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Title			0 image coding system:	Core coding system	1
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Signature	
Organization	IBM
Name of authorized	W. C. Adams
person	
Title of authorized	Program Director Standards
person	
Signature	Armonk. NY, 10504, May 20,2003
Place, Date	Armonk, NY, 10504 , May 20,2203

No	Registration Number/ Country US Patents	Title/ Inventor	Status [granted/ pending]
1 4463342		Method and means for carry-over control in the high order to low order pairwise combining of digits of a decodable set of relatively shifted finite number strings; Langdon, Jr., Glen G.,	Issued 1984-07-31
6. /100000		Rissanen, Jorma J	
2	4633490	Symmetrical optimized adaptive data	Issued
		compression/transfer/decompression system; Goertzel, Gerald; Mitchell, Joan L.	1986-12-30
3	4905297	Arithmetic coding encoder and decoder system; Langdon, Jr.,	Issued
		Glen G.; Mitchell, Joan L.; Pennebaker, William B.; Rissanen, Jorma J.	1990-02-27
4	4935882	Probability adaptation for arithmetic coders; Pennebaker,	Issued
		William B.; Mitchell, Joan L.	1990-06-19
5	5099440	Probability adaptation for arithmetic coders; Pennebaker,	Issued
		William B.; Mitchell, Joan L.	1992-03-24
6 4	4467317	High-speed arithmetic compression coding using concurrent	Issued
		value up dating; Langdon, Jr., Glen G.; Rissanen, Jorma J.	1984-08-21
7	4652856	Multiplication-free multi-alphabet arithmetic code; Mohiuddin,	Issued
		Kottappuram M. A.; Rissanen, Jorma J.	1987-03-24
8	4891643	Arithmetic coding data compression/de-compression by	Issued
		selections employed, diverse arithmetic coding encoders and decoders; Mitchell, Joan L.; Pennebaker, William B.;	1990-01-02
,	4286256	Method and means for arithmetic coding utilizing a reduced	Ignuad
		number of operations; Langdon, Jr., Glen G.;	Issued
		manuser of operations, Languon, JF., Glen G.;	1981-08-25

Patent Information (desired but not required)					
No	Registration Number/ Country US Patents	Title/ Inventor	Status [granted/ pending]		
10	4295125	Metho: and means for pipeline decoding of the high to low order pairwise combined digits of a decodable set of relatively shifted finite number of strings; Langdon, Jr., Glen G.;	Issued 1981-10-13		
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