

ISO/IEC JTC 1/SC 32 N 0406

Date: 2000-01-05

REPLACES: --

<p style="text-align: center;">ISO/IEC JTC 1/SC 32</p> <p style="text-align: center;">Data Management and Interchange</p> <p style="text-align: center;">Secretariat: United States of America (ANSI) Administered by Pacific Northwest National Laboratory on behalf of ANSI</p>

DOCUMENT TYPE	Summary of Voting/Table of Replies
TITLE	Summary of Voting on Document SC 32 N 0342, Title: ISO/IEC FCD 13249-5 Information technology --Database Languages- SQL Multimedia and Application Packages _ Part 5: Still Image
SOURCE	SC 32 Secretariat
PROJECT NUMBER	64.05.00.00.00
STATUS	The results of this ballot are forwarded to SC 32/WG 4 for consideration
REFERENCES	
ACTION ID.	ACT
REQUESTED ACTION	SC 32/WG 4 is directed to consider the comments of this ballot.
DUE DATE	
Number of Pages	28
LANGUAGE USED	English
DISTRIBUTION	P & L Members SC Chair WG Conveners and Secretaries

Douglas Mann, Secretariat, ISO/IEC JTC 1/SC 32

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available from the JTC 1/SC 32 WebSite <http://bwonotes5.wdc.pnl.gov/SC32/JTC1SC32.nsf>

*Pacific Northwest National Laboratory (PNL) administers the ISO/IEC JTC 1/SC 32 Secretariat on behalf of ANSI

ISO/IEC JTC 1/SC 32 N0406

Summary of Voting on Document SC 32 N 0342,

Title: ISO/IEC FCD 9075-10 Information technology --Database Language SQL -
Part 10: Object language bindings

“P” Member	Approval	Approval with Comments	Disapproval	Abstention
Australia	X			
Belgium				
Brazil	X			
Canada			X	
China	X			
Czech Republic				
Denmark	X			
Finland	X			
France				
Germany			X	
Italy	X			
Japan			X	
Netherlands	X			
Norway	X			
Republic of Korea	X			
United Kingdom			X	
United States			X	
Total “P”	9	0	5	0
“O” Member				
Austria				
Russian Federation				
Sweden				
Total “O”	0	0	0	0

Comments on the Ballot 32N0342

ISO

International Organization for Standardization

ISO/IEC JTC1/SC32
Data Management and Interchange

Secretariat: USA (ANSI)

Title: Comments on ISO/IEC FCD 13249-5 (SQL/MM Still Image)

Source: Canada

Status: Canadian Position

References:

- 1) ISO/IEC JTC1/SC32 N0342, ISO/IEC FCD 13249-5, *Information Technology — Database Languages — SQL Multimedia and Application Packages — Part 5: Still Image*, July, 1999.
- 2) DBL CWB-010, *Templates for Submission of Ballot Comments*, SQL Project Editor, October, 1997.

1. INTRODUCTION

Canada votes "NO with Comments" on ISO/IEC FCD 13249-5 (SQL/MM Still Image) [1].

Although Canada supports the rapid progression of the SQL/MM family of standards, Canada does not feel that Still Image [1] should be progressed at this time.

Canada bases this position on the fact that using its limited resources, Canada has been able to uncover a significant number of technical problems in SQL/MM Still Image [1].

Due to the number of Major Technical problems in the current SQL/MM Still Image document, Canada will review its ballot position after the completion of any editing meetings called to deal with the SQL/MM Still Image FCD ballot comments.

2. BALLOT COMMENTS

The following are the Canadian comments on ISO/IEC FCD 13249-5 (SQL/MM Still Image).

Canada has chosen to use the ballot comment format defined by DBL CWB-010 [2] and therefore the following ballot comments are sorted by subclause number with those comments that do not apply to an existing subclause at the end.

The columns in the document have the following meanings:

- **SEQ #** — A sequence number indicating the total number of comments
- **Cmnt ID** — The comment identifier assigned by the organization submitting the comment
- **See Also** — Pointers to (comment identifiers of) other comments that appear to be closely related
- **Severity** — The severity of the problem as stated by the organization submitting the comment
- **Reference** — The location in the balloted document that the organization identified as most pertaining to the comment
- **Description** — The description provided by the organization with the comment; this includes any solution provided by the organization
- **Addressed By** — "Comment" if a solution was provided by the organization; a paper number if a known proposal addresses the comment; blank otherwise.

