dR0

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COLLABORATORS			
	TITLE : dR0		
ACTION	*NAME*	*DATE*	*SIGNATURE*
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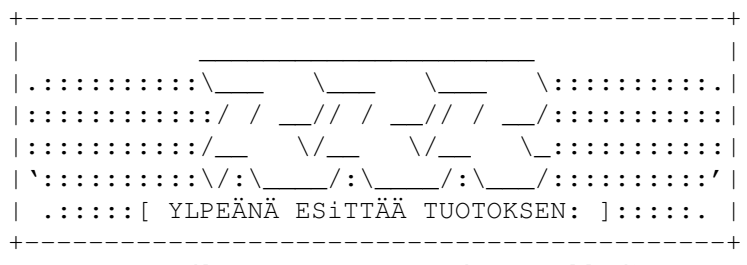
REVISION HISTORY			
NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

dR0

1.1 Droppings! Another RRR-Production! (Mar 20, 1995)



(Proudly present a product called)

dR.zERo's~zero-packer

These horrors will follow you to a penthouse... and beyond!

1.2 Packers parade

After producing many unreleased version of their fast
and compact packer, RRR's Utility Division has managed
to finish it - and release it to the packer-hungy public.

«« Hallusinogendisorted dr.zeros's packer »
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Winners don't use drugs.

1.3 Introdamus

What is dr.zero's zero packer? It is a packer that uses
RRR's inhouse packing algorhytms. They may not be very
efficent, but they sure thing are fast. This baby packs
just zeros, but does it really good. RRR's Utility
Division has also included the assembler sources of
the packing and unpacking routines. If you use them
in your own program, then you must credits us.

The idea in packing zeroes is simple; lets take an
example where you would like to clear a screen and
draw a little icon somewhere on it. With zero-unpacker (tm)
you don't have to do the clearing and the plotting. Just unpack
the whole picture (which has apparently many zeroes)
to the bitmap and your icon is right there where it should be.

We think it is brilliant.

And because the whole program is programmed in assembler
it is fast and small in size. The Utility Division used
library routines when possible and made the program
100% system friendly. You may think that is not 100%
system friendly, but take a look at the code yourself.

Jolly well done.

1.4 Requirements

Requirements: An Amiga computer. =)

1.5 Usage

Usage: dR0 [filename] [enter]

That means that the packer has no options. It is very
easy to use. You pack and unpack a file same way;
Just feed file's name to the packer and it takes care of
the rest. The packet or unpacket =) is written into the
same directory where the other one lies.

The packer informs you in english when an error occurs.

1.6 Benchmarks

Here are some results

«« Procedure - Packing »»

Packer	Non 0 chrs	Elapsed time	Org. size	Packed size
dR0	0	~1s	100k	14b
Lha	0	~3s	100k	88b
Lzx	0	>1s	100k	428b
dR0	0	<3s	400k	14b
Lha	0	~6s	400k	238b
Lzx	0	~3s	400k	1472b
dR0	5	>1s	200k	44b
Lha	5	~4s	200k	260b
Lzx	5	~2s	200k	796b
dR0	100	<3s	300k	609b
Lha	100	~6s	300k	454b
Lzx	100	~3s	300k	1256b

«« Procedure - Unpacking »»

Packer	Elapsed time	Packed size	Unpacked size
dR0	>2s	14b	400k
Lha	~4s	238b	400k
Lzx	~3s	1472b	400k

Packer which were used in this competition

dR.zERo's zero-unpacker v1.0 (000)
Stefan BoBerg's Lha v1.50r (000)
Data Compression Technologies' Lzx v1.00e (020/030)

1.7 History

v1.0 - First public release. Uses packing routines v0.4.
Although the version number is 0.4 the routines are complete
and fully functioning.

1.8 Assebler users

We have included the assembly-sources of zero-packer
and -unpacker here. They lie in the Asm-directory.

zero packer v0.4.asm
zero unpacker v0.4.asm

And here are the safer version, which have the complete
error detection (which makes them a little slower).

zero packer v0.4.asm
zero unpacker v0.4.asm

```
If you use these sources in your own production, then
you must credits us - RRR's Utility Division.
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1.9 Algorhytm

```
Here is zpk's packet-format:

.L Packet's lenght (zpk)
.L Original lenght (bin)
.B Header (Marks the packed points)
.. Packed data

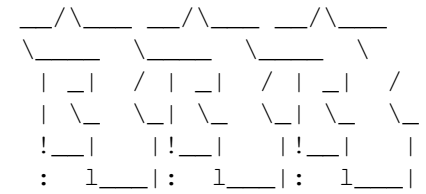
Zpk goes through the data and when a zero has been found
it marks the spot and tries to look some more.
After finding a zero, zpk counts the other zeroes and inserts
the header and the number of zeroes into the packet.

Like this:

.B Header
.L Number of zeroes

Piece of cake.
```

1.10 Contact Us



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