RetConvert

COLLABORATORS			
	TITLE : RetConvert		
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Chapter 1

RetConvert

1.1 RetConvert Version 3.0 documentation

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                    Welcome to RetConvert Version 3.0


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Note: If you would like to print this entire document out, I can recommend
a program called AG2Txt by Jason R. Hulance which does a great job of
converting AmigaGuide documents to text files. It is found in the
text/hyper (!?) directory of Aminet.

                 Written by Andrew Elia (December 1996)
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1.2 Contents

This archive should contain the following files:

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RetConvert               - The main program
RetConvert.Guide         - well what do you think this is ?
RetConvert.Guide.info    - with an icon
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If for any reason it doesn't, this program can be downloaded from the Aminet (or obtained from an Aminet CD) in the text/misc directory as RetConvert.lha

1.3 Some things had to change

Admittedly, not a great deal!

A "FORCE" keyword has now been added. This basically bypasses the standard method of file type identification and lets you specify a type instead. This can be used if you feel that either RetConvert hasn't identified your file correctly (which is phenomenally remote), or if you have a merged collection of text files of multiple types in one file. I got the idea for this on one occasion when I had merged several Aminet index files together and was searching through them (with a special GREP tool that I wrote -much faster than the usual one). I found that as I had downloaded the index files via Fetch on the Macs at University, it had converted the return codes to CR format. The other files were in LF format. The problem was that one file now contained BOTH types of return code. The FORCE keyword allowed me to convert the whole file into LF format, because otherwise the file was identified as LF anyway. So there you go, it CAN be useful!

Mika Lundell of Finland kindly informed me of some Enforcer hits that RetConvert V2.0 caused. For all the programming types out there (the rest can switch off your monitors for a bit!), the hit was caused by a string comparison with the first argument of the command line, which of course would not exist if nothing was entered. Therefore, the program still hit the first four addresses in memory from zero. As the data was never stored anywhere, it would not have influenced the operation of the rest of the program. This has now been fixed with the aid of CYBERGUARD -the 060 version of Enforcer.

A small (rather irrelavent) bug I came across one day when performing a batch operation (using the Workbench SPAT script) on a collection of files was that RetConvert will complain that it does not have enough memory if you decide to specify a directory instead of a file. Silly, really. Again, this could not have crashed your system.

1.4 What's this RetConvert thingy then, guv ?

This program is a CLI command designed to give you an easy way of converting the return code types of ASCII files. ASCII is a standard, for goodness sake, so this program shouldn't really exist at all. If

that were true of course, IFF ILBM would be a standard cross-platform picture format, everyone would have an Amiga, and Microsoft and Intel would be out of business (well I can dream can't I ?). Unfortunately for standardisation, RetConvert does exist (and so does the PeeCee)!

Basically, there are three types of return codes. They are as follows:

LF (Line Feed) only - This is used by the Amiga, and by UNIX, so why bother with anything else ? Oh, well...

CR (Carriage Return) only - This is only used by the Apple Mac. Well, at least it's got a good old Motorola processor inside it (despite the agony it must put it through).

CRLF (Carriage Return with Line Feed) - Typically inefficient PC ASCII format. Naturally, where proper computers only need one code to signify the end of a line, the PC uses two. Lamers!

RetConvert works by loading the whole input file into memory (obviously you need to have enough memory to accomodate the WHOLE file). It then attempts to ascertain the file format. If all that succeeds, it will begin writing out a destination file (or overwriting the original, depending on what you choose). It's as simple as that!

Of course, you're probably wondering why you could possibly wish to lower yourself to using PC and Mac ASCII files, when the Amiga does it several times better. Simply put, some 'miggy owners may have little choice, and so when saving their work or E-Mail on the school PC/Mac and taking it home for use with CrossDOS (with Mac, you'd convert it to an M$-DOS disc first or use CrossMAC, if you've got an appropriate drive). They find that they have to go through the file and edit out all of the strange bits, which is rather time consuming. The process also works the other way round, if you wish to take some Amiga stuff in for printing. It is also a good reason to shoot those nerds who insist that they DO need a PeeCee or Mac for "work reasons".

1.5 Using RetConvert

To use RetConvert, simply type RetConvert, followed by either a question mark (?), or HELP, or without any parameters. You should then see...

RetConvert <Input File> [Output File] [FORCE <LF|CRLF|CR>] <LF|CRLF|CR>

...together with the alternative form which is...