CAC SC32 C0075R1

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
1	CAN-P05-001		2-Minor Technical	<i>P05-02-01, International standards</i>	The Normative References should refer to the SC29 still image and JPEG-related International Standards (for example, ISO/IEC 10641, 10287, 10288, 10289, 14495, 15444, 15775 (re color management) and FCD 15948. Solution	
2	CAN-P05-002		2-Minor Technical	<i>P05-03, Definitions, notations, and conventions</i>	This clause should refer to at least definitions from the SC29 still image and JPEG-related International Standards. Additional definitions may be drawn from other image-related standards. Solution	
3	CAN-P05-003		2-Minor Technical	<i>P05-03.01.02, Definitions provided in Part 5</i>	**Editor's Note 5-010** must be resolved. The required definitions should be provided or this subclause should be deleted. Solution	
4	CAN-P05-004		2-Minor Technical	<i>P05-04, Concepts</i>	This clause is empty and material must be provided. Solution	
5	CAN-P05-005		2-Minor Technical	<i>P05-04, Concepts</i>	Material for the Concepts clause should build on at least SC29 still image and JPEG-related concepts. Solution	
6	CAN-P05-006		2-Minor Technical	<i>P05-05.01.01, SI_StillImage Type</i>	**Editor's Note 5-003** must be resolved: The original SI_StillImage ADT defined in SQL/MM MCI-012 contained a thumbnail attribute which was meant to contain a "smaller" image. While it was agreed to delete this attribute since SQL3 does not yet support "deep references" it was suggested that a thumbnail could be supplied for some or all subtypes as a virtual attribute (computed from <i>content</i> attribute). Solution	
7	CAN-P05-007		2-Minor Technical	<i>P05-05.01.01, SI_StillImage Type</i>	**Editor's Note 5-013** must be resolved: As Editor's Note 5-001 pointed out bitsPerColor and bitsPerPixel are not	See Solution.

CAC SC32 C0075R1

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
					<p>generally applicable to all still images. These fields should be moved to SI_Jpeg. The more general fields colorSpace and pixelType should be added. See SQL/MM SYD-009R1 CD Ballot Comment SEQ#33.</p> <p>Solution</p> <p>Canada recommends that these attributes be removed since they are available from the SI_content attribute in an image specific manner.</p>	
8	CAN-P05-008		2-Minor Technical	P05-05.01.01, SI_StillImage Type	<p>**Editor's Note 5-015** must be resolved:</p> <p>The SI_StillImage type appears to be oriented to raster images. It needs to be generalized to cover both raster and vector images and then subtyped for these two general subtypes.</p> <p>Solution</p>	
9	CAN-P05-009		2-Minor Technical	P05-05.01.01, SI_StillImage Type	<p>**Editor's Note 5-016** must be resolved:</p> <p>The binary large object is the only representation for image content in the SI_StillImage type, which implies that image contents must be stored in a database. This presents less flexibility to applications that may have millions of images already resided in remote and distributed repositories. Application may choose to build a database to manage the repositories without uploading image contents into the database. Thus, it's necessary to support image objects stored in database with references to external repositories. One option for this purpose is to add <i>location</i> and <i>locationType</i> attributes in the SI_StillImage type. The following table defines several content location types that SI_StillImage can support.</p> <p>LOCATION TYPE DESCRIPTION -----</p> <p>SI_BLOB Binary large object in database SI_SERVER Content in server file system SI_CLIENT Content in client file system (local network) SI_URL Content in remote web site</p> <p>Table x Image Location Types</p> <p>Solution</p>	

