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2 S/W Management ()
2004 5 22

: LG-POSCO

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- 1.
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 6. Q&A

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1.



➤ “ ”

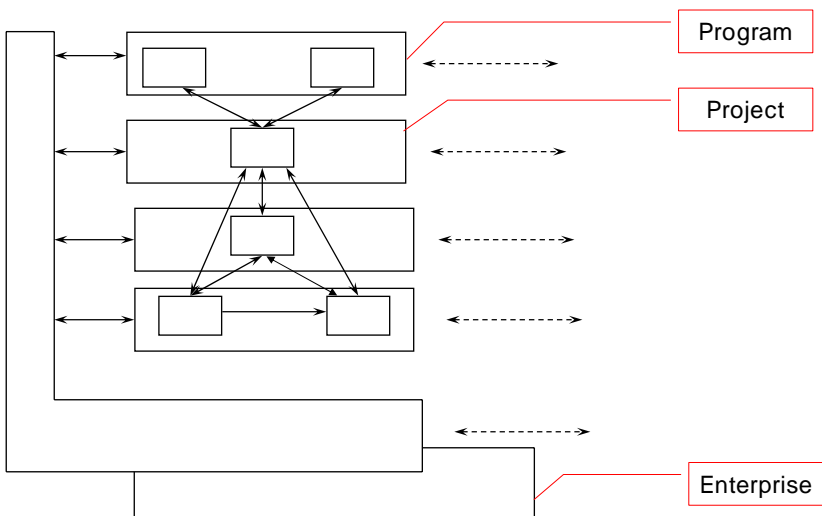
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(1999-104)

➤ “Conducted by an authorized person for the purpose of providing an independent assessment of software products and processes in order to assess compliance with requirements” (ISO12207)

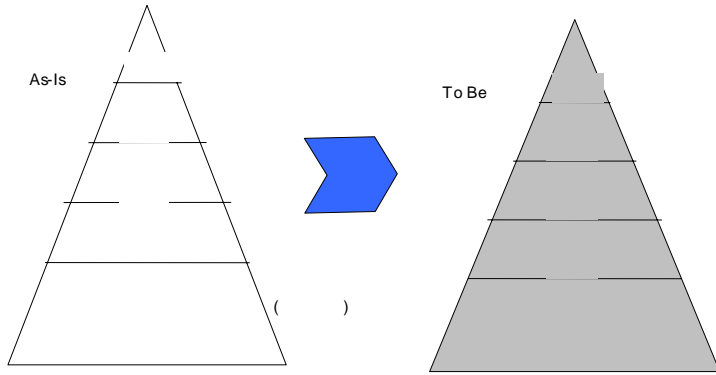
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.(ISACA, <http://www.isaca.org/standard/ko.htm>)

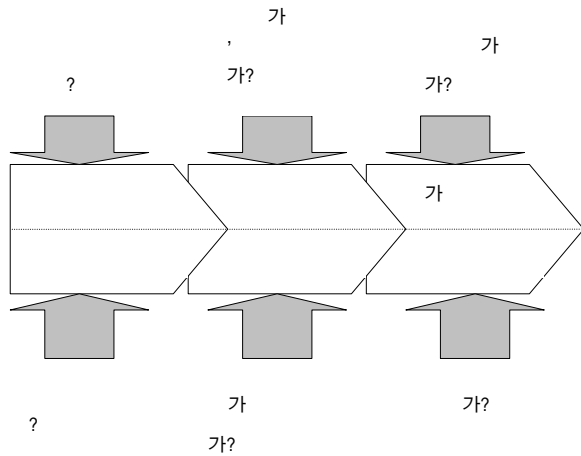
ISO12207



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ITA

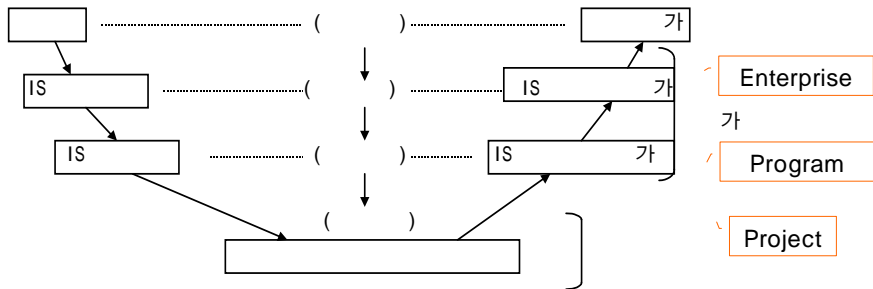
ITA

- IT + non-IT \longleftrightarrow business performance
- Architecture 가
- Vision/objective driven program management
- Architect

