



2

S / W

1

S/W

1. S/W

S/W S/W

가.

S/W가

, S/W

S/W

가

S/W

S/W

가

가

ISO/IEC 9126(S/W

) ISO/IEC

12119(S/W

가

가

S/W

S/W

, 가

S/W

가

2001 12

VeriTest

가

가

.S/W

(2) S/W

S/W

S/W

(1) TTA S/W

(TTA) IT

가

S/W

S/W

2001

S/W

S/W

가

ISO/IEC 12119(

S/W) ISO/IEC (KISA) '98 2 23
9126(S/W) 가 ,

2000 7 가

S/W, . K1 ~ K7

S/W , , , , ,

3 , , , , ,

S/W S/W . , , , ,

가 .

(3) (GIS) 가 , CA 가

가 ,

S/W

2002 9

(2)

(GIS: Geographic Information System) S/W (

(KERS)

(2002-137).

Schueckler & Shuell 가

가 . , (teaching)

GIS ,

(TTA)

가

가

가,

가,

S/W

가,

가

(1)

가

, 가

가

가

(3) S/W

S/W

가

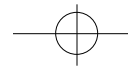
S/W

가

가

(Acceptance





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S
/
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Test) .S/W

SDS
(S/W

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(

) ,

ISO/IEC
9126(Information Technology - Software product quality), ISO/IEC 14598(Information Technology - Software product evaluation), ISO/IEC 12119(Information Technology - Software package - Quality requirement and testing) ISO/IEC 9127(User documentation and cover information for software packages)

344%

2. S/W

가.

S/W

S/W

S/W

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S/W

ISO/IEC JTC1/SC7/WG6 SQURE
ISO/IEC 9126 14598

가 가

ISO/IEC 250XX

ISO/IEC 9127

(draft) ISO/IEC
HTC1/SC7 N2285(2000 3)

가

SCOPE , GSS,
BSI-QA Pas, Qseal ,

NIST, OSF, ISII, JH Associates
가

S/W (가) 가

ISO/IEC CD 18019(Guideline for the

design and preparation of software user documentation)

IEEE (Institute of Electrical and Electronics Engineers), ITU

S/W
.S/W

" S/W

"

S/W 가

가

S/W (GGS: Gutgemeinschaft Software) S/W
(Description)가
ISO/IEC 12119 가

, IsoMetrics
가

가 가 가

MicroScope
가

Aquitaine-Valley 가 AFNOR
(French national body)

가

Esprit - MUSIC

가 PMM(Performance Measurement Method) DRUM(Diagnostic Recorder for Usability Measurement)

가 가

(1)

TCI(Technological Center for Informatics Foundation) ISO/IEC 9126, ISO/IEC 12119, ISO/IEC 14598

MEDE - PROS 가
(Functionality),
(Reliability), (Usability)

가 가 A 5
, 1993 20~50
가

가 " Best Software of the Year"

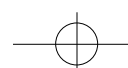
(2)

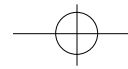
XXCAL, NTSC, VeriTest, Exodus
가

NSTL S/W
, NASA(National Aeronautics and Space Administration)

NASA
1998 XXCAL NTS

5





2 S / W

(, DirectX) , 가
 ETNO TEAM
 ISO9126
 S/W 가
 NTS 가
 ITACA
 CD-ROM/DVD- 가
 ROM /) 가
 NTS (4) Griffith University SQI(Software Quality Institute)
 • / / 가
 • 가가
 • 가,
 • 가,
 • (가, 가
 •)
 • (, Pause , S/W
 • (,) 가
 ISO/IEC9127, 9126, 12119, 14598
 JIS X0151, X0129, X0152,
 (3) X0130
 , XXCAL
 CSTA(Centro Studi Japan 1998
 Tecnologie Avanzate) 50
 (Quality Profile)

(6)
 (BSI: British Standards Institution) 가
 PAS 가
 (PAS: Product Approval Scheme) 가.
 S/W (ISO/
 IEC) S/W ISO/IEC JTC1 ITU - T
 / 가 ISO/IEC JTC1
 가, 가,
 , ITU-T

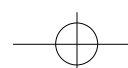
< 5-2-1-01> S/W / 가

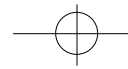
가	ISO/IEC 9126	ISO/IEC 14598	ISO/IEC 12119
GGS Germany			
DELTA Denmark			
SCOPE Europe			
MicroScope Denmark, Greece, Hungary			
TUVIT Germany			
ASSESSPRO Brazil			
NF-Logiciel France			
Q-Seal Italy			
TTA SQEC Korea			

- ISO/IEC 9126: S/W
- ISO/IEC 14598: S/W 가
- ISO/IEC 12119: S/W

3. S/W

가
 IEEE(Institute of Electrical and Electronics Engineers) S/W
 ISO/IEC
 , S/W
 가 , S/W
 가 S/W





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S / W

Forum

- ANSI/IEEE Std 730-1998: IEEE Standard for Software Quality Assurance Plans (kfq)가 가
- IEEE Std 829-1998: IEEE Standard for Software Test Documentation TL 9000
- ANSI/IEEE Std 1008-1987 (R1993): IEEE Standard for Software Unit Testing (Metrics)
- IEEE Std 1012-1998: IEEE Standard for Software Verification and Validation IT NIST (National Institute of Standards and Technology), (DoD-Department of Defense) S/W
- IEEE Std 1028-1997: IEEE Standard for Software Reviews
- IEEE Std 1061-1998: IEEE Standard for Software Quality Metrics Methodology S/W 가

TL(Telecommunication Leadership) 9000 ISO/IEC JTC1 ISO/IEC JTC1

가 , 가 ,

TL 9000 ISO 9000 가

(: QS-9000, TL 9000, AS 9000). 가 (ISO/IEC 9126) ,

TL 9000 가 (ISO/IEC 14598) , 1997 14598) 가 (Capability) 가

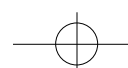
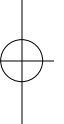
QuEST Forum(Quality Excellence for Telecommunications Leadership Forum) (ISO/IEC 15504). QuEST

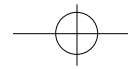
(ISO 9001). ISO/IEC 9126 1991 (FCD, PDTR), ISO/IEC 14598 (FCD, DIS) ISO/IEC 15504(DTR) , ISO 9000-3 1991 ISO/IEC 9126 , , 6가

(1) ISO/IEC 9126 ISO/IEC 9126(Information Technology - Software Quality Characteristics and Metrics) , , 1991 1994

ISO/IEC 14598 . ISO/IEC 9126

SQuaRE(Software Product Quality Requirements and Evaluation) ISO/IEC 9126(1991) (가) 가 , 가 , 가 , ISO/IEC 9126 , 2 14598 가 ISO/IEC 9126 (quality characteristics) , 3 , ISO/IEC 14598 가 (subcharacteristics) . ISO/IEC 9126 ISO/IEC 9126(1991) (Metrics) 가 ISO/IEC 9126 SCOPE ISO/IEC 14598





SQI(Software Quality Institute) ISO/IEC 9126 ISO/IEC 14598

가 가 SQaRE , ' shall ' (Require-
ments) ' should ' (Recommendations),
1994 ISO/IEC SQaRE '4+1'
9126 ISO/IEC 14598 SQaRE(Software Product Quality
Requirements and Evaluation)