CAC SC32 C0075R1

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
10	CAN-P05-010		2-Minor Technical	<i>P05-05.01.03, SI_setContent Method</i>	<p>The SIGNAL statement in the CREATE METHOD statement contains the following SQL-statement:</p> <pre>SET MESSAGE_TEXT 'incorrect image format';</pre> <p>This statement appears to be missing a <equals sign>. This error probably occurs in other SIGNAL statements in the document.</p> <p>Solution</p> <p>Global change to all SET MESSAGE_TEXT statements to add the missing <equals sign>.</p>	See Solution.
11	CAN-P05-011		2-Minor Technical	<i>P05-05.01.05, Private Functions</i>	<p>**Editor's Note 5-010** must be resolved:</p> <p>SQL/MM Part 5: Still Image should provide a mechanism for an application to determine which facilities are supported. If possible this should be defined in the same fashion as any similar mechanism is defined in any other parts of SQL/MM.</p> <p>Solution</p>	
12	CAN-P05-012		2-Minor Technical	<i>P05-05.01.05, Private Functions</i>	<p>**Editor's Note 5-011** must be resolved:</p> <p>Conversion functions are required to convert instances of subtypes of <i>SI_StillImage</i> to instances of other formats in that subtype family.</p> <p>Solution</p>	
13	CAN-P05-013		2-Minor Technical	<i>P05-06.01.02, SI_Score Method</i>	<p>**Editor's Note 5-014** must be resolved:</p> <p>The result of <i>SI_Score</i> needs to be specified more exactly in the case the feature (i.e. SELF) or the image to be scored is the NULL value. One alternative would be to designate this method as RETURNS NULL ON NULL INPUT to specify that it returns null if either SELF or the image parameter is the null value.</p> <p>Solution</p>	
14	CAN-P05-014		1-Major	<i>P05-06.02.03,</i>	This subclause and similar subclauses define the range of "scores" to be from 0	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
			Technical	<i>SI_Score Method</i>	<p>(zero) to 1 (one). For example Description Rule 2) in this subclause states:</p> <p>2) The method <i>SI_Score(SI_StillImage)</i> returns a value between 0 (zero) and 1 (one). The higher the returned value, the better the average color of an image is characterized by the average color represented by the <i>SI_AverageColor</i> value used for scoring that image. The exact relationship between the values of <i>SI_AverageColor</i>, <i>SI_StillImage</i> and the result of <i>SI_Score(SI_StillImage)</i> is implementation-dependent.</p> <p>Although we understand the meaning of the value 1 (one) as a resultant value e.g. a “good” match”, we do not know or understand what a resultant value of 0 (zero) means. For example, what does a return value of 0 (zero) mean when the feature being tested is Texture. Is there any concept of the complement of a Texture?</p> <p>It appears that a normalizing function is needed to force the resultant <i>SI_Score</i> to between 0 (zero) and 1 (one). Due to the difficulty in doing this for some features like Texture, we believe that the definition of <i>SI_Score</i> should be changed for all features so that an exact match is described by the value 0 (zero) and non-match values are described by all values greater than the value 1 (one). This avoids the necessity of a normalizing technique.</p> <p style="text-align: center;">Solution</p>	
15	CAN-P05-015		1-Major Technical	<i>P05-06.06.02, SI_Score Method</i>	<p>The weights in a feature appear to be unrelated. Therefore there is no reason to compute the value for “totalWeight” and use this as a divider for the score value. The number of features in the features list can be used to normalize the score value.</p> <p style="text-align: center;">Solution</p>	
16	CAN-P05-016		2-Minor Technical	<i>P05-06.06.03, SI_Append Method</i>	<p>The CREATE statement should use the SQL-99 “ ” operator instead of the obsolete CONCATENATE function.</p> <p style="text-align: center;">Solution</p> <p>Replace all occurrences of the obsolete SQL-99 CONCATENATE function with the “ ” operator.</p>	See Solution.

