

KDPC-PR-1998-05

A Guide to Database Construction

1998. 12



Korea Database Promotion Center

•

1998. 12

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• •

•

가

가

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■

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•

가

가

.....	
1 1
1.1 1
1.2 4
1.3 4
2 6
2.1 7
2.1.1 7
2.1.2 8
2.1.3 8
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< 15>	89
< 16> -	92
< 17>	94
< 18>	96
< 19> (1)	97
< 20> (2)	98
< 21>	99
< 22>	101
< 23>	103
< 24>	106
< 25>	108
< 26>	110
< 27>	113
< 28>	115

< 29>	117
< 30>	가	120
< 31>	121

(1)		2
(2)		2
(3)		6
(4)		9
(5)		10
(6)	- (ER)	13
(7)		15
(8)		15
(9)		17
(10)		18
(11)		23
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(29)		71

1

1.1

(McFadden, Hoffer, Prescott 1999, 4)

, , ,

, ,

.(1998a, 4) ,

가

.

가

가

2 1

2 , ,

가

가

, ,

(referral) 가

1 2 가

.

.

, , 가

가

, , , ,

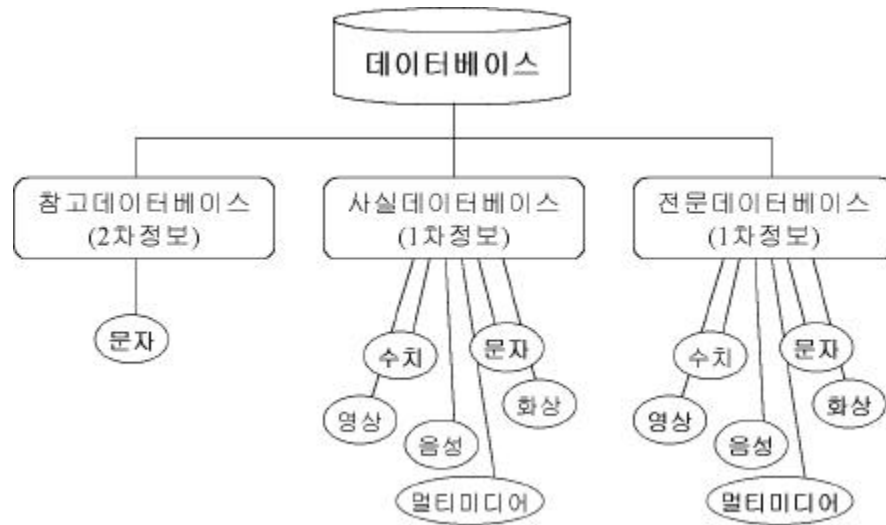
가

.

(1)

, 가

, ,



(1)

(全文, full-text)

가

(2)

가



(2)

가

.가

가 (VAN)

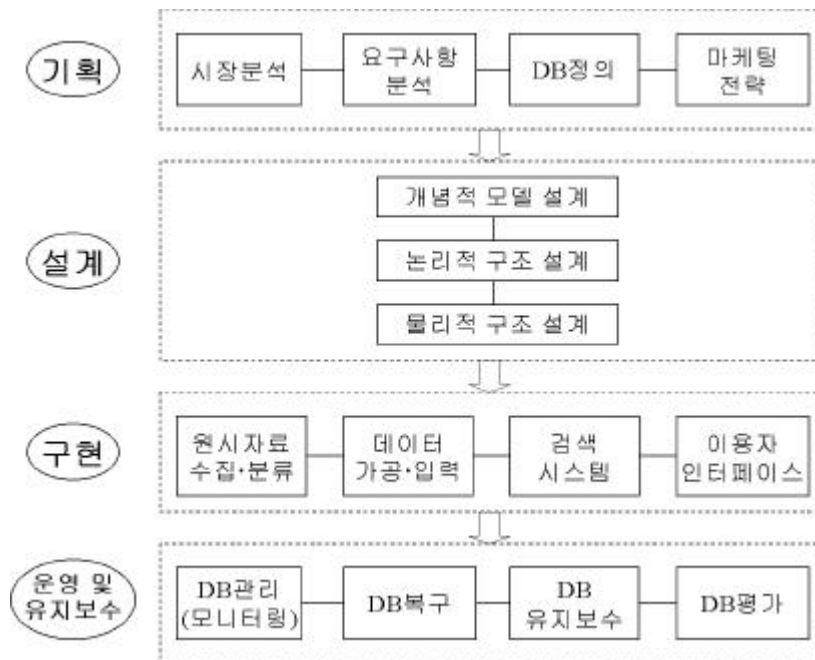
.(1998b, 6)

가 / /
 , / , /
 1998 9 1,339 1997 919
 45%가 < 1>
 가 31.4% 가 , 가 29.3%
 1997 2
 가

< 1>

		DB	가			,					
97		186	91	126	143	14	61	41	255	2	919
	(%)	20.3	9.9	13.7	15.6	1.5	6.6	4.5	27.7	0.2	100
98		392	94	131	161	21	78	38	420	4	1339
	(%)	29.3	7.0	9.8	12.0	1.6	5.8	2.8	31.4	0.3	100

가 . ,
 ,
 .
 가 가 ,
 가 ,
 , ' ' , ' '
 , ' '
 (1995b, 8)
 ' '



- 6 -

2.1

(database planning)

2.1.1

가

가

1995, 11)

가 .(

가

가 가 . 가 , ,
가 , 가 가
가 , 가 .

2.1.2

•

•

■

■ *Journal of Management Inquiry* 16(1) ■

2.1.3

가

, , , , 가 ,

1995, 22)



2.1.4

1995, 33-34).

1995, 33-34)

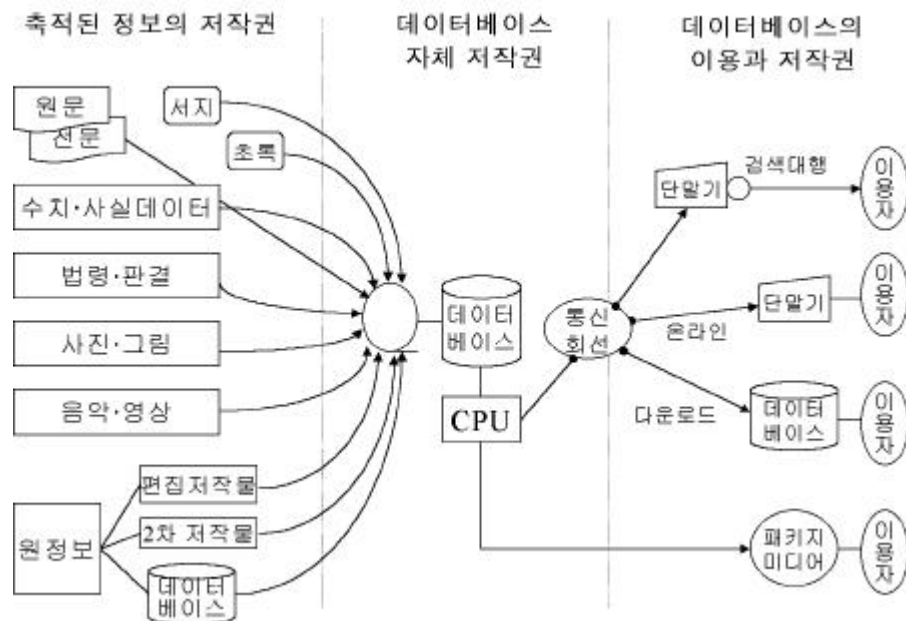
가

2.1.5

3가

가

(5) .(勝田節子 1992, 40-41)



(5)

가 . 가 . . .가 . 가 가 .(1998, 3) , 가 . . , CD-ROM , , . 2.2 3 , , , 가 .(1997, 67-68) . () .(Kim 1990, 327)

가

- (Entity-Relationship(E-R) model)

2.2.1

73) .(1997,

, ,
.
- .

- E-R 1976 P. Chen
- (entity)
(relationship), 가 가 (attribute)

-
가 .

(instance) . -

가 가

가

가

(unary relationship),

n 가 .
(6) .

[illegible]

2.2.2

가

1)

(Relational data model) 1970 E. F. Codd가

.
(relation)
가 ,
.
.
(normalization)
.
가
.
(key)
가 (primary key)
가
(composite key)
(foreign key)
가
가
(7) , (' ', ' ',
' ') (' ') ()
() 가
3
.
,
가 ,
.(
1998a, 280)
,
가 가
.

학 생	<u>학 번</u>	이 름	주 소	전 공
학생(<u>학번</u> , 이름, 전공)				
과 목	<u>과목번호</u>	과목이름	강사이름	
과목(<u>과목번호</u> , 과목이름, 강사이름)				
강 사	<u>강사이름</u>	강사실		
강사(<u>강사이름</u> , 강사실)				
등 록	<u>학 번</u>	<u>과목번호</u>	성 적	
등록(<u>학번</u> , <u>과목번호</u> , 성적)				

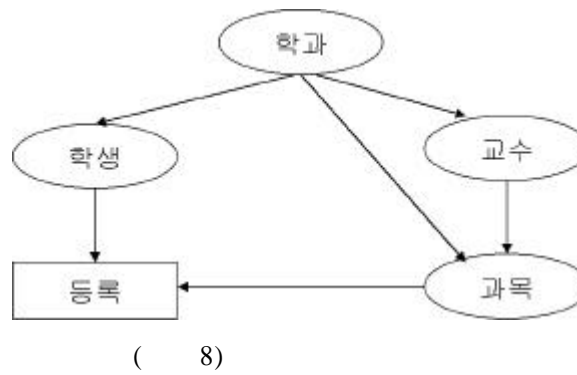
(7)

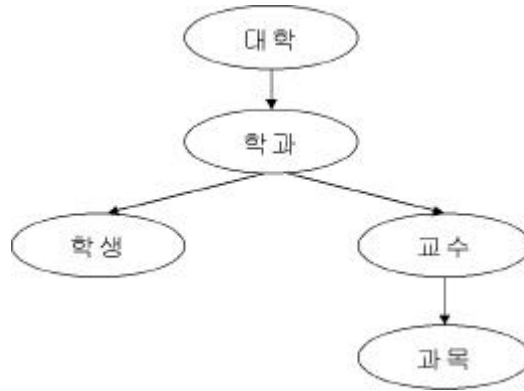
2)

(Network data model)

가 가

(1n) . (owner)
(member) -
가 . (8) 4
(' , ' , ' , ' , ' , ') 1 (' ') .