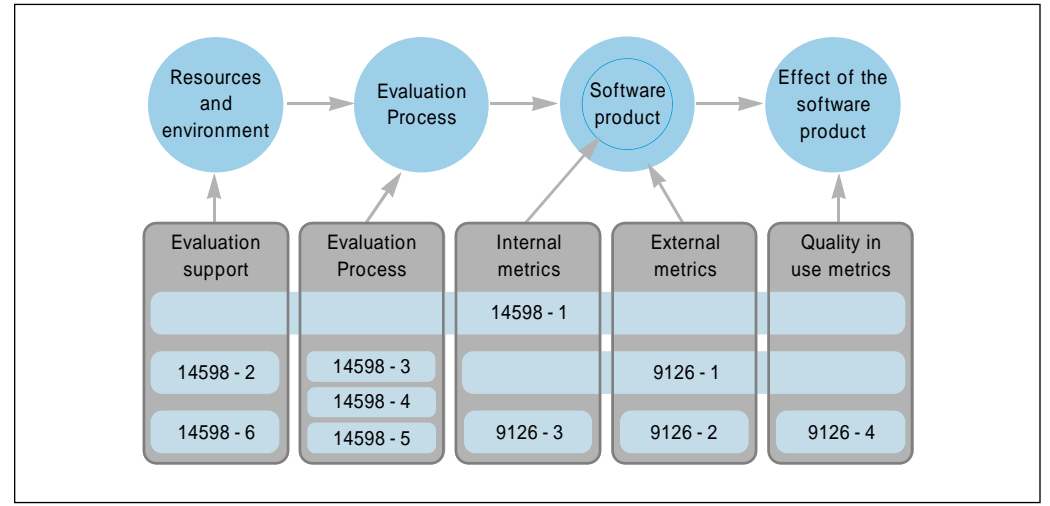
- (25010 Quality Model Division)
- (25020 Quality Metrics Division)
- (25030 Quality Requirement Division)
- 가 (25040 Quality Evaluation Division)
- +(plus) (25000 Quality Management Division)

가 (Architecture)가
SQaRE가 ISO/IEC 9126
ISO/IEC 14598
(Architecture)가
가 (ISO/IEC 9126) 가
(ISO/IEC 14598) SQaRE ISO/IEC 9126 14598
SQaRE 가

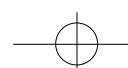
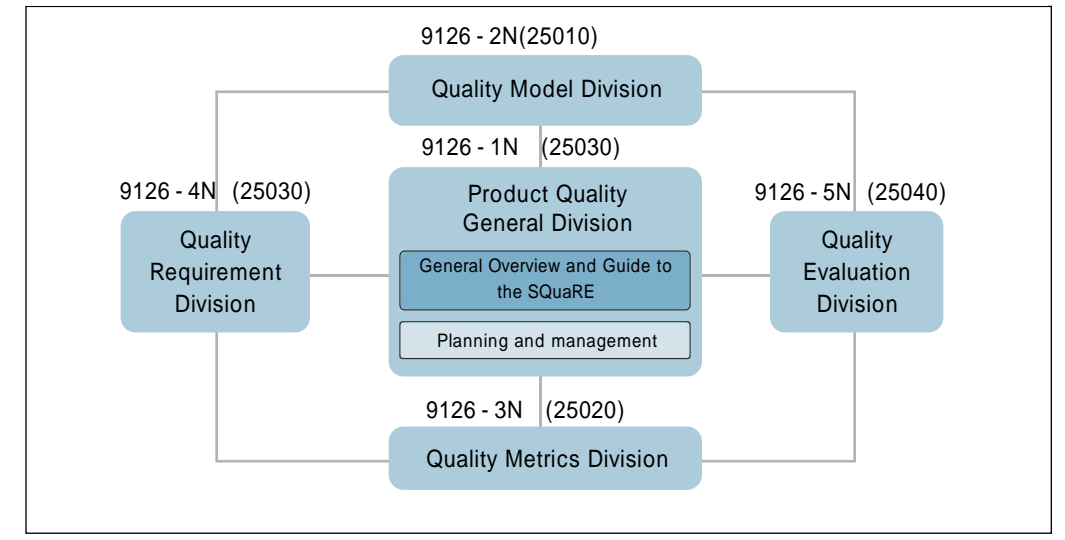
(Minor /Major Editorial Revision),
(Major
Technical Revision), 14598 SQaRE
(New Subproject
Proposal). Concept), (Measurement
Primitives), (Measurement
SQaRE (Functional requirement)
(Architecture Model) (Quality requirement)
" SQaRE (General
Overview and Guide to the SQaRE)", <SQaRE
" >
(Metrics Reference Model and SQaRE
Guide)", Stakeholder
(Product Quality
requirement)
(Base Metrics)", requirement)
가(Product Quality Evaluation)
" (Quality Requirement)"
(Product Quality
(External Metrics)", " Measurement) 가
(Quality In Use Metrics)

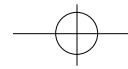


< 5-2-1-01 > ISO/IEC 9126 ISO/IEC 14598



< 5-2-1-02 > SQaRE (Architecture)





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SQuaRE
(Relationship model: Technical level)
SQuRE

(2) ISO/IEC 14598
ISO/IEC 14598(Information Technology
- Software Product Evaluation)

ISO/IEC 12207
Primary Process,
Supporting Process, Organizational
Process

(Quality activities in telecommunication
software life cycle process)
ITU-T Z.400 ISO 9000-3

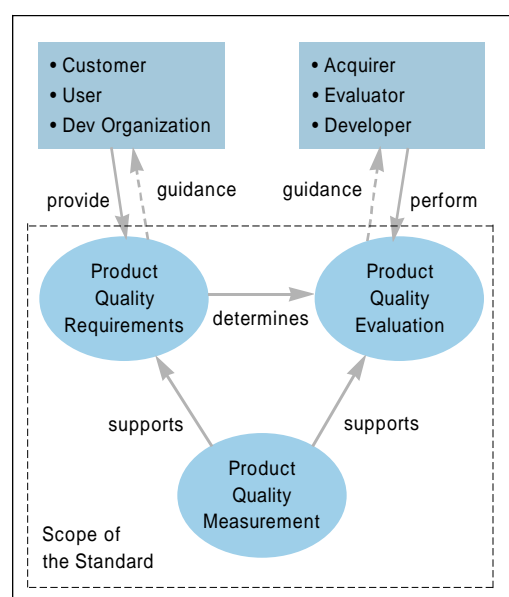
가 가
가

Part 1
, Part 2
가

Incomplete, Performed,
Managed, Established, Predictable,
Optimizing level 6

(Operational Quality Manual)
(Demonstrational Quality
Manual) 2

< 5-2-1-03 > SQuaRE



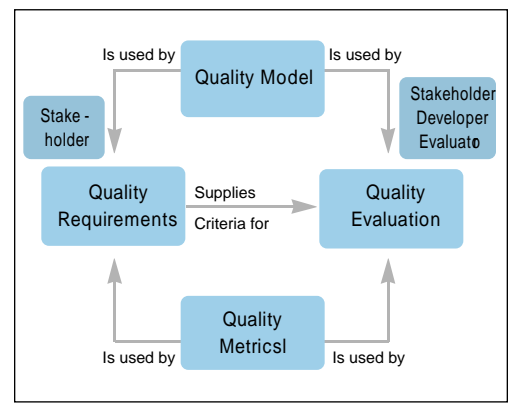
Part 3, 4, 5
가

(4) ISO 9001
ISO 9001 / , ,

. Z.400



< 5-2-1-04 > SQuaRE



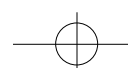
(3) ISO/IEC 15504
ISO/IEC 15504(Information Technology
- Software Process Assessment)

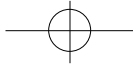
ISO 9001
ISO 9000-3
가
ISO/IEC 12207
(Primary process)

ISO 9000-3
ITU-T Z.410
가
ISO/IEC 12207
(Supporting process)

ITU-T
ITU-T 1993
ITU-T Recommendation Z.400
(Structure and format of quality manuals
for telecommunication software)
ITU-T Recommendation Z.410

(Supporting process)
(Organization process)