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SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
17	CAN-P05-017		2-Minor Technical	<i>P05-06.01.02, SI_Score Method</i>	<p>**Editor's Note 5-014** must be resolved:</p> <p>The result of <i>SI_Score</i> needs to be specified more exactly in the case the feature (i.e. SELF) or the image to be scored is the NULL value. One alternative would be to designate this method as RETURNS NULL ON NULL INPUT to specify that it returns null if either SELF or the image parameter is the null value.</p> <p style="text-align: center;">Solution</p>	
18	CAN-P05-018		1-Major Technical	<i>P05-08.01, Claims of Conformance</i>	<p>**Editor's Note 5-009** must be resolved:</p> <p>Claims of conformance are to be supplied.</p> <p style="text-align: center;">Solution</p>	
19	CAN-P05-019		1-Major Technical	<i>P05-No specific location</i>	<p>Consideration should be given to removing the remaining usage of SQL-99 subtyping so as to permit vendors to conform to this part of SQL/MM with an SQL-implementation that conforms only to SQL Core level of conformance.</p> <p style="text-align: center;">Solution</p>	
20	CAN-P05-020		1-Major Technical	<i>P05-No specific location</i>	<p>Still Image must be changed to align it with all actions of the SQL FCD editing meetings for SQL/Framework, SQL/Foundation, SQL/PSM and SQL/Bindings not otherwise identified in a ballot comment.</p> <p style="text-align: center;">Solution</p>	
21	CAN-P05-021		1-Major Technical	<i>P05-No specific location</i>	<p>Still Image must be changed to align it with all actions of the SQL/MM FCD editing meetings for Part 2: Full-Text and Part 3: Spatial.</p> <p style="text-align: center;">Solution</p>	
22	CAN-P05-022		1-Major Technical	<i>P05-No specific location</i>	<p>All Still Image Editor's Notes not otherwise identified in a ballot comment must be resolved.</p> <p style="text-align: center;">Solution</p>	
23	CAN-P05-023		1-Major Technical	<i>P05-No specific location</i>	<p>All Still Image Possible Problems listed in the Editor's Notes not otherwise identified in a ballot comment must be resolved.</p> <p style="text-align: center;">Solution</p>	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
24	CAN-P05-024		1-Major Technical	<i>P05-No specific location</i>	All Possible Problems, Editor's Notes and problems discovered during the editing process must be resolved. Solution	

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 End of paper
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ISO

International Organization for Standardization

Data Management and Interchange

WG4 SQL/MM

Project: 01.32.64.05

Title: Ballot comments on ISO/IEC FCD 13249-5

Status: German National Body Ballot Comments

Author: Friedemann Schwenkreis (editor)

References:

- [1] ISO/IEC FCD 13249-5, Information Technology - SQL Multimedia and Application Packages - Part 5: Still-Image, SQL/MM SAF-005.
- [2] ISO/IEC FCD 13249-2, Information Technology - SQL Multimedia and Application Packages - Part 2: Full- Text, SAF-003-SP1, August 10, 1999.

Introduction

The German vote on SQL/MM Still-Image [1] is

NO with comments

If the missing parts are provided in a proper fashion, and if all problems and technical errors (i.e. those already documented, those being voiced during this ballot, and those surfacing during the editing process) are successfully resolved, Germany will revert its vote to YES.

German Ballot Comments

Following the recommendations of [3], the German ballot comments are given in tabular form. The columns in the subsequent table have the following meanings:

- **SEQ #** — A sequence number indicating the total number of comments
- **Cmnt ID** — The comment identifier assigned by the organization submitting the comment
- **See Also** — Pointers to (comment identifiers of) other comments that appear to be closely related
- **Severity** — The severity of the problem as stated by the organization submitting the comment
- **Reference** — The location in the balloted document that the organization identified as most pertaining to the comment
- **Description** — The description provided by the organization with the comment; this includes any solution provided by the organization
- **Addressed By** — “Comment” if a solution was provided by the organization; a paper number if a known proposal addresses the comment; blank otherwise.

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
1	DEU-P05-001		3-Major Editorial	<i>P05-Annex A</i>	<p>In order to improve readability, the style of Annex A should be aligned with the style of SQL/Foundation, Annex B.</p> <p style="text-align: center;">Solution</p> <p>Change this paragraph as indicated below (note also layout):</p> <p>1) Subclause 5.1.5, "Private Functions":</p> <p>Description Rule 4): The private function <i>SI_format(BINARY LARGE OBJECT)</i> determines the image format of its argument. The result is the null value if the argument does not contain an image format that is amongst the implementation-defined set of supported image.</p>	Comment
2	DEU-P05-002		3-Major Editorial	<i>P05-05.01.05, Private Functions</i>	<p>The concept of "private functions" is no longer supported in SQL/99. Therefore "Private functions" in the subclause header should be replaced by "Functions not intended for Public Use".</p> <p>For the same reason, every occurrence of "The private function "in the Description Rules should be replaced by "The function".</p> <p style="text-align: center;">Solution</p> <p>See Description.</p>	Comment
3	DEU-P05-003		4-Minor Editorial	<i>P05-Introduction</i>	<p>In item #10 ("Annex B ..."), second sentence, replace "It list " by "It lists ".</p> <p style="text-align: center;">Solution</p> <p>See Description.</p>	Comment
4	DEU-P05-004		2-Minor Technical	<i>P05-05.01.02, SI_StillImage Methods</i>	<p>Wrong syntax in the first CREATE statement for method SI_StillImage, third line.</p> <p style="text-align: center;">Solution</p> <p>Replace the comma preceding "RETURNS SI_StillImage" by ")".</p>	Comment
5	DEU-P05-005		2-Minor Technical	<i>P05-05.01.03, SI_setContent Method</i>	<p>The SIGNAL statements in the CREATE statement contain wrong syntax. A "=" is missing after "SET MESSAGE_TEXT".</p> <p>The same error occurs in:</p> <ul style="list-style-type: none"> 5.1.4, SI_commentText Method (1 times) 6.2.2, SI_AverageColor Method (1 times) 6.2.4, SI_findAverageColor Function (1 times) 6.3.2, SI_ColorHistogram Method (2 times) 6.3.4, SI_findColorHistogram Function (1 times) 	Comment

