Date: 2011-09-14 **Document: FCD 10967-1**, 2nd ed.

1	2	(3)	4	5	(6)	(7)
MB ¹	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of com- ment ²	Comment (justification for change) by the MB	Proposed change by the MB	Disposition
ISO CS	Table of contents		ed	For the sake of space, it is preferrable to list only two levels in the table of contents for the main body of the document, and one level for the annexes.	Redraft the TOC to limit its length.	Rejected. Most users are believed to be using the digital version, where this is not an issue, and the links from the TOC are useful.
ISO CS	General		ed	Document incorrectly refers to itself as "this document" and "this standard".	Redraft the document so that it refers to itself as "this part of ISO/IEC 10967", everywhere except in the Foreword and Clauses 3 and 4 where "this document" is used in accordance with the ISO/IEC Directives Part 2.	Accepted.
ISO CS	Foreword		ed	The JTC 1 foreword should be used.	Redraft the foreword to be in line with the JTC 1 foreword.	Accepted.
ISO CS	General		ed	"May" and "should" should not be used in the Introduction, Scope or notes as they suggest permission and a recommendation, respectively.	Redraft where necessary, for example replacing "may" by "can".	These words do not occur in the introduction etc
ISO CS	Normative references		ed	In accordance with the ISO/IEC Directives Part 2, 6.2.2, reference documents listed in the Normative References clause shall be indispensable to the user of the document in order to implement the document. If they are used for informative purposes only, they should be listed in the Bibliography. References should not be listed in both the Normative References clause and the Bibliography.	Delete ISO/IEC 10967-2 and ISO/IEC 10967-3 from the Normative References clause as they appear in the Bibliography already and are cited in the document in an informative manner.	Accepted.
ISO CS	Terms and definitions		ed	The titles and introductory paragraphs of the symbols and terms and definitions clauses are incorrectly drafted. Additionally, the definitions of the terms are incorrectly drafted and the terms and definitions clause as a whole should appear in the document before the symbols subclause.	Redraft Clause 4. Please see the Rice Model for the correct presentation: <u>http://www.iso.org/iso/moddis.pdf</u> Note that the terms and definitions clause should come before the symbols, and the definitions should not start with an article or finish with a full	Change of order is Rejected. Several of the symbols are used in the definitions of terms, therefore the symbols need to come first. In addition, symbols section before the definitions section is used also in Parts 2 and 3 (for the same reason).

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					stop as they should be a single phrase able to replace the term in context. The symbols title should be simply "Symbols" , followed by the same introductory paragraph as the terms and definitions, that is: "For the purposes of this document, the following symbols apply." "For the purposes of this document, the following terms and definitions apply."	Formulation of definitions: Accepted in principle. The title of the Symbols section (4.1) is already "Symbols". The introductory sentence has been added, but note that symbols don't "apply", they are <i>used</i> .
ISO CS	Normative annexes		ed	Normative annexes should be cited normatively in the main body of the document to indicate that the information therein is imperative to implementing the document.	Redraft portions of the main body of the document so that the normative annexes are cited therein.	Annex A is made informative since it is not imperative to implementing the document.
ISO CS	Annex F		ed	Annexes should be referred to in the main body of the document.	Redraft portions of the document so that Annex F is mentioned in the main body of the document.	Rejected, such a reference is not needed.
ISO CS	Bibliography		ed	The Bibliography should stand on its own and not be incorporated into an annex.	Delete "Annex G" from the header of the Bibliography and also from the TOC.	Accepted.

JP	All		ed	The term "this document" is used throughout this standard referring to itself. This seems unusual. In particular, "implementation of this document" in 4.2.11 is not appropriate. We suggest to change "this document" to "this standard", which appear in 1.2, 5.2, and many places in Annex C.		Accepted. However, this formulation is kept in notes.
JP	Foreword	last line	ed	The last sentence says "Additional parts will specify arithmetic operations", but we understand that WG11 has no plan to publish new parts of 10967.	Remove the sentence.	Accepted.
JP	Introduction	The benefits para.4	ed	The verb "correct" in "(and possibly correct for)" seems inappropriate.	Change it to an appropriate verb. We suggest "(and possibly handle)".	Rejected. See example in annex F.6, which does

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Columns 1, 2, 4, 5 are compulsory. NOTE