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2 ISO 9000

1. ISO 9000

1982
ISO 9000 (ANSI Z1-15)
가 (BS 5750)
2
가
3
ISO 9000 3
가
가
1979 Standard Code 5750
ISO/IEC

2. ISO 9000

가 ISO 9000 ()
ISO 9000 ()
가 ()
가 ()
1992
ISO 9000 가
BS

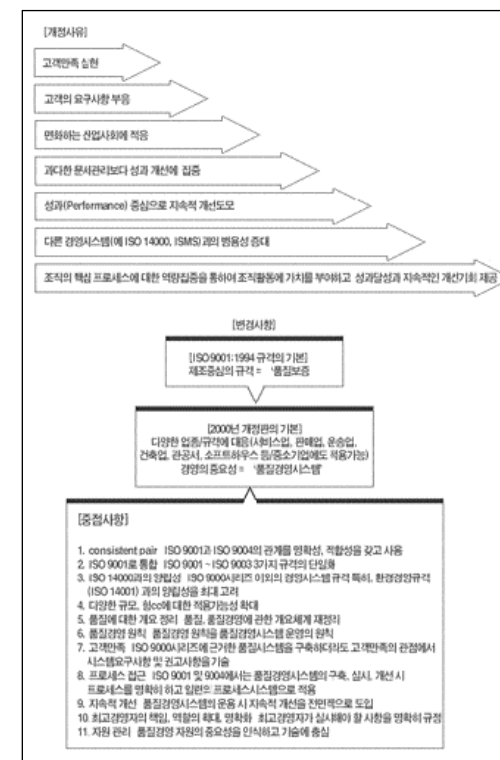
ISO 9000: 2000
ISO 9000 5
1994
가
ISO 9000 가 ISO
9001
2000 12

ISO TQM()
가 PDCA (Plan, Do, Check, Act)
2000
2000
()
ISO

< 5-2-2-01> ISO 9001:2000

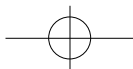
4.	6.4
4.1	7.
4.2	7.1
5.	7.2
5.1	7.3
5.2	7.4
5.3	7.5
5.4	7.6
5.5	8.
5.6	8.1
6.	8.2
6.1	8.3
6.2	8.4.
6.3	8.5

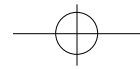
< 5-2-2-01 >



5

ISO 9000 KS
ISO 9000
1992 4 1
KS A 9000~9004
ISO 9000





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' KS 9000 , ISO 8402 KS A 8402 . KS 가 가 가 가 가 KS A 9000(ISO 9000-1), KS A 9001(ISO 9001), KS A 9002(ISO 9002), KS A 9003(ISO 9003), KS A 9004(ISO 9004-1) KS 9000 (ISO 9000) KS/ISO 9000 , KS 9000/ISO 9000 KS 9000 (ISO 9000) KS/ISO 9000 , KS 9000/ISO 9000 KS A 9001 .

3

ISO 9000

KS

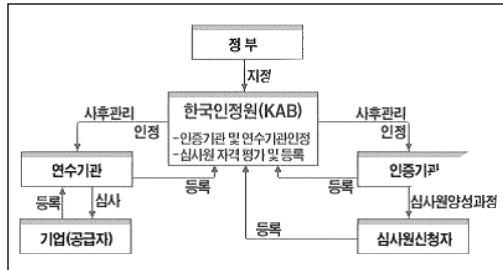
3.

가

가

가

< 5-2-2-02 >



1970

가

가

가

가 가

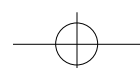
1980

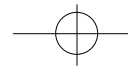
가 가 (KAB) () (3) (,) 2·3 가 가 ISO TC 176 1987 ISO ISO 9000 가 ISO 9001, 9002, 9003 (KS A/ISO 9001 . 2·3) ISO (KAB) [] () (KS A 9000) (ISO 9000) (Certification), 1987 9000 가 (Registration), (Accreditation) 3 KS A 9000 1992 , KS A 9000

5

ISO 9000, (KAB) [] () (KS A 9000) (ISO 9000) (Certification), 1987 9000 가 (Registration), (Accreditation) 3 KS A 9000 1992 , KS A 9000

가 ISO





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S / W

3 , IATCA () , (KAB)) , 가 . (ISO/IEC Guide 61 62) (KAB) 가 (KAB) 가 4. ISO 9000 ISO Survey(2001. 12) 가. ISO 9000 (1) ISO 9000 가 . 2001 12 , 161 ISO 510,616 가 10011 IATCA(2000 12 157 408,631) () 101,985 가 (KAB) 24.96% 가 . (2) ISO 9000 , 2000 44,388 . 2001 43.53% ISO 9000 8.70% (3) 32,126

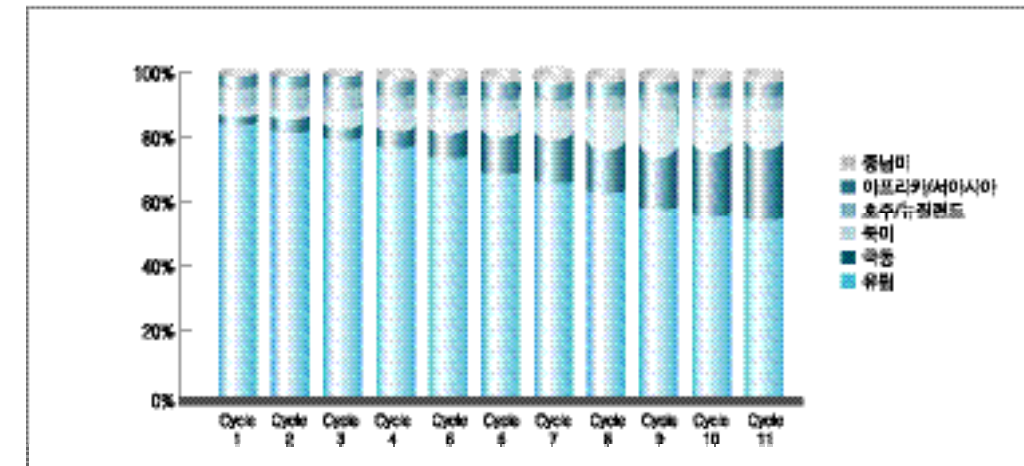
< 5-2-2-02 >

	Cycle 1 1993.1.31	Cycle 2 1993.9.30	Cycle 3 1994.6.30	Cycle 4 1995.3.31	Cycle 5 1995.12.31	Cycle 6 1996.12.31
/	3.42	2.73	2.64	2.75	2.65	3.79
	83.02	81.12	78.73	75.61	72.72	67.58
	0.10	0.30	0.68	0.77	0.96	1.05
	4.32	5.61	6.99	7.77	8.15	10.44
	2.46	3.40	4.39	6.29	7.26	11.31
/	6.69	6.84	6.58	6.81	8.27	5.83

	Cycle 7 1997.12.31	Cycle 8 1998.12.31	Cycle 9 1999.12.31	Cycle 10 2000.12.31	Cycle 11 2001.12.31
/	3.88	4.47	5.04	4.94	3.87
	64.34	61.16	55.36	53.87	52.87
	1.34	1.92	2.61	2.64	2.83
	11.25	12.34	13.14	11.82	9.97
	13.48	13.95	16.48	20.05	24.83
/	5.80	6.16	7.36	6.68	5.65

< 5-2-2-03 >

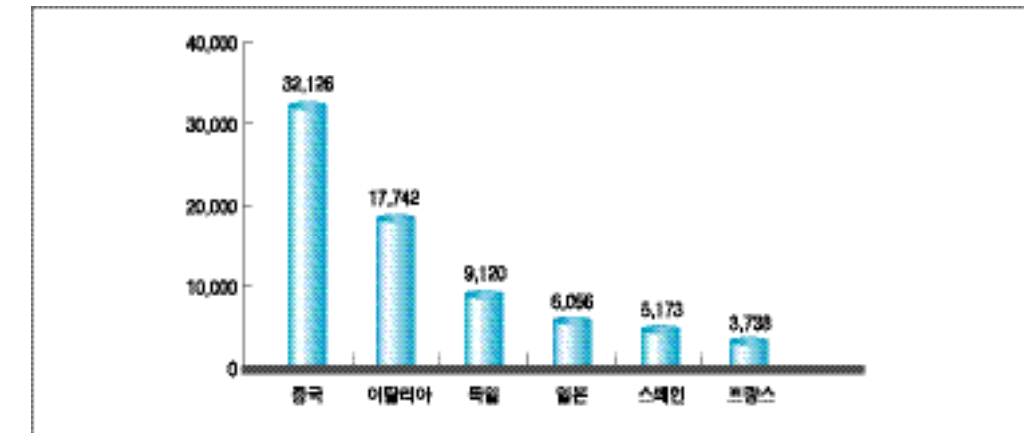
(:%)