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
					6.4.3, SI_findPositionalColor Function (1 times) 6.5.3, SI_findTexture Function (1 times) 6.6.2, SI_Score Method (1 times) 6.6.3, SI_Append Method (1 times) 6.6.4, SI_FeatureList Method (1 times) 6.7.2, SI_ColorType Method (1 times) Solution See Description.	
6	DEU-P05-006		3-Major Editorial	<i>P05-Contents</i>	Subclause 6.3.4 is not contained in the Table of Contents. Solution None provided with comment.	
7	DEU-P05-007		3-Major Editorial	<i>P05-06.03.02, SI_ColorHistogram Method</i>	In the lead text of DR1 ("The function SI_ColorHistogram..."), the word "function" needs to be replaced by "method". Solution See Description.	Comment
8	DEU-P05-008		4-Minor Editorial	<i>P05-06.06.01, SI_FeatureList Type</i>	In DR2)b) ("SI_Weights, an array .."), second sentence: Italicize "i" in "The i-th". Solution See Description.	Comment
9	DEU-P05-009		2-Minor Technical	<i>P05-06.06.03, SI_Append Method</i>	The CREATE statement erroneously uses a function CONCATENATE to concatenate two arrays, rather than the " " operator. Solution Replace the 5-th to last line ("CONCATENATE(..., ...)" by: SELF.SI_Features ARRAY[feature]; Replace the 3-rd to last line ("CONCATENATE(..., ...)" by: SELF.SI_Weights ARRAY[weight];	Comment
10	DEU-P05-010		3-Major Editorial	<i>P05-06.06.03, SI_Append Method</i>	DR3) ("If SELF or ...") does not properly reflect the CREATE statement for SI_Append. Solution After "is the null value,", insert "if SELF contains already the maximum number of features, "	Comment

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End of paper
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Ritsuko Hanaishi (ITSCJ)
For Japan's P-member of SC 32

Vote on Final Committee Draft ISO/IEC FCD 13249-5

Date of circulation: 1999-08-17
Closing date: 1999-12-31
Reference number ISO/JTC 1/SC 32 N 0342

Title: Information Technology - Database Languages - SQL Multimedia
and Application Packages - Part 5: Still Image

Project: 01.64.05.00.00.00

Vote:

* DISAPPROVAL OF THE DRAFT FOR REASONS ON THE ATTACHED
* Acceptance of these reasons and appropriate changes in the text
will
change our vote to approval

P-member voting: JAPAN
Date: 1999-12-24

----- comments -----

Annex - Japan

The National Body of Japan disapproves ISO/IEC FCD 13249-5 for the
reasons below as per the cover sheet(acceptance of these reasons and
appropriate changes in the text will change our vote to approval).

Comment ID: JAPAN-5-01
Severity: Major Technical
Reference: No specific location

Comment:

Major image formats such as jpeg and png are to be verified in terms
of storage and retrieval (reconstruction) by this part respectively,
and the informative annex should be added.

End of Comment

Solution:

None provided with comment.

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Comment ID: JAPAN-5-02

Severity: Major Technical

Reference: No specific location (but esp. 5.1.1)

Comment:

Attributes such as bitsPerColor do not satisfy multispectral image definitions with four dimension or more. Functionality to define the multispectral images should be prepared. On the occasion, at least the following three typical formats should be incorporated:

- band sequential (BSQ)
- band interleaved by line (BIL)
- band interleaved by pixel (BIP)

End of Comment

Solution:

None provided with comment.

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Comment ID: JAPAN-5-03

Severity: Major Technical

Reference: No specific location

Comment:

There still remains possible problems, editor's notes, and "to be supplied" items and all outstanding issues raised during editing meetings must be resolved.