(9)

(McFadden, Hoffer, Prescott 1999, 282) DBMS

4)

(Object-oriented data model)

(behavior) 가 . (object) (state) 가 가 . 가 . 가 . 가 . 가 . 가 .

가
가 . (10)
, ()

학 생	클래스이름	과 목
이름 생년월일 학년 주소 전화	속성 리스트	과목코드 과목이름 학점
calc-age() calc-gpa() register-for(course)	연산 리스트	enrollment()

(10)

가 , ,

, ,

,

, 가 .

2.2.3

. , ,

,

가

,

가 가
가 .(1997, 329)

1)

가 , ,
(response time)

(transaction throughput)

가 가
(query optimization)
가

, 가

, , , , ,
 .(
 1995, 70-71)

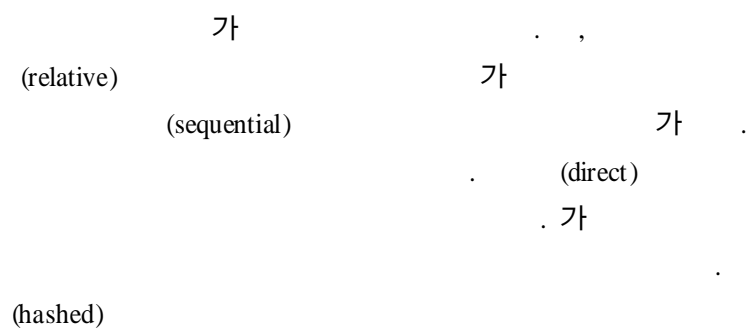
2)

, , ,
 .
 , 가 , ,
 .(McFadden, Hoffer, Prescott 1999, 257)
 가 가
 , 가
 () 가
 가
 (partition) , 가
 .
 가
 .
 (block) 가
 , , ,
 가 가
 가 가
 , 가 가
 .

3)

(record access) ,

가 .



가 . 가 < 2> .(McFadden,
Hoffer, Prescott 1999, 273)

< 2>

			가.
			가
	가		
	가	가	가
		,	
가		,	,

2.3

가 ,

(DBMS)

DBMS

.(1995, 85)

가 ,

가 , , 가

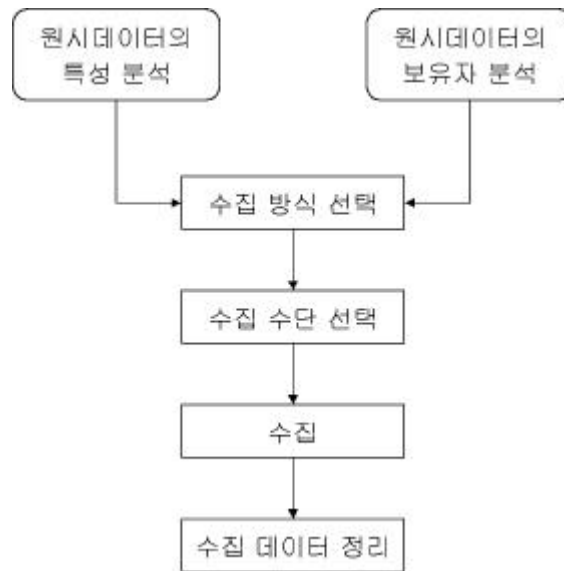
.(1995, 93-94)

.가 .

2.3.1

(11)

(1995, 95)



(11)

,

가

,

가

가

2.3.2 가

가 가 .
가 가
가 가가 가
가 가
가 , ,
 , .

1)

가 .
.(1995, 99)
,
가
, , , , ,
(sequence code), (block
code), (group classification code), (mnemonic code),
(decimal code)

2)

,

ISBN

,

,

,

.

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,

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•

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•

,

가

•

•

•

•

3)

(Frakes, Baeza-Yates 1995, 231)

()

()

(descriptor)

(,) 'USE' 'UF'(Use For)

'USE'

가

'UF'

가

가

BT (Broad Term)

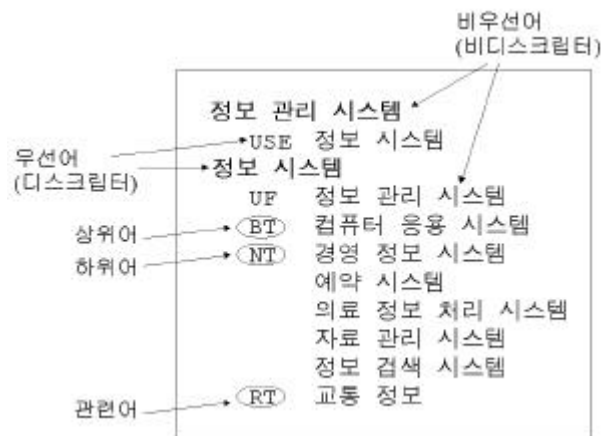
가

NT (Narrow Term)

RT (Related Term)

(12)

()



(12)

1992

가

가

4)

가

.(

1998c, 105)

가

가

가

가 가

2

2.3.3

가

가

(sheet)

가

가

가

가

(OCR), (OMR),

가

가 (loading)

가

가

가

가

가

가

CD-ROM

가

(full-text)

2.3.4

가

가

가

가

가

.

가

가가

가

.

가

.(勝田節子 1992, 160)

가

가

,

.

1)

,

.

70%가

.(Busby 1997)

,

,

GUI(Graphic User Interface)

.

가

.

.

,

,

,

.

가

.

가 .

가 .

가 .

GUI

GUI . GUI ,

, , ,

, 가 .(

1998d, 165) GUI

가 .

2)

가

.

가 .

, , , , ,

(1995, 63)

,

'AND', 'OR', 'NOT'

,

가 가 .

.

가 .

가 .

2.3.5

(DBMS)

(Database Management System)

.(1997, 43)

, , ,
DBMS .

DBMS가

가

(definition) ,

(manipulation)

,
(control) .

DBMS

DBMS . 가

, 가

DBMS . DBMS

DBMS (ODYSSEUS), 가 SOP(SNU

OODBMS Platform), DBMS ,

(EasyBase) , (Oracle) Oracle8,

(Sybase) Sybase, (Informix) Informix Universal Server, IBM DB2

.(1998a, 22-23)

2.4.

.

가

.

가

< 3>

	(accuracy)	가
	(completeness)	
	(currentness)	가
	(consistency)	가
	(searching)	
	(ease of use)	
	(customer support)	, ,

가 ,

, ,

.

, , .

, , , , , , ,

가가 .

가 ,

, 가 , .

.

가 , ,

. 가 .

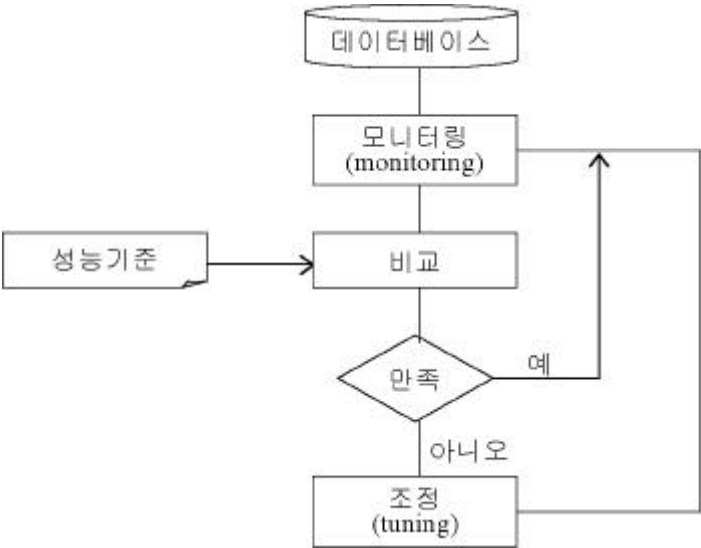
가

가

2.4.2 ()

가

(tuning) .(1995, 36) (13)



(13)

3가

가

가

가

2.4.3 .

(recovery) 가 . 가 , , (1997, 359) . , , , 가 . . , 4가 .(McFadden, Hoffer, Prescott 1999, 498) , (backup) . . 가 . (journal) (log) . 가 가 , 가 . 가 . , ID, , , (before) (after) . (checkpoint) . 가

가 (14)

(1995, 109- 112)



(14) 가

1 가 24.1

2 가 가 가 가

가

3 가 가

가

3

3.1

3.1.1

(1) , (), ,
 , 2
가
()
(OPAC)
가
LISA, AGRICOLA, CA Search, MEDLINE,
ERIC DIALOG, STN, QUESTEL.
ORBIT CD-ROM

3.1.2

(attribute)

,
 .(1998, 63-64)
 ,
 가 가 가
 DC(Dublin Core) < 4> .(Dublin Core
 Metadata Initiative <<http://purl.org/dc>>)

< 4> DC

(Content)	Title	가
	Subject	
	Description	
	Source	가
	Language	
	Relation	
	Coverage	.
(Intellectual Property)	Creator	
	Publisher	
	Contributor	(.)
	Rights	
(Instantiation)	Date	가
	Type	, , , ,
	Format	(,)
	Identifier	(URL, URN, ISBN)

, ,
 가 .