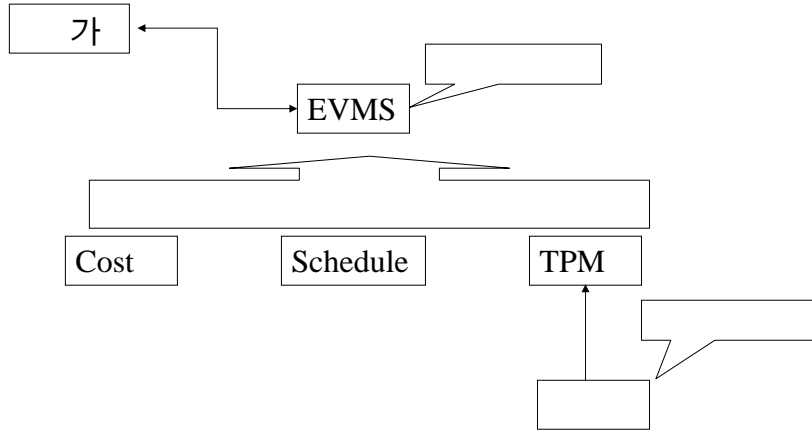
IS

- IT \longleftrightarrow project performance
- Technical requirements (reviews, verification, validation)
- Early warning system
- IS

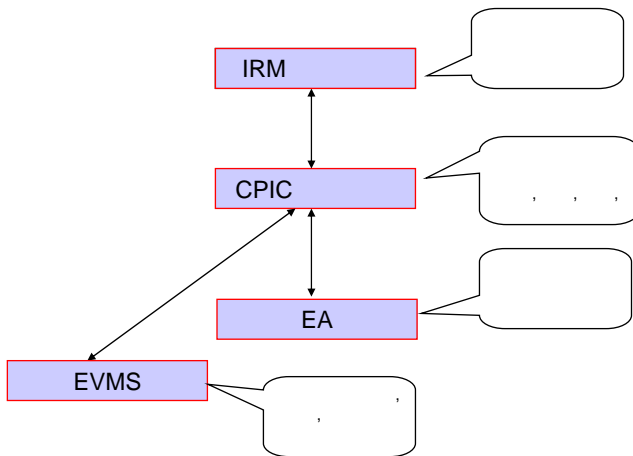
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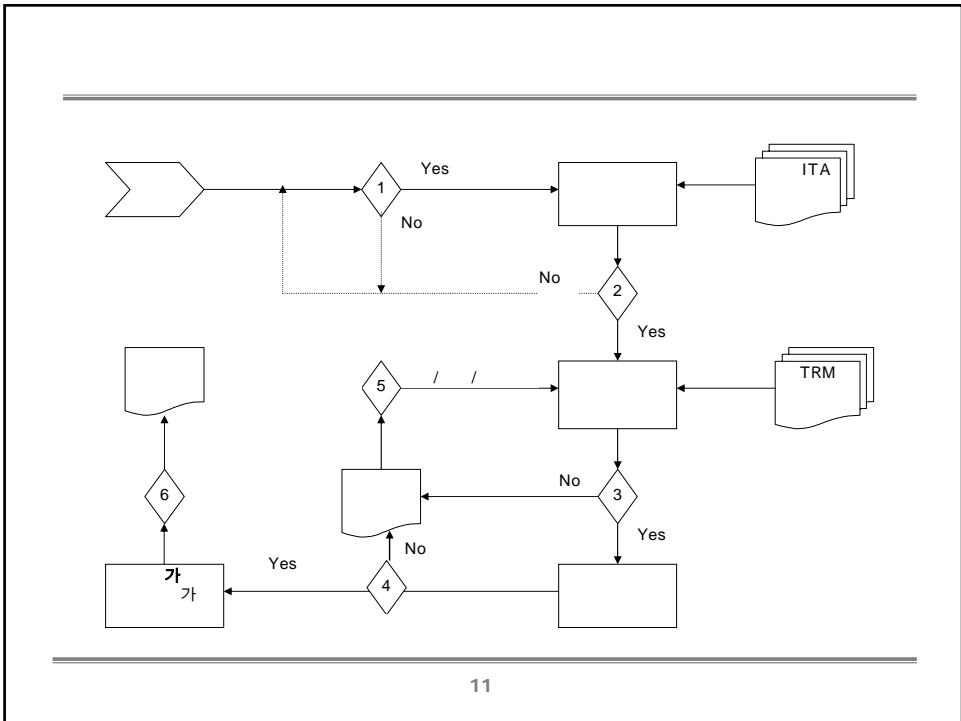