End of Comment

Solution:

None provided with comment.

<END OF BALLOT>

Vote on Final Committee Draft **ISO/IEC FCD 13249-5**

Date of circulation: 1999-08-17	Reference number ISO/JTC 1/SC 32 N 0342
Closing date: 1999-12-31	

ISO/JTC 1/SC 32 Data Management and Interchange Secretariat: USA (ANSI)	Circulated to P-members of the committee for voting Please return all votes and comments in electronic form directly to the SC 32 Secretariat by the due date indicated.
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ISO/IEC FCD 13249-5 Information Technology — Database Languages — SQL Multimedia and Application Packages — Part 5: Still Image Project: 01.64.05.00.00.00
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Vote:

<input type="checkbox"/>	APPROVAL OF THE DRAFT AS PRESENTED
<input type="checkbox"/>	APPROVAL OF THE DRAFT WITH COMMENTS AS GIVEN ON THE ATTACHED
<input type="checkbox"/>	general:
<input type="checkbox"/>	technical:
<input type="checkbox"/>	editorial:
<input checked="" type="checkbox"/>	DISAPPROVAL OF THE DRAFT FOR REASONS ON THE ATTACHED
<input checked="" type="checkbox"/>	Acceptance of these reasons and appropriate changes in the text will change our vote to approval
<input type="checkbox"/>	ABSTENTION (FOR REASONS BELOW):

P-member voting:

UK

Date:

1999-12-15

Submitted by:

David Keech

Address Reply to: Douglas Mann, Secretariat, ISO/IEC JTC 1/SC 32, Pacific Northwest National Laboratory, 901 D Street, SW., Suite 900, Washington, DC, 20024-2115, United States of America
Telephone: +1 703 575 2114; Facsimile; +1 703 681 9180; E-mail: MannD@battelle.org



Title: UK comments on accompanying vote of disapproval on
ISO/IEC FCD 13249-5 (SQL/MM Still Image)

Source: UK

Status:

References:

- 1) ISO/IEC JTC1/SC32 N0342, ISO/IEC FCD 13249-5, *Information Technology - Database languages - SQL Multimedia and Application Packages - Part 5: Still Image*.
- 2) DBL CWB-010, *Templates for Submission of Ballot Comments*, SQL Project Editor, October, 1997.

BALLOT COMMENTS

This document presents the combined National Body comments on [1], as recorded in [3], in the format defined by [2] and sorted by subclause number with those comments that do not apply to an existing subclause at the end.

The columns in the document have the following meanings:

- **SEQ #** — A sequence number indicating the total number of comments
- **Cmnt ID** — The comment identifier assigned by the organization submitting the comment
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- **Addressed By** — “Comment” if a solution was provided by the organization; a paper number if a known proposal addresses the comment; blank otherwise.