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						"correct for" rather than just "handle" (though it is via "handling").
JP	1.1	b)4)	ed	The sentence is hard to read. The relationship of the phrase after the comma "at least one of the datatypes" and the phrase before the comma is not obvious.	The phrase following the comma should be rephrased suitably.	Accepted. Rephrasing to "where at least one of the datatypes is conforming"
JP	2	para.2	ed	The second sentence refers to "some arbitrary computing entity", but the meaning of this term is not obvious. What does "computing entity" mean? Unless some concrete example can be imagined, the second sentence simply repeats the meaning of the first sentence, and is useless.		Well, as the sentence sais, the formulation is a generalisation; it refers to such things as mini- calculators and database query languages, as well as spreadsheet scripts, all of which have some programming language elements, but are not regularly referred to as "programming languages".
JP	4.1.1	para.1	ed	The word "classical" in "the set of classical real numbers" is an unnecessary qualification.	Change the phrase to "the set of real numbers".	Accepted.
JP	4.1.1	para.1	ed	Two set inclusion relations are given, "Z \incl R \incl C" and "Z \incl C". The latter is not necessary, since it can be derived from the first relation. We usually do not consider the relationship between Z (integer) and C (complex).	The second relation should be deleted.	Accepted.
JP	4.1.2	last line before Note1	ed	Three functions "x^y", "\sqrt{x}", "\log_b" are given. Of these, only "\log_b" does not have "x" in its notation. This is not consistent.	Change "\log_b" to "\log_b{x}".	Rejected. Operators are given with virtual arguments for clarity sometimes, but functions names are not.
JP	4.1.3	c)	te	The sentence says that "overflow" occurs when "the rounded result () is larger than", but this excludes negative values with large absolute value.	Change the condition to "the absolute value of the rounded result () is larger than".	Rejected. "larger than" is different from "greater than" in that "larger than" implies (sort of) absolute value. However, there is a subtle

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						difference if the target datatype is "asymmetrical", which may happen for conforming integer datatypes (but is still non-conforming to LIA for floating point).
JP	4.1.3	c)	ed	It seems that a noun should be inserted after "than" in "is larger than can be represented".	We suggest to change the condition to "is larger than what can be represented".	Accepted.
JP	4.1.6	para.3 of Note1	ed	We suspect that there is a grammatical error in the sentence "If notification (even when)". We could not read it.		Accepted. The note is reformulated.
JP	4.2.4		ed	The term "double rounding" appears in parentheses. The meaning of this term is not obvious.	Clarify the meaning of "double rounding".	Accepted. Using "otherwise there may be double rounding, that is rounding done twice with slightly different rounding functions, and that would be nonconforming". Actually the two different rounding functions would be for two different floating point datatypes.
JP	4.2.5		ed	The word "loose" in "may loose precision" would be a misspelling of "lose".		Accepted.
JP	4.2.11		ed	The phrase "Implementation (of this document)" looks strange. We consider that this definition does not need the qualification "(of this document)". It is a definition of a general term.	Change the title to "Implementation".	Rejected. The term is general, but the definition very particularly refers to a part of LIA.
JP	4.2.8	Note2	ed	The term "annex D" appears. "annex" should be capitalized. In this document, "Annex" and "annex" are interchangeably used. This is not consistent. We do not report this kind of editorial problem further.	Change it to "Annex D".	Accepted.

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JP	4.2.9		ed	The term "clause 5" appears. "clause" should be capitalized. In this document, "Clause" and "clause" are interchangeably used. This is not consistent. We do not report this kind of editorial problem further.	Change it to "Clause 5".	Accepted.
JP	5	para.1	ed	The word "characterized" appears in the fourth line. This word is sometimes spelled "characterise" and sometimes "characterize". The same phenomenon can be observed for similar words like "ise" and "ize" or "isation" and "ization". We suspect that "ise" or "isation" should be used for most of these words. We do not point out this kind of remarks again.	Change it to "is characterised".	Accepted in principle.
JP	5.1	definition of minint_I	te	It says "(the smallest integer in I if bonded_I=true)". This does not cover the case "bounded_I=false". The latter case is covered in the following sentences, but we think that the definition itself should be complete.	Change the definition to "(the smallest integer in I if bounded_I=true, -\infinity if bounded_I=false)".	The parentheticals are not the definitions. The definitions for these parameters come in the relevant "shall be" requirements that are in the subsequent paragraphs
JP	5.1	definition of maxint_I	te	The same comment as above. The definition "(the largest integer in I if bonded_I=true)" is not complete.	Change the definition to "(the largest integer in I if bounded_I=true, +\infinity if bounded_I=false)".	As above.
JP	5.1.2.1	gtr_I	ed	The right hand of the definition " $gtr_l(x,y)$ " is " $lss_F(y,x)$ ", but this is not correct. Integer functions should not be defined in terms of floating point functions.	Change the definition to "gtr_l(x,y)=lss_l(y,x)".	Accepted.
JP	5.1.2.1	geq_l	ed	The same comment as above. The definition of " $geq_l(x,y)$ " should not refer to " $leq_F(y,x)$ ".	Change the definition to " $geq_l(x,y)=leq_l(y,x)$ ".	Accepted.
JP	5.1.2.2	Signum_I quot_I mod_I	te	These functions are not defined for infinity argument values. We think that there is no reason to exclude these cases. Functions add_I, sub_I, mul_I, and abs_I take infinity cases into account.	Specify values for the cases x and y are -\infinity or +\infinity.	Accepted.
JP	5.2	Note3	ed	There should be a comma after "which did not occur in the first edition of this document".		Accepted.
JP	5.2.3		ed	Items a), b), c) appear twice in the same clause. This is	Resolve in some way.	Using 1, 2, 3 for the second