3.1.3

가 가

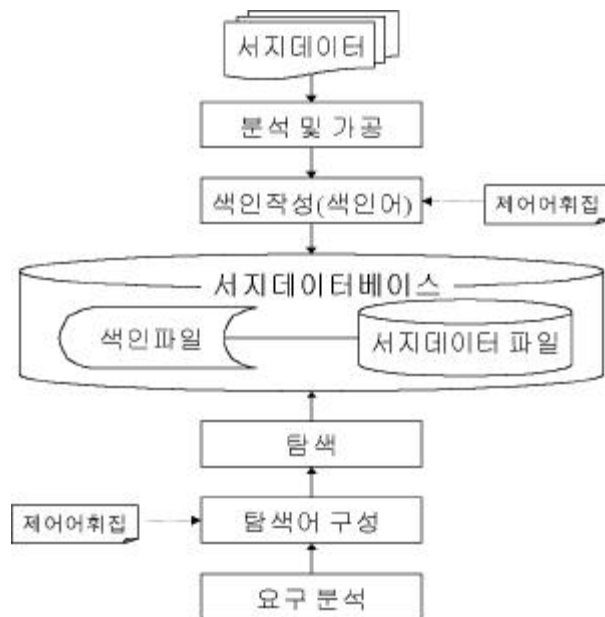
가

가 가

가

가

(15)



(15)

가 .

3.1.4

1) OCLC WorldCat

OCLC(Online Computer Library Center, Inc.)

65 3

. OCLC ,

가 OCLC

「WorldCat」 . WorldCat OCLC 400

4

OCLC WorldCat

가 . 가 .

WorldCat (BKS) (SER),

(VIS), (MIX), (MAP), (SCO), (REC), (COM)

LC MARC

OCLC MARC

(Level I)

(Level K)

가

1999 1 WorldCat < 5>

.(OCLC 1999)

WorldCat MARC . 가

가 . < 6>

< 5> OCLC WorldCat

	()	(%)	()	()	
	32,470,247	84.06	547	16,094,968	5,705,467
	1,973,251	5.11	645	797,237	221,605
	1,100,764	2.85	831	751,784	175,961
	518,552	1.34	774	244,008	41,760
	282,478	0.73	865	172,058	74,224
	1,272,748	3.29	870	813,741	220,526
	900,748	2.33	559	529,278	126,225
	110,495	0.29	990	82,799	17,207
	38,629,283	100.00	578	19,485,873	6,582,975

< 6> OCLC 가

0xx	,
1xx	
2xx	, (, ,)
3xx	
4xx	
5xx	
6xx	
7xx	,
8xx	
9xx	

가

(LC)

. (16)

- 데이터베이스명: 정기간행물기사색인
- 검색질의어: (TI : 데이터 베이스 월드)&((PD1 >= 1998)
&(PD1 <= 1998))
- 검색건수: 27 목록번호: 1

00388 naa 00121 k
001 NAL_DB_719811023
008 s1998 ko 000a kor
100 1b ◆안계성
245 10 ◆aCI분야 교육과 네트워킹 기회 제공/ ◆d안계성
650 bb ◆aGF2 정보
653 bb ◆a정보◆aCI◆a네트워킹◆a경쟁정보 ◆a경쟁정보전문가협회
◆aSCIP
773 0b ◆t데이터베이스월드◆g58(1998.3):pp.53-55
740 b0 ◆aCI분야 교육과 네트워킹 기회 제공•

(17)

MARC

. (18)

MARC

- 데이터베이스명: 석박사학위논문목록
- 검색질의어: (SU : 데이터베이스)&((PD1 >= 1997)&(PD1 <= 1998))
- 검색건수: 3 목록번호: 1

00564 naa 00169 k
001 NAL_DB_649715334
008 s1997 ko 000a kor
082 bb ◆a658.40388
090 bb ◆a658.40388◆b ≡ 165≡
100 1b ◆a한혁수
245 10 ◆a데이터베이스 마케팅의 구축방법에 관한 연구 : J社 事例를
중심으로/ ◆d한혁수
260 bb ◆a서울: ◆b한양대 경영대학원, □c199702
300 bb ◆b85 p.
502 0b ◆a학위논문(석사)
650 bb ◆aA24 ◇판매관리<마케팅, 소비자보호, 광고, 유통 포함>
653 bb ◆a데이터베이스◆a마케팅◆a데이터베이스마케팅
740 b0 ◆a데이터베이스 마케팅 구축방법 J社 사례•

(18)

MARC

PC

.(<http://203.240.9.7/index.html>)

3.2

3.2.1

(fact or factual database)

! !

가

1996)

가 .

(今井建策 1998, 718) 가

3.2.2

· , 가 가

가 .

2)

· ,
가 .

3)

가 가 ,
· Gopher, FTP, CD-ROM, ,
가 ,

4)

· , 가 ,

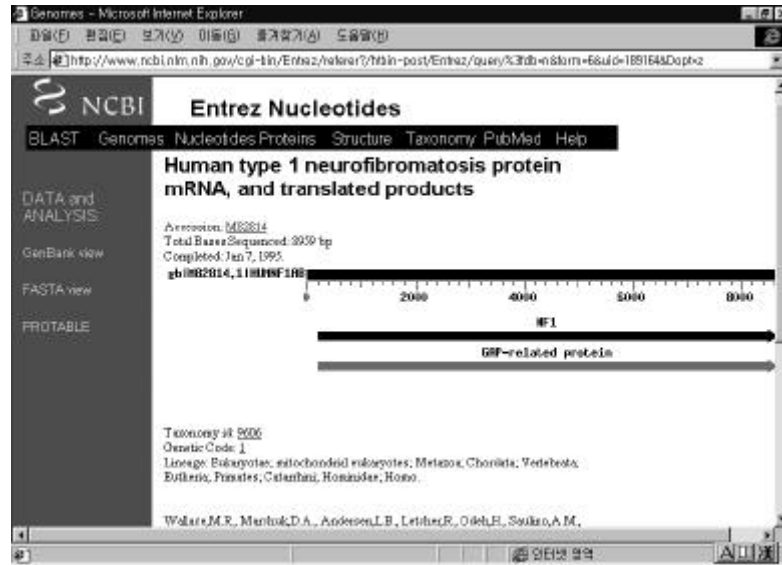
· ,
·

3.2.4

가
(Fundamental
physical constants) (Thermodynamic tables), DNA
가

1) NCBI GenBank

「GenBank」 NIH(National Institutes of Health,)
DNA
GenBank NLM(National Library of Medicine,) NCBI(National
Center for Biotechnology Information,) (NCBI <<http://www.ncbi.nlm.nih.gov/Web/Genbank/index.html>>)
GenBank 1999 4 3,525 가 25 7 가
GenBank DDBJ
(DNA DataBank of Japan), EMBL(European Molecular Biology Laboratory)
(International Nucleotide Sequence Database
Collaboration)
GenBank 가 가
, , . NCBI
, , 가
DNA
'BankIt' PC, 'Sequin'
(19) GenBank 'neurofibromatosis gene(')'
(19)



(19) GenBank

2)

(KORDIC)

가

가가

kordic.re.kr/~fact>)

SGML

DB <<http://www.kordic.re.kr/~fact>>)

(20)

가 「



(20) KORDIC

3.3

3.3.1

(全文, full-text)

가

가

가

1

가

(hybrid)

가

(Lancaster 1998, 244)

NEXIS, DIALOG, Dow Jones News/Retrieval

CD-ROM

가

1980

50%

1980

가

가 1998 52%

< 7> (Williams 1998, xxiii)

< 7> 『Gale Directory of Database』

< 7>

	1985 (%)	1988 (%)	1990 (%)	1992 (%)	1994 (%)	1996 (%)	1998 (%)
	1094 (57)	1162(37)	1367(32)	1715(26)	1827(26)	2048(24)	2196 (24)
/	-	55(2)	80(2)	47(1)	94(1)	109(1)	118(1)
	535 (28)	1285(41)	1786(42)	3077(47)	3462(49)	4392(51)	4735 (52)
	287(15)	613(19)	952(23)	1611(25)	1675(23)	1914(22)	1902(21)
	10(1)	32(1)	23(1)	47(1)	80(1)	131(2)	194(2)
	-	-	4(1)	0(0)	0(0)	0(0)	0(0)
	1926(100)	3147(100)	4212(100)	6497(100)	7138(100)	8594(100)	9145(100)

3.3.2

가

, ,
.
가
가 가
(digitalization)
(ASCII) , , , 가
.(1998d, 115)

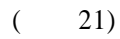
1)

가 , 가
가
, , . 가 가
.
가 .

[illegible]

가가

1998d, 118)



. GIF(Graphic Interchange Format)

. JPEG(Joint Photographic Expert Group)

가 . TIFF(Tagged Image File Format)

가 .

가 가

.

3)

(layout)

SPDL(Standard Page Description Language) . SPDL

가 ,

.

Postscript, PDF, TeX

. Postscript Adobe

. Postscript 가

가

가 . PDF

(Portable Document Format) Adobe 가 Postscript

Postscript

가 . TeX 가

.

4)

(markup)

(layout)

. , ,

가

. , (specific markup)

(procedural markup) .

,

(general markup)

(descriptive markup) .

.

SGML(Standard Generalized Markup Language)

가

. SGML

HTML(Hypertext Markup Language)

. XML(eXtensible Markup Language)

SGML

HTML

가 .

XML

가

SMIL(Synchronized Multimedia

Integration Language),

PGML(Precision Graphics Markup Language),

JSML(Java Speech Markup Language),

MathML,

BSML(Bioinformatic Sequence Markup Language)

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3.3.3

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PDF

가 가 .

Harvard Business

Review Online(HBRO)

가 .

