LZW Transmitter Operation

1 Add next message symbol to input string

If this is first symbol, invoke **start** procedure.

If new input string in transmitter dictionary, go to 1

If new input string not in transmitter dictionary
add new input string as next entry in transmitter dictionary
transmit code for new string without last symbol
delete transmitted string from input

Go to 1

LZW Receiver Operation

When code received,

Find received code in dictionary and translate to symbol string

Output symbol string

If incomplete dictionary entry exists,
complete that entry by appending first symbol of received string

Create new incomplete dictionary entry beginning with received string

LZW Transmitter End Conditions

Start Condition

On startup,

Transmit **start** code (256)

Delete all items in dictionary past item 257

Stop Condition

At last symbol of message,

Transmit remaining input string

Transmit **stop** code (257)

LZW Receiver End Conditions

Start Condition

When **start** code (256) received

Delete all items in dictionary past item 257

Stop Condition

When **stop** code (257) received

Stop

RECEIVER ← CHANNEL ← TRANSMITTER

Message

foo foo

Receiver Dictionary

Transmitter Dictionary

Output				Input	
	32 (sp)				32 (sp)
	102 f				102 f
	111 o				111 o
	256 start				256 start
	257 stop	256	start	f	257 stop
f		102	f	f o	258 f o
o		111	o	o o	259 o o
o		111	o	o (sp)	260 o (sp)
(sp)		32	(sp)	(sp) f	261 (sp) f
----	----------	----	-----	f o	----------
f o		258	f o	f o o	262 f o o
o		111	o	o	
		257	stop	stop	