[양식 0501-01] 소프트웨어 확인 및 검증 점검표(설계요건 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 4

사업(용역)명		단계	설계요건 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
A-1	General	Yes	No	N/A
1	Are the requirement documents complete?	☐	☐	☐
2	Are the requirements correct?	☐	☐	☐
3	Are the requirement documents consistent and compatible?	☐	☐	☐
4	Are the requirements clear and unambiguous?	☐	☐	☐
5	Are the requirements feasible?	☐	☐	☐
6	Are the requirements testable and related to performance goals?	☐	☐	☐
7	Are the concept documents marked per Traceability Requirements?	☐	☐	☐
8	Are the requirements documents properly entered into the Software Requirements Traceability tool?	☐	☐	☐
9	Are the requirements for interfacing with other equipment consistent and complete?	☐	☐	☐
10	Are Human Machine Interface requirements addressed?	☐	☐	☐
11	Are process or digital data input requirements identified properly?	☐	☐	☐
12	Are initialization requirements identified?	☐	☐	☐
13	Are in-service test or diagnostic capabilities defined?	☐	☐	☐
A-2	Traceability Analysis	Yes	No	N/A
1	Are the relationships between each software requirement and its system requirement correct?	☐	☐	☐
2	Are the relationships between the software and system requirements specified to a consistent level of detail?	☐	☐	☐
3	Is every software requirement traceable to a system requirement with sufficient detail to show conformance to the system requirement?	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	2 / 4

사업(용역)명		단계	설계요건 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
A-2	Traceability Analysis	Yes	No	N/A
4	Are all system requirements related to software traceable to software requirements?	☐	☐	☐
5	Are the system performance and operating characteristics accurately specified by the traced software requirements?	☐	☐	☐
A-3	Software Requirements Evaluation	Yes	No	N/A
1	Do the software requirements satisfy the system requirements allocated to software within the assumptions, constraints, and operating environment for the system?	☐	☐	☐
2	Do the software requirements comply with standards, references, regulations, policies, physical laws, and business rules?	☐	☐	☐
3	Did the sequences of states and state changes using logic and data flows coupled with domain expertise, prototyping results, engineering principles, or other basis?	☐	☐	☐
4	Do the flow of data and control satisfy functionality and performance requirements?	☐	☐	☐
5	Is data usage and format correct?	☐	☐	☐
6	Are all terms and concepts documented consistently?	☐	☐	☐
7	Are the function interactions and assumptions consistent? and do SRS satisfy system requirements and acquisition needs?	☐	☐	☐
8	Is there internal consistency between the software requirements and external consistency with the system requirements?	☐	☐	☐
9	Are the Functionality (e.g., algorithms, state/mode definitions, input/output validation, exception handling, reporting and logging) in the SRS or IRS, within the assumptions and constraints of the system?	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	3 / 4

사업(용역)명		단계	설계요건 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
A-3	Software Requirements Evaluation	Yes	No	N/A
10	Are the Process definition and scheduling in the SRS or IRS, within the assumptions and constraints of the system?	☐	☐	☐
11	Are the Performance criteria (e.g., timing, sizing, speed, capacity, accuracy, precision, safety, and security) in the SRS or IRS, within the assumptions and constraints of the system?	☐	☐	☐
12	Are the critical configuration data in the SRS or IRS, within the assumptions and constraints of the system?	☐	☐	☐
13	Are the hardware, software, and user interface descriptions in the SRS or IRS, within the assumptions and constraints of the system?	☐	☐	☐
14	Are the System, device, and software control (e.g., initialization, transaction and state monitoring, self-testing) in the SRS or IRS, within the assumptions and constraints of the system?	☐	☐	☐
15	Do SRS and IRS satisfy specified configuration management procedures?	☐	☐	☐
16	Do the logic, computational, and interface precision (e.g., truncation and rounding) satisfy the requirements in the system environment?	☐	☐	☐
17	Do the modeled physical phenomena conform to system accuracy requirements and physical laws?	☐	☐	☐
18	Is the documentation legible, understandable, and unambiguous to the intended audience?	☐	☐	☐
19	Dose the documentation defines all acronyms, mnemonics, abbreviations, terms, and symbols?	☐	☐	☐
20	Are there objective acceptance criteria for validating the requirements of the SRS and IRS.	☐	☐	☐

[양식 0501-01] 소프트웨어 확인 및 검증 점검표(설계요건 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	4 / 4

사업(용역)명		단계	설계요건 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
A-4	Interface Analysis	Yes	No	N/A
1	Are the external and internal system and software interface requirements correct?	☐	☐	☐
2	Are the interface descriptions consistent between the SRS and IRS?	☐	☐	☐
3	Is each interface described and includes data format and performance criteria (e.g., timing, bandwidth, accuracy, safety, and security)?	☐	☐	☐
4	Dose each interface provides information with the required accuracy?	☐	☐	☐
5	Are there are objective acceptance criteria for validating the interface requirements?	☐	☐	☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ 성명 _____ 서명 _____ 일자

[양식 0501-02] 소프트웨어 확인 및 검증 점검표(설계 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 4

사업(용역)명		단계	설계 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
B-1	Generals	Yes	No	N/A
1	Are the design documents complete?	☐	☐	☐
2	Are the design document(s) properly entered into the Software Requirements Traceability tool?	☐	☐	☐
3	Are the design document(s) marked per Traceability Requirements?	☐	☐	☐
4	Is the design traceable to the requirements?	☐	☐	☐
5	Is the design complete?	☐	☐	☐
6	Is the design correct?	☐	☐	☐
7	Is the design internally consistent?	☐	☐	☐
8	Is the design clear and unambiguous?	☐	☐	☐
9	Is the design feasible?	☐	☐	☐
10	Is software architecture adequately addressed?	☐	☐	☐
11	Are input/output interfaces adequately addressed?	☐	☐	☐
12	Is the testability of the system adequately addressed (e.g. response time)?	☐	☐	☐
13	Is algorithm design adequately addressed (e.g. base functions addressed)?	☐	☐	☐
14	Is information flow adequately addressed (communication between subsystems, data management and signal conversion to engineering units?)	☐	☐	☐
15	Is Human Factors Engineering adequately addressed?	☐	☐	☐
16	Are operating modes/sequences adequately addressed (e.g. initialization, startup, test system mode of operation)?	☐	☐	☐
17	Does the design adequately address potential hazards?	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	2 / 4

