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Software & System Engineering
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ISO/IEC JTC1/SC7/N2513
LETTER BALLOT SUMMARY

Project: 07.80.01
 Subject: Letter Ballot Summary on WD 9000-3 Application of ISO 9001:2000 to software.
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TABLE OF VOTING AND COMENTS RECEIVED

“P” members	Approve	Disapprove	Abstain	Comments	Not voting
Australia					X
Belgium					X
Brazil	X			X	
Canada					X
China					X
Czech Republic					X
Denmark	X				
Ethiopia					X
Finland					X
France	X			X	
Germany	X				
Hungary					X
Ireland	X			X	
Israel					X
Italy	X			X	
Japan					X
Korea	X				
Netherlands	X				
Norway	X				
Portugal	X				
Romania	X				
Singapore					X
South Africa					X
Spain					X
Sweden	X				
Switzerland					X
UK					X
Ukraine					X
USA					X

“O” and “L” members voting:

	Approve	Disapprove	Abstain	Comments	Not Voting
Argentina					
Austria					
Cuba					
Estonia					
Iceland					
India					
Indonesia					
Iran					
Mexico					
New Zeland					
Philippines					
Poland					
Russian Federation					
Slovakia					
Turkey					
Liaison:					

BRAZIL

Clause no.	P a r a g r a p h no.	B u l l e t no.	L i n e no.	WG/Expert/ Comment No/	Text to be changed	Change suggested	Justification for change
General				WG18/Bz/ 1		ISO/IEC 12207 amendment should be considered as reference, specially in issues like risk management, requirements elicitation, customer acceptance, measurement etc..	These issues are not considered in the ISO/IEC 12207.
3.6	1	-	1	WG18/Bz/ 2	Delete “to correct defects”	-	Regression tests are performed when any change is made, not only after defect correction.
4.2.3	1	-	1	WG18/Bz/ 3	Replace the whole first phrase: “A configuration management process may be used....” by:	To achieve control of documents and data, several different techniques may be used like document management, KM-knowledge management and configuration management. In establishing ...	Configuration management is not the only method to control documents and data.
4.2.1		e		WG18/Bz/ 4	Replace the whole text by:	Standards such as coding standards, Documentation Standards, Design Diagrams Standards, Test Plans Standards and Product Documentation Standards.	It can cause misunderstanding between process documentation and project documentation (the result of the development process). This ISO 9001 clause refers to process documentation.
5.6.2	3	-	1	WG18/Bz/ 5	Append new paragraph	One way to measure product conformity is to perform software product evaluation (see 8.2.4). The outcomes of software product evaluation should be considered as input to Management Review (see ISO/IEC 14598 as a method for product evaluation).	It is important to management review analyzing both process and product quality.
6.2.1	1	-	1	WG18/Bz/ 6	Replace the whole text by:	For additional information see ISO/IEC 12207 item 7.4 - Training Process.	-
6.2.2	1	-	1	WG18/Bz/ 7	Append before the first paragraph:	Specific Software Project Management training should be provided for all professional involved with coordination and management issues.	Specific management training is critical for software projects because of their specific issues.
6.3	2	-	-	WG18/Bz/ 8	Delete “the design and”	-	Development process includes design process. See definition 3.2
6.3		i		WG18/Bz/ 9	Include a new bullet	i) Software libraries and components	Nowadays these elements are important infrastructure items
7.1	2		2	WG18/Bz/ 10	Replace “this International Standard” by:	ISO/IEC 12207 Standard	
7.1	4			WG18/Bz/ 11	Delete phrase: “For coding...”		Standards are referred in item 4.2.1 bullet e). This item refers to life cycle.
7.1	8	m		WG18/Bz/12	Include a new bullet	m) change management procedures to be carried out	Several changes that can occur are not covered by configuration management, such as team and resources changes.
7.1	9	a		WG18/Bz/13	See 5.4.1 instead of 5.5.1		
7.1	10	c		WG18/Bz/14	Replace “ 6.2 to	“ 6.1 to 6.8”	These processes are related to quality.

