LZRW

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Lempel–Ziv Ross Williams (**LZRW**) refers to variants of the LZ77 lossless data compression algorithms with an emphasis on improving compression speed through the use of hash tables and other techniques. This family was explored by Ross Williams, who published a series of algorithms[1] beginning with LZRW1 in 1991.

The variants are:

- LZRW1[2]
- LZRW1-A
- LZRW2
- LZRW3
- LZRW3-A
- LZRW4
- LZRW5

The LZJB algorithm used in ZFS is derived from LZRW1.

Notes [edit]

1. ^ Williams, Ross. LZRW1. May 16 2005.
2. ^ Williams, R.N., "An Extremely Fast Ziv-Lempel Data Compression Algorithm", Data Compression Conference 1991 (DCC'91), 8-11 April, 1991, Snowbird, Utah, pp.362-371

v · t · e	Data compression methods	[hide]
Lossless	Entropy type	Unary · Arithmetic · Golomb · Huffman (Adaptive · Canonical · Modified) · Range · Shannon · Shannon–Fano · Shannon–Fano–Elias · Tunstall · Universal (Exp-Golomb · Fibonacci · Gamma · Levenshtein)
	Dictionary type	Byte pair encoding · DEFLATE · Lempel–Ziv (LZ77 / LZ78 (LZ1 / LZ2) · LZJB · LZMA · LZO · **LZRW** · LZS · LZSS · LZW · LZWL · LZX · LZ4 · Statistical)
	Other types	BWT · CTW · Delta · DMC · MTF · PAQ · PPM · RLE
Audio	Concepts	Bit rate (average (ABR) · constant (CBR) · variable (VBR)) · Companding · Convolution · Dynamic range · Latency · Nyquist–Shannon theorem · Sampling · Sound quality · Speech coding · Sub-band coding
	Codec parts	A-law · μ-law · ACELP · ADPCM · CELP · DPCM · Fourier transform · LPC (LAR · LSP) · MDCT · Psychoacoustic model · WLPC
Image	Concepts	Chroma subsampling · Coding tree unit · Color space · Compression artifact · Image resolution · Macroblock · Pixel · PSNR · Quantization · Standard test image
	Methods	Chain code · DCT · EZW · Fractal · KLT · LP · RLE · SPIHT · Wavelet
Video	Concepts	Bit rate (average (ABR) · constant (CBR) · variable (VBR)) · Display resolution · Frame · Frame rate · Frame types · Interlace · Video characteristics · Video quality
	Codec parts	Lapped transform · DCT · Deblocking filter · Motion compensation
Theory	Entropy · Kolmogorov complexity · Lossy · Quantization · Rate–distortion · Redundancy · Timeline of information theory	
	Compression formats · Compression software (codecs)	

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