사업(용역)명		단계	설계 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
B-2	Traceability Analysis	Yes	No	N/A
1	Is the relationship between each design element and the software requirement(s) correct?	☐	☐	☐
2	Are the relationships between the design elements and the software requirements specified to a consistent level of detail?	☐	☐	☐
3	Are all design elements traceable from the software requirements?	☐	☐	☐
4	Are all software requirements traceable to the design elements?	☐	☐	☐
B-3	Software Design Evaluation	Yes	No	N/A
1	Does the software design satisfy the software requirements?	☐	☐	☐
2	Does the software design comply with standards, references, regulations, policies, physical laws, and business rules?	☐	☐	☐
3	Are the design sequences of states and state changes using logic and data flows coupled with domain expertise, prototyping results, engineering principles, or other basis?	☐	☐	☐
4	Do the flow of data and control satisfy functionality and performance requirements?	☐	☐	☐
5	Is data usage and format correct?	☐	☐	☐
6	Is design methods and standards used appropriate?	☐	☐	☐
7	Are all terms and design concepts documented consistently?	☐	☐	☐
8	Is there internal consistency between the design elements and external consistency with architectural design?	☐	☐	☐
9	Is functionality (e.g., algorithms, state/mode definitions, input/output validation, exception handling, reporting and logging) in the SDD, within the assumptions and constraints of the system?	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	3 / 4

사업(용역)명		단계	설계 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
B-3	Software Design Evaluation	Yes	No	N/A
10	Are process definition and scheduling in the SDD, within the assumptions and constraints of the system?	☐	☐	☐
11	Are hardware, software, and user interface descriptions in the SDD, within the assumptions and constraints of the system?	☐	☐	☐
12	Are performance criteria (e.g., timing, sizing, speed, capacity, accuracy, precision, safety, and security) in the SDD, within the assumptions and constraints of the system?	☐	☐	☐
13	Are critical configuration data in the SDD, within the assumptions and constraints of the system?	☐	☐	☐
14	Are system, device, and software control (e.g., initialization, transaction and state monitoring, and self-testing) in the SDD, within the assumptions and constraints of the system?	☐	☐	☐
15	Do the SDD and IDD satisfy specified configuration management procedures?	☐	☐	☐
16	Do the logic, computational, and interface precision (e.g., truncation and rounding) satisfy the requirements in the system environment?	☐	☐	☐
17	Do the modeled physical phenomena conform to system accuracy requirements and physical laws?	☐	☐	☐
18	Is the documentation legible, understandable, and unambiguous to the intended audience?	☐	☐	☐
19	Does the documentation define all acronyms, mnemonics, abbreviations, terms, symbols, and design language, if any?	☐	☐	☐
20	Are there objective acceptance criteria for validating each software design element and the system design?	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	4 / 4

사업(용역)명		단계	설계 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
B-3	Software Design Evaluation	Yes	No	N/A
21	Is each software design element testable to objective acceptance criteria?	☐	☐	☐
B-4	Interface Analysis	Yes	No	N/A
1	Is the external and internal software interface design in the context of system requirements correct?	☐	☐	☐
2	Is the interface design consistent between the SDD and IDD?	☐	☐	☐
3	Is each interface described and does it include data format and performance criteria (e.g., timing, bandwidth, accuracy, safety, and security)?	☐	☐	☐
4	Does each interface provide information with the required accuracy?	☐	☐	☐
5	Are there objective acceptance criteria for validating the interface design?	☐	☐	☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ _____ _____

성명 서명 일자

[양식 0501-03] 소프트웨어 확인 및 검증 점검표(구현 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 5

사업(용역)명		단계	구현 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
C-1	General	Yes	No	N/A
1	Does the source code conform to specified standards and procedures?	☐	☐	☐
2	Is the source code traceable to the functional design requirements?	☐	☐	☐
3	Are the comment statements provided sufficient to give an adequate description of each routine and data structure?	☐	☐	☐
4	Is the source code understandable?	☐	☐	☐
5	Is the source code consistent with the design?	☐	☐	☐
6	Are all the variables properly specified and used?	☐	☐	☐
7	Is there satisfactory error checking?	☐	☐	☐
8	Have potential software hazards been adequately addressed, including implementation of prevention and/or control techniques (e.g. Logic, Data, Interfaces, Constraint, Non-Critical Code, and Timing/Sizing)?	☐	☐	☐
9	Do all subroutine calls transfer data variables correctly?	☐	☐	☐
10	Is the data correctly passed between unit, module and/or integrated subsystems or systems?	☐	☐	☐
11	Do the database modules adequately and correctly reflect the program and general content?	☐	☐	☐
12	Do module test reports (and unit test reports, if applicable) indicate correct execution of critical software elements?	☐	☐	☐
13	Do procedures exist (as necessary) to: a. Configure the application programming tool(s)? b. Generate and upload the application code? c. Maintain application source code configuration control?	☐	☐	☐

[양식 0501-03] 소프트웨어 확인 및 검증 점검표(구현 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	2 / 5

사업(용역)명		단계	구현 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
C-2	Traceability Analysis	Yes	No	N/A
1	Are the relationships between source code components and design elements correct?	☐	☐	☐
2	Are the relationships between the source code components and design elements specified to a consistent level of detail?	☐	☐	☐
3	Is every source code components traceable from the design elements?	☐	☐	☐
4	Are all design elements traceable to the source code components?	☐	☐	☐
5	Verify that there is a valid relationship between the V&V test plans, designs, cases and procedures.	☐	☐	☐
6	Verify that all V&V test procedures are traceable to the V&V test plans.	☐	☐	☐
C-3	Source code and source code documentation evaluation	Yes	No	N/A
1	Does the source code component satisfy the software design?	☐	☐	☐
2	Do the source code components comply with standards, references, regulations, policies, physical laws, and business rules?	☐	☐	☐
3	Did the sequences of states and state changes using logic and data flows coupled with domain expertise, prototyping results, engineering principles, or other basis?	☐	☐	☐
4	Do the flow of data and control satisfy functionality and performance requirements?	☐	☐	☐
5	Is data usage and format correct?	☐	☐	☐
6	Are the appropriateness of coding methods and standards?	☐	☐	☐
7	Are all terms and concepts documented consistently?	☐	☐	☐
8	Is there internal consistency between the source code components?	☐	☐	☐
9	Is there external consistency with the software design and requirements?	☐	☐	☐

[양식 0501-03] 소프트웨어 확인 및 검증 점검표(구현 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	3 / 5

