sametime servers resolver, so this will be set to false. When the resolve option is set to false, then the full hierarchical name must be used, or Sametime will not be able to display the status for the user. If users do have access to the resolver, then the common name could be used for the first parameter, where Sametime Links will provide awareness for the first matching user in the address book. For better performance, if you can use the full hierarchical name, then do so, if you can't then use the resolver. There is an optional 4th parameter that specifies any style options relating to the link, whether the link shows the icon, or the text is displayed etc. Obviously, for this sample file, you'll want to change the name to one within your corporate directory. You'll also need to get that person to login to Sametime, otherwise they'll always appear off-line when you're testing your page.

Now you want to load the page into a browser by typing:

```
http://<<STSERVERNAME>>/STLINKSTEST.HTM
```

If all has worked according to plan, you should see something along the lines of **Figure 2**.

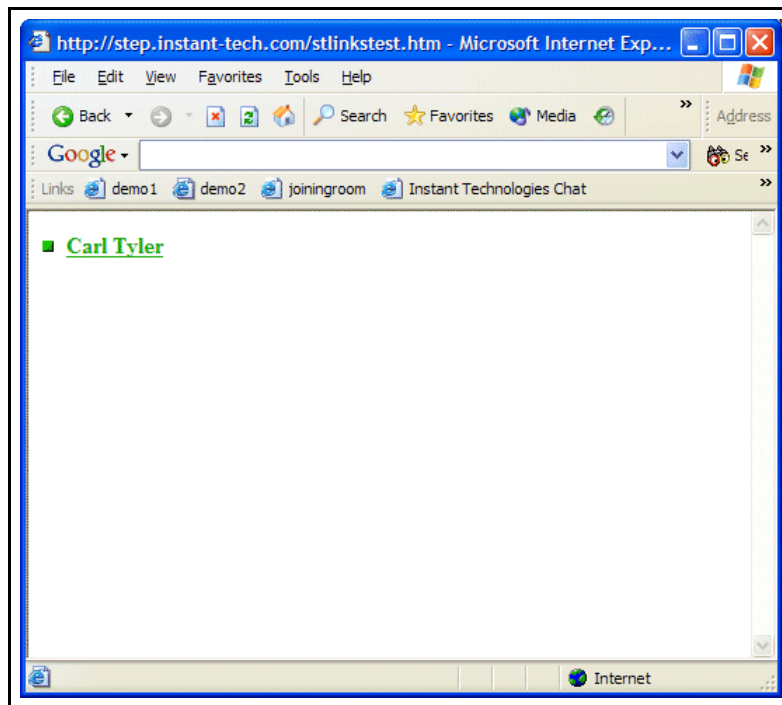


Figure 2

Pretty exciting eh? Not convinced? Well think about it, with a few short lines, you have given a user on a page the ability to IM with an individual, the ability to take part in Instant Meetings, which can include Screen Sharing, Audio and Video, even an N-way chat. They're pretty powerful features.

Simple, yet powerful customizations

One of the benefits I mentioned at the beginning of this article regarding Sametime Links, was how customizable they are, Some customizations to Sametime Links can be easy others can be hard, it all depends on what you want to do, to show you how powerful a simple modification can be, here is a really simple customization that addresses a complaint I often hear about the native Sametime client, yet can be addressed in Sametime Links with a change to a single line, the issue is the ability to send Notes:// URLs, Sametime supports HTTP:// URLs but does not support Notes URLs (yes I have no idea why either), anyway, here is how you can get Sametime Links to support it.

In your Sametime Links codebase directory, find the files "chatApplet.htm", if you are only using a single language with Sametime Links, then change the file that exists in the language you are using, if using multiple languages then update all the chatApplet.htm files for each language. When you've found the chatApplet.htm file you wish to change, open it with a text editor, and look for the line:

```
msg =
msg.replace(/((https?:\/\/\/|ftp:\/\/\/|www.) (\w|-)+ (\.( \w|-)+)* ([\/\?]\S*)*\b)/gi, "<A target='_blank' href='&#1'>&#1</A>");
```

This line is a Javascript regular expression that formats urls, into click able links. To enable Sametime Links to support Notes:// URLs we just change this line to:

```
msg =
msg.replace(/((https?:\/\/\/|ftp:\/\/\/|www.|notes:\/\/\/) (\w|-)+ (\.( \w|-)+)* ([\/\?]\S*)*\b)/gi, "<A target='_blank' href='&#1'>&#1</A>");
```

Now when the Sametime Links user, sends or receives a Notes:// URL it will be click able, and will launch Notes, as can be seen in **Figure 3**.

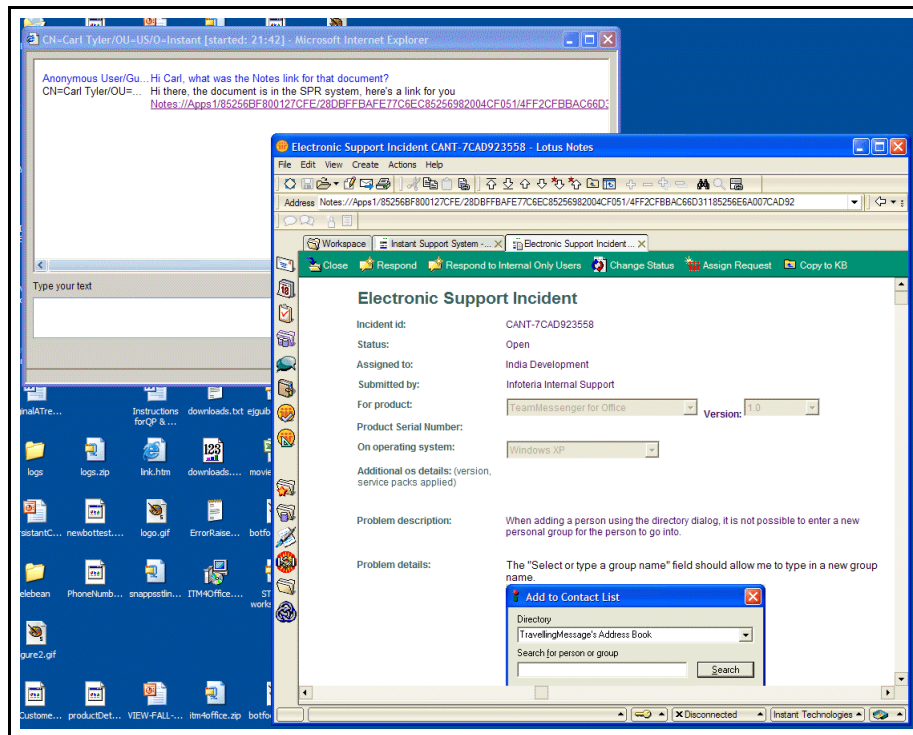


Figure 3

Now you'll wonder even more why Lotus hasn't implemented that feature!

Other resources

Obviously this article just skims the surface of what is possible with Sametime Links, there are a number of great resources that go into more detail, the first item would be the documentation and samples that come with the Sametime toolkits. Other resources that can help you with your Sametime Links customization are:

Sametime Links Tutorial - Written by yours truly:

<http://www.instant-tech.com/instant.nsf/root/stltutor.htm>

Lotus Instant Messaging/Web Conferencing (Sametime): Building Sametime-Enabled Applications:

<http://publib-b.boulder.ibm.com/Redbooks.nsf/RedbookAbstracts/sg247037.html>

Once you start playing with Sametime Links, you'll very quickly learn how valuable and powerful they can be within an organization.