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 - 가 EVMS
 - ()
 - 가
 - (you built it right) 가 → (verification) [CMMI V1.1]
 - (NASA)
 - (you built the right thing) → (validation) [CMMI V1.1]
 - (NASA)
 - 가 ,
- 12

2.



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ISO9000



(, V&V)
ISO12207



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(IV&V)

(IV&V)



manual)

(NASA V&V



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IV&V

(review)

(test)



NIST

- Algorithm Analysis, lytic Modeling, Back-to-Back Testing, Boundary Value Analysis, Code Reading, Control Flow Analysis, Coverage Analysis, Critical Timing/Flow Analysis, Database Analysis, Data Flow Analysis, Decision (Truth) Tables, Desk Checking
- Error Seeding, Event Tree Analysis, Finite State Machines, Functional Testing, Inspections, Interface Analysis, Interface Testing, Mutation Analysis, Performance Testing, Petri-Nets, Proof of Correctness, Prototyping



V&V – 1 (NIST)

ACTIVITY	TASKS
Software V&V Management	<ul style="list-style-type: none"> - Planning - Monitoring - Evaluating results, impact of change - Reporting
Software Requirements V&V	<ul style="list-style-type: none"> - Review of concept documentation (if not performed prior to software requirements development) - Traceability analysis - Software Requirements Evaluation - Interface Analysis - Initial Planning for Software System Test - Reporting
Software Design V&V	<ul style="list-style-type: none"> - Traceability Analysis - Software Design Evaluation - Interface Analysis - Initial Planning for Unit Test - Initial Planning for Software Integration Test - Report
Code V&V	<ul style="list-style-type: none"> - Traceability Analysis - Code Evaluation - Interface Analysis - Completion of Unit Test Preparation - Reporting

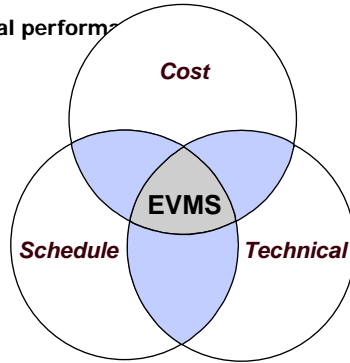
V&V - 2

Activity	Tasks
Unit Test	<ul style="list-style-type: none"> - Unit Test Execution - Reporting
Software Integration Test	<ul style="list-style-type: none"> - Completion of Software Integration Test Preparation - Execution of Software Integration Tests - Reporting
Software System Test	<ul style="list-style-type: none"> - Completion of Software System Test Preparation - Execution of Software System Tests - Reporting
Software Installation Test	<ul style="list-style-type: none"> - Installation Configuration Audit - Reporting
Software Operation and maintenance V&V	<ul style="list-style-type: none"> - Impact-of-Change Analysis - Repeat Management V&V - Repeat Technical V&V Activities

3.

