About ResCompare…

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        ResCompare ● Version 2.4.5 ● by Michael Hecht
        A resource comparison utility

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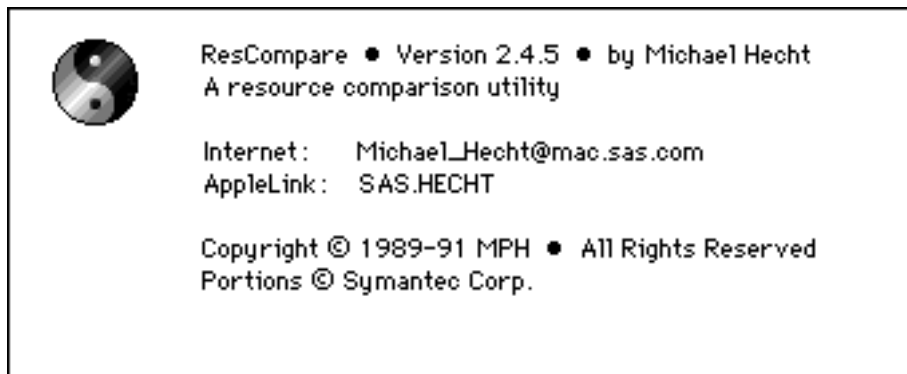
What is it?

ResCompare is a programmer's utility that compares resource files. Use it to

- find out what resources you changed while working at home late last night,
- find out what resources Bob and Jill changed in the project you're all working on while you were on vacation,
- see what resources have changed between versions 1.0 and 1.0.1 of your favorite application,
- create a Patch application that will apply changes to applications and other files, which you can use to distribute upgrades of your software without sending a new copy of the entire application,
- or just get a quick list of the resources in any file.

Legal Stuff

This software is freeware, all rights reserved, specific permissions granted. You may copy and distribute it freely, so long as you don't make any money off of it. Please be sure to distribute the ResCompare application and this document together, since I hate getting PD software without any instructions.

I should also mention that you should use this program with care. If you don't understand what a resource is for, learn first, then use this program. As with ResEdit, you can do **irreparable damage** to a resource file by updating resources that shouldn't be updated. This software is a powerful tool; use it with caution. This software comes with no warranty and I am not liable if you damage your resource file with it. Although I have tested the software on several configurations and believe it to be bug–free (or at least bug–light), you, the user, are responsible for any crashes or equipment failure resulting directly or indirectly from its use.

How do I use it?

ResCompare is easy to use. Just start it up and choose **Open…** from the **File** menu. Pick a resource file to look at and ResCompare gives you a list of all the resources within that file. This list is pretty handy because it's sorted by resource type and ID, and it also con

tains the name and size of each resource. You can print out the entire list, or you can select some resources and copy the formatted list of information to the clipboard.

But the real fun starts when you choose the **Compare with…** command (⌘K) from the **File** menu. This command lets you open a second resource file, and it compares each resource in the first file (the *master* file) with the resource having the same type and ID in the second file (the *update* file). The resources that are identical are thrown out of the list (it doesn't alter the files). All resources that were deleted from the master file are shown in red, with the "deleted" icon (⬱) on the left margin. Any resources that were added to the update file are shown in green, and get the "added" icon (→). Any resources whose contents, attributes or names have changed get the "changed" icon (⇌), and are shown in blue. Here's what a window looks like after comparing two resource files:

```
┌─────────────────────────────────────┐
│ ▣ ▤▤▤▤▤▤▤ Old file ▤▤▤▤▤▤▤ ▣ │
│        Master:  Old file, version 1.0, on Studly │
│  ✗     Update:  New file, version 1.0.2b3, on Studly │
│                                      │
│        Type      ID   Name      Size  │
│  ├───────────────────────────────────┤
│  ←     LDEF      128  Deleted    6/...  ⬆ │
│  →     STR#    31062  Added     .../21    │
│  ⇌     vers        1  Changed   31/39  ⬇ │
│  ├───────────────────────────────────┤
│  │                                  ⬒ │
└─────────────────────────────────────┘
```

Notice that at the top of the window, the names of the master and update files are shown, along with their version numbers and the names of the volumes they reside on. In the Size column, you can see the "before/after" sizes of each resource. The little "no–write" icon (⬚) is next to the update file to remind you that it cannot be changed. However, the master file doesn't have a no–write icon. You can change its resources using the **Update** command in the **Change** menu.

