

About Round-Trip Editing Library for Domino

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1. Introduction

Round-trip Editing Library for Domino is built by the Lotus development team as an unsupported feature to compliment Lotus Domino server. This feature enables developers to add the capability for users to launch an attachment from Domino using their native application, such as Microsoft Word, edit it in place, and save it.

It is intended to enhance the way attachments work in Domino. Instead of having to detach, edit locally, and re-attach, this executable allows user to work with documents seamlessly from within their Domino applications.

The library is currently implemented as a set of libraries on the Domino server as well as an executable that has to be installed at each individual's desktop/laptop.

The community might contribute a browser plug-in

2. Installing the Round-Trip Editing Library in the Domino Server

The ZIP file contains an update site. This update site needs to be deployed to your Domino server (8.5.2 or higher). Please refer to the Domino WIKI for instructions.

For example:

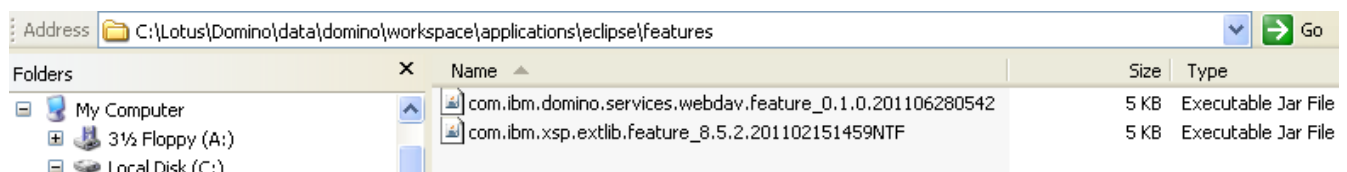


Illustration 1: Installation location for Domino plug-ins

Then restart your server, or the http task. A tell http restart doesn't work. You need to do a tell http quit and then load http. The library should be available.

3. Installing the Demonstration Application

STEP 1: Create <Domino_Data>\development and copy the 2 nsf files from thezip file. These files are:

- FileDemo.nsf
- webdavconfig.nsf

You can change the path, but then you need to adjust the in the configuration (not automatically yet)

****Notes:** be sure to modify the ACL for FileDemo.nsf so that Anonymous is set to “No Access.” If you keep anonymous access Windows XP will most likely not allow you to connect to the webDAV folder. This is a limitation in the broken webDAV implementation in Windows

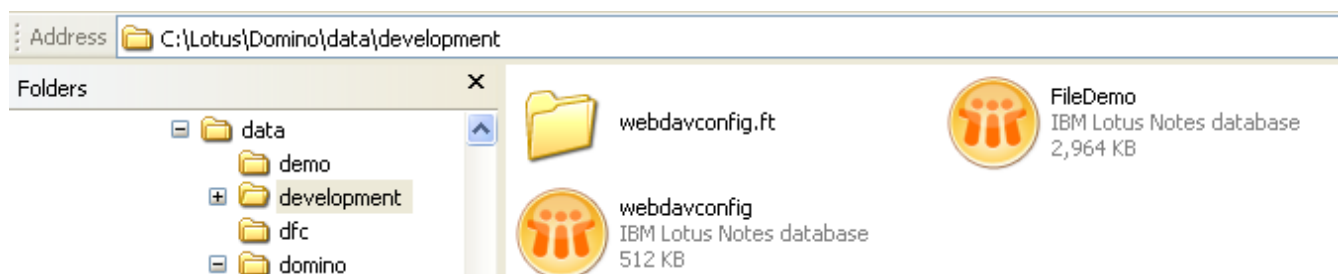


Illustration 2: Location for configuration and demo databases

STEP 2: If you don't already have one, create an Internet Site document in your server's Domino Directory database (names.nsf).