1) Harvard Business Review Online(HBRO)

『Harvard Business Review』

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Review 「HBRO」

Ovid

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ab	(abstract)	an	(accession number)
au	(author)	bf	(business functions)
cr	(cited references)	de	(descriptors)
ex	exhibits	in	(author affiliation)
mj	(major identifiers)	mn	가 (minor identifiers)
nu	(number)	pr	(publication type)
se	(series)	so	(source)
su	(subject)	ti	(title)
tr	(translation availability)	tx	(full text)
up	(update code)		

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(22)

Accession Number 905120
Title Finding a Lasting Cure for U.S. Health Care
Source HARVARD BUSINESS REVIEW, Sep-Oct 1994, p. 45
Publication Type HBR Article (Perspectives)
Abstract In "Making Competition in Health Care Work" (July-August 1994), Elizabeth Olmsted Teisberg, Michael E. Porter, and Gregory B. Brown ask a question that has been absent from the national debate on health care reform: How can the United States achieve sustained cost reductions while at the same time maintaining quality of care? The authors argue that innovation driven by rigorous competition is the key to successful reform. A lasting cure for health care in the United States should include four basic elements: corrected incentives to spur productive competition; universal insurance to secure economic efficiency; relevant information to ensure meaningful choice; and innovation to guarantee dynamic improvement. In this issue's Perspectives section, eleven experts examine the current state of the health care system and offer their views on the shape that reform should take.
Number 0017-8012
Descriptors Health care Legislation
Minor Identifiers Prudential Insurance; Amgen; Montgomery Securities; RKS Health Ventures; Genzyme; Harvard Community Health; Kaiser Permanente; Hewlett-Packard; Metropolitan Life Insurance; Harvard Univ. Medical School; Duke Univ. Medical Center; New England Journal of Medicine; Senate; Jackson Hole Group; American Society for Cell Biology; National Institutes of Health; Committee on Labor and Human Resources; New England Medical Center; Udvarhelyi, I. Steven; Reiman, Arnold S.; Binder, Gordon M.; Kennedy, Edward M., Sen. Clinton, Bill; Pres. Grossman, Jerome H.; Tenner, Henri; Raines, Lisa A.; Marincola, Elizabeth; Pyke, Thomas O.; Einhoeven, Abim; Ellwood, Paul; Holmes, Ben L.
Business Functions Personnel relations
Cited References 1 OF 1. Teisberg, Elizabeth Olmsted; Porter, Michael E.; Brown, Gregory B. Making Competition in Health Care Work. Harvard Business Review, 1994 Jul.
Update Code 9010
Full Text 1 OF 125. In "Making Competition in Health Care Work" (July-August 1994), Elizabeth Olmsted Teisberg, Michael E. Porter, and Gregory B. Brown consider a question that has been conspicuously absent from the current national debate on health care reform: How can the United States achieve sustained cost reductions over time? <sample text truncated>

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3.4

3.4.1

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(デ
デジタル・クリエイターズ連絡協議會 1994)
(:)
(:)가 (Riehm, Wingert 1995), , ,
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가 .(I*M Europe
1997)

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． 1990 가 가
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3.4.2

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.(1997, 62)

1)

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(byte

stream)

2)

NTSC(National Television Standard Committee)
(512×480, 8) 240KB, HDTV(High-Definition
Television) (1024×2000, 24) 5.9MB
12 5 NTSC 843MB
, HDTV 20.6GB

CD-ROM

가

3)

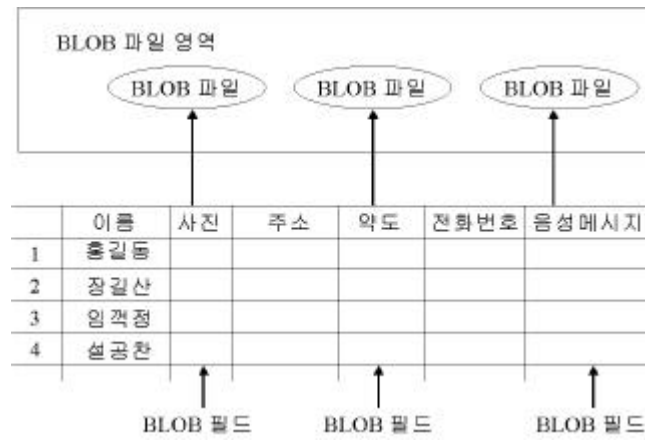
가 , 가
가 . , 가
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3.4.3

(RDB), (ERDB),
(OODB), (ORDB)
.(1994, 61-62; 1996, 2; 1997, 65-66)
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가 가 ,
(, SQL)
가
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(RDB)
가 , , ,
가 .
2GB 가 BLOB
(Binary Large Object) BLOB .
가
, BLOB 가 가
 (24) BLOB
BLOB BLOB
BLOB BLOB
가

(24)

BLOB



(24) ERDB BLOB

(OODB)

가 가

가

(ORDB)

(layer)

3.4.4

(DBMS) 1960

DBMS .(1997, 66-68; 1995, 81)

DBMS 가

DBMS DBMS (Oracle), (Informix), (Sybase)

가 DBMS 「 」 가 「 」

DBMS 2Gbyte 가

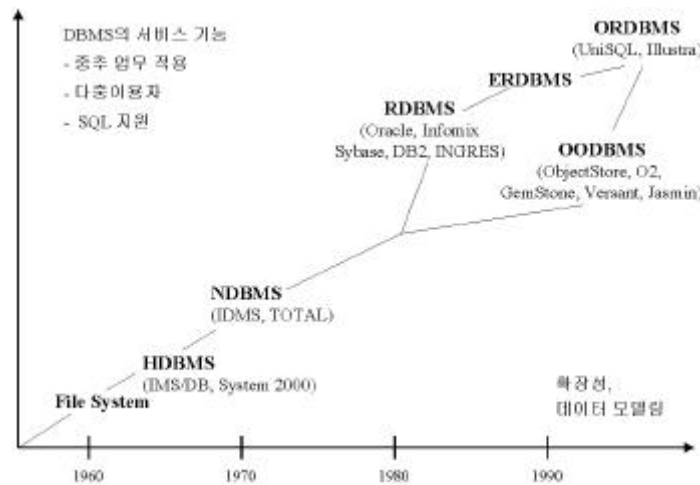
BLOB

DBMS UniSQL, Illustra, Open ODB, Persistence, OSMOS, VODAK

DBMS DBMS

(layer)

(25) DBMS



(25) DBMS

1990

DBMS

DBMS

DBMS

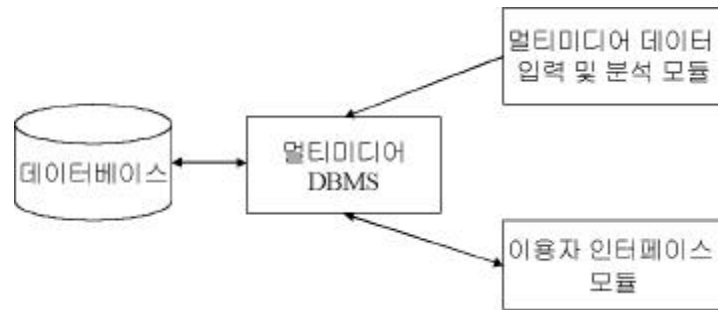
. 1992 PC
 KMEDIA-I
 KMEDIA-II . UNIX DBMS
 (ODYSSEUS) UNIX KMEDIA-UNIX DBMS
 .
 (KAOSS) DBMS
 . DBMS DBMS
 ALPHA MOSS , DBMS
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 가 DBMS -
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3.4.5

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.(1997, 358)

(26) .



(26) DBMS
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.(1996, 8-9)

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가 가
 가 .(1998)

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가 SMDL, HyTime, MIDI, NIFF
 . SMDL HyTime

DTD가

. MIDI NIFF
 가

. MIDI

(異名同音) (,)
(layout)

. NIFF

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.(1997, 399-400)

가 가

가 (frame), (shot), (scene), (sequence) 가

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QBIC

가

가

QBIC (customized query)

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measure)

3가

QBIC

(customized

가

(27)



(27) QBIC

2) VideoQ

VideoQ 1997 Columbia

.(VideoQ <<http://www.ctr.columbia.edu/videoq/about.html>>)

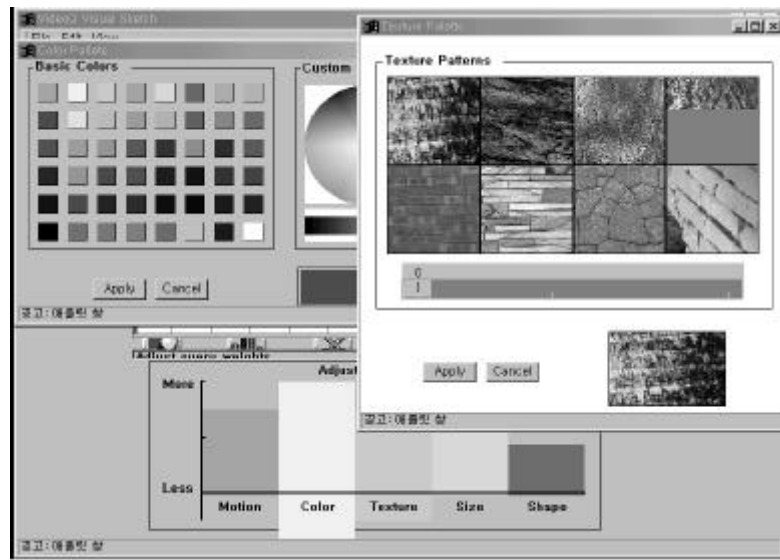
VideoQ

(shot)

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(28) VideoQ



(28) VideoQ

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가 , , , . 가 . , , , , . 2 < 10> .