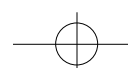
5

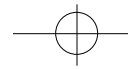
< 5-2-2-04 > 2001

6



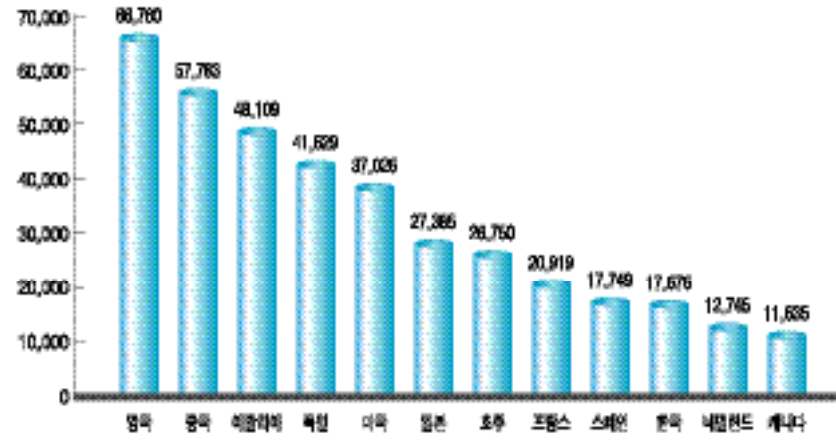
1 , 17,742 , 1 , , 5
9,120 , 6,056 , 5,173 3 . 가
가 3,738 6 , 가
2 6 . 2000 4





5.IT ISO 9001

< 5-2-2-05 > 가



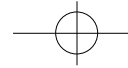
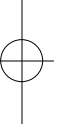
< 5-2-2-03 > ISO 9000 (1995 ~2001)

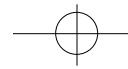
/	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
가	1	1	1	1	1	1	1	1
	9	20	30	31	31	33	59	6
		1	1	4	25	25	38	3
		1	4	4	4	6	5	
		1	5	5	5	8	8	
						2	2	
		1	2	2	2	2	2	
가	45	166	344	385	649	468	546	18
				2	3	5	6	
가	2	2	2	2	3	3	6	
				1	2	2	3	
	1,023	1,665	2,865	3,344	5,200	5,682	5,554	544
	2	97	131	224	259	433	618	37
	526	1,709	2,303	3,700	4,600	6,140	6,447	33
		3	4	8	8	10	10	
	2	8	35	169	257	336	402	
	1	11	28	416	419	173	112	8
	9	15	28	62	67	74	78	11
		6	15	37	66	86	129	14
가			1	1	1	1	4	1
					1	1	1	
				1	1	1	1	
				1	1	1	1	
				1	1	1	1	
		4	5	5	5	5	5	

/	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
	4	59	72	92	92	131	175	3
	9	34	60	71	77	86	158	14
				1	3	3	4	
	6	11	2	14	19	24	24	
	1	4	3	20	20	20	22	
	20	26	53	70	82	66	67	96
	7	22	56	145	194	611	539	25
				5	14	23	78	
	5	7	20	20	20	55	52	13
	98	159	211	280	324	610	705	6
				1	1	4	8	8
		1	2	2	5	5	6	
		1	1	1	1	1	1	
	1,454	1,882	1,915	2,166	3,316	3,454	2,263	87
	7	22	38	59	82	82	155	1
			1	1	1	1	3	2
	2	3	2	6	7	8	11	
		6	7	13	93	128	158	4
				1	2	4	4	
	13	25	51	70	163	196	302	10
						32	60	7
	104	139	314	632	1,045	1,007	747	112
	1	2	2	8	12	12	10	
	1	1	1	1	1	1	1	
	3	3	3	4	4	4	10	
	23	44	49	60	112	103	134	2

/	3,378	6,162	8,668	2,150	17,307	20,185	19,751	1,508
(%)	2.65	3.79	3.88	4.47	5.04	4.94	3.87	2.39
가	27	37	40	48	49	52	51	25

	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
&	86	302	397	807	1,388	2,056	2,324	203
				1	1	1	1	
			1	1	2	2	1	
	1	2	7	7	7	14	11	
			3	4	4	5	6	
				2	4	20	42	
	923	1,198	2,068	3,712	6,257	6,719	9,489	182
							1	
	21	29	34	61	135	235	229	15
	49	71	170	213	388	614	1,117	87
	2		7	12	33	79	60	5
		4	11	13	21	26	25	
					1	1	3	
	4	4	5	7	7	8	25	
	1	4	13	16	37	89	33	2
	1	3	3	3	6	19	17	1
			1	1	1	2	3	





2

S
/
W

	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
가		1	1	3	3	8	18	3
		3	3	3	3	4	5	
	2	12	10	12	12	20	15	1
							1	
				1	1	3	5	
		17	9	17	19	19	33	4
		1	3	6	9	30	46	4
	7	8	13	46	74	141	200	16
	25	23	31	36	37	37	51	
				4	4	4	3	

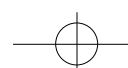
	1,220	1,713	2,989	5,221	8,972	10,805	14,423	580
(%)	0.96	1.05	1.34	1.92	2.61	2.64	2.83	1.31
가	15	19	23	28	29	30	33	15

가	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
	1,397	3,955	5,852	7,585	10,556	11,435	11,635	704
	215	412	711	978	1,556	1,843	2,233	79
	8,762	12,613	18,581	24,987	33,054	35,018	37,026	1,104

	10,374	16,980	25,144	33,550	45,166	48,296	50,894	1,887
(%)	8.15	10.44	11.25	12.34	13.14	11.82	9.97	4.26
가	3	3	3	3	3	3	3	3

	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
가					1	1	1	
					3	4	5	
	1,133	1,824	3,637	3,245	3,421	3,826	4,000	700
			6	14	26	58	78	
	1,716	1,871	3,042	3,176	3,495	3,760	4,670	119
			2	10	34	33	57	1
	3	14	42	96	199	259	469	38
	22	38	96	121	336	302	415	30
	7	11	42	62	184	289	334	10
	180	366	746	1,443	1,500	3,855	5,627	320

	1,314	1,387	1,902	2,200	1,962	2,258	2,163	36
	1	4	1	26	77	175	202	66
	772	951	1,445	1,450	2,105	2,200	1,870	282
	5,536	8,079	11,920	14,194	16,028	17,170	20,919	2,194
				2	7	260		



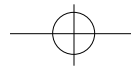
	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
가	10,236	12,797	20,656	24,055	30,150	32,500	41,629	2,338
							1	
	248	348	682	764	1,050	2,173	2,325	31
	309	423	1,341	1,660	3,282	4,672	6,362	1,349
	12	44	59	62	28	28	30	
	1,617	2,056	2,534	2,854	3,100	3,330	3,700	248
	4,814	7,321	12,134	18,095	21,069	30,376	48,109	1,974
					1	2	41	21
						2	3	
						94	67	15

	92,611	109,961	143,674	166,255	190,248	220,127	269,950	22,888
(%)	72.72	67.58	64.31	61.13	55.36	53.87	52.87	51.57
가	36	38	42	42	47	50	51	38

	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
가	17	46	84	108	115	193	195	4
							1	
	507	3,406	5,698	8,245	15,109	25,657	57,783	7,413
	739	1,312	1,637	1,940	2,150	2,570	3,814	547
				9	18	30	39	6
	1,354	1,889	2,608	3,173	3,807	4,319	5,405	634
	1	4	8	8	8	8	8	2
	125	340	1,273	1,442	1,525	1,860	1,395	161
	3,762	7,247	6,487	8,613	14,564	21,329	27,385	3,650