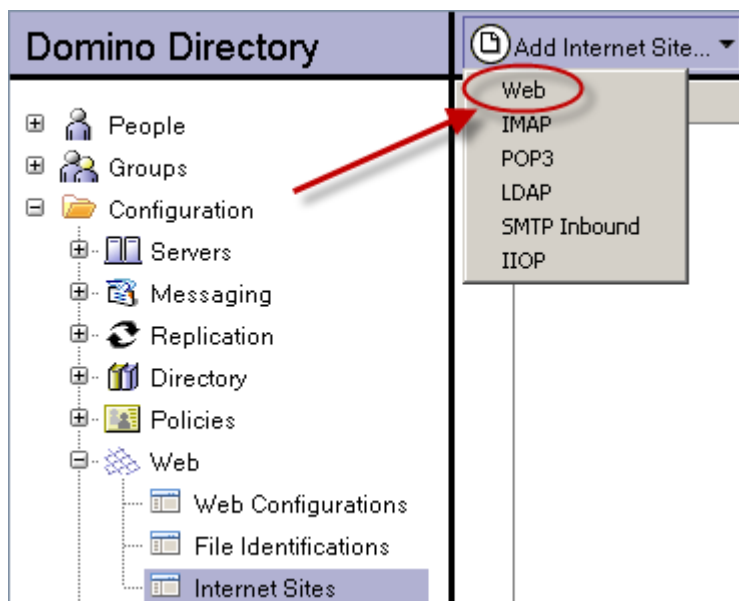


Illustration 3: Internet site configuration (available since R6.0)

Make sure all methods including webDAV are active. Also uncheck Anonymous login. Set authentication to basic. Alternative allow basic for /files

Allowed Methods		
Methods:		
<input checked="" type="checkbox"/> GET	<input checked="" type="checkbox"/> OPTIONS	<input checked="" type="checkbox"/> DELETE
<input checked="" type="checkbox"/> HEAD	<input checked="" type="checkbox"/> TRACE	
<input checked="" type="checkbox"/> POST	<input checked="" type="checkbox"/> PUT	
WebDAV:		
<input checked="" type="checkbox"/> ENABLED		

Illustration 4: HTTP method selection. webDAV needs to be switched on

STEP 3: Restart the (HTTP) server.

STEP 4: Make sure the documents in webdavconfig.nsf are configured correctly.

- default: make sure Root is set to [C:\temp](#) and that you have that directory in your server's hard drive
- domino: make sure Root is pointing to where you copied FileDemo.nsf. For example: [notes:///development/FileDemo.nsf/\(\\$All\)](#)
- if you create a sampled.b: make sure Root is pointing to where you copied it. For example: [notes:///development/test1.nsf/By Form](#)