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	가 : , , , . : (DBMS)	
.	() . 가	

가

(29) 가



(29)

가 (KS, KICS) (TTA, DPCS), (ISO)

4.1.1

· KICS.KO- 10.0060

가

가

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(data model)

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4.1.2

- ISO/IEC FCD 14481 Conceptual Schema modeling facility

(construct) , , ,

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4.2.1

가 , , , (,), (,), / .

1)

(Character Set) .

8

(256) . 8

256

8 가 16

(ISO) .

가 . ,

'a' 'a'가

가 .

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ㄱ)	KS X 1001 : 1992	()
)	KS X 1002 : 1991	
)	KS X 1003 : 1993 ISO/IEC 646 : 1991	() ISO 7-bit coded character set for information interchange
)	KS X 1004 : 1977 ISO/IEC 2022 : 1994	Character code structure and extension techniques
)	KS X 1005-1 : 1995 ISO/IEC 10146-1 : 1993	(UCS) - 1 : Universal Multiple-Octet Coded Character Set (UCS) - Part 1 : Architecture and Basic Multilingual Plane
)	KS X 1006 : 1995 ISO/IEC 4873 : 1991	ISO 8 ISO 8-bit code for information interchange - Structure and rules for implementation
)	KS X 1020 : 1994 ISO 6630 : 1986	Bibliographic control characters

ㄱ) KS X 1001 ()

) KS X 1002

KS X 1001

, KS X 1001 KS X 1004

) KS X 1003 ()

ISO/IEC 646 ISO 7-bit coded character set for information interchange

KS X 1003

ISO/IEC 646 . ISO/IEC 646

, 0 9 , ,

7 1962 ANSI

(ASCII : American Standard Code for Information Interchange) .

1967

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128

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) KS X 1004

ISO/IEC 2022 Character code structure and extension techniques

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ISO/IEC

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4873 7 ISO/IEC 646

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가

) KS X 1005-1

(UCS) - 1 :

ISO/IEC 10646-1 Universal Multiple-Octet Coded Character Set(UCS) - Part 1 :

Architecture and Basic Multilingual Plane

UCS(Universal Multiple-Octet Coded Character Set)

(),

ISO/IEC 10646 UCS

BMP()

ISO/IEC 10646

UCS BMP

BMP

UCS 4 (32)

UCS-4

UCS 2 (16) BMP

UCS-2

가

UCS ISO 2022

) KS X 1006 ISO 8
 ISO/IEC 4873 ISO 8-bit code for information interchange - Structure and rules for
 implementation

KS X 1003, ISO/IEC 646 7 7
 8 . KS X 1004, ISO/IEC
 2022 가 (option) 가
 8 .
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(accent)가 ,

) KS X 1020
 ISO 6630 Bibliographic control characters

15 가 . KS X 1003,
 ISO/IEC 646

가 .

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 () . ,

JPEG .

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	가) KS X 1701-1 : 1994 ISO/IEC 9281-1 : 1990	- 1 :	Picture coding methods - Part 1 : Identification
	) KS X 1701-2 : 1994 ISO/IEC 9281-2 : 1990	- 2 :	Picture coding methods - Part 2 : Procedure for registration
	) KS X 1702-1 : 1994 ISO/IEC 9282-1 : 1988	- 1 : 7 , 8	Coded representation of pictures - Part 1 : Encoding principles for picture representation in a 7-bit or 8-bit environment
	) KS X 1702-2 : 1994	- 2 : 7 , 8	
JPEG	) ISO/IEC 10918-1 : 1994		Digital compression and coding of continuous-tone still images : Requirements and guidelines
	) KS X 1703-2 ISO/IEC 10918-2 : 1995	- 2 : JPEG	Digital compression and coding of continuous-tone still images : Compliance testing
	) KS X 1703-3 ISO/IEC 10918-3 : 1997	- 3 :	Digital compression and coding of continuous-tone still images : Extensions

가) KS X 1701-1 - 1 :
ISO/IEC 9281-1 Picture coding methods - Part 1 : Identification

, . () 가 . 가 가 .

) KS X 1701-2 - 2 :

ISO/IEC 9281-2 Picture coding methods - Part 2 : Procedure for registration

KS X

1701-1, ISO/IEC 9281-1

) KS X 1702-1 - 1 : 7 , 8

, ISO/IEC 9282-1 Coded representation of pictures - Part 1 : Encoding principles for picture representation in a 7-bit or 8-bit environment

7 , 8

가

) KS X 1702-2 - 2 : 7 , 8

2

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) ISO/IEC 10918-1 Digital compression and coding of continuous-tone still images :
Requirements and guidelines

) KS X 1703-2 - 2 : JPEG
ISO/IEC 10918-2 Digital compression and coding of continuous-tone still images :
Compliance testing

ISO/IEC 10918-1 (continuous-tone)

ITU-T T.81, ISO/IEC 10918-1

ITU-T T.81, ISO/IEC 10918-1

ITU-T T.81, ISO/IEC 10918-1

ITU-T T.81, ISO/IEC 10918-1

ITU-T T.81, ISO/IEC 10918-1

) KS X 1703-3 - 3 :
 ISO/IEC 10918-3 Digital compression and coding of continuous-tone still images :
 Extensions
 (grayscale) (color) (continuous-tone)
 .
 .
 , (selective refinement), (tiling),
 (Still Picture Interchange File Format, SPIFF) .

3) () · (,)
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 . MPEG-1, 2, 4가
 MPEG(Moving Picture Experts Group)
 1988 ISO/IEC JTC1/SC29/WG11 MPEG
 MPEG 가
 1993 MPEG-1 (ISO/IEC 11172)
 1.5Mbit/s
 가 . 1994 MPEG-2 (ISO/IEC 13818)
 , 2 30Mbit/s
 . MPEG-2 MPEG-1
 .
 64Kbit/s 1995 MPEG-4
 (ISO/IEC DIS 14496) 가 1999 1 .

/ , / , ,

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< 13> . MPEG-1, 2

. < 13> .

MPEG -1	7b) ISO/IEC 11172-1 : 1993	Coding of moving pictures and associated audio for digital storage media at up to about 1,5 Mbit/s - Part 1 : Systems
	) ISO/IEC 11172-2 : 1993	Part 2 : Video
	) ISO/IEC 11172-3 : 1993	Part 3 : Audio
	) ISO/IEC 11172-4 : 1995	Part 4 : Conformance testing
	ISO/IEC TR 11172-5 : 1998	Part 5 : Software simulation
MPEG -2	TTA.IS- 13818.1	- 1 :
	) ISO/IEC 13818-1 : 1996	Generic coding of moving pictures and associated audio information : Systems
	) ISO/IEC 13818-2 : 1996	Generic coding of moving pictures and associated audio information : Video
	TTA.IS- 13818.3	- 3 :
	) ISO/IEC 13818-3 : 1998	Part 3 : Audio
	TTA.IS- 13818.4	- 4
	) ISO/IEC 13818-4 : 1998	: Part 4 : Conformance testing
	) ISO/IEC TR 13818-5 : 1997	Part 5 : Software simulation
	TTA.IS- 13813.6	- 6
	) ISO/IEC DIS 13818-6	: Part 6 : Extensions for DSM-CC
	) ISO/IEC 13818-7 : 1997	Part 7 : Advanced Audio Coding(AAC)
	KS X 1704-9	MPEG-2
	) ISO/IEC 13818-9 : 1996	Part 9 : Extension for real time interface for systems decoders
	) KS X 1706	-

가) ISO/IEC 11172-1 Coding of moving pictures and associated audio for digital storage media at up to about 1.5 Mbit/s - Part 1 : Systems

(layer)

ISO/IEC 11172-2 ISO/IEC 11172-3

ISO/IEC 11172

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) ISO/IEC 11172-2 Coding of moving pictures and associated audio for digital storage media at up to about 1.5 Mbit/s - Part 2 : Video

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525 625 PC

ISO/IEC 11172 CD, ,
1.5Mbit/s

) ISO/IEC 11172-3 Coding of moving pictures and associated audio for digital storage media at up to about 1.5 Mbit/s - Part 3 : Audio

(decoding) (encoder) (decoder)
CD PCM

CD, DAT (),
 1.5Mbits/s 가
 ISO/IEC 11172-1
 32kHz,
 33.1kHz, 48kHz

) ISO/IEC 11172-4 Coding of moving pictures and associated audio for digital storage
 media at up to about 1.5 Mbit/s - Part 4 : Conformance testing
 가 ISO/IEC 11172 1, 2, 3

ISO/IEC 11172

) ITA-IS-13818.1 - 1 :
 ISO/IEC 13818-1 Generic coding of moving pictures and associated audio
 information : Systems

, ISO/IEC 13818-2 13818-3

) ISO/IEC 13818-2 Generic coding of moving pictures and associated audio
 information : Video

) TTA.IS-13818.3 - 3 :

ISO/IEC 13818.3 Generic coding of moving pictures and associated audio
information - Part 3 : Audio

/ MPEG-2

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ISO/IEC 11172-3

PCM(Pulse Code Modulation)

) TTA.IS-13818.4 - 4 :

ISO/IEC 13818-4 Generic coding of moving pictures and associated audio
information - Part 4 : Conformance testing

가 ISO/IEC 13818 1 , 2 , 3

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) ISO/IEC TR 13818-5 Generic coding of moving pictures and associated audio
information - Part 5 : Software simulation

ISO/IEC 13818 1 , 2 , 3 C

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) TTA.IS-13818.6 - 6 :

ISO/IEC 13818-6 Generic coding of moving pictures and associated audio
information - Part 6 : Extensions for DSM-CC

DSM-CC(Digital Storage Media Command and Control)

ISO/IEC 11172(MPEG-1) ISO/IEC 13818(MPEG-2)

. DSM-CC , , , , ,

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) ISO/IEC 13818-7 Generic coding of moving pictures and associated audio information - Part 7 : Advanced Audio Coding(AAC)