RetConvert <Input File> ID

The <Input File> bit is mandatory (as if you didn't know -if you didn't, throw away your PC, and try again!). [Output File] is optional. If you don't specify one, the source file will be overwritten, so BE CAREFUL! In the first format, the return type is either LF, CRLF, or CR (case insensitive) to indicate what format you want the ouput to be in. Note that you can use LFCR as a synonym for CRLF, both produce the same results (as Carriage Return is placed

BEFORE Line Feed). There is no reason why you would wish to place Line Feed first (if you can prove otherwise, let me know!). The second format will perform identification only, so no files will be written or altered. This obviously gives you a chance to ascertain where a file came from (and can be used with the CLI script "SPAT" to do lists of files).

Some PC ASCII formats (in typical PC style, nothing is certain -other than the fact that PC owners insist that Windoze 95 multitasks pre-emptively) contain a little character at the very end of the file as a sort of End-Of-File signal. Fair enough, but although it's usually a Line Feed, I've seen it as other things. Retconvert will check the last byte of the file (if it is in CRLF format), and will alter it if it is found to be an unprintable character (ie. and ASCII code of less than 32). This appears to cover the dodgy situations.

The new addition in this version is the "FORCE" keyword. You probably won't use it that ofte (if at all), but it can be useful in cases where you either need to deal with a file containing many return code types, or you believe that RetConvert may have identified the file incorrectly (which has never happened to me for the whole time I've been using or developing it). To override the identification process, simply specify the word FORCE (admittedly, you can use any word for "FORCE" here because of a quirk in the way I coded that particular part of RetConvert) followed by the return code type you want RetConvert to recognise the file as. This is specified in the usual format (as detailed above) ie. LF, CR, or CRLF.

In actual fact, the "FORCE" keyword can be used in cheeky ways to do strange things to text. For example, if you had an LF formatted file, and you converted it to CRLF. Running RetConvert on it again, but forcing it to identify the file as CR, and setting RetConvert to convert it into LF format, you could add double line spacing. Primitive, and completely the wrong reason I added the FORCE feature in the first place, but someone might find it useful!

1.6 If all else fails

There are very few error messages generated by the program. They are mainly pretty self-explanitory, but I'll explain them anyway. Here goes...

Required argument missing - You've specified too few input parameters. The minimum is two (Input File, Return Type (or just ID)).

Wrong number of arguments - You've specified too many input parameters. There are a maximum of six when converting (Input File, Output File, and Return Type), and two when identifying (Input File and ID).

Invalid return code type - You've made some kind of typo in the Return Type field. Acceptable types are LF, CRLF (or LFCR), and CR (case insensitive).

Unable to identify input file: No return codes found - You have given the program a file to convert which contains no return codes at all.

Note that this program should only be used with ASCII files, so if you
have put a Deluxe Paint picture through it, you may well get this
error.

No conversion necessary: File is already set to specified return codes
-If RetConvert identifies the format of the input file as being the
same as the type you wish to convert it to, there's no point in doing
the conversion. It's as simple as that.

Unable to lock input file - This usually means that the input file
does not exist, but it could also mean that a file is read-protected
or something.

Unable to read whole file - This means that AmigaDOS was unable to
read the entire file into memory. This could be due to disc corruption
causing a read/write error on the file.

Unable to access file length information - RetConvert will try to
ascertain the length of the file in order to allocate enough memory to
load the whole file (primarily for speed. If the Operating System
won't allow RetConvert to find the length of the file. This error
seems highly unlikely to occur, but anything is possible, I suppose.

Insufficient memory to load source file - To cut a long story short,
you haven't got enough memory to load the whole file into memory. I'm
afraid that this will mean shutting down those greedy applications,
nicking bitplanes from Workbench (Ouch! Naughty!), and switching off
those external disc drives. If this doesn't fix the problem, reset
your machine (to defragment the memory) and try again. The expensive
alternative is to nip down to the shops and buy a RAM expansion (or
get some virtual memory, if you've got an appropriately-equipped
processor).

Object is not of required type - In short, you've specified a directory
or disc name instead of a file.

Unable to write output file - This can be caused by lack of disc space
on the destination disc, or if you are overwriting a file which is
protected from writing/deletion (including a write-protected disc).

Unable to write whole file - This means that AmigaDOS was unable to
write the entire file to disc. This could be due to disc corruption
causing a read/write error on the file.

1.7 Distribution

To cut a long story short, RetConvert V3.0 is FREEWARE.