Once you are comfortable with these settings later on you can modify them

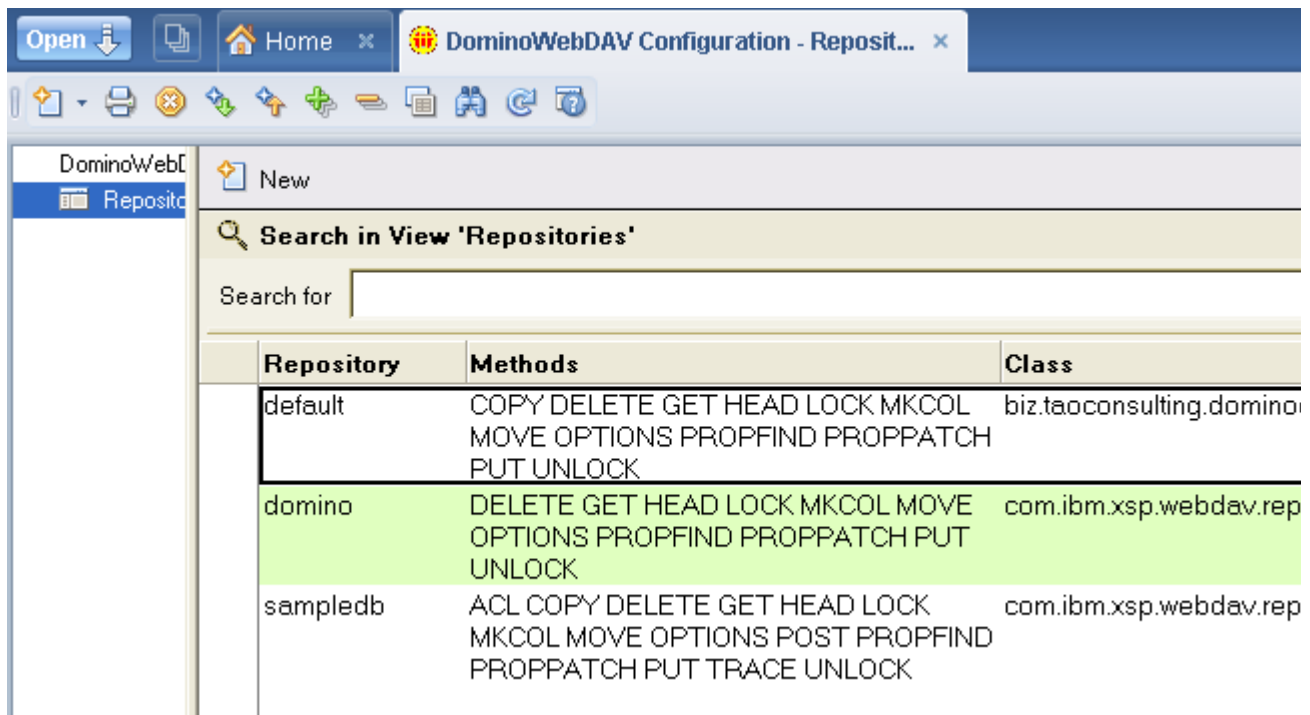


Illustration 5: List of repositories: files and attachmens are supported

4. Installing the Client Executable

The client executable (currently for 32Bit Windows only, but full source is available) does 2 things:

- defines a new protocol webdav:// and webdavs:// so round-trip editing can function (other operating systems like Linux, OS/X or mobile OS also allow the definition of protocols, so this approach is platform neutral)
- Adjusts settings in the Windows registry to allow basic authentication to be used with webDAV (default is only Digest and NTML)

STEP 1: Launch a browser and enter the following url: http://<domino_server>/webdav. You should see a page with 2 buttons. Click on the “Install the helper application” button in order to install the executable to your client machine. This executable must be installed at each desktop/laptop clients in order for the round-trip editing feature to work.

****Notes:** if you are a developer, and are curious about how this is built. You can click on the “Download the source” button in order to get the source code.

