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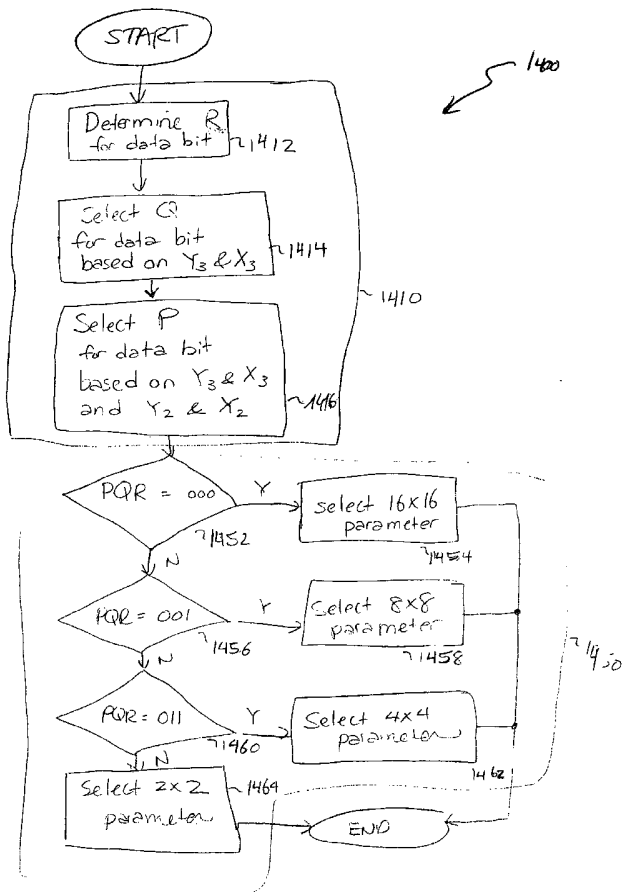
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[Continued on next page]

(54) Title: PARAMETER SELECTION IN DATA COMPRESSION AND DECOMPRESSION



(57) Abstract: Apparatus and method for selecting an appropriate parameter at decompression are disclosed. In particular, when adaptive block size discrete cosine transform compression is used to compress data, different combinations of sub-blocks can be generated. To decompress the different combinations of sub-blocks, the appropriate parameter is selected based on block size assignment information and the address of data in the data block.

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# INTERNATIONAL SEARCH REPORT

Int ional Application No  
PCT/US 03/24152

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G06T9/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**  
Minimum documentation searched (classification system followed by classification symbols)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01 56298 A (QUALCOMM INC) 2 August 2001 (2001-08-02)  abstract page 2, line 5 -page 3, line 28 page 4, line 10-21 page 18, line 6-11 page 19, line 4-22 page 20, line 11,12 ---	1, 10, 14, 20, 23, 29, 33, 39
X	WO 01 35673 A (QUALCOMM INC) 17 May 2001 (2001-05-17)  abstract page 2, line 5 -page 3, line 30 page 28, line 28 -page 29, line 15 --- -/--	1, 10, 14, 20, 23, 29, 33, 39

Further documents are listed in the continuation of box C.       Patent family members are listed in annex.

\* Special categories of cited documents :

<p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p>	<p>*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>*X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone</p> <p>*Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.</p> <p>*Z* document member of the same patent family</p>
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Date of the actual completion of the international search  <b>5 April 2004</b>	Date of mailing of the international search report  <b>14/04/2004</b>
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  <b>Casteller, M</b>
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## INTERNATIONAL SEARCH REPORT

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PCT/US 03/24152

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01 41443 A (QUALCOMM INC) 7 June 2001 (2001-06-07) abstract; figure 11 page 8, line 15 -page 9, line 7 page 33, line 1-21 page 34, line 10-23 page 36, line 15-25	1-44
A	US 5 452 104 A (LEE CHONG U) 19 September 1995 (1995-09-19) cited in the application abstract; claims 23-39 column 20, line 43 -column 24, line 18	1-44
A	US 5 107 345 A (LEE CHONG U) 21 April 1992 (1992-04-21) cited in the application abstract; claims 23-30 column 14, line 47 -column 15, line 52	1-44