MPEG-1

(AAC)

MPEG-2

MPEG-2 AAC

320kb/s

) KS X 1704-9 MPEG-2

ISO/IEC 13818-9 Generic coding of moving pictures and associated audio information - Part 9 : Extension for real time interface for systems decoders

ISO/IEC 13818-1

ISO/IEC 13818-1

ISO/IEC 13818-1

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) KS X 1706

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MHEG,

HyTime,

VRML

. MHEG(Multimedia and Hypermedia Information Coding Experts Group)

가 . /

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MHEG	가)	ISO/IEC 13522-1 : 1997	Coding of multimedia and hypermedia information - Part 1 : MHEG object representation - Base notation(ASN.1)
	)	ISO/IEC 13522-3 : 1997	Coding of multimedia and hypermedia information - Part 3 : MHEG script interchange representation
	)	ISO/IEC 13522-4 : 1996	Coding of multimedia and hypermedia information - Part 4 : MHEG registration procedure
	)	ISO/IEC 13522-5 : 1997	Coding of multimedia and hypermedia information - Part 5 : Support for base-level interactive applications
	)	KS X 1705-6 ISO/IEC 13522-6 : 1998	- 6 Coding of multimedia and hypermedia information - Part 6 : Support for enhanced interactive applications
HyTime	)	KS X 6019 : 1997 ISO/IEC 10744 : 1997	· (HYTIME) Hypermedia/Time-based Structuring Language(HyTime)
VRML	)	ISO/IEC 14772-1 : 1998	Computer graphics and image processing - The Virtual Reality Modeling Language - Part 1 : Functional specification and UTF-8 encoding

가) ISO/IEC 13522-1 Coding of multimedia and hypermedia information - Part 1 :
MHEG object representation - Base notation(ASN.1)

MHEG ASN.1

가 . , LAN,

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. MHEG

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) ISO/IEC 13522-3 Coding of multimedia and hypermedia information - Part 3 :
MHEG script interchange representation

ISO/IEC 13522-1 ISO/IEC 13522-5 ISO/IEC 13522

MHEG
 , MHEG
 MHEG (MHEG-SIR)

) ISO/IEC 13522-4 Coding of multimedia and hypermedia information - Part 4 :
 MHEG registration procedure
 가 MHEG ,
 가 ISO/IEC
 13522-1

) ISO/IEC 13522-5 Coding of multimedia and hypermedia information - Part 5 :
 Support for base-level interactive applications
 ISO/IEC 13522
 , ISO/IEC 13522-5
 가 MHEG
 . ISO/IEC 13522-5 가 ,
 가

) KS X 1705-6 - 6 :
 , ISO/IEC 13522-6 Coding of multimedia and hypermedia information - Part 6 :
 Support for enhanced interactive applications
 ISO/IEC 13522-5
 .
 Java ()
 , ISO/IEC
 13522-5
 ISO/IEC 13522-5
 , VOD TV 가

) KS X 6019 . (HYTIME)

ISO/IEC 10744 Hypermedia/Time-based Structuring Language(HyTime)

HyTime . HyTime

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. HyTime SGML(Standard Generalized Markup Language) .

) ISO/IEC 14772-1 Computer graphics and image processing - The Virtual Reality

Modeling Language - Part 1 : Functional specification and UTF-8 encoding

VRML 3 가

z, 가 . 1994 가

VRML 1998

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ISO/IEC 11179

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KS X 1520

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가) ISO/IEC DIS 11179-1		Coordination of data element standardization - Part 1 : Framework for the generation and standardization of data elements
) ISO/IEC DIS 11179-2		Coordination of data element standardization - Part 2 : Classification of data elements
KS X 1517-3 : 1996) ISO/IEC 11179-3 : 1994		Specification and standardization of data elements - Part 3 : Basic attributes of data elements
KS X 1517-4 : 1996) ISO/IEC 11179-4 : 1995		Specification and standardization of data elements - Part 4 : Rules and guidelines for the formulation of data definitions
KS X 1517-5 : 1997) ISO/IEC 11179-5 : 1995		- 5 : Specification and standardization of data elements - Part 5 : Naming and identification principles for data elements
KS X 1517-6 : 1997) ISO/IEC 11179-6 : 1997		- 6 : Specification and standardization of data elements - Part 6 : Registration of data elements
) KS X 1520 : 1997		-

가) ISO/IEC DIS 11179-1 Coordination of data element standardization - Part 1 :
Framework for the generation and standardization of data elements
ISO/IEC 11179

) ISO/IEC DIS 11179-2 Coordination of data element standardization - Part 2 :
Classification of data elements

가

) KS X 1517-3 , ISO/IEC 11179-3 Specification and
standardization of data elements - Part 3 : Basic attributes of data elements

가

) KS X 1517-4 , ISO/IEC 11179-4 Specification and
standardization of data elements - Part 4 : Rules and guidelines for the formulation
of data definitions

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-) KS X 1517-5 - 5 :
ISO/IEC 11179-5 Specification and standardization of data elements - Part 5 :
Naming and identification principles for data elements

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-) KS X 1517-6 - 6 :
ISO/IEC 11179-6 Specification and standardization of data elements - Part 6 :
Registration of data elements

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가)	KS X 6006 : 1993 ISO 2709 : 1996	Format for Information Exchange
)	KS X 6007 : 1994	-
)	KS X 6008 : 1996	-

가) KS X 6006

ISO 2709 Format for Information Exchange

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) KS X 6007 -

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) KS X 6008 -

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· KICS.IS-10032 (RMDM)
ISO/IEC 10032 Reference Model of Data Management

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가))	KS X 6003 : 1990 ISO 3297 : 1986	(ISSN) International standard serial number (ISSN)
)	KS X 6004 : 1992 ISO 2108 : 1992	(ISBN) International standard book numbering (ISBN)
)	TTA.IS- 10444 ISO 10444 : 1994	(ISRN) International standard technical report number (ISRN)
)	TTA.IS- 10957 ISO 10957 : 1993	(ISMN) International standard music number (ISMN)
)	KS X 1519- 1 : 1997 ISO/IEC 6523- 1 : 1998	- 1 : Structure for the identification of organizations and organization parts - Part 1 : Identification of organization identification schemes
)	KS X 1519- 2 : 1997 ISO/IEC 6523- 2 : 1998	- 2 : Structure for the identification of organizations and organization parts - Part 2 : Registration of organization identification schemes

가) KS X 6003 (ISSN)
ISO 3297 International standard serial number (ISSN)

) KS X 6004 (ISBN)
ISO 2108 International standard book numbering (ISBN)

ISBN

가

가

) TTA.IS- 10444 (ISRN)
ISO 10444 International standard technical report number (ISRN)

(ISRN)

) TTA.IS-10957 (ISMN)

ISO 10957 International standard music number (ISMN)

(International Standard Music Number)

) KS X 1519-1

- 1 :

ISO/IEC 6523-1 Structure for the identification of organizations and organization parts - Part 1 : Identification of organization identification schemes

가

) KS X 1519-2

- 2 :

ISO/IEC 6523-2 Structure for the identification of organizations and organization parts - Part 2 : Registration of organization identification schemes

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가)	KS X 6005 : 1993	(UDC)
)	DPCS 001 : 1997	
)	DPCS 002 : 1997	

가) KS X 6005 (UDC)

) DPCS 001

) DPCS 002

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KS X 1501 : 1991		
KS X 1502 : 1993		
KS X 1503 : 1993		
KS X 1504 : 1977		, SITC() BTN()
KS X 1505 : 1995		, , ,
KS X 1506 : 1990		가 , , ,
KS X 1507 : 1987		
KS X 1508 : 1990 ISO/IEC 5218 : 1977	Representation of human sexes	, ()
KS X 1509 : 1980		
KS X 1510-1 : 1995 ISO 3166-1 : 1997	- 1 : Codes for the representation of names of countries and their subdivisions - Part 1 : Country codes	2 , 3
KS X 1510-2 ISO 3166-2 : 1998	- 2 : 1 Part 2 : Country subdivision code	가 1

KS X 1510-3 ISO 3166-3 : 1999	- 3 : Part 3 : Code for formerly used names of countries	ISO 3166-1
KS X 1511 : 1992 ISO 8601 : 1988	Representation of dates and times	, ,
KS X 1512 : 1980		
KS X 1513 : 1994 ISO 2955 : 1983	SI Representation of SI and other units in systems with limited character sets	ISO 1000 SI
KS X 1514 : 1992 ISO 6093 : 1985	Representation of numerical values in character strings for information interchange	가 3가
KS X 1516 : 1994 ISO 6709 : 1983	, Standard representation of latitude, longitude and altitude for geographic point locations	,
KS X 6301 : 1995 ISO 4217 : 1995	Codes for the representation of currencies and funds	3 , 3
KS X 6302 : 1993 ISO 6166 : 1994	가 International securities identification numbering system(ISIN)	가 가
KS X 6303 : 1995 ISO 9362 : 1994	Banking telecommunication messages - Bank identifier codes	(BIC)
KS X 6304 : 1995 ISO 10383 : 1992	(MIC) Codes for exchanges and regulated markets - Market identifier codes (MIC)	(BIC) (MIC)
KS X 6305 : 1995 ISO 9019 : 1995	Securities - Numbering of certificates	,
KICS.KO- 10.0011		
KICS.KO- 10.0050		
KICS.KO- 10.0051	.	