□ project performance dimensions(OMB Capital programming guide)

- cost
- Schedule
- Technical performance

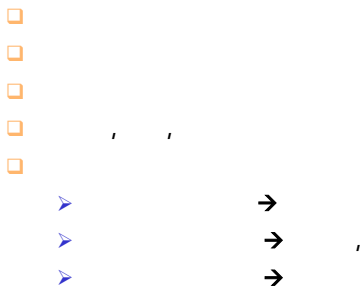


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- - Technical performance
 - Cost, schedule

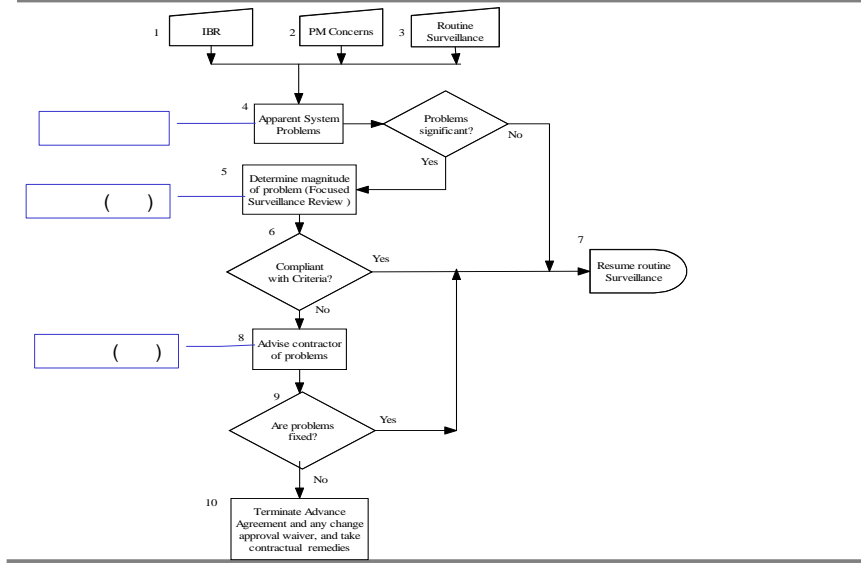
- - (earned value)
 - 가
 - (risk) 가

Commercial vs. DoD

Characteristic	Commercial program	Traditional DOD program
Frequency of status reports	Weekly/bi-weekly	Monthly
Age of information	Real-time/weekly	Up to 60 days after reporting period ends
Method of data dissemination	Direct access to database	Mailing of reports on paper or disk
Work breakdown structure	Level 3	Level 3-7
Variance analysis reporting	Critical path items	All elements
Management focus	Technical and schedule	Costs



EV



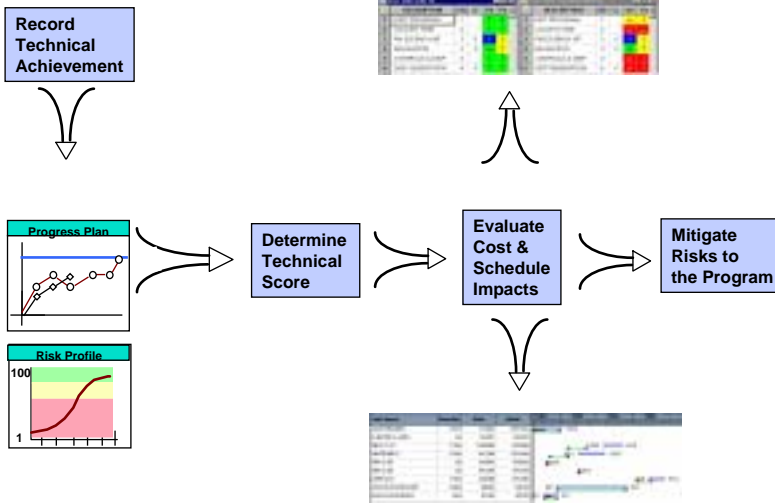
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4.



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Evidence collection & evaluation



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Evidence Collection

- - ()
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 - :
- (e.g. analysis/design, implementation/testing, operation)
 - ISO12207 , ,
 - - (가 product) → review
 - (가 product) → testing
 - (가 product) → evaluation
- - Informal documentation
 - Formal documentation

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Evidence Evaluation

- 가 , 가
- 가
- EVMS collaboration tool 가

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- **Common Body of Knowledge**
 - IS project process (CSDP, <http://computer.org/certification/>)
 - technical performance metric software metrics
 - Review/testing technical performance measure
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5.



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- **IV&V** , **IV&V**)



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- → CBK
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Q&A