5





2

S / W

	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
	619	892	5,806	7,729	330	495	1,279	106
	690	1,123	1,610	1,707	11,533	15,424	17,676	1,156
			1	1	1	1	2	257
		2	4	4	4	4	5	
					1	1	1	
			7	7	7	7	6	
	102	155	629	668	723	1,027	961	43
가	1,180	1,808	2,909	3,000	3,140	3,900	3,513	333
	143	182	1,104	1236	1,527	2,553	3,870	89
	1	1	13	29	164	184	245	33
	9,240	18,407	29,878	37,920	56,648	81,919	126,779	14,434
(%)	7.26	11.31	13.42	13.99	16.48	20.05	24.83	32.52
가	13	14	16	18	20	21	21	15

	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
가	8,834	7,525	10,547	14,170	22,833	24,772	26,750	3,442
	1,692	2,226	2,399	2,581	2,469	1,843	2,527	99
	10,526	9,478	12,946	16,751	25,302	27,299	28,819	3,541
(%)	8.27	5.83	5.79	6.16	7.36	6.68	5.65	7.98
가	2	2	2	2	2	2	2	2

	1995.12	1996.12	1997.12	1998.12	1999.12	2000.12	2001.12	2000
가	127,349	162,701	223,299	271,847	343,643	408,631	516,616	44,388
가	32,232	35,352	60,698	48,548	71,796	64,988	101,198	
가	96	113	126	141	150	158	161	98

가. IT ISO 9000

(1) ISO 9001:2000/KS A 9001:2001 ISO 9001

(2) ISO 9000-3:Quality management and quality system elements-guidelines for development, supply and maintenance of software ISO 9001

(3) ISO 9004-2:Quality management and quality system elements-guideline for service ISO 9001

ISO 9001 Software Good Practice

9000-3 가 Good Practice 가

(4) ISO 10005:1995 Quality Management - Guidelines for quality plans

(5) ISO 10007:1995 Quality Management - Guidelines for configuration management ISO 9001 가

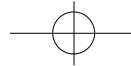
(6) ISO/IEC 12207 Information Technology - Software life cycle processes 가

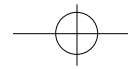
(7) TickIT Guide: Department of Trade and Industry (DTI) TickIT Scheme Software ISO 9000-3 ISO () 9001 (1) (가) () ISO 9001 ISO 9000-3 가

ISO 9001 가

Input 가

() < >





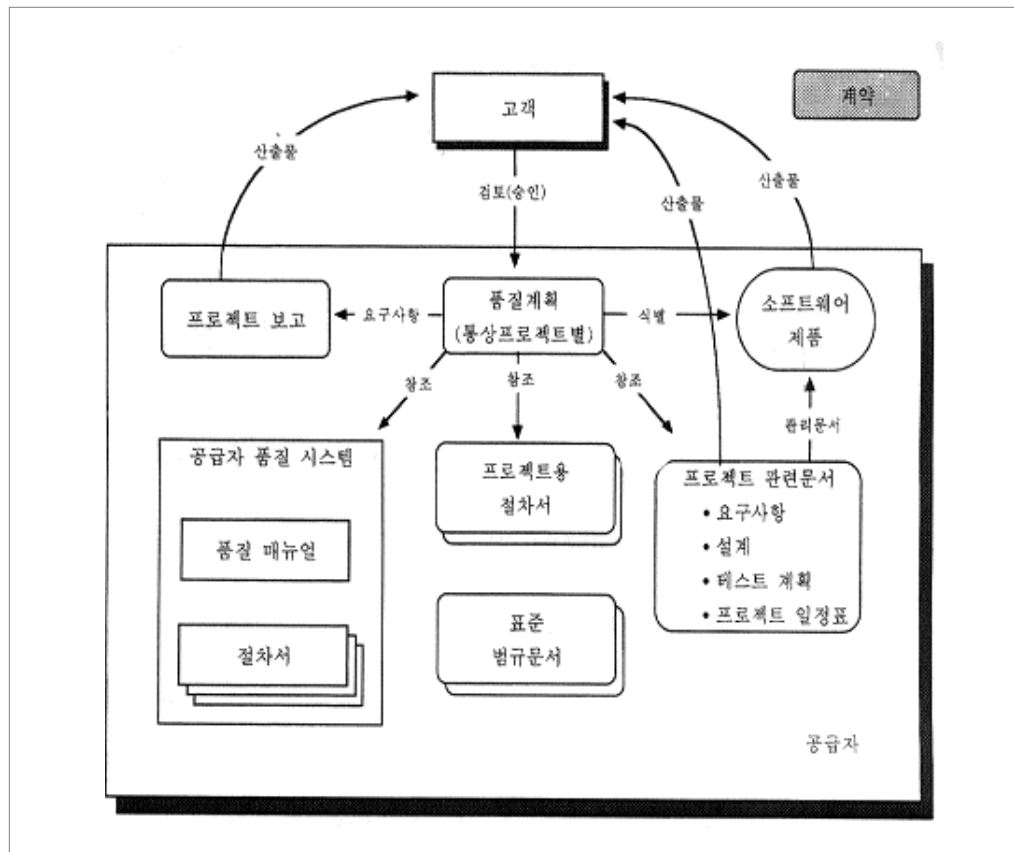
2

S / W

가 , (Tool) ,
 () ()
 / 가 가 가
 가 가
 9001 ISO
 ()
 ()
 가

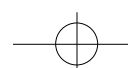
가 , ,
 가 (, , version, release)
 ()
 Output
 가 가
 ()
 가

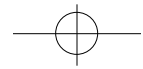
< 5-2-2-06 >



5

() 가
 가 () , ,
 가
 (3) ()
 (가)
 (2) 가
 (가) () 가
 () /
 가





2
S
/
W

가 Programming Documentation
Good Practice

point

(walk through),

() /

가 Consulting Clarification

가 가

()

Input

가

가가

Checklist/Agenda

()

()

Programming Manual Documentation

Software, Compiler, Linker, Editor, Monitor, DB system

가 Test Failure

가 가

가 가

가 가

가

6. ISO 9001 가.

가 ()
12-345
가가
KS A 9001:1998/ISO 9001:1994

00 02

6 ,

7

, 2

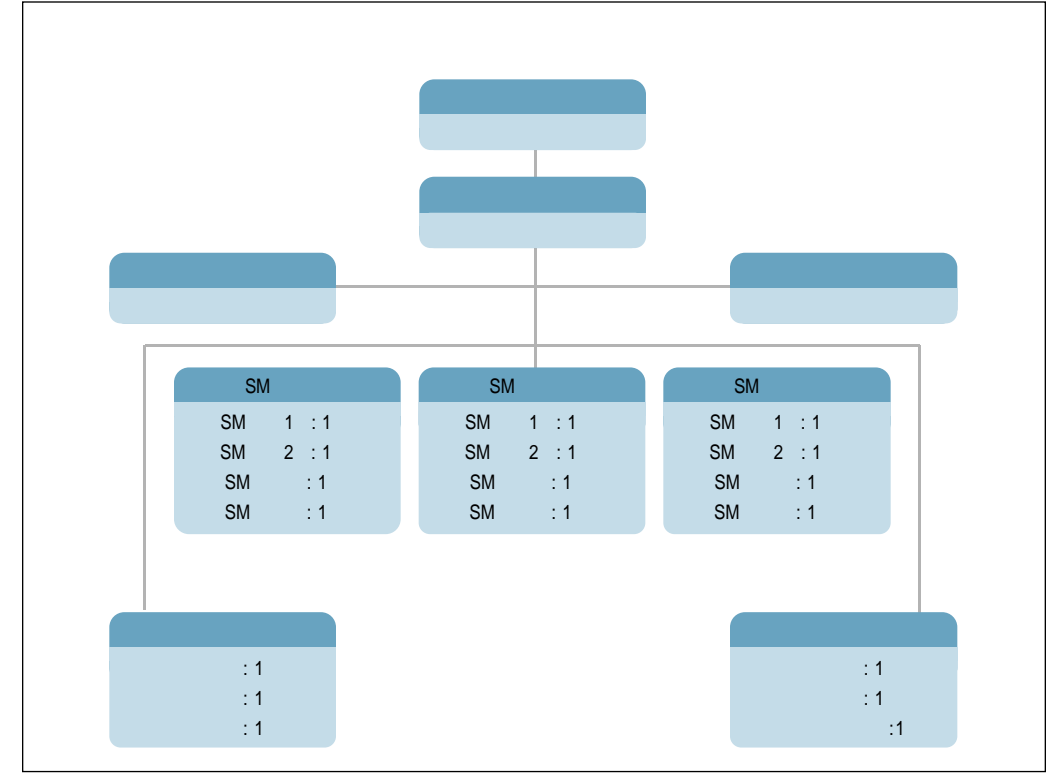
가 가

(1)