사업(용역)명		단계	구현 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
C-3	Source code and source code documentation evaluation	Yes	No	N/A
10	Is the Functionality (e.g., algorithms, state/mode definitions, input/output validation, exception handling, reporting and logging) in the source code, within the assumptions and constraints of the system?	☐	☐	☐
11	Are the Process definition and scheduling in the source code, within the assumptions and constraints of the system?	☐	☐	☐
12	Are the Hardware, software, and user interface descriptions in the source code, within the assumption and constraints of the system?	☐	☐	☐
13	Are the Performance criteria (e.g., timing, sizing, speed, capacity, accuracy, precision, safety, and security) in the source code, within the assumptions and constraints of the system?	☐	☐	☐
14	Are the critical configuration data in the source code, within the assumptions and constraints of the system?	☐	☐	☐
15	Are the System, device, and software control (e.g., initialization, transaction and state monitoring, self-testing) in the source code, within the assumptions and constraints of the system?	☐	☐	☐
16	Does source code documentation satisfies specified configuration management procedures?	☐	☐	☐
17	Do the logic, computational, and interface precision (e.g., truncation and rounding) satisfy the requirements in the system environment?	☐	☐	☐
18	Do the modeled physical phenomena conform to system accuracy requirements and physical laws?	☐	☐	☐
19	Is the documentation legible, understandable, and unambiguous to the intended audience?	☐	☐	☐

[양식 0501-03] 소프트웨어 확인 및 검증 점검표(구현 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	4 / 5

사업(용역)명		단계	구현 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
C-3	Source code and source code documentation evaluation	Yes	No	N/A
20	Dose the documentation defines all acronyms, mnemonics, abbreviations, terms, and symbols?	☐	☐	☐
21	Are there objective acceptance criteria for validating each source code component?	☐	☐	☐
22	Are the each source code component is testable against objective acceptance criteria?	☐	☐	☐
C-4	Interface Analysis	Yes	No	N/A
1	Are the external and internal system and software interface code in the context of system requirements correct?	☐	☐	☐
2	Are the interface codes consistent between source code components and to external interfaces (i.e. hardware, user, operator, and other software)?	☐	☐	☐
3	Is each interface described? And Does source code component includes data format and performance criteria (e.g., timing, bandwidth, accuracy, safety, and security)?	☐	☐	☐
4	Does each interface provides information with the required accuracy?	☐	☐	☐
5	Are there are objective acceptance criteria for validating the interface code?	☐	☐	☐
C-5	Component V&V test execution	Yes	No	N/A
1	Use the developer's component test results to verify that the software satisfies the test acceptance criteria.	☐	☐	☐

[양식 0501-03] 소프트웨어 확인 및 검증 점검표(구현 단계)

Solution	**소프트웨어 확인 및 검증 점검표**	문서번호	
		개정번호	
		페이지	5 / 5

사업(용역)명		단계	구현 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
비고 또는 주석		

독립검토자((Independent Reviewer)	_____	_____	_____
	성명	서명	일자

[양식 0501-04] 소프트웨어 확인 및 검증 점검표(시험 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 2

사업(용역)명		단계	시험 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
D-1	General	Yes	No	N/A
1	Is the Test Plan description complete?	☐	☐	☐
2	Are the test case definitions adequate and complete?	☐	☐	☐
3	Is each testable requirement adequately covered?	☐	☐	☐
4	Is the plan for evaluating and reporting test results adequate?	☐	☐	☐
5	Does the test plan specify the required test environment (hardware or software)?	☐	☐	☐
6	Have all the elements of an integrated program been identified?	☐	☐	☐
7	Does the plan require a test case log?	☐	☐	☐
8	For program maintenance changes, have adequate regression tests been specified to verify that the modifications have not caused adverse effects on unmodified code?	☐	☐	☐
9	Do the test results comply with the format specified in the Test Plan?	☐	☐	☐
10	Do the test results provide an accurate statement of the testing performed?	☐	☐	☐
11	Has each section of the test procedure been completed accurately?	☐	☐	☐
12	Have all test cases been executed correctly?	☐	☐	☐
13	Have test results been evaluated as acceptable?	☐	☐	☐
14	Does the test report provide a summary of test results and recommendations?	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	2 / 2

사업(용역)명		단계	시험 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
D-1	General	Yes No N/A
15	Have any deviations from the test plan or expected test results (criteria) been properly documented in test exception reports?	☐ ☐ ☐
16	For program maintenance changes, have adequate regression tests been Regression tests been specified to verify that the modifications have not caused adverse effects on unmodified code?	☐ ☐ ☐
D-2	Traceability Analysis	Yes No N/A
1	Is there a valid relationship between the V&V test plans, designs, cases, and procedures.	☐ ☐ ☐
2	Are all V&V test procedures traceable to the V&V test plans.	☐ ☐ ☐
D-3	System V&V test execution	Yes No N/A
1	Use the developer's system test results to verify that the software satisfies the test acceptance criteria.	☐ ☐ ☐
D-4	integration V&V test execution	Yes No N/A
1	Use the developer's integration test results to verify that the software satisfies the test acceptance criteria.	☐ ☐ ☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ _____ _____

성명 서명 일자

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
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사업(용역)명		단계	시험계획		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
E-1	Software integrity levels 1 and 2	Yes	No	N/A
1	Conformance to project-defined test document purpose, format, and content (See IEEE Std. 829-1998)	☐	☐	☐
2	Test coverage of system requirements	☐	☐	☐
3	Appropriateness of test methods and standards used	☐	☐	☐
4	Conformance to expected results	☐	☐	☐
5	Feasibility of system qualification testing	☐	☐	☐
6	Capability to be operated and maintained	☐	☐	☐
7	Traceable to the system requirements	☐	☐	☐
8	External consistency with the system requirements	☐	☐	☐
9	Internal consistency	☐	☐	☐
10	Test coverage of the software requirements	☐	☐	☐
11	Appropriateness of test standards and methods	☐	☐	☐
12	Feasibility of software qualification tespting	☐	☐	☐
13	Feasibility of operation and maintenance	☐	☐	☐
14	Traceable to the software requirements and design	☐	☐	☐
15	External consistency with the software requirements and design	☐	☐	☐
16	Internal consistency between unit requirements	☐	☐	☐
17	Test coverage of units	☐	☐	☐
18	Feasibility of software integration and testing	☐	☐	☐
E-2	Test plan identifier	Yes	No	N/A
1	A test plan shall have the unique identifier assigned to this test plan	☐	☐	☐

