

Digital Signal Analysis and Applications

Lecture 18: compression

Vineet Gandhi

Center for Visual Information Technology (CVIT), IIIT Hyderabad

LZW coding

ASCII codes:

t(116), h(104), i(105),s(115), e(101)

Lets try to compress the string 'thisisthe'

[illegible]

LZW coding

ASCII codes:

Lets try to compress the string 'thisisthe'

t(116), h(104), i(105),s(115), e(101)

Current	Next	Output	Add to dictionary
t(116)	h(104)	t(116)	th(256)
h(104)	i(105)	h(104)	hi(257)
i(105)	s(115)	i(105)	is(258)
s(115)	i(105)	s(115)	si(259)
*is(258)			

LZW coding

ASCII codes:

Lets try to compress the string 'thisisthe'

t(116), h(104), i(105),s(115), e(101)

Current	Next	Output	Add to dictionary
t(116)	h(104)	t(116)	th(256)
h(104)	i(105)	h(104)	hi(257)
i(105)	s(115)	i(105)	is(258)
s(115)	i(105)	s(115)	si(259)
*is(258)	t(116)	is(258)	ist(260)
*th(256)	e(101)	th(256)	the(261)
e (101)	-	e(101)	-

LZW decoding

ASCII codes:

Decompress 116, 104, 105, 115, 258, 256, 101

t(116), h(104), i(105), s(115), e(101)

Current	Next	Output	Add to dictionary
116	104	116	116 104 (256)

LZW decoding

ASCII codes:

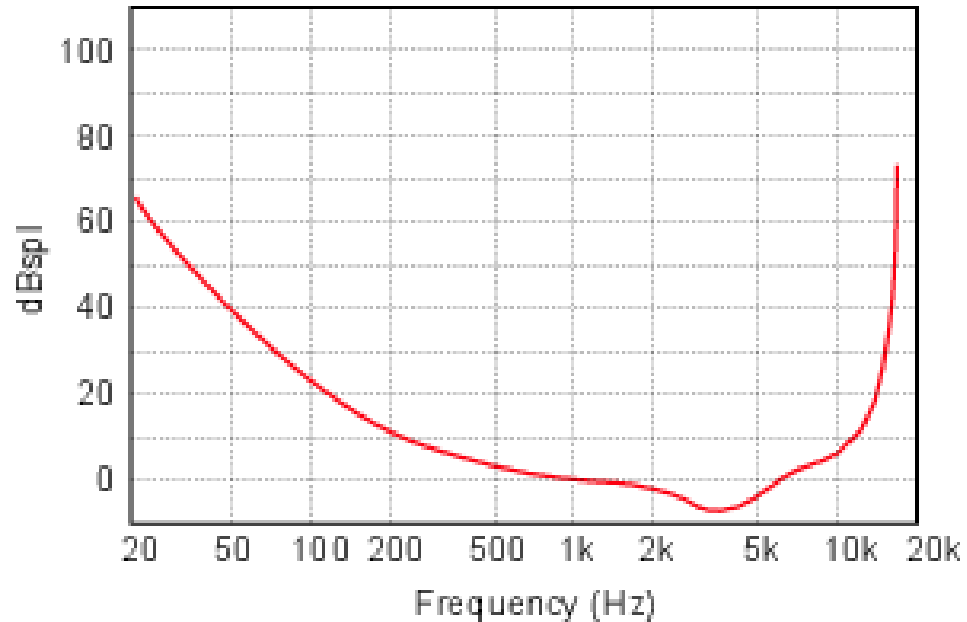
Decompress 116, 104, 105, 115, 258, 256, 101

t(116), h(104), i(105), s(115), e(101)

Current	Next	Output	Add to dictionary
116	104	116	116 104 (256)
104	105	104	104 105 (257)
105	115	105	105 115 (258)
115	258	115	115 105 115 (259)
258	256	105 115	105 115 116 (260)
256	101	116 104	116 104 101 (261)
101	-	101	-

mp3 compression

Threshold of Hearing



Masking