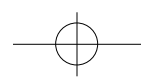
(3)

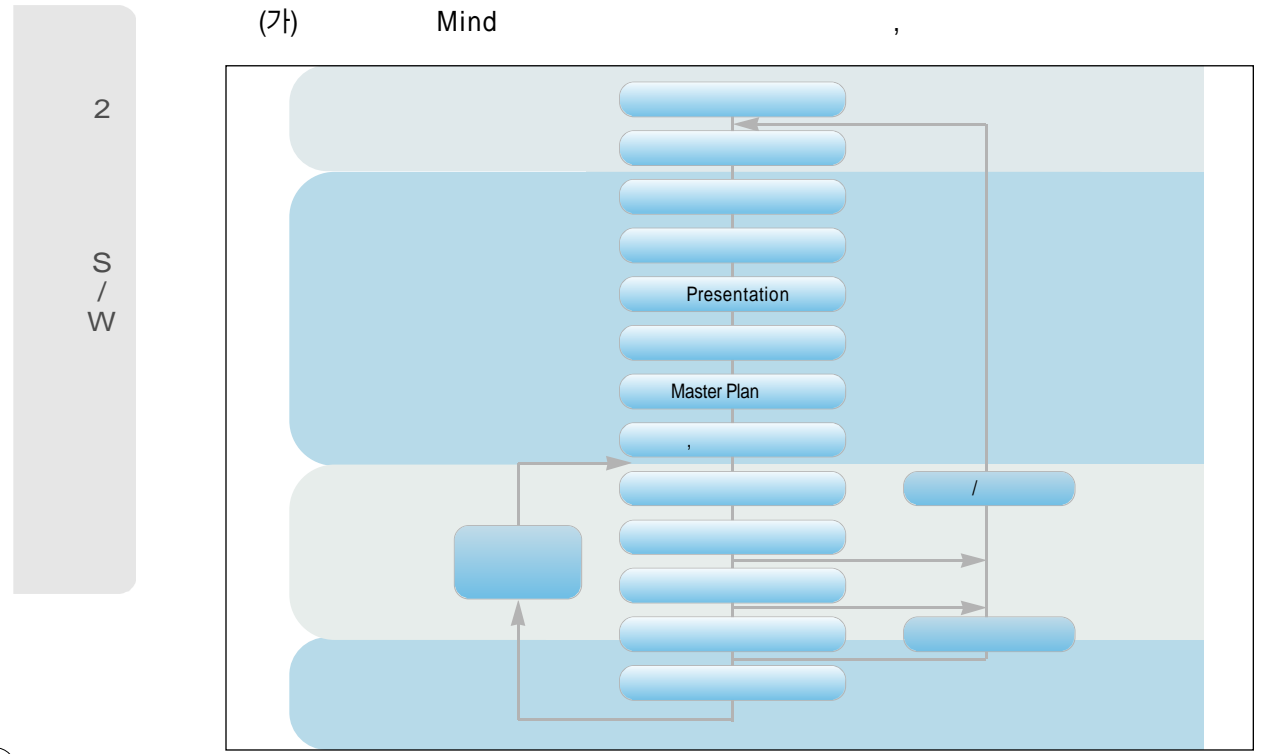
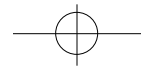
(2)

(4)



5





- () S/W - Project Management
- () -
- () -
- () -
- () -
- () -
- () -
- () -
- (5) -
- (가) -
- S/W Tools -
- S/W -