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문서제목		문서(식별)번호		개정번호	

No	항목	결과
E-3	Introduction	Yes No N/A
1	1) A test plan should have summary of the software items and software features to be tested ※ The need for each item and its history may be included. 2) A test plan should references to the following documents a) Project authorization; b) Project plan; c) Quality assurance plan; d) Configuration management plan; e) Relevant policies; f) Relevant standards.	☐ ☐ ☐
2	In multilevel test plans, each lower-level plan must reference the next higher-level plan.	☐ ☐ ☐
E-4	Test items	Yes No N/A
1	A test plan shall Identify the test items including their version/revision level. Also it shall specify characteristics of their transmittal media that impact hardware requirements or indicate the need for logical or physical transformations before testing can begin (e.g., programs must be transferred from tape to disk).	☐ ☐ ☐
2	A test plan should have references to the following test item documentation, if it exists: a) Requirements specification b) Design specification c) Users guide d) Operations guide e) Installation guide	☐ ☐ ☐

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문서제목		문서(식별)번호		개정번호	

No	항목	결과
E-4	Test items	Yes No N/A
3	A test plan should have reference any incident reports relating to the test items ※ items that are to be specifically excluded from testing may be identified	☐ ☐ ☐
E-5	Features to be tested	Yes No N/A
1	A test plan shall identify all software features and combinations of software features to be tested	☐ ☐ ☐
E-6	Features not to be tested	Yes No N/A
1	A test plan shall identify all features and significant combinations of features that will not be tested and the reasons	☐ ☐ ☐
E-7	Approach	Yes No N/A
1	A test plan shall have: 1) descriptions on the overall approach to testing 2) specifications on the approach that will ensure that feature groups (each major group of features or feature combinations) are adequately tested 3) specifications on the major activities, techniques, and tools that are used to test the designated groups of features.	☐ ☐ ☐

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문서제목		문서(식별)번호		개정번호	

No	항목	결과
E-7	Approach	Yes No N/A
2	A test plan should have: 1) specifications on the minimum degree of comprehensiveness desired 2) identifications of the techniques that will be used to judge the comprehensiveness of the testing effort (e.g., determining which statements have been executed at least once). 3) specifications on any additional completion criteria (e.g., error frequency) 4) specifications on the techniques to be used to trace requirements 5) identifications of significant constraints on testing such as test item availability, testing resource availability, and deadlines	☐ ☐ ☐
E-8	Item pass/fail criteria	Yes No N/A
1	A test plan shall specify the criteria to be used to determine whether each test item has passed or failed testing	☐ ☐ ☐
E-9	Suspension criteria and resumption requirements	Yes No N/A
1	A test plan shall specify 1) the criteria used to suspend all or a portion of the testing activity on the test items associated with this plan 2) the testing activities that must be repeated, when testing is resumed	☐ ☐ ☐
E-10	Test deliverables	Yes No N/A
1	A test plan shall identify the deliverable documents.	☐ ☐ ☐

[양식 0501-05] 소프트웨어 확인 및 검증 점검표(시험계획)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
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사업(용역)명		단계	시험계획		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
E-10	Test deliverables	Yes No N/A
2	A test plan should identify: 1) following documents in the deliverable documents a) Test plan; b) Test design specifications; c) Test case specifications; d) Test procedure specifications; e) Test item transmittal reports; f) Test logs; g) Test incident reports; h) Test summary reports. 2) Test input data and test output data should be identified as deliverables ※ A test plan may include test tools (e.g., module drivers and stubs).content (See IEEE Std. 829-1998)	☐ ☐ ☐
E-11	Testing tasks	Yes No N/A
1	A test plan shall identify the set of tasks necessary to prepare for and perform testing	☐ ☐ ☐
2	A test plan should identify all intertask dependencies and any special skills required	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
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사업(용역)명		단계	시험계획		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
E-12	Environmental needs	Yes No N/A
1	A test plan shall specify both the necessary and desired properties of the test environment. This specification should contain the physical characteristics of the facilities including the hardware, the communications and system software, the mode of usage (e.g., stand-alone), and any other software or supplies needed to support the test.	☐ ☐ ☐
2	A test plan should have: 1) specifications on the level of security that must be provided for the test facilities, system software, and proprietary components such as software, data, and hardware 2) identifications of special test tools needed 3) identifications of any other testing needs (e.g., publications or office space) 4) identifications of the source for all needs that are not currently available to the test group	☐ ☐ ☐
E-13	Responsibilities	Yes No N/A
1	A test plan shall identify: 1) the groups responsible for managing, designing, preparing, executing, witnessing, checking, and resolving 2) the groups responsible for providing the test items and the environmental needs ※ These groups may include the developers, testers, operations staff, user representatives, technical support staff, data administration staff, and quality support staff.	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
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문서제목		문서(식별)번호		개정번호	

No	항목	결과
E-14	Staffing and training needs	Yes No N/A
1	A test plan should have: 1) specifications on test staffing needs by skill level 2) Identification of training options for providing necessary skills.	☐ ☐ ☐
E-15	Schedule	Yes No N/A
1	A test plan shall have test milestones identified in the software project schedule as well as all item transmittal events	☐ ☐ ☐
2	A test plan should have: 1) definitions of any additional test milestones needed 2) estimation of the time required to do each testing task 3) specifications on the schedule for each testing task and test milestone 4) (for each testing resource (i.e., facilities, tools, and staff)) specifications on its periods of use	☐ ☐ ☐
E-16	Risks and contingencies	Yes No N/A
1	A test plan shall have: 1) identification of the high-risk assumptions of the test plan 2) specifications of contingency plans for each (e.g., delayed delivery of test items might require increased night shift scheduling to meet the delivery date)	☐ ☐ ☐
E-17	Approvals	Yes No N/A
1	A test plan shall specify the names and titles of all persons who must approve this plan. Provide space for the signatures and dates	☐ ☐ ☐

[양식 0501-05] 소프트웨어 확인 및 검증 점검표(시험계획)

Solution	**소프트웨어 확인 및 검증 점검표**	문서번호	
		개정번호	
		페이지	8 / 8

사업(용역)명		단계	시험계획		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
	비고 또는 주석	
	독립검토자((Independent Reviewer) _____ 성명 _____ 서명 _____ 일자	

