

Importing and exporting user files

Overview

We provide two scripts to facilitate the uploading and downloading of files for a tool. This allows users to upload their own input file to the tool via the web interface. The export script allows a user to download a tool simulation result directly from the tool via the web interface without accessing their home directory separately.

Both scripts are included in the filexfer application. filexfer can be used as a secondary application with standard tools as a means for users to transfer files between their computer and tool sessions. Rappture tools do not need the secondary application as file transfer methods are already included in the UI.

Import File

Overview

"importfile" is the command line tool that, when run, opens a pop-up window prompting the user to browse and select file(s) from their computer to be uploaded. If a filename is provided for the imported file the pop-up window can alternatively be used to paste text from the user clipboard. This is most useful in workspace tools which do not allow text to be directly pasted to terminals or other applications.

You can use this command to transfer one or more files from your desktop to your tool session via a web browser. This command causes a web page to pop up prompting you for various files on your desktop. Choose one or more files and submit the form. The selected files will be uploaded to your tool session and saved with the file names specified on the command line.

You must have popups enabled for this to work properly.

Implementation

This script should be implemented as a background process in a non-rapture tool. Typically a pipe is used to run this script off the main process of the tool. The piped process should be monitored by the tool code for a response upon completion of the user's file upload. The script will continue to wait for a file to be uploaded indefinitely. Please code appropriately for this.

Help text

```
USAGE: /usr/bin/importfile [-f|--for text] [-l|--label text] file file
...
```

options:

-h or --help

Prints this help message.

-f or --for <text>

Short explanation of what the data will be used for; for example, "for CNTBands 2.0". If given, this text is inserted into the upload form to help explain what it will be used for.

-l or --label <text>

Prompt for subsequent file arguments using this label string. The default label just uses the file name.

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`-m` or `--mode` `acsii|binary|auto`

In "binary" mode, files are transferred exactly as-is. In "ascii" mode, control-M characters are removed, which helps when loading Windows files into the Linux environment. The default is "auto", which removes control-M from text files but leaves binary files intact.

`-p` or `--provenance`

Print more verbose results showing the provenance information for all files uploaded. Instead of a series of space-separated file names, this produces one line for each file showing the final file name and where it came from, which is either the file name on the user's desktop or @CLIPBOARD meaning that the user pasted information into the text entry area. For example:

```
foo.tgz <= gui15.tar.gz
bar.txt <= @CLIPBOARD
```

--

Remaining arguments are treated as file names, even if they start with a -.

`file`

Uploaded file will be saved in this file name within your tool session. If file is @@ then the file is given the same name it had before it was uploaded. If no file arguments are included, the default is "@@", meaning upload a single file and use the name it had on the desktop.

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This command returns a list of names for files actually uploaded.

Export File

Overview

You can use this command to transfer one or more files from your tool session to your desktop via a web browser. A separate web browser page is opened for each file. **You must have popups enabled for this to work properly.**

Implementation

This script can be implemented as a background process in a non-rapture tool. This allow the user to continue to use the tool while the file downloads to their machine in the background. Typically a pipe is used to run this script off the main process of the tool.

Help text

```
USAGE: /usr/bin/exportfile [-t|--timeout secs] [-d|--delete] [-m|--message file] [-f|--format raw|html] file file...
```

options:

-h or --help

Prints this help message.

-t or --timeout <seconds>

Forget about the file after this timeout. Default is 86,400 seconds (1 day).

-d or --delete

Delete the file after the timeout or when the tool is shut down. Should be used only with temporary files.

-m or --message

File containing a fragment of HTML text that will be displayed above the download. It might say "Here is your data," or "If you use this data, please cite this source."

-f or --format <type>

Choices are "raw" and "html". Default is "raw". The "html" format causes the server to rewrite links embedded within the HTML, so that images can be displayed and links can be

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traversed properly.

--

Remaining arguments are treated as file names, even if they start with a -.

You can use this command to transfer one or more files from your tool session to your desktop via a web browser. A separate web browser page is opened for each file. You must have popups enabled for this to work properly.