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
1.	UK-P05-001	UK comment 5	4-Minor Editorial	<i>P05-1, Scope</i>	There should be a description of the scope of the work as well as the document. Solution None provided with comment.	
2.	UK-P05-002		3-Major Editorial	<i>P05-3.1.2, Definitions provided in Part 5</i>	Editor's Note 5-010 must be resolved by the addition of definitions for the many graphical terms that are used in the document with a technical meaning. Solution None provided with comment.	
3.	UK-P05-003		3-Major Editorial	<i>P05-4, Concepts</i>	Concepts must be described. Solution None provided with comment.	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
4.	UK-P05-004		1-Major Technical	<i>P05-5.1.1, SI_StillImage Type</i>	While Editor's Note 5-013 aims to correct the lack of generality of bitsPerColor and bitsPerPixel, it is possible that the proposed solution suffers from the same problem (though not so badly). However, if the attribute colorSpace is accepted, it has significant consequences to the following clauses where colour is currently defined for only RGB, without any support for other colour spaces, such as HSV and YCC. Solution None provided with comment.	
5.	UK-P05-005		2-Major Technical	<i>P05-5.1.1, SI_StillImage Type</i>	Editor's Note 5-015: while we accept there is a requirement for vector images, it would require significant reorganization of and additions to the document to support the two subtypes since a number of the functions as described are specific to raster images only (e.g. AverageColor). Vector images should be left for later progression. Whatever is agreed, the supported type(s) of image should be made explicit in Clause 1, Scope. Solution None provided with comment.	
6.	UK-P05-006		2-Minor Technical	<i>P05-5.1.1, SI_StillImage Type</i>	Editor's Note 5-016 should be deleted without any further action, we suggest. It is not appropriate for an implementation to use some <i>ad hoc</i> method of referencing external objects. SQL/MED's DATALINK type would perhaps be appropriate if it were possible to specify attributes of that type, but unfortunately link control options are apparently specifiable only at the column level. (SQL/MED is Part 9 of SQL:1999, currently under FCD ballot.) Solution Delete Editor's note 5-016.	
7.	UK-P05-007		4-Minor Editorial	<i>P05-6.1.1 SI_Feature Type Methods</i>	" <i>SI_Feature</i> values cannot be created. Only values of subtypes of <i>SI_Feature</i> can be created." The wording is inappropriate. Values are not created. <i>SI_Feature</i> is a subtype of <i>SI_Feature</i> . Every value of a proper subtype of <i>SI_Feature</i> is a value of <i>SI_Feature</i> . Strictly speaking the rule is redundant with NOT INSTANTIABLE, but if it is felt necessary to elaborate on that, then we would suggest , "No value of <i>SI_Feature</i> has <i>SI_Feature</i> as its most specific type" (replacing the first sentence) and/or "Every <i>SI_Feature</i> value is a value of some proper subtype of <i>SI_Feature</i> " (replacing the second). Solution See comment.	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
8.	UK-P05-008		4-Minor Editorial	<i>P05-6.1.2 SI_Score Method</i>	The Purpose is inappropriate. The method does not determine "how well an image value scores" but rather it determines and returns the actual score. A similar comment applies to the Purpose sections of subclauses for overriding methods of SI_Score. Solution None provided with comment.	
9.	UK-P05-009		4-Minor Editorial	<i>P05-6.1.2 SI_Score Method</i>	In DR2), the word "proper" needs to be inserted before "subtype". Solution See comment.	
10.	UK-P05-010		2-Minor Technical	<i>P05-6.1.2 SI_Score Method</i>	Editor's note 5-014 doesn't quite say it all. The term "score", though clarified in the Description sections of the subclauses for the overrides, perhaps needs to be defined up front, answering questions such as "what is it out of?". Then the information that is subsequently repeated in every subclause for an overriding SI_Score method can be deleted. Solution None provided with comment.	
11.	UK-P05-011		2-Minor Technical	<i>P05-6.1.2 SI_Score Method</i>	We question the need for this subclause. If it is not needed, it should be deleted. General information about SI_Score can be provided in Subclause 6.1.1, DR1)a). Solution None provided with comment.	
12.	UK-P05-012		3-Major Editorial	<i>P05-6.2.1 SI_AverageColor Type</i>	DR1)c) seems inappropriate. In what sense can it be said that a function (other than a method) is "provided" by a type? A similar comment applies to several other Type subclauses. Solution None provided with comment.	
13.	UK-P05-013		1-Major Technical	<i>P05-6.2.1 SI_AverageColor Type</i>	We are curious about the need for this type in addition to SI_ColorType. Why doesn't SI_findAverageColor just return an SI_ColorType value? We will of course withdraw this comment if a good explanation is given. Solution None provided with comment.	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
14.	UK-P05-014		2-Minor Technical	<i>P05-6.2.1 SI_AverageColor Type</i>	DR2)a) uses the undefined term "intensity". The valid range of such values needs to be specified. The meanings of the minimum and maximum values need to be specified. Presumably the scale is linear, but perhaps that should be stated too. Some of this information can perhaps be inferred from the contents of Subclause 6.2.2. Solution None provided with comment.	
15.	UK-P05-015		4-Minor editorial	<i>P05-6.2.4 SI_FindAverageColor Function</i>	In DR2), we suggest replacing the second sentence with "To that end, the red, green and blue components of all pixels are summed and the sum for each colour is divided by the number of pixels to give the red, green and blue components of the result." Solution See comment.	
16.	UK-P05-016		2-Minor technical	<i>P05-6.3.1 SI_ColorHistogram Type</i>	DR2) is unclear and apparently grammatically incorrect ("color/frequencies pairs"). The introduction talks about a list of pairs but the subsequent text suggests a pair of lists. The actual representation of the type is given as a pair of arrays, though the word "List" is used instead of "Array" in the attribute names. Subrule b) should say what the i-th value in the array <i>is</i> , not what it determines. The term "relative frequency" needs to be explained. Solution None provided with comment.	
17.	UK-P05-017		2-Minor technical	<i>P05-6.3.4 SI_findColorHistogram Function</i>	In DR2), the second sentence, as well as beginning with "To that end" instead of "For that end", should perhaps explain exactly what is returned. For example, if <i>image</i> contains no pixels (3,4,5), does ((3,4,5),0) show up in the result, or are only pixel values that actually occur in <i>image</i> represented in the result? What does the term "relative frequency count" mean? Solution None provided with comment.	
18.	UK-P05-018		2-Minor technical	<i>P05-6.4.3 SI_findPositionalColor Function</i>	In DR2), the second sentence, as well as beginning with "To that end" instead of "For that end", should perhaps explain exactly what is returned and what is meant by "divided into n by m sections". Solution None provided with comment.	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
19.	UK-P05-019		Minor Technical	<i>P05-6.6.2 SI_Score method</i>	Should there be any validity checks on the contents of the given feature list? For example, the body of this method shows that division by zero will arise when an empty feature list is given. We also note that the given feature list might contain (or even consist of) two or more features of the same specific type.	
20.	UK-P05-020		4-Minor editorial	<i>P05-6.7.1 SI_ColorType Type</i>	The name of this type is inappropriate, as its values are colours, not colour types. We suggest that its name, and that of the SI_ColorType method, be changed to SI_Color. Solution None provided with comment.	
21.	UK-P05-021		4-Minor Editorial	<i>P05-No specific location</i>	All occurrences of 'color' should be 'colour', for consistency with SC24 and SC29. Solution See comment.	
22.	UK-P05-022		3-Major Editorial	<i>P05-No specific location</i>	All Editor's Notes must be resolved. Solution None provided with comment.	

