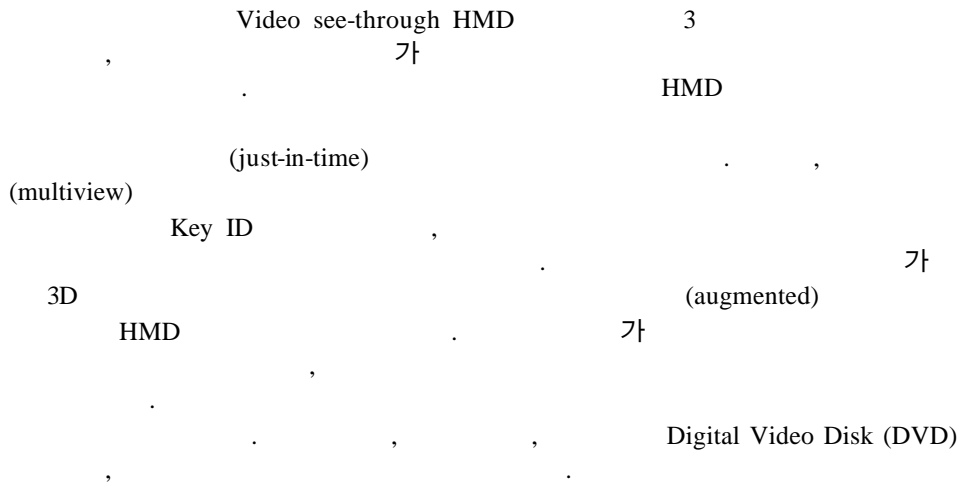


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Wearable Data Retrieval System using 3D Vision-based HMD

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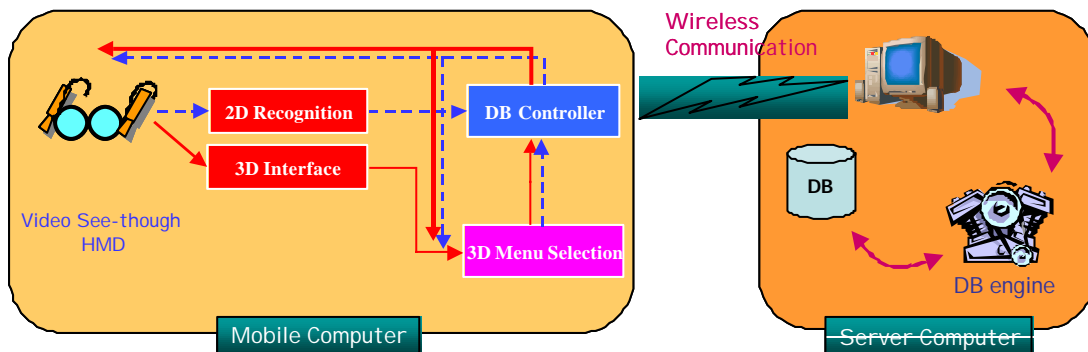
1.

WIMP (window, icon, mouse, and a pointing device) (anytime), PDA (anywhere), (anydevice), PDA, IrDA (Infrared Data Association) (LAN: Local Area Network) [1][2][3], PDA (Personal Digital Assistant) palmtop [4]. Head Mounted

Display (HMD) 가 .
 가 , Digital Video Disk (DVD)
 . 2
 가 , 3
 가
 가 4
 가 , 5
 가
 가
 HMD

2.

SONY Navigation
 Camera (NaviCam) [5], MIT MIThril
 가 Wearable System [6],
 (i) (Vision-based NaviCam
 Interface), (ii) (Data Retrieval palmtop
 (iii) 3 (3D Menu Selection) , (context)
 가 가
 Video See-through HMD . NaviCam
 , Key ID
 , 3 가 , 가
 Key ID MIThril Twiddler
 , MIThril (context aware)
 3D 가 MIT
 HMD 3 MIThril HMD
 가 가 , Twiddler



(DB Controller)

,
,
,
가

가 가
HMD
가 가
가
가
6 Title, Director,
Stars, Story, Preview ESC
, Preview

1

	NaviCam (SONY)	MIThril (MIT)	K-JIST
	2D Camera	Sensor Twiddler	3D Camera
	Palmtop HMD	HMD	HMD
	,	,	,

DVD
, DVD
ESC
, DVD
DVD
ESC

3.