5)

가 , (記述)

SGML

. < 21>

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가) KS X 6011 : 1993 ISO 8879 : 1986	SGML Text and office systems - Standard Generalized Markup Language (SGML)	
) KS X 6010 : 1993 ISO 9069 : 1988	SGML SGML support facilities - SGML Document Interchange Format (SDIF)	
) KS X 6016 : 1997 ISO 12083 : 1994	Electronic manuscript preparation and markup(Exists also on disks (XL), price code of paper copy together with disks XP)	
) KS X 6017 : 1997 ISO/IEC TR 9573 : 1988	SGML SGML support facilities - Techniques for using SGML	
) KS X 6020 : 1997 ISO/IEC 10179 : 1996	(DSSSL) Processing languages - Document Style Semantics and Specification Language(DSSSL)	

가) KS X 6011 SGML, ISO 8879 Text and office systems - Standard Generalized Markup Language(SGML)

SGML 가

SGML

, SGML

SGML

(,) SGML

) KS X 6010 SGML , ISO 9069 SGML support facilities - SGML
Document Interchange Format(SDIF)
SGML (SDIF) . SDIF Abstract
Syntax Notation 1(- (ASN.1))
OSI ASN.1

) KS X 6016
ISO 12083 Electronic manuscript preparation and markup(Exists also on disks (XL),
price code of paper copy together with disks XP)
SGML 4 가 ,
(article)
DTD() SGML
, , , DTD, (Mathematics) DTD가 .
DTD 가

) KS X 6017 SGML
ISO/IEC TR 9573 SGML support facilities - Techniques for using SGML
SGML DTD
KS X 6011
. , , , ,
. SGML SGML
DTD 가 DTD

) KS X 6020 (DSSSL)
ISO/IEC 10179 Processing languages - Document Style Semantics and Specification
Language(DSSSL)
SGML DSSSL

< 22>

가) KS X 6001

) KS X 6002

) KICS.KO- 10.0066 가 (NGIS)
가

GIS

가

GIS가

) KICS.KO- 10.0002 가
가

W/S

가

가

가

) KICS.IS- 10610.1 ODA/ODIF (1)

ISO/IEC ISP 10610-1 International Standardized Profile FOD11 - Open Document
Format : Simple document structure - Character content architecture only - Part 1
: Document Application Profile(DAP)

가

, (ODA)
 ODA ISO 8613
 ISO/IEC ISP 10610-1

) KICS.IS- 11181.1 ODA/ODIF (2)
 ISO/IEC ISP 11181-1 International Standardized Profile FOD26 - Open Document
 Format : Enhanced document structure - Character, raster graphics and geometric
 graphics content architectures - Part 1 : Document Application Profile(DAP)
 2 , ,
 , 가 가

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2)

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가)	ISO 10160 : 1997	Open Systems Interconnection - Interlibrary Loan Application Service Definition
)	TTA.IS- 10161.1 : 1997 ISO 10161- 1 : 1997	- 1 : Open Systems Interconnection - Interlibrary Loan Application Protocol Specification - Part 1 : Protocol specification
)	ISO 10161- 2 : 1997	Open Systems Interconnection - Interlibrary Loan Application Protocol Specification - Part 2 : Protocol implementation conformance statement(PICS) proforma
)	TTA.IS- 10162 : 1997	
)	TTA.IS- 10163 : 1997 ISO 10163- 1 : 1993	- Open Systems Interconnection - Search and Retrieve Application Protocol Specification - Part 1 : Protocol specification
)	DPCS 011 : 1998 ISO 23950 : 1998	(Z39.50) - Information retrieval(Z39.50) - Application service definition and protocol specification

가 .
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가) ISO 10160 Open Systems Interconnection - Interlibrary Loan Application Service
 Definition

ILL

) TTAIS-10161.1 - 1 :
 ISO 10161-1 Open Systems Interconnection - Interlibrary Loan Application
 Protocol Specification - Part 1 : Protocol specification

. ILL

가

) ISO 10161-2 Open Systems Interconnection - Interlibrary Loan Application Protocol
 Specification - Part 2 : Protocol implementation conformance statement (PICS)
 proforma

OSI 가

(記述)

(PICS)

ISO 10161-1

PICS

ISO 10161

) TTA.IS- 10162

) TTA.IS- 10163.1

ISO 10163-1 Open Systems Interconnection - Search and Retrieve Application
Protocol Specification - Part 1 : Protocol specification

(Application Service Element)

) DPCS 011 (Z39.50) -

ISO 23950 Information retrieval(Z39.50) - Application service definition and protocol
specification

OSI

Z39.50 1984 1988 ANSI(American
National Standard Institute) NISO(National Information Standards Organization)
Z39.50 (Z39.50- 1988) 1989 NISO
Z39.50 (Z39.50 Maintenance Agency)
1990 ZIG(Z39.50 Implementers Group)
1992 Z39.50
ISO 10162/ 10163 Search and Retrieve Z39.50- 1988
Z39.50- 1992 3 Z39.50- 1995 ISO 10162/ 10163
1998 ISO 23950

4.2.5

가

1)

가

< 24>

	가) KS X 6015 : 1996 ISO 8777 : 1993	Commands for interactive text searching
	) KICS.KO- 10.0062	
	) DPCS 005 : 1997	
	) ISO 2788 : 1986	Guidelines for the establishment and development of monolingual thesauri
) ISO 5964 : 1985	Guidelines for the establishment and development of multilingual thesauri

가) KS X 6015

ISO 8777 Commands for interactive text searching

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) KICS.KO- 10.0062

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) DPCS 005

가 GUI

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GUI
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) ISO 2788 Guidelines for the establishment and development of monolingual thesauri

·

) ISO 5964 Guidelines for the establishment and development of multilingual thesauri

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2)

가

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< 25>

가)	KS X 2022-1 : 1996 ISO/IEC 9945-1 : 1996	가 (POSIX) - 1 : C Portable Operating System Interface(POSIX) - Part 1 : System Application Program Interface(API) [C Language]
)	KS X 2022-2 : 1997 ISO/IEC 9945-2 : 1993	가 (POSIX) - 2 : Portable Operating System Interface(POSIX) - Part 2 : Shell and Utilities
)	KS X 2023 : 1996 ISO/IEC 13210 : 1994	가 (POSIX) Test methods for measuring conformance to POSIX

가) KS X 2022-1 가 (POSIX) - 1 :
C , ISO/IEC 9945-1 Portable Operating System Interface(POSIX)
- Part 1 : System Application Program Interface(API) [C Language]

가
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C
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) KS X 2022-2 가 (POSIX) - 2 :
ISO/IEC 9945-2 Portable Operating System Interface(POSIX) - Part 2 : Shell and
Utilities

가

) KS X 2023 가 (POSIX)

ISO/IEC 13210 Test methods for measuring conformance to POSIX
POSIX

POSIX , POSIX ,
POSIX
POSIX
POSIX
POSIX 가

4.3

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.(1997, 51-52)
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4.3.1

가, , (Data Definition Language)

(Data Manipulation Language) 가

가

COBOL, PL/1, FORTRAN

< 26>

SQL	가) KS X 2017 : 1990 ISO/IEC 9075 : 1992	SQL Database Language - SQL
	) ISO/IEC 9075-3 : 1995	Database Language - SQL - Part 3 : Call-Level Interface (SQL/CLI)
	) ISO/IEC 9075-4 : 1996	Database Language - SQL - Part 4 : Persistent Stored Modules (SQL/PSM)
	) KS X 2018 : 1992	(HSQL)
SQL/MM	ISO/IEC WD 13249-1	Information Technology - SQL Multimedia and Application Packages - Part 1 : Framework
	ISO/IEC FCD 13249-2	Information Technology - SQL Multimedia and Application Packages - Part 2 : Full -Text
	) ISO/IEC FCD 13249-3	Information Technology - SQL Multimedia and Application Packages - Part 3 : Spatial
	ISO/IEC CD 13249-4	Information Technology - SQL Multimedia and Application Packages - Part 4 : General Purpose Facilities
	ISO/IEC CD 13249-5	Information Technology - SQL Multimedia and Application Packages - Part 5 : Still Image
	) KS X 2019 : 1991 ISO 8907 : 1987	(NDL) Database Languages - NDL

SQL(Structured Query Language)

< 26> SQL

가) KS X 2017 SQL, ISO/IEC 9075 Database Language - SQL
SQL
(SQL-DDL) 가
(SQL-DDL), SQL
SQL
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) ISO/IEC 9075-3 Database Language - SQL - Part 3 : Call-Level Interface
(SQL/CLI)
ISO/IEC 9075 , SQL
SQL
. , SQL Call-Level
.

) ISO/IEC 9075-4 Database Language - SQL Part 4 : Persistent Stored Modules
(SQL/PSM)
SQL
SQL
, SQL
.

) KS X 2018 (HSQL)
SQL HSQL
(HSQL-DDL)

가 (HSQL-
DML) . HSQL
HSQL , , , , ,
가 . ,
가 , , , , ,
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) ISO/IEC 13249s SQL Multimedia and Application Packages

ISO JTC1/SC32 WG4

ISO/IEC 13249s

(Full-Text), (Spatial), (Still Image), (Still Graphic),
(Animation), (Full Motion Video), (Audio), (Seismic), (Music)

) KS X 2019 (NDL)

ISO 8907 Database Language - NDL

가 .
가 가 가 .
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4.3.2

(Remote Database Access)

가

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가) KICS.IS-9579.1	- (RDA) - 1	
ISO/IEC 9579-1 : 1993	Open Systems Interconnection - Remote Database Access - Part 1 : Generic Model, Service and Protocol	
KICS.IS-9579.2 : 1996	- (RDA) - 2	
) ISO/IEC 9579-2 : 1998	Open Systems Interconnection - Remote Database Access - Part 2 : SQL Specialization	
) ISO/IEC 9579-3 : 1996	Open Systems Interconnection - Remote Database Access - Part 3 : SQL specialization Protocol Implementation Conformance Statement(PICS) proforma	
) KICS.KO- 10.0033 : 1995		
) KICS.KO- 10.0035 : 1995	: C-ISAM	

가) KICS.IS-9579.1 - (RDA) - 1 :
, ISO/IEC 9579-1 Open Systems Interconnection - Remote
Database Access - Part 1 : Generic Model, Service and Protocol
(RDA) , RDA , RDA
RDA , RDA ,
RDA , RDA 가 ,

) KICS.IS-9579.2 - (RDA) - 2 :
, ISO/IEC 9579-2 Open Systems Interconnection - Remote
Database Access - Part 2 : SQL Specialization

(protocol) .
 OSI (application layer) .
 RDA SQL , RDA RDA ,
 RDA SQL ASE , RDA SQL RDA SQL ASE
 , SQL .