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
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사업(용역)명		단계	시험절차		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
F-1	Software integrity levels 1 and 2	Yes	No	N/A
1	Conformance to project-defined test design specification purpose, format, and content (see IEEE Std. 829-1998)	☐	☐	☐
2	Conformance to project-defined test case specification purpose, format, and content (see IEEE Std. 829-1998)	☐	☐	☐
3	Conformance to project-defined test procedure specification purpose, format, and content (see IEEE Std. 829-1998)	☐	☐	☐
4	Appropriateness of test methods and standards used	☐	☐	☐
5	Conformance to expected results	☐	☐	☐
6	Feasibility of system qualification testing	☐	☐	☐
7	Capability to be operated and maintained	☐	☐	☐
8	Traceable to the system requirements	☐	☐	☐
9	External consistency with the system requirements	☐	☐	☐
10	Internal consistency	☐	☐	☐
11	Test coverage of the software requirements	☐	☐	☐
12	Appropriateness of test standards and methods	☐	☐	☐
13	Feasibility of software qualification testing	☐	☐	☐
14	Feasibility of operation and maintenance	☐	☐	☐
15	Traceable to the software requirements and design	☐	☐	☐
16	External consistency with the software requirements and design	☐	☐	☐
17	Internal consistency between unit requirements	☐	☐	☐
18	Test coverage of units	☐	☐	☐
19	Feasibility of software integration and testing	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
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사업(용역)명		단계	시험절차		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
F-2	Test design specification identifier	Yes No N/A
1	A test procedure shall have the unique identifier assigned to this test design specification.	☐ ☐ ☐
2	A test procedure shall supply a reference to the associated test plan,if it exists.	☐ ☐ ☐
F-3	Features to be tested	Yes No N/A
1	A test procedure shall identify the test items and describe the features and combinations of features that are the object of this design specification. And other features may be exercised, but need not be identified	☐ ☐ ☐
2	A test procedure shall include requirements relating to item requirements specifications or design descriptions for each feature or combination of features.	☐ ☐ ☐
F-4	Approach refinements	Yes No N/A
1	A test procedure shall specify requirements to the approach described in the test plan and include specific test techniques to be used. The method of analyzing test results should be identified (e.g., comparator programs or visual inspection).	☐ ☐ ☐
2	A test procedure shall specify the results of any analysis that provides a rationale for test case selection.	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
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사업(용역)명		단계	시험절차		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
F-4	Approach refinements	Yes No N/A
3	A test procedure shall summarize the common characteristics of the test cases and include the following: 1) input constraints that must be true for every input in the set of associated test cases 2) any shared environmental needs, any shared special procedural requirements 3) any shared case dependencies	☐ ☐ ☐
F-5	Test identification	Yes No N/A
1	A test procedure shall list the identifier and a brief description of each procedure associated with this test design specification.	☐ ☐ ☐
F-6	Feature pass/fail criteria	Yes No N/A
1	A test procedure shall specify the criteria to be used to determine whether the feature or feature combination has passed or failed.	☐ ☐ ☐
F-7	Test case specification identifier	Yes No N/A
1	A test procedure shall specify the unique identifier assigned to this test case specification.	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
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사업(용역)명		단계	시험절차		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
F-8	Test items	Yes No N/A
1	A test procedure shall identify and briefly describe the items and features to be tested and shall provide the following references: 1) Requirements specification 2) Design specification 3) Users guide 4) Operations guide 5) Installation guide	☐ ☐ ☐
F-9	Input specifications	Yes No N/A
1	A test procedure shall specify each input required to execute the test case. Some of the inputs will be specified by value (with tolerances where appropriate), while others, such as constant tables or transaction files, will be specified by name.	☐ ☐ ☐
2	A test procedure shall identify all appropriate databases, files, terminal messages, memory resident areas, and values passed by the operating system.	☐ ☐ ☐
3	A test procedure shall specify all required relationships between inputs (e.g., timing).	☐ ☐ ☐
F-10	Output specifications	Yes No N/A
1	A test procedure shall specify all of the outputs and features (e.g., response time) required of the test items. And this shall Provide the exact value (with tolerances where appropriate) for each required output or feature.	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
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사업(용역)명		단계	시험절차		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
F-11	Environmental needs	Yes No N/A
1	A test procedure shall specify the characteristics and configurations of the hardware required to execute this test case (e.g., 132 character ´ 24 line CRT).	☐ ☐ ☐
2	A test procedure shall specify the system and application software required to execute this test case. This may include system software such as operating systems, compilers, simulators, and test tools. In addition, the test item may interact with application software.	☐ ☐ ☐
3	A test procedure shall specify any other requirements such as unique facility needs or specially trained personnel.	☐ ☐ ☐
F-12	Special procedural requirements	Yes No N/A
1	A test procedure shall describe any special constraints on the test procedures that execute this test case. These constraints may include the following: 1) special set up 2) operator intervention 3) output determination procedures 4) special wrap up	☐ ☐ ☐
F-13	Intercase dependencies	Yes No N/A
1	A test procedure shall list the identifiers of test cases that must be executed prior to this test case. Summarize the nature of the dependencies.	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
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사업(용역)명		단계	시험절차		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
F-14	Test procedure specification identifier	Yes No N/A
1	A test procedure shall specify the unique identifier assigned to this test procedure specification. Supply a reference to the associated test design specification.	☐ ☐ ☐
F-15	Purpose	Yes No N/A
1	A test procedure shall describe the purpose of this procedure. If this procedure executes any test cases, provide references to relevant sections of the test item documentation (e.g., references to usage procedures) and a reference for each of them.	☐ ☐ ☐
F-16	Special requirements	Yes No N/A
1	A test procedure shall identify any special requirements that are necessary for the execution of this procedure. These may include the following: 1) prerequisite procedures, 2) special skills requirements, 3) special environmental requirements.	☐ ☐ ☐
F-17	Procedure steps	Yes No N/A
1	A test procedure shall describe any special methods or formats for logging the results of test execution, the incidents observed, and any other events pertinent to the test	☐ ☐ ☐
2	A test procedure shall describe the sequence of actions necessary to prepare for execution of the procedure.	☐ ☐ ☐
3	A test procedure shall describe the actions necessary to begin execution of the procedure.	☐ ☐ ☐