3.1

1
가

가 DVD

, 3

3.2

가

2

3

, 10Mbps (IEEE 801.11)

2

가 가 Digital Video Disk (DVD)

가

Internet Protocol (IP)

(disparity map)

3

가

가

, 가 (pseudo barcode)

Red, Green, Blue

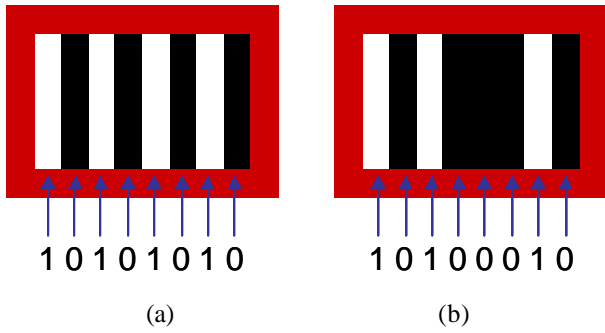
, 가 DVD

2 (a) (b)

/

Key ID

8



2. , (a) 1, (b) 2

3

가

0 1

가 ,

, 가

(noise)

가

가 0 1

8

가

DVD

3
Red Green, Blue

가

3

3

가 가

가

50cm

가

가

가 가

7

가 Preview

가

가

DVD

가

3.3

가

가

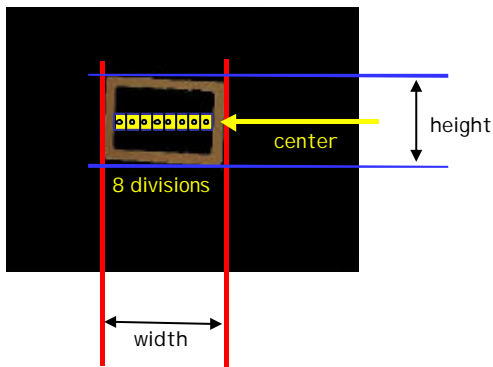
가

Transmission Control

Protocol/Internet Protocol (TCP/IP)

(IEEE 801.11)

Key ID



3.

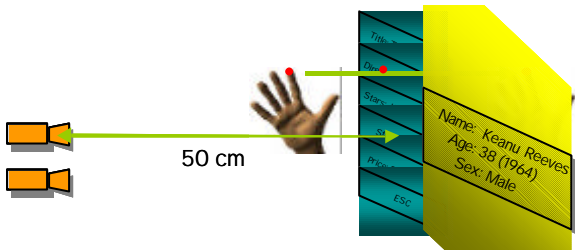
3

HMD 3

가

3.4

3



4. 가

OpenGL
50cm
가 DVD

가

가

가

3
(frame)

DVD

4

가

4.

5 2

DVD

6

DVD

가

가

가 가

가

7

가

8

8(a) (b)

DVD

가



(a)



(b)

5

DVD

, (a)

1,

(b) 2



6



7



(a)



(b)

8

, (a)

DVD

가

, (b) DVD

가

가

가

가

DVD

HMD

가

3

가

[1] Ivan Sutherland, "Jones Telecommunications & Multimedia Encyclopedia," <http://www.digitalcentury.com/encyclo/update/sutherland.html>

[2] Jun Rekimoto and Masanori Saitoh, "Augmented Surfaces: A Spatially Continuous Workspace for Hybrid Computing Environments," *Proceedings of CHI'99*, 1999.

[3] Jun Rekimoto, "GestureWrist and GesturePad: Unobtrusive Wearable Interaction Devices," *Proceedings of ISWC 2001*, 2001.

[4] Azuma, R. T, "A survey of augmented reality," *Proceedings of SIGGRAPH95*, pp. 1-38, 1995.

[5] Jun Rekimoto and Katashi Nagao, "The World through the Computer: Computer Augmented Interaction with Real World Environments," *Proceeding of User Interface Software and Technology 95*, 1995.

[6] MIT Media Lab, "MIThril," <http://agents.www.media.mit.edu/projects/wearables/>

5.

가

3

3

3

가

가

(registration),

가