3 PC S/W 가

1. 가 가 가

· IDC(International Data Corporation) · IDSA

2001 547 가

, 2005 1.4 S/W

769

2002 12% 가 , 가 , 가

3 4,026 가 ISO/IEC 9126

2004 4 S/W

5,741

S/W 가

S/W 가

· 2001 가 가

12 ISO/IEC 14598 가

S/W

, 2 가 가

23 가 S/W 가

가 S/W

가 S/W PC

가

S/W

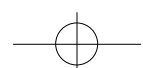
가

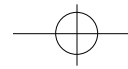
Beta Test

2. PC S/W 가

S/W

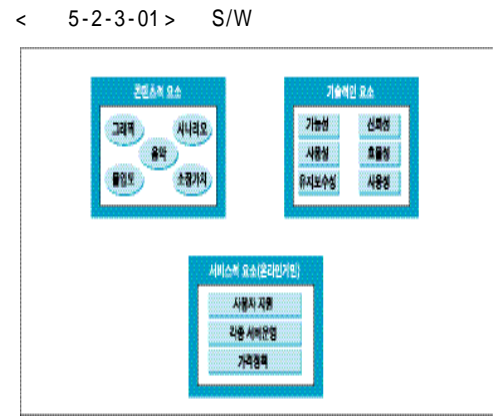
S/W , ISO/IEC





2
S / W

9126 S/W S/W
S/W 가
PC S/W 가 ISO/IEC
9126 S/W
S/W



PC S/W 가 , PC
? , Metric
가
S/W () , S/W

S/W가 가
가 S/W

가. PC S/W
(1) S/W
S/W

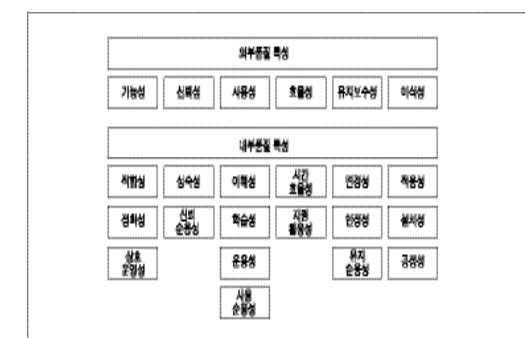
ISO/IEC 9126
가
S/W 가

S/W S/W
高 S/W
UI 가
UI 가

가 가 UI
(2) S/W
IT
가 가
S/W PC S/W 가
S/W

가
가

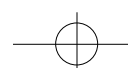
가
< 5-2-3-02 > PC S/W 가

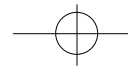


< 5-2-3-01 >

	가
	S/W가
	S/W
	S/W가

5





2
S
/
W

PC S/W 가 PC
S/W 6가 17가

< 5-2-3-03>

	가
	(Consistency), (Completeness), (Correctness) 가
	UI

(1)
가

(4)
HDD, CPU
S/W

(2)
S/W

< 5-2-3-04>

	가
	가

(5)
S/W

< 5-2-3-02>

	가
	S/W 가 가
	S/W가

(3)
가

가 S/W

< 5-2-3-05>

	가
	S/W CD
	가

(6)
S/W가 가
가 , 가 ,
가

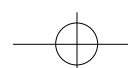
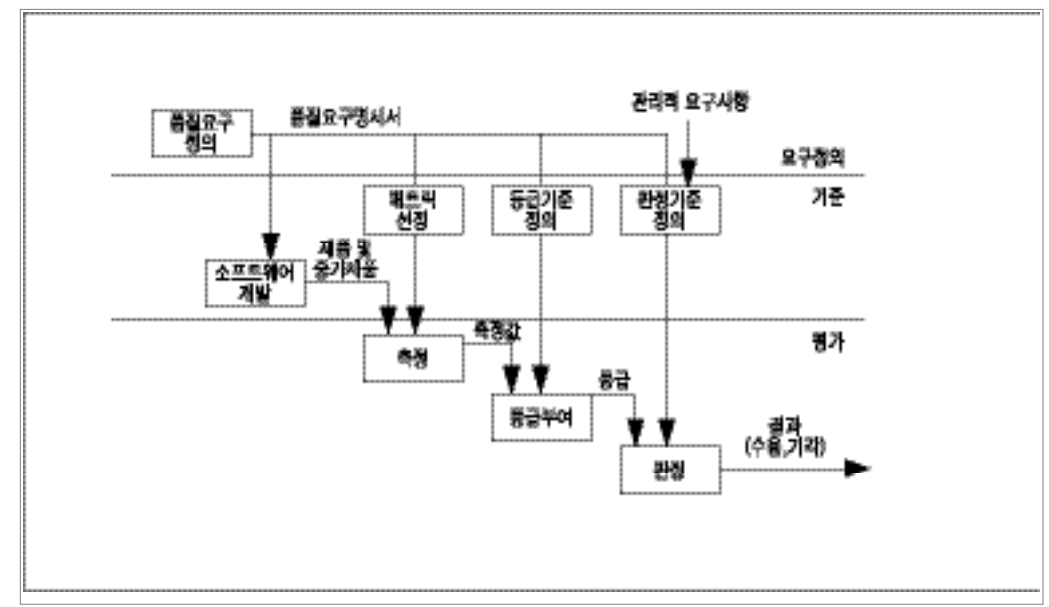
< 5-2-3-06>

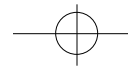
	가
	(,)
	S/W가
	S/W가

가 가
S/W 가

5

< 5-2-3-03>





2

S / W

< 5-2-3-07>

		X = 1 - A/B A = B =	0 X 1 1.0 가	X =	A = B = X = /
--	--	---------------------------	----------------	-----	---------------------

S/W

S/W

S/W

가

ISO/IEC 9126-2

S/W

< 5-2-3-08>

1	가	- 가 - 가 - 가	
2	가	- 가 가 - 가 - 가	
3	가	- 가 - 가 가 - 가	
4	가	- 가 - 가	
5		- 가	

3. PC S/W

가

가

가

가

>

(Tool)

가.

가

가

가

가

가

(1)

가

가

< 5-2-3-09>

Critical ()	
Major ()	
Average ()	
Enhancement ()	

Pass

Fail

가

Fail

(2)

가

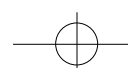
(3)

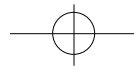
가

< 5-2-3-10>

	(Function Test) :
	(Accuracy Test) :
	(Compatibility Test) :
	(ErrorForce Test) :
	(MemoryLeak Test) : 가
	(Manual Configuration Test) :
	(Manual Correct Test) :
	(Tutor Test) :
	UI (User Interface verify Test) : 가 UI
	UI (Genre Interface verify Test) : 가 UI
	(Response Test) :
	(Minimum Stress Test) :
	(Update Test) : 가
	(Patch Test) :
	(Maintainability Compliance Test) :
	(Adaptability Test) :
	(Install Test) :
	(Uninstall Test) :
	(Co - existence Test) :

5



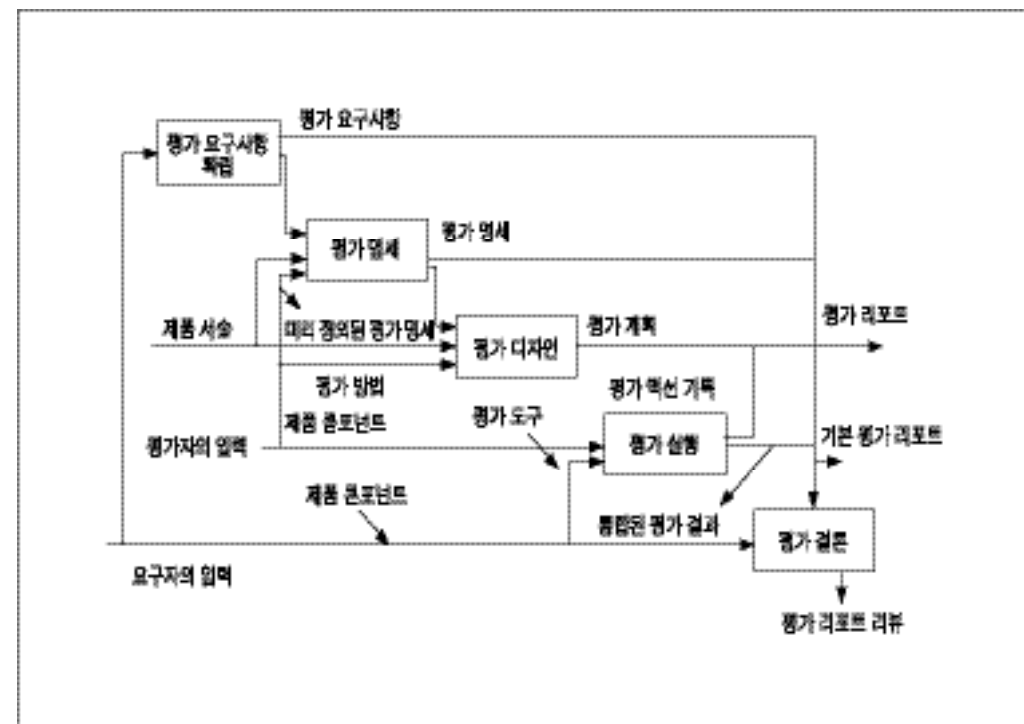


2
S
/
W

< 5-2-3-11 > 가

	(Accuracy Test)
	가 (Accuracy List) (TestCase)
	derived UseCase 1. 2. 3.
가	가 (Pass) (Fail)
	Rational Administrator - Rational Rose - Rational RequisitePro - Rational Test Manager - Rational Robot - Rational ClearQuest - Seagate Crystal Report -
가	가

< 5-2-3-04 > ISO/IEC 14598 가



(4) 가 PC S/W 가

가 , 가
가 , 1 PC S/W

4. PC S/W 가

ISO/IEC 14598 S/W 가 , ISO/IEC 14598-5 가

ISO/IEC 14598-5 가 (Process for Evaluators) 가 가 가 가

가 5 가 가

가 가 가 가

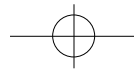
가 가 가 가 4가

가 가 (1) 가

가 가 S/W 가 가

가 가

5



2
S / W

가 , 2002 9 28 10
 19 17 3
 가1 가
 가 E RPG(Role-
 Playing Game) Action
 가 , 4 가
 (2) 가
 가 가
 가 PC S/W 가
 17가 가
 Rational TestStudio
 Crystal Report, MS-word,
 Photoshop, Hyper Snap-DX
 , Rational TestStudio
 Rational Administrator
 Rational Test Manager,
 Rational ClearQuest,
 S/W Rational Robot,
 Rational Purify
 Rational Quantify,
 Rational PureCoverage
 가
 가 S/W 가
 가

5.

() S/W 가
 PC S/W 가 가 , 가 , 가
 () 가 5 가
 PC S/W 가 가

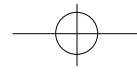
< 5-2-3-12 > 가

-	:3
-	:2
-	:11
-	:1
-	:2
-	:4
-	:2
-	:12
-	:2

가
 PC S/W

PC S/W
 PC S/W 가 PC
 S/W
 PC S/W 가 ISO/IEC
 9126
 가 S/W PC
 S/W 가 (, ,
 S/W 가)
 S/W 가
 S/W 가
 S/W 가
 S/W 가
 S/W 가
 S/W 가
 S/W 가
 S/W 가
 S/W 가

5



2
S
/
W

4

S/W

1.

가.

2003 2

가

가

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가

가

가

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가

가

가

가

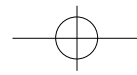
“

2001 12

”

”

”



(1)

(2)

:

5

(가)

(Function Test)

가

가

가

가?

가

가?

가

가?

