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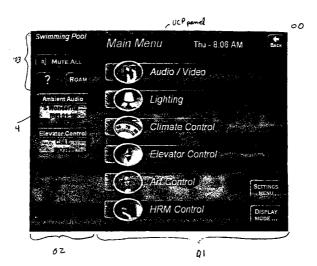
60/118,668	3 February 1999 (03.02.1999)	US
09/322,852	28 May 1999 (28.05.1999)	US
09/322,964	28 May 1999 (28.05.1999)	US
09/322,207	28 May 1999 (28.05.1999)	US
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09/322,962	28 May 1999 (28.05.1999)	US
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[Continued on next page]

(54) Title: METHOD AND SYSTEM FOR GENERATING A USER INTERFACE FOR DISTRIBUTED DEVICES



(57) Abstract: A method and system for generating a user interface for controlling software components through a user control point device. The user interface system provides multiple software components that each can provide a user interface component. Each user interface component provides a user interface for the corresponding software component. A user control point component requests each software component to provide its user interface component. The user control point component then displays an indication of each software component. In response to the selection of a software component, the user control point component requests the user interface component for that software component to display its user interface through the control point device. When a user interacts with that user interface, the user interface component notifies the corresponding software component of the interaction.



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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G06F9/44

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

B. FIELDS SEARCHED

 $\begin{array}{ll} \mbox{Minimum documentation searched} & \mbox{(classification system followed by classification symbols)} \\ \mbox{IPC} & 7 & \mbox{H04L} & \mbox{G06F} \end{array}$

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, INSPEC, IBM-TDB, PAJ

	ENTS CONSIDERED TO BE RELEVANT	Relevant to claim No.
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Helevant to dann 140.
X	WO 98 59282 A (SAMSUNG INFORMATION SYSTEMS AM;SAMSUNG ELECTRONICS CO LTD) 30 December 1998 (1998-12-30)	1-6,16, 19-23, 26-30,32
A		7-15,17, 18,24, 25,31
	abstract	
	page 2, line 28 -page 3, line 17	
	page 5, line 27 -page 6, line 6	
	page 8, line 10 - line 17	
	page 9, line 10 - line 26	
	page 10, line 1 -page 11, line 7	
	page 19, line 23 - line 32	
	page 23, line 9 - line 30	1
	_/	

X Further documents are listed in the continuation of box C.	Patent family members are listed in annex.
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E* earlier document but published on or after the international filing date 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) O* document referring to an oral disclosure, use, exhibition or other means P* document published prior to the international filing date but later than the priority date claimed	"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 "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 "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. "&" document member of the same patent family
Date of the actual completion of the international search 21 July 2000	Date of mailing of the international search report 27/07/2000
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 Archontopoulos, E

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INTERNATIONAL SEARCH REPORT

International Application No PCT/US 00/03098

		PC1/US 00/03098	
	RION) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
X	SONY, PHILIPS, HITACHI, SHARP, MATSUSHITA, THOMSON, TOSHIBA, GRUNDIG: "THE HAVI SPECIFICATION: SPECIFICATION OF THE HOME AUDIO/VIDEO INTEROERABILITY (havi) ARCHITECTURE. VERSION 1.0 BETA." HAVI ORGANIZATION, SAN RAMON, CA, US, 19 November 1998 (1998-11-19), pages 1-384, XP002116332	1-6,16, 19-23, 26-30,32	
A		7-15,17, 18,23, 25,31	
	page 10, line 4, paragraph 2.3.1 - line 27 page 15, line 16, paragraph 2.5 -page 16, line 4		
	page 16, line 25, paragraph 2.5.3 - line 35 page 73, line 7, paragraph 4.1 -page 75,		
	line 21 page 78, line 10, paragraph 4.3.2 -page		
	80, line 30 page 190, line 36, paragraph 5.12 -page 211, line 12 page 355, line 5, paragraph 10.6 -page 356, line 16		
X	EP 0 812 091 A (SONY CORP) 10 December 1997 (1997-12-10)	1-4,16, 19-23, 26-30,32	
A		5,6, 9-15,17, 18,24, 25,31	
	abstract page 2, column 1, line 58 -column 2, line 13		
	page 3, column 4, line 4 -page 4, column 5, line 3		
	page 4, column 5, line 35 -column 6, line 12 page 5, column 8, line 56 -page 6, column		
	9, line 32 page 12; figure 4		
A	US 5 410 326 A (GOLDSTEIN STEVEN W) 25 April 1995 (1995-04-25)	1,9,16, 19,26, 29,30	
	abstract column 3, line 14 - line 61 column 9, line 1 -column 11, line 43		

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/US 00/03098

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9859282	A	30-12-1998	EP 10 EP 10 EP 10 EP 10 WO 98	1015952 A 1015953 A 1002406 A 1015962 A 1002407 A 9859283 A 9859478 A 9859284 A	05-07-2000 05-07-2000 24-05-2000 05-07-2000 24-05-2000 30-12-1998 30-12-1998
			WO WO	9859479 A	30-12-1998
EP 0812091	A	10-12-1997 	JP 	9326799 A 	16-12-1997
US 5410326	Α	25-04-1995	NONE		