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/24152

Patent document cited in search report	Publication date	Patent family member(s)	Publication date	
WO 0156298	A	02-08-2001	US 6600836 B1	29-07-2003
			AU 3460701 A	07-08-2001
			CA 2398386 A1	02-08-2001
			CN 1419787 T	21-05-2003
			EP 1252773 A1	30-10-2002
			JP 2003521178 T	08-07-2003
			TW 517501 B	11-01-2003
			WO 0156298 A1	02-08-2001
			US 2003202707 A1	30-10-2003
WO 0135673	A	17-05-2001	US 6529634 B1	04-03-2003
			AU 1481101 A	06-06-2001
			BR 0015341 A	15-07-2003
			CA 2389410 A1	17-05-2001
			CN 1421102 T	28-05-2003
			EP 1230804 A1	14-08-2002
			JP 2003523652 T	05-08-2003
			TW 517500 B	11-01-2003
			WO 0135673 A1	17-05-2001
			ZA 200203276 A	24-07-2003
WO 0141443	A	07-06-2001	AU 1805301 A	12-06-2001
			AU 2055801 A	12-06-2001
			BR 0016054 A	01-07-2003
			BR 0016107 A	15-07-2003
			CA 2393029 A1	07-06-2001
			CA 2395194 A1	07-06-2001
			CN 1433636 T	30-07-2003
			CN 1433637 T	30-07-2003
			EP 1236353 A1	04-09-2002
			EP 1249126 A1	16-10-2002
			JP 2003516052 T	07-05-2003
			JP 2003523653 T	05-08-2003
			TW 516323 B	01-01-2003
			TW 515205 B	21-12-2002
			WO 0141442 A1	07-06-2001
			WO 0141443 A1	07-06-2001
			US 2002056081 A1	09-05-2002
US 2003206635 A1	06-11-2003			
ZA 200204074 A	22-08-2003			
US 5452104	A	19-09-1995	US 5021891 A	04-06-1991
			AT 159396 T	15-11-1997
			AU 658432 B2	13-04-1995
			AU 2186692 A	08-01-1993
			CA 2110264 A1	10-12-1992
			DE 69222766 D1	20-11-1997
			DE 69222766 T2	07-05-1998
			DK 587783 T3	04-05-1998
			EP 0587783 A1	23-03-1994
			ES 2110504 T3	16-02-1998
			FI 935477 A	07-12-1993
			GR 3025624 T3	31-03-1998
			HK 1019838 A1	24-11-2000
			JP 3145403 B2	12-03-2001
			JP 6511361 T	15-12-1994
			KR 167367 B1	20-03-1999
			NO 934396 A	07-01-1994

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/24152

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5452104	A	WO 9222166	A1 10-12-1992
		AT 171332	T 15-10-1998
		AU 653715	B2 13-10-1994
		AU 7476391	A 18-09-1991
		CA 2076865	A1 28-08-1991
		DE 69130214	D1 22-10-1998
		DE 69130214	T2 20-05-1999
		DK 517834	T3 14-06-1999
		EP 0517834	A1 16-12-1992
		ES 2126569	T3 01-04-1999
		FI 923811	A 25-08-1992
		HK 1014827	A1 20-10-2000
		JP 3392862	B2 31-03-2003
		JP 5506340	T 16-09-1993
		JP 2003143604	A 16-05-2003
		KR 244546	B1 01-02-2000
		NO 923336	A 27-10-1992
		WO 9113514	A1 05-09-1991
		US 5107345	A 21-04-1992
		US 5107345	A
AT 171332	T 15-10-1998		
AU 653715	B2 13-10-1994		
AU 7476391	A 18-09-1991		
CA 2076865	A1 28-08-1991		
DE 69130214	D1 22-10-1998		
DE 69130214	T2 20-05-1999		
DK 517834	T3 14-06-1999		
EP 0517834	A1 16-12-1992		
ES 2126569	T3 01-04-1999		
FI 923811	A 25-08-1992		
HK 1014827	A1 20-10-2000		
JP 3392862	B2 31-03-2003		
JP 5506340	T 16-09-1993		
JP 2003143604	A 16-05-2003		
KR 244546	B1 01-02-2000		
NO 923336	A 27-10-1992		
WO 9113514	A1 05-09-1991		
US 5452104	A 19-09-1995		