If you feel particularly enthused by this program (excessive amounts
will require medical attention, though), then why not show your
appreciation by making sure that I and other Amiga developers are able
to develop successfully on the Amiga for years to come. Am I talking
Shareware fees ? No way! This time, I'm talking about developers.

We can't deny that we don't have many people who are smart enough to

develop for the Amiga. Therefore, why not make sure that you show these people how much their efforts mean to you. How ? BUY THEIR PRODUCTS! Yes, that's right, go out and buy Worms, Photogenics, Art Effect anything! Get a Blizzard or a TekMagic, get something!

The people that make these products are TRUE Computer Scientists, TRUE Amigans. They put a tremendous amount of effort into making the Amiga community as friendly as it is by providing quality products and quality service to you. They're not in it for financial gain, but because they believe in the Amiga and they believe in you. Yes, YOU. Take the programmers at the SAS Institute. SAS dropped development of SAS/C (the very same package used to develop RetConvert) ages ago, but sure enough their programmers (the only people who are able to support it because they are still employed by SAS) work damn hard to keep the product up to date. Do they get paid for this work ? No they don't! Bear this in mind. SAS/C 6.57 now supports 68060 code generation. Ironic that for a package that hasn't been developed for so long, it still manages to keep up with developments!

1.8 Lecture time

Well, here we are again. VISCorp ? Eagle ? QuickPak ? We'll just have to wait and see. Personally, I'm quite confident that things will work out EVENTUALLY!

In my opinion as a Computer Scientist, I see no other computer that deserves the title of a computer in the market at the moment. Sure, people are raving about the BeBox, but I'll confess to knowing very little about it, and the fact that you can't walk into your local branch of Dixons and pick one up (albeit with a 5 year warranty thrown in) doesn't seem like good news. The PeeCee is the worst offender in terms of both hardware and software design. Isn't it laughable that even when IBM rushed out the first models, the engineers who designed it said that it sucked and wouldn't last longer than two years ? Why does the market have to put up with it now ?

Would this ever happen in the car industry ? If you were offered a flashy-looking car that still needed double declutching, and hand signals instead of indicators, would you buy it ?

The public need a choice, and I see no other machine which has had so much care go into it's development, and into making it an open architecture. If we never see the Amiga emerge, then Computer Scientists everywhere must hold their heads in shame that they allowed such a technology to pass unnoticed while they were still bashing away at their DOS prompts.

One way or another, the Amiga will survive. Whether the computer industry gets it's finger out of it's butt and realises how Micro$oft and Intel are screwing it up remains to be seen.

1.9 And finally...

The future of RetConvert ? You tell me. I'm always open to suggestions for improvements to RetConvert. So should you have a brilliant idea for something I can add to the next version, don't keep it to yourself -drop me a line! If you are a programmer yourself, you can send me source code in just about any major language (C/C++, 68000 Assembly language, (AMOS) Basic etc. If you're not using one of these, make sure your code is well-documented). Also, if you find any bugs, please make a note of what happened, how it happened, and your machine set up.

In actual fact, something that I don't like about the way I've coded the program is the way that command line arguments are dealt with. It's pretty badly-implemented at the moment (although it's by no means unstable). I have also given some thought to the way I present the commands. I was thinking about using the traditional /K and /S style command template, but as I can never make head or tail of them myself, I thought against it. I also wanted to retain some form of compatibility in terms of the order in which parameters are presented. It would be more flexible if I recoded that part of the program. It's nothing tricky.

RetConvert was developed entirely on my Eagle A4000TE/060 using SAS/C V6.57. I considered giving away the source code, but I won't in case anyone produces a PC version from it (which I completely forbid).

If you feel the urge to contact me, my E-Mail address is: odin@dcs.qmw.ac.uk, but if you have any difficulty sending any messages to that address, try: AC4040@qmw.ac.uk. For any non-netsurfers, I can be snail-mailed at 178 Carterhatch Road, Enfield, Middlesex, EN3 5LY, England.

One more thing: Apologies if this version has arrived a tad late. Version 3.0 has been in the pipeline since about the beginning of August (which was when Mika Lundell reported the Enforcer hits). At the time, I was still waiting for my new machine to arrive so that I could see where the hits were coming from. Unfortunately, there was a major (ie. 3 month) delay in me getting it for various reasons, and by that time the summer holidays were over! I then had tonnes of stuff to do, but have now (with the exception of my final year project -see http://www.dcs.qmw.ac.uk/~odin/Xilinx.html for further details) finished for this semester. I hope I didn't give people the idea that I'd taken the giant retrograde leap or anything!

See you in the next version of RetConvert!