) ISO/IEC 9579-3 Open Systems Interconnection - Remote Database Access - Part 3
 : SQL specialization Protocol Implementation Conformance Statement(PICS)
 proforma

ISO/IEC 9579 2

· PIC ISO/IEC 9646-2 PICS
 · ISO/IEC

9579 .

) KICS.KO- 10.0033

가

SAG(SQL Access Group) X/Open CLI(Call Level
 Interface) , CLI ODBC(Open Database Connectivity)
 IDAPI(Integrated Database Application Programming
 Interface) .

, /

가 .

) KICS.KO- 10.0035 : C-ISAM

RDA , RDA C-ISAM
 가 C-ISAM
 . RDA ISO/IEC .

,

RDA

RDA C-ISAM

RDA

C-ISAM

RDA

C-ISAM

RDA

4.3.3

< 28>

(IRDS)

< 28>

		ISO/IEC CD 13238- 1	Data Management Export/Import Facilities - Part 1 : Standardization Framework
	7b)	ISO/IEC CD 13238- 2	Data Management Export/Import Facilities - Part 2 : SQL Export/Import
		ISO/IEC DIS 13238- 3.2	Data Management Export/Import Facilities - Part 3 : Export/Import Facilities for IRDS
	)	KS X 2024 : 1992 ISO/IEC 10027 : 1990	Information Resource Dictionary System(IRDS) framework
IRDS	)	KICS.IS- 10728 : 1996 ISO/IEC 10728 : 1993	(IRDS) Information Resource Dictionary System(IRDS) Services Interface

7b) ISO/IEC 13238s Data Management Export/Import Facilities

SQL , , ,
IRDS

SQL
IRDS

) KS X 2024

ISO/IEC 10027 Information Resource Dictionary System(IRDS) framework
(Information Resource Dictionary System)

가 (framework) . IRDS

. IRDS

IRDS

IRDS

IRDS

) KICS.IS- 10728 (IRDS)

ISO/IEC 10728 Information Resource Dictionary System(IRDS) Services Interface

IRDS (facilities) , ISO/IEC 10032

ISO/IEC 10027 . ,

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IRDS .

4.4 .

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4.4.1

가 , 가 가 , 가 가 가 가 < 29> < 29>

	가) KS X 1201 : 1986	DEA 1
) KS X 1202 : 1986 ISO 8372 : 1987	64 Modes of operation for a 64-bit block cipher algorithm
	) KS X 1204-1 : 1994 ISO/IEC 9798-1 : 1991	- 1 : Security techniques - Entity authentication mechanisms - Part 1 : General model
	) KS X 1205 : 1994 ISO/IEC 10116 : 1997	n Security techniques - Modes of operation for an n-bit block cipher
	) KS X 1206 : 1994 ISO/IEC 9797 : 1994	Security techniques - Data integrity mechanism using a cryptographic check function employing a block cipher algorithm
	) KS X 1208-2 : 1996 ISO/IEC 10118-2 : 1994	n Security techniques - Hash-functions - Part 2 : Hash- functions using an n-bit block cipher algorithm
	) KS X 1203 : 1993 ISO 9160 : 1988	Data encipherment - Physical layer interoperability requirements
	) KS X 1207 : 1994 ISO/IEC 9796 : 1991	Security techniques - Digital signature scheme giving message recovery

ISO 8372 Modes of operation for a 64-bit block cipher algorithm

) KS 1204-1 - 1 :
ISO/IEC 9798-1 Security techniques - Entity authentication mechanisms - Part 1 :
General model

3

N 4가 .

ISO/IEC 9797 Security techniques - Data integrity mechanism using a cryptographic check function employing a block cipher algorithm

M

가 가, 가,

M 가, 가 .

) KS X 1208-2 n

ISO/IEC 10118-2 Security techniques - Hash-functions - Part 2 : Hash-functions
using an n-bit block cipher algorithm

N
N
가 N , 가 N
, 2N .

) KS X 1203

ISO 9160 Data encipherment - Physical layer interoperability requirements

ADP
(SDU) .

가
2가 ()
, 2 ()
A, B) .

) KS X 1207

ISO/IEC 9796 Security techniques - Digital signature scheme giving message
recovery

(signature
function) (signature generation process)
(verification function)
(padding)
(extension) 가 .

4.4.2 가

가 가
DPCS 010 , 가 가
 . < 30> .
< 30> 가

가)	DPCS 010 : 1998	가
)	KS X 2216 : 1994 ISO/IEC 9126 : 1991	가 Software product evaluation - Quality characteristics and guidelines for their use

가) DPCS 010 가
가 가
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가 가
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가 가
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가 Pool, ,
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) KS X 2216 가
ISO/IEC 9126 Software product evaluation - Quality characteristics and guidelines
for their use

6가 .
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가
 , , , ISO 8402
 가
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4.4.3 .

< 31> .
 < 31> .

가)	1998-4	가 -
)	KICS.KO- 10.0061 : 1996	DBMS
)	KICS.KO- 10.0019 : 1994	(RDBMS) : DOS

가) 1998-4 가 -
 10 가
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) KICS.KO- 10.0061 DBMS

가

가
DBMS

가 DBMS

) KICS.KO- 10.0019
DOS

(RDBMS)

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가 가 PC DBMS ,
가 가 . 가 가
 PC DBMS 가
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 가 가 DBMS
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- . 1995. " ". 『 』, 8(1995.10):75-87.
- . 1995. " ". 『 』, 8(1995.10):59-67.
- . 1998. 『NIFF 』.
- . 1996. " ". 『 』, 121 (1996.1):17-25.
- , . 1997. 『 』. : .
- . 1998. " ". 『 』, 64 (9):63-69.
- . 1996. "Factual ". 『KORDIC Newsletter』, 2 .
[] [1999.3.31]. <<http://www.kordic.re.kr/~news/letter/news2-6.html>>.
- . 1996. 『 』.
- . 1997. 『 』. : .
- . 1995a. 『DB - 』. :
- _____. 1995b. 『DB - DB - 』. [] : .
- . 1998. " (IP CP) ". 『 ()』, 1998.5.28. [:]
- . 1996. 『 』.
- . 1993. 『 』. : .
- . 1995. 『 』. : .
- . 1998. " 가 ". 1998-4 , 1998.1.20.
- . 1995. 『 』. :
- _____. 1996. 『 - 가 』. : .

- _____. 1997. 『
_____. 1998a. 『
_____. 1998b. 『
_____. 1998c. 『Web
_____. 1998d. 『
_____. 1997. 『21 DBMS [] :
_____. 1997. 『ガ
_____. 1995. 『DB
_____. 1997. 『97 DB
_____. 1994. " ". 『 12(7):59-69.
勝田節子. 1992. 『データベース設計入門：利用者の立場から』. 東京：日外アソシエーツ.
電子情報通信學會 編. 1990. 『情報の検索とデータベース』. 東京：電子情報通信學會.
日本データベース振興センター. 1998. 『データベース白書』. 東京：日本データベース振興センター.
今井建策. 1998. "ファクトDBの事例紹介1：生命科学分野のファクトDB". 『情報管理』, 41(9): 717-729.
飯島邦男. 1999. "ファクトDBの事例紹介2：物質・材料分野のファクトDB". 『情報管理』, 41(10): 834-845.
デジタル・クリエイターズ連絡協議會 編. 1994. 『マルチメディア事典』. 東京：朝日新聞社.
Busby, D. W. 1997. "Graphical user interfaces". Chap. 3 In *A Graphical R-matrix atomic collision environment* (A thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy). [online] [cited 1998.7.3].
<<http://www.cs.qub.ac.uk/~D.Busby/thesis/chapter03.html>>.
Falk, H. 1998. "Building and using document databases". *The Electronic Library*, 16(1): 55-59.
Flickner, M., et. al. 1995. "Query by Image and Video Content : The QBIC System".

- Computer*, 28(9):23-31.
- Frakes, W. B., Baeza-Yates, R. 1995. *Information Retrieval : Data Structure & Algorithms*. , . : .
- I*M Europe. 1997. "Background Multimedia". ECSC-EC-EAEC : Brussels-Luxembourg, [online] [cited 1999.2.2]. <<http://www.echo.lu/impact/projects/imm/en/mmulti.html>>.
- Kim, W. 1990. "Object-Oriented Databases : Definition and Research Directions". *IEEE Transactions on Knowledge and Data Engineering*, 2(3):327-341.
- Lancaster, F. W. 1998. *Indexing and abstracting in theory and practice*. 2nd ed. Champaign Illinois : University of Illinois.
- McFadden, F., Hoffer, J. A., Prescott, M. B. 1999. *Modern Database Management*. 5th ed., Massachusetts : Addison-Wesley.
- OCLC. 1999. "Bibliographic Record Statistics". *Bit and Pieces : Electronic support news for OCLC users*, No.225(March 1999). [online] [cited 1999.3.29]. <<http://www.oclc.org/oclc/bit/225/99mar.htm>>.
- Riehm, U., Wingert, B. 1995. *Multimedia-Mythen, Chancen und Herausforderungen*. Karlsruhe : Bollman Verl. : , " , "Multimedia databases in internet()]. 1997.10.10, 96- 113. [: ,].
- Williams, M. E. 1998. "The state of databases today : 1999". *Gale Directory of Databases*, Vol.2(September): xvii-xxix.

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