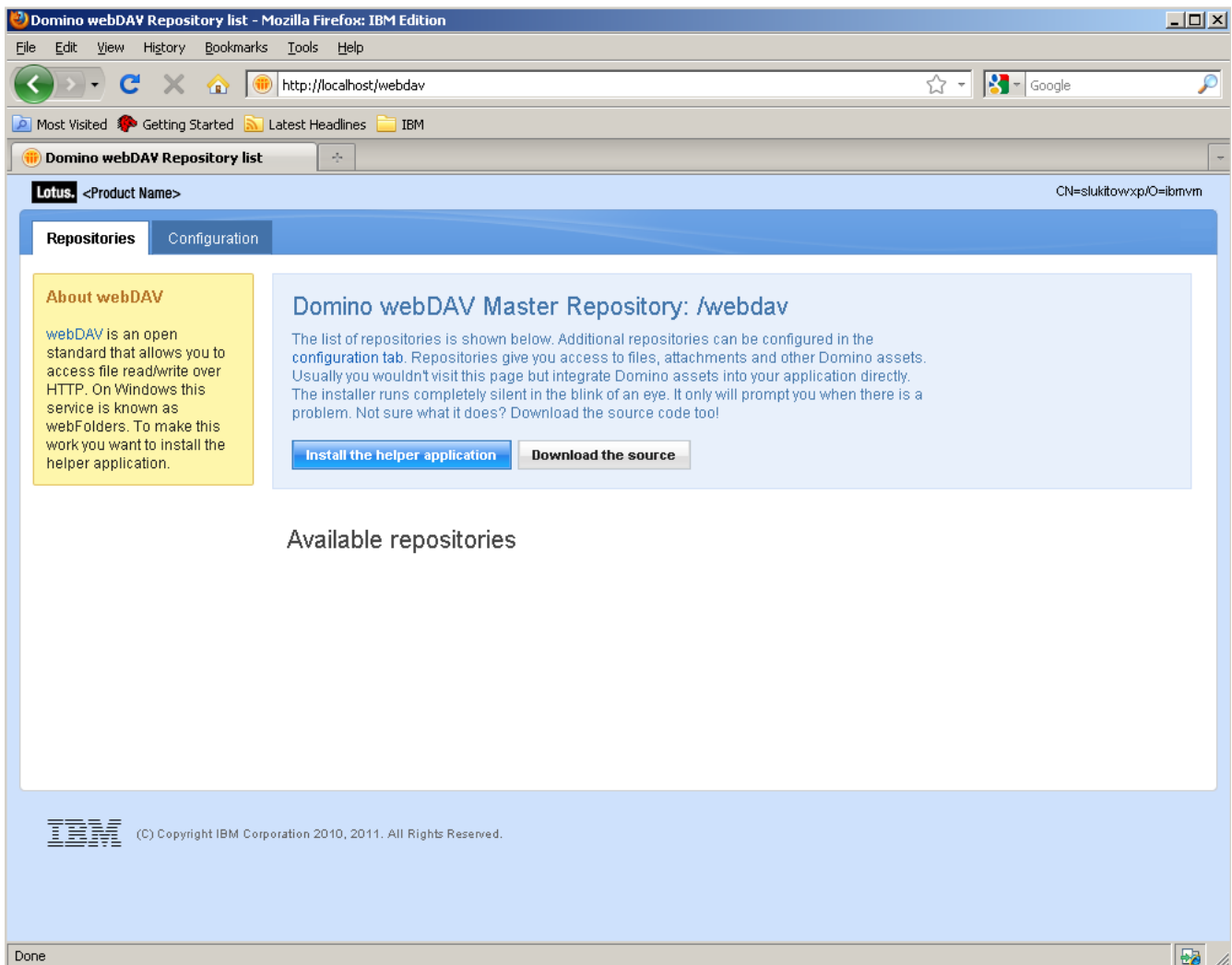


Illustration 6: The Helper application download page

Once you click on the install button, it will prompt you to save the file. Go ahead and save it, then run the WebDocOpenSetup.exe.

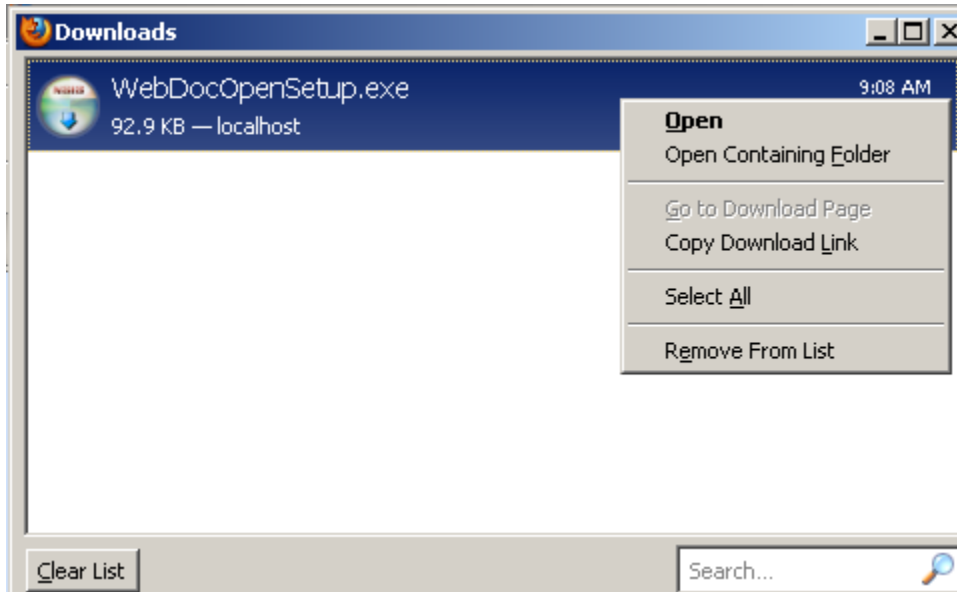


Illustration 7: Download dialog as seen in Firefox

It should only take a second to install, and you will not be notified upon completion. There is a version available that does not prompt on completion, which is suitable for silent client rollout.