Clause no.	Paragraph no.	Bulleted no.	Line no.	WG/Expert/Comment No/	Text to be changed	Change suggested	Justification for change
					6.5" by		
7.2	2		2	WG18/Bz/15	Append the following phrase before " In any case..."	Requirements can be provided by other stakeholders than the customers, where any specific issues must be addressed.	
7.2	9		3	WG18/Bz/16	Delete phrase "Beta test..."		This Guide is not intended to recommend specific techniques for testing like beta testing. Beta testing should not be recommended as a good practice to determine requirements.
7.2.2	1	B2		WG18/Bz/17	Separate the words "software" and "design"		
7.2.2	1	C1		WG18/Bz/18	Replace the entire phrase by	"Risk management should be addressed"	Risk Management issues are described in item e).
7.2.2	1	D1		WG18/Bz/19		Use small caps in the term "Intellectual Property Rights"	Is there some reason to write "Intellectual Property Rights" with initial capital letters ? Is this some legal term ?
7.2.2	1	e	12	WG18/Bz/20	Editorial	Move the phrase "Risk should be assessed..." just after "risk management concerns" (with proper indentation)	This phrase refers to risk management overall and should be placed before detailing the items.
7.2.2	1	e	2	WG18/Bz/21	Editorial	Indentation of the first phrase ("Risks that should...") to the same alignment of the numbers.	
7.2.2	1	E4		WG18/Bz/22	Replace text	"significant differences between the times required to deliver products or services and the times determined from plans resulting from the optimization of cost and quality goals".	Improve text readability
7.2.2	1	e	13	WG18/Bz/23	Editorial	Change the phrase "The implications of any contract..." to a new item (9) of risk management concerns	Issue related to risk
7.2.2	1	e	14	WG18/Bz/24	Insert subtitle	Insert a new item called "f) contractual concerns" just before the phrase "The customer may have certain responsibilities..." This and subsequent phrases may be properly identified.	Issues related to contract are mixed with risks issues
7.2.2	1	e	last	WG18/Bz/25	Editorial	Move this phrase "See ISO/IEC 15288..." just before new item f)	Issue related to risk

FRANCE

Clause no.	par. #	bul. #	lin. #	Com. Id	Text to be changed	Change suggested	Justification for change
General			fig1	FRA1	"Agreement processes"	Add in § Terms and definitions" "Life cycle process" and "Agreement process"	In most of other standards and guidelines, "Agreement" is not used. There are three main types of processes: <ul style="list-style-type: none"> • Management processes • Realisation processes Supporting processes

Title				FRA2	Application of ISO 9001 to Software	Application of ISO 9001:2000 to Software	This is the reference.
Fore-word							
0	fig. 1			FRA3	Life Cycle Processes and Agreement processes	figure to be consistent with ISO/IEC 12207, use same definitions	Categories Life Cycle Processes and Agreement processes are not part of ISO/IEC 12207, Agreement processes is in the primary processes
1				FRA4	ISO 9001	ISO 9001:2000	
2							
3							
3.1							
3.2							
3.3							
4							
4.1							
4.2							
5							
5.1							
5.2							
5.3							
5.4							
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5.5.2							
5.5.3							
5.6							
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5.6.2							
5.6.3							
6							
6.1							
6.2							
6.2.1							
6.2.2							
6.3							
6.4							

Clause no.	par. #	bul. #	lin. #	Com. Id	Text to be changed	Change suggested	Justification for change
7							
7.1	2		2	FRA5	A quality plan may include ...	NOTE 1 : A quality plan may include ...	ISO 9001:2000 does not require a quality plan as a specific document (referring to ISO 10005) ISO 9000-3 shall not require quality plan
7.1	2		3	FRA6	A quality plan should be updated ...	NOTE 1 : A quality plan should be updated ...	ISO 9001:2000 does not require a quality plan as a specific document (referring to ISO 10005) ISO 9000-3 shall not require quality plan
7.1	2		4	FRA7	A quality plan should be reviewed and agreed ...	NOTE 1 : A quality plan should be reviewed and agreed ...	ISO 9001:2000 does not require a quality plan as a specific document (referring to ISO 10005) ISO 9000-3 shall not require quality plan
7.1				FRA8	Software quality planning at the project...	Software quality plan at the project level should address	The title of this § is Quality Plan . The two previous paragraphs define guidance for Quality Plan !
7.2							
7.2.1	note 2			FRA9	see ISO/IEC 9126.	see ISO/IEC 9126 serie.	ISO/IEC 9126:1991 replaced by ISO/IEC 9126-1,2,3,4
7.2.2	1	b)	2)	FRA10	softwaredesign	software design	
7.2.3							
7.3							
7.3.1		g)	1)	FRA11	1) quality plan (see 7.1);	suppress	see comment N° FRA
7.3.1	2				In software development these topics are covered in quality planning (see clauses 7.3.4 - 7.3.6).	In software development these topics are covered (see clauses 7.3.4 - 7.3.6).	Not in all cases by quality planning, can be covered by other management system
7.3.1	1		4	FRA12	[...] in accordance with the development plan and/or quality plan	[...] in accordance with the design and development plan and/or quality plan...	To be consistent with the 3 rd §, 1 st line and to avoid misunderstanding.
	2		1		Design and development planning	Design and development plan ...	
	2	e)	2)		(the inputs to, outputs from and definition of each task);	(the inputs to, outputs from, definition of each task and verifications of design and development to be performed);	cf 7.3.5 below
7.3.2							
7.3.3							
7.3.4							
7.3.5	2		1	FRA13	Verification of design and development should be planned and performed as appropriate during the design and development process.	Verification of design and development should be performed as appropriate during the design and development process.	Planing of verification should be addressed in § 7.3.1 "Design and development planning"
7.3.6							
7.3.7							