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사업(용역)명		단계	시험절차		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
F-17	Procedure steps	Yes	No	N/A
4	A test procedure shall describe any actions necessary during execution of the procedure.	☐	☐	☐
5	A test procedure shall describe how the test measurements will be made (e.g., describe how remote terminal response time is to be measured using a network simulator).	☐	☐	☐
6	A test procedure shall describe the actions necessary to suspend testing, when unscheduled events dictate.	☐	☐	☐
7	A test procedure shall identify any procedural restart points and describe the actions necessary to restart the procedure at each of these points.	☐	☐	☐
8	A test procedure shall describe the actions necessary to bring execution to an orderly halt.	☐	☐	☐
9	A test procedure shall describe the actions necessary to restore the environment.	☐	☐	☐
10	A test procedure shall describe the actions necessary to deal with anomalous events that may occur during execution.	☐	☐	☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ 성명 _____ 서명 _____ 일자

[양식 0501-07] 소프트웨어 확인 및 검증 점검표(시험보고)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 4

사업(용역)명		단계	시험보고		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
G-1	Software integrity levels 2	Yes	No	N/A
1	Conformance to project-defined test report purpose, format, and content (see IEEE Std. 829-1998)	☐	☐	☐
2	Appropriateness of test methods and standards used	☐	☐	☐
3	Conformance to expected results	☐	☐	☐
4	Feasibility of system qualification testing	☐	☐	☐
5	Capability to be operated and maintained	☐	☐	☐
6	Validate that system test results satisfies the acceptance criteria	☐	☐	☐
7	Traceable to the system requirements	☐	☐	☐
8	External consistency with the system requirements	☐	☐	☐
9	Internal consistency	☐	☐	☐
10	Test coverage of Software requirements	☐	☐	☐
11	Appropriateness of test standards and methods used	☐	☐	☐
12	Feasibility of software qualification testing	☐	☐	☐
13	Feasibility of operation and maintenance	☐	☐	☐
14	Validate that integration test results satisfies the acceptance criteria	☐	☐	☐
15	Traceable to the software requirements and design	☐	☐	☐
16	External consistency with the software requirements and design	☐	☐	☐
17	Internal consistency between unit requirements	☐	☐	☐
18	Test coverage of units	☐	☐	☐
19	Feasibility of software integration and testing	☐	☐	☐
20	Validate that component test results satisfies the acceptance criteria	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
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사업(용역)명		단계	시험보고		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
G-2	Test summary report identifier	Yes No N/A
1	A test summary report shall the unique identifier assigned to this test summary report.	☐ ☐ ☐
G-3	Summary	Yes No N/A
1	A test summary report shall summarize the evaluation of test items by identifying test items that indicate the version / revision level.	☐ ☐ ☐
2	A test summary report shall indicate the environment in which the testing activities took place.	☐ ☐ ☐
3	A test summary report should for each test item, supply references to the following documents if they exist: 1) test plan 2) test design specifications 3) test procedure specifications 4) test item transmittal reports 5) test logs 6) test incident reports	☐ ☐ ☐
G-4	Variances	Yes No N/A
1	A test summary report shall any variances of the test items from their design specifications	☐ ☐ ☐
2	A test summary report should specify the reason for each variance. 1) the test plan 2) test designs 3) test procedures	☐ ☐ ☐

[양식 0501-07] 소프트웨어 확인 및 검증 점검표(시험보고)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	3 / 4

사업(용역)명		단계	시험보고		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
G-5	Comprehensiveness assessment	Yes No N/A
1	A test summary report shall evaluate the comprehensiveness of the testing process against the comprehensiveness criteria specified in the test plan (4.2.6) if the plan exists.	☐ ☐ ☐
2	A test summary report shall identify features or feature combinations that were not sufficiently tested and explain the reasons.	☐ ☐ ☐
G-6	Summary of results	Yes No N/A
1	A test summary report summarize the results of testing have: 1) Identify all resolved incidents and summarize their resolutions. 2) Identify all unresolved incidents.	☐ ☐ ☐
G-7	Evaluation	Yes No N/A
1	A test summary report shall Provide an overall evaluation of each test item including its limitations. 1) A test summary report shall evaluation shall be based upon the test results and the item level pass/fail criteria. 2) A test summary report shall estimate of failure risk may be included.	☐ ☐ ☐
G-8	Summary of activities	Yes No N/A
1	A test summary report shall summarize the major testing activities and events.	☐ ☐ ☐
2	A test summary report should summarize resource consumption data have: 1) total staffing level, 2) total machine time, 3) total elapsed time used for each of the major testing activities	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	4 / 4

사업(용역)명		단계	시험보고		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
G-9	Approvals	Yes No N/A
1	A test summary report shall specify the names and titles of all persons who must approve this plan. Provide space for the signatures and dates	☐ ☐ ☐

비고 또는 주석

독립검토자((Independent Reviewer)	_____ 성명	_____ 서명	_____ 일자

[양식 0501-08] 소프트웨어 확인 및 검증 점검표(소스코드)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
H-1	Predictability of Memory Utilization	Yes	No	N/A
1	Minimizing Dynamic Memory Allocation a. Allocating memory without subsequently freeing it b. Attempting to access memory that has not been allocated c. Utilizing memory that has already been freed d. Insufficient available memory for the dynamic memory requirements e. Ensure that all classes include a destructor	☐	☐	☐
2	Minimizing Memory Paging and Swapping	☐	☐	☐
3	Minimizing Recursive Function Calls	☐	☐	☐
4	Utilizing Memory-Related Functions with Boundary Checking	☐	☐	☐
5	Use of memmove for Moving Blocks of Memory	☐	☐	☐
6	Examining Memory at Power Up	☐	☐	☐
7	Wrapping of Built-in Functions for Memory-Related Operations	☐	☐	☐
8	Proper Array Indexing	☐	☐	☐
H-2	Predictability of Control Flow	Yes	No	N/A
1	Maximizing Structure	☐	☐	☐
2	Minimizing Control Flow Complexity a. Use the switch construct b. Use brackets c. Define defaults d. Check for dead code	☐	☐	☐
3	Initialization of Variables and Pointers Before Use a. Reinitialize automatic variables b. Initialize global variables in separate initialization routines	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	2 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
H-2	Predictability of Control Flow	Yes No N/A
	c. Initialize global variables only once d. Do not use pointers to automatic variables outside of their scope e. Initialize pointers f. Ensure that the indirection operator is present for each pointer declaration g. Use the ~ operator when initializing to all 1 's	
4	Single Entry and Exit Points in Subprograms a. Avoid multiple return statements b. Avoiding setjmp and longjmp c. Avoid function pointers d. Restricting use of throw and catch	☐ ☐ ☐
5	Minimizing Interface Ambiguities a. Use function prototyping b. Do not use functions that accept an indefinite number of arguments c. Order parameters so that different data types are alternated d. Ensure that arguments are of a compatible type with the function prototype e. Avoid use of variable length argument lists f. Test the validity of input arguments at the beginning of a routine and test the validity of the results before returning from the routine g. Using byte alignment of compilers h. Eliminate expressions in parameter passing to subroutines or macros i. Eliminate Increment (++) and decrement (--) operators from macro and function calls j. Use bit masks, not bitfields	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	3 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
H-2	Predictability of Control Flow	Yes	No	N/A
6	Controlled Use of Data Typing a. Limit the use of implementation-dependent types b. Minimize the use of type conversions and eliminate implicit or automated type conversions c. Avoid the use of mixed-mode operations d. Use a single data type in evaluations and relational operations e. Avoid the use of typedefs for unsized arrays f. Avoid multiple declarations of one identifier with several types g. Avoid mixing signed and unsigned variables h. Limit use of indirect addressing i. Do not declare the same identifier for multiple incompatible types	☐	☐	☐
7	Precision and Accuracy a. Use double precision b. Account for floating point properties in relational operations c. Account for truncation in integer operations d. Account for optimization e. Ensure that arithmetic conversion produces a result that can be represented in the space provided	☐	☐	☐
8	Use of Parentheses Rather Than Default Order of Precedence a. Use parentheses in bitwise operators b. Use parentheses in comparisons and conditions c. Use parentheses in macros d. Ensure that the values of expressions do not depend on the order of evaluation	☐	☐	☐
9	Avoiding Functions or Procedures with Side Effects	☐	☐	☐