You can try if the installation has succeeded by using Windows run menu and type:
webdav://something/test.doc

Microsoft Word should open and display an error message that it can't open the document test.doc from the server something. You also can try that with XLS, PPT or PDF.

5. Connecting to WebDAV server Using Web Folders

If the desktop/laptop client runs either Windows XP or Windows Vista, you will need to install the **Software Update for Web Folders (KB907306)** in order for round-trip editing to work. We have included Webfldrs-KB907306-ENU.exe in the download site (Lotus Greenhouse) for your convenience. Alternatively, you can download the patch from Microsoft's website.

STEP 1: Download and install the patch from the following url or from the extracted zip file if you have Windows XP or Windows Vista Operating System.

<http://www.microsoft.com/download/en/details.aspx?displaylang=en&id=15123>

STEP 2: Make sure you can connect to web folder. This step is to ensure that your desktop/laptop client can successfully connect to a WebDAV server.

To add your WebDAV Server to Network Places:

- On Windows 7 and Vista: In Windows Explorer right click on a Computer icon and select

Add Network Location menu.

- On Windows XP and Windows Server 2003: Open My Network Places in Windows Explorer. Click Add a Network Place.
- In the Internet or network address field specify the root of your WebDAV Server. Even if you are connecting to a default port 80 specify port in the
- address string: http://<domino_server>:80/storage/
- You need to make sure that you use the “add network place” wizard. Simply type the http address in the server URL dialog in the first network screen will not work.