7.4							
7.4.1							
7.4.2							
7.4.3							
7.5							
7.5.1							
7.5.2							
7.5.3	2			FRA14	Configuration Management Process	Scope	
7.5.3	2			FRA15	From Configuration management process to NOTE:	To be an informative annex	French comment has already been done about the fact that a standard shall not be a training course
7.5.4	5			FRA16	The re-use of items or use as examples [...] quality management system.	Add the following sentence " The re-use of items is subject to a review prior to use, to determine if there is a need to improve and/or upgrade them. "	When it is "re-use", it is necessary to obtain assurance that items can be used as it is, especially after a long period of time.
7.5.5							
7.6							
8							
8.1							
8.2							
8.2.1							
8.2.2							
8.2.3	2	d)		FRA17	Process maturity	Process capability	
8.2.3	not e 1				process assessment	process evaluation (assessment, SPC, ...)	ISO 9001:2000 does not require any specific method
8.2.3	not e 2				process assessment	process evaluation (assessment, SPC, ...)	ISO 9001:2000 does not require any specific method
8.2.4							
8.3	1		1	FRAN18	A configuration item....	An item is considered....	There is no explanation of a "configuration item" and control of nonconforming item should apply to all items.
8.4							
8.5							
8.5.1							
8.5.2	1			FRA19	and implemented by means of document and data control procedures.	to be suppressed	1) according to revision 2000 of ISO 900, this will be considered as a result, shall not be a requirement ; 2) Which is the kind of management involved ? project mangt, top management as input for review, shall be specified
8.5.2	2	a) to e)		FRA20	a) reviewing nonconformities (including customer complaints), b) determining the causes of nonconformities, c) evaluating the need for action to ensure that nonconformities do not recur, d) determining and implementing action needed, e) records of the results of action taken (see 4.2.4),	NOTE or example	These 5 quality methods are not specific for the fields of software. Enterprises have the choice of their methods and tools. The spirit of ISO 9001:2000 is to provide a proof of result regardless of the methods used. ISO/IEC 9000-3 should not determine which methods are to be used

					and f) reviewing corrective action taken.		
8.5.3							
Annex A							
Bibliography							

IRELAND

Clause no.	P a r a g r a p h n o.	B u l l e t n o.	L i n e n o.	WG/Expert/ Comment No/	Text to be changed	Change suggested	Justification for change
				EgWG7/AC01			
General							
Title							
Foreword							
0							
1							
2							
3							
3.1							
3.2							
3.3							
4							
4.1							
4.2							
5							
5.1							
5.2							
5.3							
5.4							
5.5							
5.5.1							
5.5.2							
5.5.3							
5.6							

5.6.1							
5.6.2							
5.6.3							
6							
6.1							
6.2							
6.2.1							
6.2.2							
6.3							
6.4							
7							
7.1							
7.2	2	b2	22		Softwaredesign	Space missing between the two words should read 'Software design'	Readability
7.2.1							
7.2.2							
7.2.3							
7.3							
7.3.1							
7.3.2							
7.3.3							
7.3.4							
7.3.5	2	-	6		COTS	Abbreviation used for first time without expansion. Expanded later in the document (Page 29) but not at first use.	To ensure abbreviation is correctly understood.
7.3.6							
7.3.7							
7.4							
7.4.1							
7.4.2							
7.4.3							
7.5							
7.5.1							
7.5.2							
7.5.3							
7.5.4							
7.5.5							
7.6							
8							
8.1							
8.2							
8.2.1							
8.2.2							
8.2.3							
8.2.4							
8.3							
8.4							
8.5							
8.5.1							
8.5.2	2	a-e	4-9			The established techniques should either include a brief description of each one or cross-reference to where more information can be found or included in the glossary for the guideline.	To enable readers to easily locate information about the techniques listed.