[양식 0501-08] 소프트웨어 확인 및 검증 점검표(소스코드)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	4 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
H-2	Predictability of Control Flow	Yes	No	N/A
10	Separating Assignment from Evaluation	☐	☐	☐
11	Proper Handling of Program Instrumentation	☐	☐	☐
12	Control of Class Library Size	☐	☐	☐
13	Minimizing Use Of Dynamic Binding	☐	☐	☐
14	Control of Operator Overloading	☐	☐	☐
15	Enable and Heed Compiler Warnings	☐	☐	☐
H-3	Predictability of Timing	Yes	No	N/A
1	Minimizing the Use of Tasking	☐	☐	☐
2	Minimizing the Use of Interrupt Driven Processing a. Limit interrupt processing b. Limit function calls	☐	☐	☐
H-4	Controlled Use of Software Diversity	Yes	No	N/A
1	Controlling Internal Diversity	☐	☐	☐
2	Controlling External Diversity	☐	☐	☐
H-5	Controlled Use of Exception Handling	Yes	No	N/A
1	Local Handling of Exceptions a. Addressing exceptions b. Data exceptions c. Input/output exceptions d. Overflow and underflow exceptions e. Operation exceptions	☐	☐	☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	5 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
H-5	Controlled Use of Exception Handling	Yes No N/A
1	f. Protection exceptions	
2	Preservation of External Control Flow	☐ ☐ ☐
3	Uniformity of Exception Handling a. Rely on signals and traps rather than operating system features for handling of exceptions b. Use throw and catch in favor of setjmp and longimp in C++	☐ ☐ ☐
H-6	Input and Output Checking	Yes No N/A
1	Check pointers before use	☐ ☐ ☐
H-7	Minimizing the Use of Built-In Functions	Yes No N/A
1	Minimize the use of built-in functions	☐ ☐ ☐
H-8	Use of Compiled Libraries	Yes No N/A
1	Use of Compiled Libraries a. Ensure that names in externally developed libraries are distinct from those in the compiler or those developed within the project b. Document all cases of dynamic binding to externally developed libraries c. Ensure that development and runtime shared libraries are identical	☐ ☐ ☐
H-9	Utilizing Version Control Tools	Yes No N/A
1	All C and C++ software should be kept under configuration management utilizing version control tools.	☐ ☐ ☐
H-10	Readability	Yes No N/A
1	Conformance to Indentation Guideline a. Programming blocks should be bounded with brackets	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	6 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
H-10	Readability	Yes No N/A
1	Conformance to Indentation Guideline b. Comments should have the same indentation as the objects being described c. Branching constructs (i.e., if ... else ... ; and switch ... case,) should be indented d. Looping blocks (i.e., for, while, and do ... while) should be indented e. Automatic variables should be indented f. Compiler directives should be indented	
2	Descriptive Identifier Names	☐ ☐ ☐
3	Comments and Internal Documentation a. Comments should be used where subtle programming tricks are used or where critical steps are executed b. Nested comments should not be used c. Use care in mixing comment delimiter styles d. The end brackets of loops and if blocks should be tagged with comments	☐ ☐ ☐
4	Limitations on Subprogram Size	☐ ☐ ☐
5	Minimizing Mixed Language Programming a. Physical proximity b. Use of the asm directive	☐ ☐ ☐
6	Minimizing Obscure or Subtle Programming Constructs a. Avoid use of the ?: operator b. Avoid using default parameters to combine functions c. Avoid complex expressions inside a condition	☐ ☐ ☐

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	7 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
H-10	Readability	Yes No N/A
6	d. Maximize the use of the scope resolution operator e. Avoid pointers to members f. Use the virtual keyword wherever necessary	
7	Minimizing Dispersion of Related Elements a. Place include directives at the beginning of each program b. Place all external function prototypes in physical proximity c. Segregate base from derived classes	☐ ☐ ☐
8	Minimizing Use of Literals a. Parentheses b. Enumeration	☐ ☐ ☐
H-11	Data Abstraction	Yes No N/A
1	Check pointers before use a. Declare global variables in one header file b. Initialize global variables in one place	☐ ☐ ☐
2	Minimizing the Complexity of Interfaces a. Limit the number of parameters b. Use structures c. Avoid expressions in parameter lists	☐ ☐ ☐
H-12	Functional Cohesiveness	Yes No N/A
1	Every subprogram should have one clearly discernible purpose.	☐ ☐ ☐
H-13	Malleability	Yes No N/A
1	Malleability extends data abstraction with the motivation toward isolating areas of potential change..	☐ ☐ ☐