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				not appropriate.		set since that is a sequence of steps.
JP	5.2.4	Note1	te	This note gives the range] -2 \cdot fminN_F, 2 \cdot fminN_F [for the case "e_F(x) is emin_F". We consider that this range is not correct. It includes the normal case as well as the subnormal case, and the multiplier "2" is intended to cover the normal case. For floating point representations with r_F not equal to 2, this value is not correct. It should be replaced by "r_F".	Change the range to "] –r_F \cdot fminN_F, r_F \cdot fminN_F [".	Accepted, also for Note 2.
JP	5.2.6.2	Note1	ed	The name "fminn_F" is a misspelling of "fminN_F".		Accepted.
JP	5.2.6.3	Note1	ed	The word "infinitaty" is a misspelling of "infinitary".		Accepted.
JP	5.3	para.2	ed	This paragraph begins with "The latter includes". The preceding paragraph contains three cases a), b) and c), and thus "the latter" does not make sense here.	Rephrase the sentence.	Using "The last case" instead.
JP	6.2.1	para.2 below Note5	ed	One of two "be"s should be deleted in "Let Ind be be a type …".		Accepted.
JP	6.2.1	para.1 below Note7	te	The type name "Ctx" is used, but we could not find its definition.	Define Ctx.	Accepted.
JP	8	d)	ed	The section reference is not correct.	"(See 5.1.2)" should be changed to "(See 5.1.2.2)".	Accepted.
JP	A.6	last para. of p.45	ed	The word "The" in "The there shall be" should be deleted.		Accepted.
JP	A.6	add^*_F	te	We suspect that the requirement "add^*_F(u,v)\member F\dagger \equiv add^*_F(u,v)=u+v" is not what is intended. We think that the condition should be given in terms of mathematical functions.	We suggest to change the requirement to "u+v \member F\dagger \equiv add^*_F(u,v)=u+v".	Accepted.
JP	A.6	mul^*_F	te	The same comment as above for "mul^*_F".	We suggest to change the requirement to "u\cdot v \member F\dagger \equiv mul^*_F(u,v)=u\cdot v".	Accepted.
JP	A.6	div^*_F	te	The same comment as above for "div^*_F".	We suggest to change the requirement to "u/v \member F\dagger \equiv div^*_F(u,v)=u/v".	Accepted.

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JP	A.6	last para. of p.47	ed	The phrase "is defined by" is not appropriate in "there shall be a parameter rnd_style_F, available, is defined by".	We suggest to change it to "there shall be a parameter rnd_style_F, available, which is defined by".	Accepted.
JP	B.1	i)	te	The type name "void" in "flagsType saveFlags(void)" does not make sense for languages other than C family.		This notation is used in IEEE 754-2008.
JP	B.1	j)	te	The same comment for "void defaultModes(void)".		This notation is used in IEEE 754-2008.
JP	C.1.2	para.1	ed	The author name "Kulish" would be a misspelling of "Kulisch". The latter appears in the Bibliography.		Accepted.
JP	C.4.2	para.3	ed	The TeX command "\tt" is spelled "tt" here, and appears in the print out. (two places)		Accepted.
JP	C.5	para.2	ed	One of two "a"s should be deleted in "requires that a a parameter".		Accepted in principle, but the sentence is deleted.
JP	C.5.1.0.2	last para.	ed	The sentence "However, is not to say" does not have a subject.		Accepted.
JP	C.5.1.0.3	para.1	ed	The word "signed" should be typed in bold face font.		Accepted.
JP	C.5.2.2	second last para.	ed	The variable name "g" is used without any explanation.		
JP	C.5.2.6.2	c)	ed	The word "negativ" is a misspelling of "negative".		Accepted.
JP	C.5.2.8	para.3	ed	The word "that" in "has less precision that the argument types" would be a misspelling of "than".		Accepted.
JP	C.5.2.8	fifth last line of p.75	te	We think that "u,v \member F" is not correct. These two variables belong to the range of functions add, etc., which is F' instead of F.		Accepted.
JP	C.5.3	para.1	ed	The word "as" in "An example of such as conversion" seems to be a misspelling of "a".		Accepted.
JP	C.6.2.2	para.2	ed	The word "ADA" should not be fully capitalized.	Change it to "Ada".	Accepted.
JP	D.1	p.91	ed	The functions "truncdiv" and "truncrem" are not defined in		Accepted in principle.