()

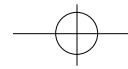
(Reliability Test)

가

가

가?

가



2
S
/
W

(Structure Test)

가

, 가

가

가
가

() (Load Test)

가

(Integrity Test)

가 ,

() (Stress Test)

가 가

가

MTTF(Mean Time To Failure),
MTTR(Mean Time To Recovery),
MTBF(Mean Time Between Failure)

가

가

() (Volume Test)

() (Performance Test)

가 가

100

100 , 100 1
가

XP가

가

가 , 가 95, 98, 2000,
NT,

() (Install Test)

가

, 가 () (Security Test)

PC가

가

가

가 가

() (User Inter-
face Test)

() (Documentation Test)

가
가

가

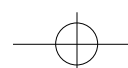
가

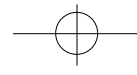
() (Configuration Test)

가

PC

5





2.

OS
DirectX
(Hooking, 가)

, UI 가 . 가 가
UI 가 .
, 가 (2)

2

S
/
W

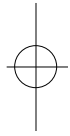
가

가

가.

가
3

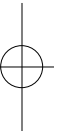
, 가 가
가 가



(1)

가
가

5



가
가

가 , UI가
가 UI

, 가 가
가 .
가 (3)

UI

가

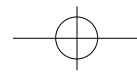
가 가

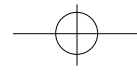
가

가

UI

가 PC





2

S / W

가
가

PC 가

가

가

가

가

UI

가

(4)

가

가
가

가

(5)

PC 가
PC

(1)

RPG 가 (2)

가
PC

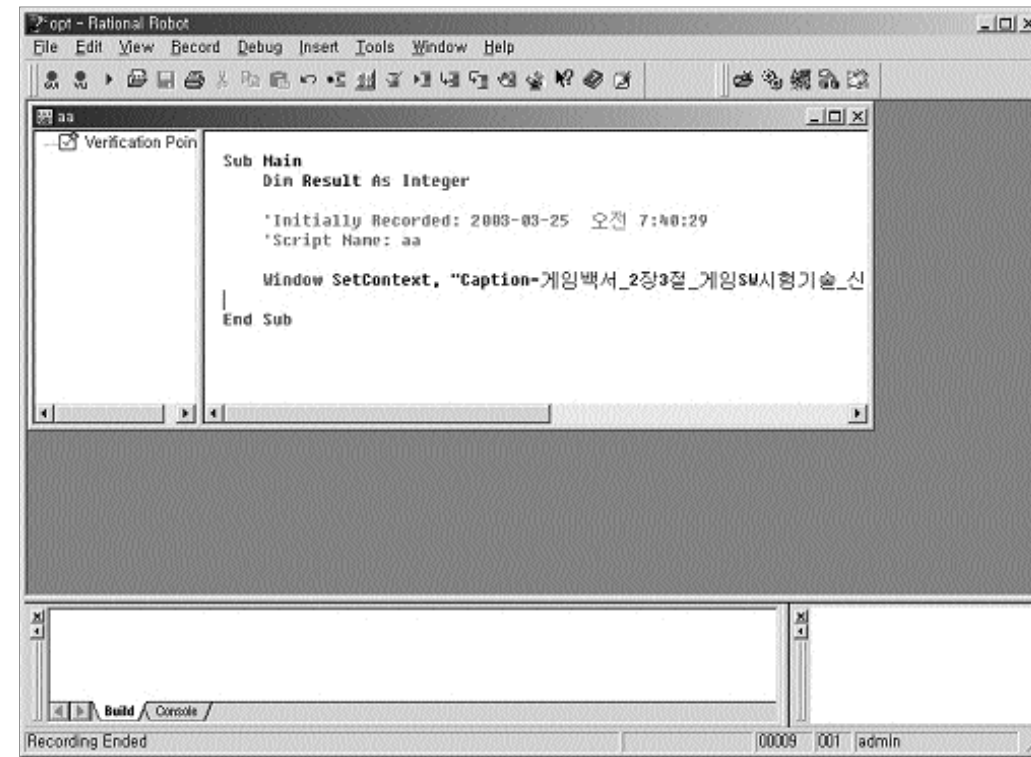
가 ()
가

가

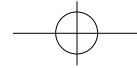
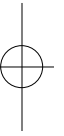
UI가

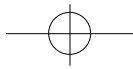
Rational Rose UI (가)

< 5-2-4-01 > : Rational Robot



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12

가

()

가

(Completeness)

가

가

가

OS,

가

(

(Consistency) (Completeness),

(Correctness) 3C

가

(Inspection)

가

OS OS

가

Rational Purify

(Consistency)

(Correctness)

OS

() 가

< 5-2-4-02> : Rational Purify for Windows

가 (3)

가

가

가

가

가

가

가

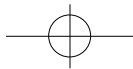
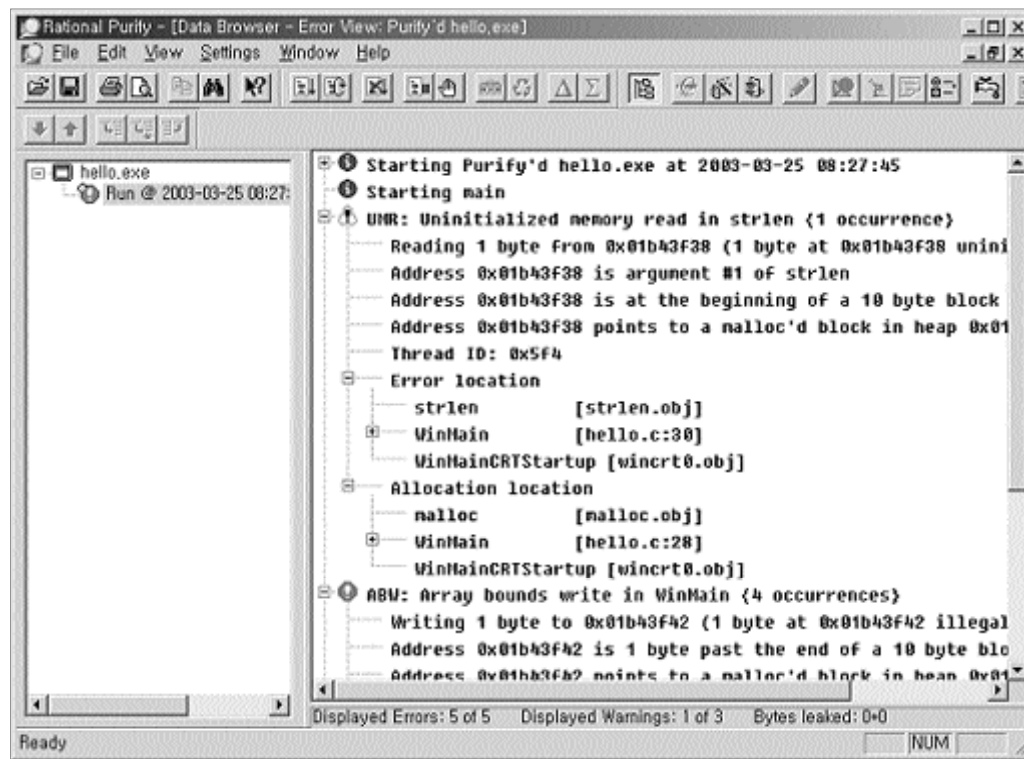
가

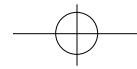
(가)

가

가

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가 (5)
(가)
가 OS
(가)
- 가 가
- 가
- UI
- (Yes) (No)
- (Yes)
- (No))
- UI
- ,가
-)
(4)

3.

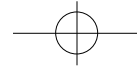
4.

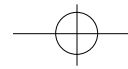
PS2

가 가
가 가
가 가
가
가
가
PlayStation2
PlayStation2
PS2
가
가
가
?
가
PS2
MS, GameCube
, X-BOX
가

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PlayStation2
< >
PS2





2

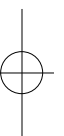
S / W

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 < 가
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 (TRC)가 가 가

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< 5-2-4-03 > PS2