[양식 0501-08] 소프트웨어 확인 및 검증 점검표(소스코드)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	8 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
H-14	Portability	Yes	No	N/A
1	Minimizing Platform-Dependent Data Types.	☐	☐	☐
2	Avoiding Reserved words a. Avoid underscores b. Avoid use of C++ keywords even though that language is not used c. Do not use the names of functions in the standard library	☐	☐	☐
3	Minimizing Hardware Dependencies	☐	☐	☐
H-15	Reliability [Rules for Doosan]	Yes	No	N/A
1	Prohibit using pointer variable as a parameter of sizeof()function.	☐	☐	☐
2	Prohibit using side effect expression as a parameter of sizeof () function.	☐	☐	☐
3	Prohibit using unary minus operator on a unsigned integer type expression.	☐	☐	☐
4	Prohibit using a condition expression which results always same.	☐	☐	☐
5	Operands of operators &&, || and ! shall be effectively Boolean expression.	☐	☐	☐
6	Do not use increment (++) and decrement (--) Operator within a calculating expression.	☐	☐	☐
7	Use only case and default statements within a switch clause.	☐	☐	☐
8	A statement which most closely encloses case and default statement shall be a switch statement.	☐	☐	☐
9	Prohibit using a logical operation within a switch statement	☐	☐	☐

[양식 0501-08] 소프트웨어 확인 및 검증 점검표(소스코드)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	9 / 9

사업(용역)명		단계	소스코드		
문서제목		문서(식별)번호		개정번호	

No	항목	결과
비고 또는 주석		

독립검토자((Independent Reviewer)	_____	_____	_____
	성명	서명	일자

[양식 0501-09] 소프트웨어 확인 및 검증 점검표(통합 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 1

사업(용역)명		단계	통합 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
I-1	내용(Contents)	Yes	No	N/A
1	통합되기 전에 단위 소프트웨어 및 문서의 버전이 기술되어 있는가?	☐	☐	☐
2	단위 소프트웨어 간에 사용되는 용어, 기호법, 정의들은 일관성이 있는가?	☐	☐	☐
3	모든 통합과정은 문서화되어 있는가?	☐	☐	☐
4	통합과정은 소스 코드, 데이터 및 라이브러리의 통합을 포함하여 모든 단위 소프트웨어를 포함하고 있는가?	☐	☐	☐
5	통합 후, 개별단위까지 역추적이 가능한가?	☐	☐	☐
6	통합 후, 개별 단위는 코드 개발 완료 시까지 순방향 추적이 가능한가?	☐	☐	☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ 성명 _____ 서명 _____ 일자

[양식 0501-10] 소프트웨어 확인 및 검증 점검표(설치/점검 단계)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 1

사업(용역)명		단계	설치/점검 단계		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
J-1	이용자 문서에 대한 정보	Yes	No	N/A
1	요건서와 일치하는가?	☐	☐	☐
2	설계내용과 일치하는가?	☐	☐	☐
3	코딩된 프로그램을 정확하게 반영하였는가?	☐	☐	☐
4	내부적으로 일관성이 있는가?	☐	☐	☐
5	모호한 점이 없이 명확하게 기술되었는가?	☐	☐	☐
J-2	일반사항(Generals)	Yes	No	N/A
1	요구 시, 설치/통합 시험은 성공적으로 수행 및 문서화되어 있는가?	☐	☐	☐
2	프로그램 소스에 대한 접근은 관리되고 있는가?	☐	☐	☐
3	소프트웨어는 하드카피 출력에 나타나는 유일한 코드명 및 Version No.에 의해 식별되는가?	☐	☐	☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ _____ _____

성명 서명 일자

[양식 0501-11] 소프트웨어 확인 및 검증 점검표(수락시험 단계 – 계획)

JS Solution	**소프트웨어 확인 및 검증 점검표**	문서번호	
		개정번호	
		페이지	1 / 1

사업(용역)명		단계	수락시험 단계 – 계획		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
K-1	요건(Requirements)	Yes	No	N/A
1	시험요건이 명확하게 정의되어 있는가?	☐	☐	☐
2	시험계획은 요건을 통하여 추적 가능한가?	☐	☐	☐
3	모든 요건이 적절하게 시험되는가?	☐	☐	☐
K-2	방법론(Methodology)	Yes	No	N/A
1	결과의 타당성을 판정하기 위한 기준 및 방법이 제공되어 있는가?	☐	☐	☐
2	필요한 모든 절차가 문서화되어 있는가?	☐	☐	☐
K-3	시험 사례 내용(Contents of Test Cases)	Yes	No	N/A
1	시험 사례는 문서화되어 있는가?	☐	☐	☐
2	시험 사례는 시험계획에서 요구되는 모든 사항을 정확하고 완전하게 포함하고 있는가?	☐	☐	☐
3	요건은 개별적으로 시험되고 있는가?	☐	☐	☐
4	요건들을 조합하여 시험하는가?(필요 시에 한함)	☐	☐	☐
5	시험은 추적 가능하고 반복 가능한 방법으로 수행되는가?	☐	☐	☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ 성명 _____ 서명 _____ 일자

[양식 0501-12] 소프트웨어 확인 및 검증 점검표(수락시험 단계 – 결과보고)

Solution	소프트웨어 확인 및 검증 점검표	문서번호	
		개정번호	
		페이지	1 / 1

사업(용역)명		단계	수락시험 단계 – 결과보고		
문서제목		문서(식별)번호		개정번호	

No	항목	결과		
L-1	시험 수행(Testing)	Yes	No	N/A
1	모든 요건이 적절하게 시험되었는가?	☐	☐	☐
2	시험이 절차에 따라 수행되었는가?	☐	☐	☐
L-2	시험 결과(Test Results)	Yes	No	N/A
1	시험결과는 시험계획에 명시한 양식과 일치하는가?	☐	☐	☐
2	시험결과가 수행된 시험을 정확하게 설명하고 있는가?	☐	☐	☐
3	시험 결과는 수락 가능한가?	☐	☐	☐
4	시험 결과를 수정할 필요성이 있는가?	☐	☐	☐
L-3	문서화(Documentation)	Yes	No	N/A
1	시험보고서는 요건을 통하여 추적 가능한가?	☐	☐	☐
2	시험에 수계산이 사용되었다면, 그 계산서가 포함되어 있는가?	☐	☐	☐

비고 또는 주석

독립검토자((Independent Reviewer) _____ 성명 _____ 서명 _____ 일자

[양식 0501-13] 형상항목 상태 기록 대장

Solution	형상항목 상태기록 대장	문서번호	
		개정번호	
		페이지	/

형상 항목번호	형상명	개정번호	접수일자	등록일자	변경 요청일자	변경 완료일자	담당자