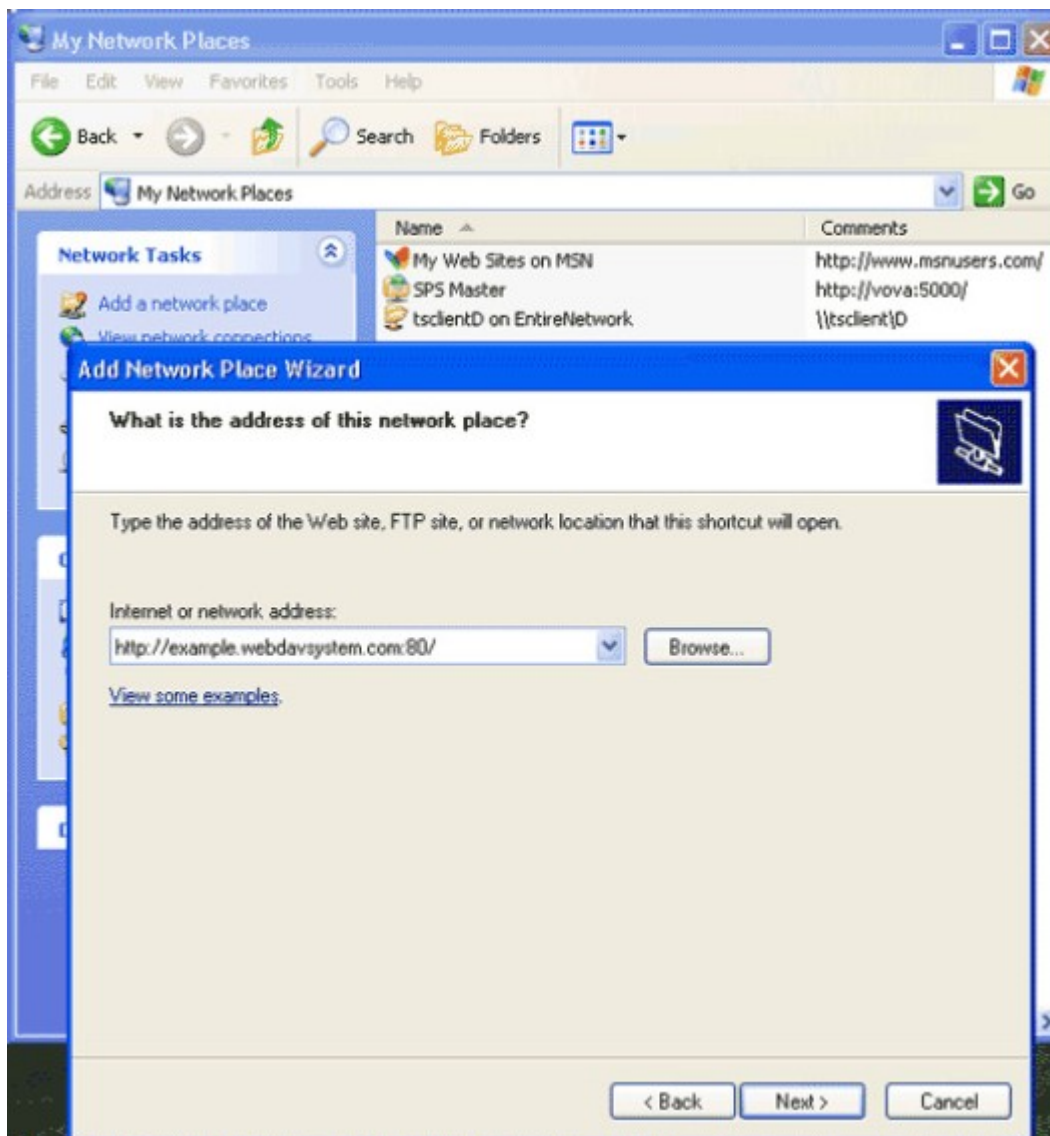


Illustration 8: Web folder dialog in Windows XP

6. Running the Test Application

Finally, you are ready to run the test application. Open test1.nsf in a browser using a url similar to this:

http://<domino_server>/development/test1.nsf/By+Form?OpenView and open a document named "test1"

For example:

<http://localhost/development/test1.nsf/By+Form?OpenView>

Click on one of the attachments, make changes, and save it. Open it back up by clicking on it again and notice that your changes have been successfully saved.

****Note:** make sure that you click on the bulleted list of the documents, not the icon. In a production application using the appropriate @Formula will hide the icons. Of course you are free in the design to provide icons in the bullet list instead of the boring squares.

7. About the Test Application

The test application demonstrates the round-trip editing feature by creating webdav links to the attachments. Please see the <Computed Value> in test1 form. When you open the form and examine the computed value, you will see a formula similar to this:

```
@If(@AttachmentNames = "";@Return(""); "");
prefix := "webdav://localhost/webdav/sampled/"; REM {Needs to match configuration, so no
hardcoding in production! Use a profile};
start := "[<ul class=\"attachmentlinks\">";
end := "</ul>]";
files := @AttachmentNames;
extensions := @RightBack(files; "."); "REM check if it give you doc from test.doc and xls from
sheet.xls";
start +
@Implode("<li><a class=\""+extensions+"\" href=\""+prefix+@Text(@DocumentUniqueID)
+\"/\"+files+"\">"+files+"</a></li>";@NewLine)
+end
```

You can use this formula as an example for your custom applications. What it does is constructing an URL to the document but not using the usual http:// protocol. It uses webdav:// This is necessary since Windows gives the protocol priority over the file type and would always try to open a http:// URL inside the browser rather than it the native application (e.g. MS Excel). By using the webdav:// protocol (you actually could invent your own protocol if you wanted e.g. usnavy:// - you then would need to adjust the client executable) processing of the URL is handed over to whatever knows how to handle webdav://

In our case the client executable installation defined inside the Windows registry that the client helper is to be called for webdav:// urls. The helper then checks based on the file type what is the native application and calls this application and hands over the adjusted URL (now again http:// in the front). When Office applications are started with a file name on the command line, they will open that file. If the path to the file name starts with http(s):// Office will probe if the server supports webDAV (what we do) and then automatically save changes back to the server.

Since the server part of the application is independent from the client processing other ways than the client executable could be implemented by customers. This is the beauty of using open standard protocols.

8. Alternate access

Besides navigating to a document in the browser to edit it, a user also can use the web folder access to get to a document. (S)he can edit any document that allows Author access or better for that users in the containing Notes document, so the security of the Domino server is in full effect here.

The current implementation assigns a folder name to a location of a view and shows all document as folder with their UNID. Inside that folders are the attachments. This doesn't look very user friendly if you plan to take advantage of the alternate access. To make that nicer you can implement an additional repository class and add it to the configuration. So any specific need can be implemented by the customer or a consultant.

9. Disclaimer

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