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				LIA-1, and thus should not be listed in the example bindings. The point is that Ada "x/y" does not correspond to "quot" of LIA-1, and it would be better to explicitly state this fact in the comment section after this table.		
JP	D.1	p.91	ed	The notations "bad sem", "dev", "partial conf", etc. often appear in Annex D but their meanings are not explained.	Give the definitions or some explanations.	Accepted.
JP	D.1	p.91	ed	The lines for "truncdiv" and "truncrem" are too long and the right margin of these lines is too small. There are many similar lines in Annex D. We do not report this kind of editorial problem further.		Accepted.
JP	D.1	para.3 of p.92	ed	One of two "in"s should be deleted in "mathematically result in in a value".		Accepted.
JP	D.1	last para.	ed	The word "loose" in "In order not to loose notification indicators" would be a typo of "lose".		Accepted.
JP	D.2	p.97	ed	The function $neg_I(x)$ is marked with a star in parentheses. This notation is not explained. We could not understand the intent of this mark.		Parentheses removed.
JP	D.2	p.99	ed	The symbol "E" is defined in the paragraph after the table, but this symbol does not appear in the table itself.		Accepted. Symbol definition deleted.
JP	D.4	p.112	ed	Four syntax definitions for "clear_indicators", etc. contain the word "loop". Is this correct?		Accepted. The word loop is removed (it once referred to the Fortran standard method of clearing such flags).
JP	D.5	para. before Note of p.113	ed	The word "approriate" is a misspelling of "appropriate".		Accepted.
JP	D.5	p.116	ed	The line for "absolute_precision_underflow" has a formatting error (overstriking).		Accepted.
JP	E.5	para.1 of p.119	ed	The word "an" in "If an notification" should be "a".		Accepted.

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JP	F.2	para.1	ed	The word "behavior" should be spelled "behaviour".		Accepted.
JP	F.2	last para.	ed	The word "that" in "rather that using" would be a typo of "than".		Accepted.
JP	Bibliography	[2]	ed	Publication year should be finalized. "2009?" is not acceptable.		Accepted.
JP	Bibliography	[3] and [4]	ed	Publication year is not given for these two standards.		This is intentional, as they are other parts of the same standard series.
JP	Bibliography	[12]	ed	ISO/IEC 13813 was withdrawn. It should not be cited in the Bibliography.		Accepted.
JP	Bibliography	[19], [20], [22]	ed	We understand that these standards have been revised recently. Their publication year should be updated.		Accepted in principle. A new version for Cobol has not yet been published.

GB	4.2.10 and 5.2		ed	There are bad page breaks between pages 8 & 9 and between pages 17 and 18.	Attend to page breaks once technical editing is complete.	Accepted in principle.
GB	Annexes D.1. to D.4		ed	The note "bad sem." is used in ten places without explanation. In five places it is associated with the note "(dangerous syntax)".	Provide explanations or remove the notes	The corresponding items in the bindings list have been removed.
GB	Annex C.3	1	ed	The date for the IEEE standard is incorrect.	Replace "IEEE 754-1984" by "IEEE 754-1985".	Accepted.
GB	Annex C.3	1	ed	The third edition of IEC 60559 has not yet been published.	Change "2009?" to "2011".	Accepted.
GB	Annex D.4	1	ed	The current Fortran standard is the 2010 revision.	Replace "1539-1:2004" by "1539-1:2010".	Accepted.
GB	Annex D.4	9	ed	The use of "kind=8" is implementation-specific.	Replace "real(kind=8) (double precision)" by "real(kind=kind(0.0d0)) (double precision)".	Accepted.
GB	Annex D.4	14	te	The statement "Arithmetic value conversions in Fortran are always explicit" is not true. Also the remainder of the	Text to replace "Arithmetic value conversions in Fortran are always explicit" to " all of the <i>lbl_s</i> are labels for formats" is in an accompanying	See below for the proposed text.