8.5.3						
Annex A						
Bibliography						

ITALY

Clause no.	Paragraph no.	Line no.	WG/Expert/Comment No/	Text to be changed	Change suggested	Justification for change
General						
Title						
Foreword						
Introduction	e			"software maintenance and support"	"software maintenance, operations and support services"	Opertions (as per 12207) is referenced frequently in rest of the text.
Introduction	1	all		All bullets	Move first paragraph and all bullets to "Scope" section	Text explains the scope of the document.
Introduction				Figure 1	Correct standard reference in the figure	The processes in the figure are not 12207 process, as the title implies. They are also 15288 processes.
1				All explanatory text	Move text to "Introduction"	It seems like introductory material
2						
3						
3.1						
3.2						
3.3						
4						
4.1						
4.2						
5						
5.1						
5.2						
5.3						
5.4						

Clause no.	Paragraph no.	Bullet no.	Line no.	WG/Expert/Comment No/	Text to be changed	Change suggested	Justification for change
5.5							
5.5.1							
5.5.2							
5.5.3							
5.6							
5.6.1							
5.6.2							
5.6.3							
6							
6.1	1		1		For particular software projects	"For software projects"	Why only for particular projects ? Concept applies to all software projects.
6.2							
6.2.1							
6.2.2	1		3-4		"system is based"	"system is used"	The software or system is used. The term "based" is ambiguous.
6.2.2	3				", or internet training"	", internet training or training on the job"	Training on the job is not mentioned.
6.3							
6.4							
7							
7.1	1		2		Including,	delete the comma after including	Editorial
7.1	4		1		For coding;	replace the character ; after "coding" by a :	Editorial
7.1	8	c	2		ISO 9001	Replace by "ISO 9001:2000"	Consistency reasons with the quotations made throughout the rest of the document
7.1	8				After bullet l)	Add m) software reuse	Project planning should take into account reuse of existing software during development
7.2							
7.2.1		a2			Add new bullet	methods for the evaluation of the product as a whole	The final product suitability as a whole is not equivalent with the sum of the explicit requirements, thus the way in which is evaluated should be agreed and formalized.
7.2.1		b			"...with the customer and make.."	"...with customer and user and make..."	Sometime customer is different from user.
7.2.1	8				"that allow validation during product acceptance"	Substitute "validation" with "verification"	Verification is against written requirements while validation is also for implied requirements.
7.2.1	9		3		Beta testing with early release	Replace " release" with " releases"	Give a more general sense to the sentence
7.2.2	1	a)			Terminology to be	delete the comma	Editorial

Clause no.	Paragraph no.	Line no.	WG/Expert/Comment No/	Text to be changed	Change suggested	Justification for change
		1		used,		
7.2.2	1	a) 10		"customer complaints"	"customer or user complaints"	Customer may be different from user
7.2.2	1	a) 12	5	"..user training;"	"user training and support"	More general
7.2.2	1	b2		softwaredesign	Insert a blank, → software design	Editorial
7.2.2	1	d1	1	Intellectual Property Rights	Do not use t capitals as initials	Consistency reasons with the rest of the document
7.2.2	1	e4	1	Times that delivery	Replace with "times when deliveries"	Editorial
7.2.3	2		1	... with customers, divides	Delete the comma after customers	editorial
7.2.3	2		2		Replace ":" with a full stop at the end	editorial
7.3						
7.3.1	A1			subcontractors	Suppliers	In several paragraphs the term subcontractors is used. The new terminology is suppliers.
7.3.2						
7.3.3						
7.3.4						
7.3.5						
7.3.6	3		6	Configuration audits or evaluations,	delete the comma after evaluations	editorial
7.3.6	10			Bullet numbering	Bullet numbering for the levels of tests is not correct, it starts with c) and continues with a)	editorial
7.3.6	16	b		test	(Resources) At the end of the line, replace "test" with "tests"	Consistency with the other sentences of this section
7.3.7						
7.4						
7.4.1	7		1	Re-evaluation of subcontractors performance may be conducted by regular review and control during design and	Re-evaluation of suppliers performance may be conducted by regular review and control during design and	Changed the old word subcontractors with the new adopted one: suppliers.
7.4.2						
7.4.3						
7.5						
7.5.1						
7.5.2						

Clause no.	P a r a g r a p h n o.	B u l l e t n o.	L i n e n o.	WG/Expert/ Comment No/	Text to be changed	Change suggested	Justification for change
7.5.3	4	a	1			Delete the character “;” before “(Configuration identification)” as in bullet f), which is correct	Editorial
7.5.3	4					Delete the character “;” before “(baseline)” as in bullet f), which is correct	Editorial
7.5.3	4					Delete the character “;” before “(Configuration control)” as in bullet f), which is correct	Editorial
7.5.4	5		3		organizations	Replace “organizations” by “organization’s”	Editorial
7.5.5							
7.6							
8							
8.1							
8.2							
8.2.1							
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8.4							
8.5							
8.5.1							
8.5.2							
8.5.3							
Annex A							
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