ZCHECK Application

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The purpose of this application is to log file changes in the Z88 RAM filing system. The application will tell you which files are new, which have changed, and which have been deleted since you last used ZCHECK

It is invoked using SQUARE W (W for What has changed!). The display consists of two windows.

The left hand window shows the files being checked. This reflects the current state of the machine and is in fact a catalogue of all files on all devices. The right hand window shows the progress of the program. When it is finished there is a short delay and the application returns to the INDEX.

USING ZCHECK

Press square W and the program will start by listing all of the files and calculating a checksum for each of them. For large files this may take a few seconds.

If you have not run the program before then it will beep and tell you there is no "check file" to compare its results. It will then create the file ZCHECK.DAT on the default device.

If the program has been run before then it will compare the current information against the previous records and display the differences. This display will be in the left window unless the file ZCHECK.LOG casts in which case the results will be stored there ZCHECK.LOG can be loaded into Pipedream as plain text or viewed using one of the view file options available if you have the RangerWORLD ROM.

The display typically shows the following:-

NEW FILE :RAM.1/Letter.txt (this file did not exist before)
CHANGED FILE> -:RAM.0/phone.dir (this file been changed)
DELETED FILE> -:RAM.0/basic/test (this file has been deleted).

These are just examples.

The files that are new or changed are displayed first, followed by those that have been deleted. The display of deleted files is not as fast because the check file has to be checked for every file name. The display will always show ZCHECK.DAT as a changed file and is an indication that the program has been run.

Other files may have changed because you have updated the file or there has been a previous system crash which has corrupted the file. Often this can go un-noticed until you try to load a program and get tad Program" message. By that time you may have saved the file elsewhere, not realising it was corrupted! ZCHECK can be used to tell you which files need backing up at the end of each day. The best way to do this is to create a blank ZCHECK.LOG file using Pipedream or BASIC. ZCHECK will then delete it and create a new one which it will write its report to. The application can then be called from an ALARM EXECUTE at the end of the day. You can then examine ZCHECK.LOG to see what you need to back up.

I have a program which looks at this file and does an auto-backup to EPROM. I will be writing one for Rangerdisk soon and perhaps Rangerlink.

How it works!

A catalogue of all devices is generated using wildcard :RAM.*//*. As each filename is listed it is opened and a checksum is calculated. The filename and the checksum of each file is written to a file called ZCHECK.TMP.

When this has been done then ZCHECK.TMP is compared with ZCHECK.DAT to see what is different. If it finds a file called ZCHECK.LOG then it will write ifs results to the file. Otherwise it displays them on the screen.

Finally ZCHECK.DAT is deleted and ZCHECK.TMP is renamed to ZCHECK.DAT. A short delay is introduced and the application KILLs itself.

If ZCHECK.DAT does not exist then it cannot do any checks so it simply renames ZCHECK.TMP ready for the next time.

If you have any suggestions for improvements to the program, please let me know.