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				paragraph uses out-dated language features.	document.	Accepted.
GB	Annex D.4	15	ed	The current Fortran standard is the 2010 revision.	Replace "ISO/IEC 1539-1:1997, clause 4.3.1.1 Integer type, and clause 4.3.1.2 Real type" by "ISO/IEC 1539-1:2010, clause 4.4.2.2 Integer type, and clause 4.4.2.3 Real type".	Accepted.
GB	Annex D.5	19	ed	Column 1 of a table overwrites part of column 2.	Attend to formatting.	Accepted.
GB	Annex E	3	ed	The current Fortran standard is the 2010 revision.	Replace "1539-1:2004" by "1539-1:2010".	Accepted.
GB	Annex E.1	1	ed	The terms "(kind=4)" and "(kind=8)" are implementation- specific. The same effect can be achieved by implementation-independent text.	Replace the paragraph by "There is one integer type, called integer. There are two floating point types, called real and double precision (or real(kind=kind(0.0d0))".	Accepted.
GB	Annex E.3	1 & 2	ed	The terms "(kind=4)" and "(kind=8)" are implementation- specific. The same effect can be achieved by implementation-independent text.	Replace "real (kind=4)" by "real" and replace "real (kind=8)" by "real (kind=kind(0.0d0))", each 6 times.	Accepted.
GB	Bibliography	2	ed	The third edition of IEC 60559 has not yet been published.	Change "2009?" to "2011".	Accepted.
GB	Bibliography	22	ed	The current Fortran standard is the 2010 revision.	Replace "1539-1:2004" by "1539-1:2010".	Accepted.

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Addendum to BSI comment on ISO/IEC FCD 10967-1, Annex D.4 paragraph 14

The following text is proposed to replace "Arithmetic value conversions in Fortran are always explicit..." to "... all of the lbl_s are labels for formats".

Arithmetic value conversions in Fortran can be explicit or implicit. Where they are explicit, the conversion function is named like the target type, except when converting to and from string formats. Conversion between numeric and string formats is achieved by using read and write statements with the string variable used as an 'internal file'.

$convert_{I \rightarrow I'}(x)$	<pre>int(x, kindi2)</pre>		*
$convert_{I'' \to I}(s)$	read $(s, '(Bn)') x$		* (binary)
$convert_{I \to I'}(x)$	write $(s, '(Bn)') x$		*
$convert_{I'' \to I}(s)$	read $(s, '(\bigcirc n)') x$		* (octal)
$convert_{I \to I''}(x)$	write $(s, '(\bigcirc n)') x$		*
$convert_{I'' \to I}(s)$	read $(s, '(In)') x$		* (decimal)
$convert_{I \to I''}(x)$	write $(s, '(In)') x$		*
$convert_{I'' \to I}(s)$	read $(s, '(\mathbb{Z}n)') x$		* (hexadecimal)
$convert_{I \to I''}(x)$	write $(s, '(\mathbb{B}n)') x$		*
$floor_{F \to I}(y)$	<pre>floor (y, kindi?)</pre>	·	*
rounding _{F→I} (y) ceiling _{F→I} (y)	<pre>rounding (y, kindi?) ceiling(y, kindi?)</pre>	Ť	*

MB = Member body (enter the ISO 3166 two-letter country code, e.g. CN for China; comments from the ISO/CS editing unit are identified by **)
 Type of comment: ge = general te = technical ed = editorial

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1	2	(3)	4	5		(6)	(7)
MB ¹	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/ Note (e.g. Table 1)	Type of com- ment ²	Comment (justification for change) by the MB	Proposed change by the MB	Disposition
	$vert_{I \to F}(x)$ $vert_{F \to F'}(y)$			al (x, kind) or sometimes dble(al (y, kind2) or sometimes dble			
con	$vert_{F'' \to F}(s)$	rea	d (s, fm	<i>ut) y</i> *			
con	$vert_{F \to F''}(y)$		wr	ite(s, fmt)y	*		
con	$vert_{D' \to F}(s)$	rea	d (s, fm	<i>it</i>) <i>y</i> *			

where x is an expression of type **integer** (**kind**=*kindi*), y is an expression of type **real** (**kind**=*kind*), s is a string variable, w, d, and e are literal digit (0-9) sequences, giving total, decimals, and exponent widths, *fmt* is one of

'(F <i>w.d</i>)'	*	
'(Dw.d)'	*	
'(Ew.d)'	*	
'(Ew.dEe)'		*
'(ENw.d)'		*
'(EN <i>w.d</i> E <i>e</i>)'		*
'(ESw.d)'		*
'(ESw.dEe)'		*

--- end of replacement text ----

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