If you select one or more resources in the list and choose **Update** (⌘K), then the update is applied to the selected resources. What does that mean? It means that if a resource was added to the update file, it gets added to the master file. A resource that was deleted gets deleted from the master file. A changed resource is copied from the update file to the master file, along with its attributes and resource name. In other words, the selected resources are changed in the master file so that they are identical to the update file. If you click the no–write icon, ResCompare swaps the master and update files. This is useful if you want to get some changed resources into your master file, and also put some resources you've changed into the update file.

You can also use the **Font** and **Size** menus in the usual manner to adjust the font used. You should probably switch to Helvetica before printing to a LaserWriter.

Make Patch…
ResCompare can be used to create a self–applying patch application. You can use the patch to distribute upgrades of your software without sending a new copy of the entire application. Patches are typically 40% of the original file, so you can save disk space and network upload/download time by sending the patch instead of the entire application. Also, the patch is only useful to users who have the original version, so you can distribute patches to your commercial software over public bulletin boards.

How to use it

Patches are easy to apply. Just open a self–applying patch and it prompts you for the application to patch. A bar graph displays the progress. When done, it tells you if it was successful. It's that simple—a real no–brainer.

Creating Self–Applying Patches

Self–applying patches are created with ResCompare's **Make Patch…** command. Select the resources that you want included in the patch and choose **Make Patch…** You will be prompted for the name and location of your patch. A second dialog lets you choose the prompt that the patch will use when asking for the original application. By default, the prompt will be "Where is '*original application*'?", where *original application* is the name of your master file. When you click **OK**, ResCompare finds the differences between changed resources and saves them in the self–applying patch.

One Patch for Many Versions

If you have released several versions of your application, you can create a patch that will work with all released versions. I'll go through an example that describes the process. Let's say you have three released versions of your application named Sample: version 1.0, version 1.0.1 and version 1.2. You want to release version 1.3 as a self–applying patch that will upgrade all existing versions.

•   Create the patch "Sample 1.3 patch," as described above, that patches version 1.0 to 1.0.1.

•   Using ResCompare, compare version 1.0.1 to version 1.2. Select the changed resources and choose **Make Patch…** When prompted to save the patch, don't click **OK**. Instead, click the **Append** button and select "Sample 1.3 patch," which you created in step 1.

•   Repeat step 2 for the changes from version 1.2 to 1.3. You now have a self–applying patch that can upgrade versions 1.0, 1.0.1 and 1.2 of Sample.

An easy way to do this incrementally is:

•   Create the first patch for the first upgrade.

•   When the time comes to release the second upgrade, duplicate the patch for the first upgrade, rename it, and append the new patch information to it.

•   For each subsequent upgrade, always duplicate and rename the last patch you created, and append your changes to it.`

Adding Notes to the Patch

Open the patch with ResEdit and edit TEXT/styl resource 128. This resource contains the patch notes that are displayed when the patch is first opened. You can add your own notes here if you like.

Limitations

Always patch a copy of your application, not the original. Never patch your master disks.

Self–applying patches work on applications the same way that some viruses do (by modifying

their CODE resources). Because of this, some virus detectors may get upset when a patch starts doing its thing. Your best bet is to turn off virus protectors and restart before patching. Because of this limitation, **please remember to check your floppies for viruses** before sending them out with a patch.

The self–applying patch requires some free space on the volume, and it makes every possible attempt to apply the patch within the space provided. However, I have had some reports of problems patching applications that are on a nearly full floppy. I therefore suggest copying the application to your hard disk before patching.

To contact me…

I hope you enjoy ResCompare. If you like it and find it useful, let me hear from you. If you have any suggestions for improvements, questions or bug reports, you can get in touch with me electronically via:

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Cheers!
— Michael Hecht