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SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
1.	USA-P05-001		1-Major Technical	<i>P05-03.01, Definitions</i>	This subclause is empty. Adequate material should be supplied. Solution None provided with comment.	
2.	USA-P05-002		1-Major Technical	<i>P05-04, Concepts</i>	This subclause is empty. Adequate material should be supplied. Solution None provided with comment.	
3.	USA-P05-003		1-Major Technical	<i>P05-05.01.01, SI_StillImage Type</i>	Editor's note 5-013 is correct. We need to move to colorSpace. (So is 5-015, but I don't know what to do about it.) Solution None provided with comment	
4.	USA-P05-004		2-Minor Technical	<i>P05-05-01, SI_StillImage Types and Routines</i>	It should be possible to obtain a thumbnail representation from an SI_StillImage value. We suggest adding a method on SI_StillImage type for this purpose. Solution None provided with comment.	
5.	USA-P05-005		1-Major Technical	<i>P05-05.01, SI_StillImage Types and Routines</i>	Every SI_StillImage value has SI_Format attribute. We believe there should be methods on SI_StillImage type to convert the contents of an SI_StillImage value from one format to another. Solution None provided with comment.	
6.	USA-P05-006		4-Minor Editorial	<i>P05-07, Status Codes</i>	The Class column in the matrix in Subclause 7 needs to be made consistent with the corresponding matrix in the other parts of SQL/MM. Solution None provided with comment	
7.	USA-P05-007		1-Major Technical	<i>P05-08, Conformance</i>	This subclause is empty. Adequate material should be supplied. Solution None provided with comment.	
8.	USA-P05-008		1-Major Technical	<i>P05-No specific location</i>	The current document is not yet ready. The root type needs to be overhauled to adhere to proper subtyping (with SI_StillImage as the non-instantiable supertype), additional subtypes are necessary, and broader functionality (for example, cropping) needs to be added. Solution None provided with comment.	
9.	USA-P05-009		1-Major	<i>P05-No specific</i>	The syntax of type, method, and function definitions appearing in this part	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
			Technical	<i>location</i>	should be aligned with ISO/IEC 9075. Solution None provided with comment.	
10.	USA-P05-010		1-Major Technical	<i>P05-No specific location</i>	All Possible Problems, Editor's Notes, and problems that are discovered during the editing process should be addressed. Solution None provided with comment.	
11.	USA-P05-011		1-Major Technical	<i>P05-01.01, SI_StillImage Types and Routines</i>	The SI_StillImage type has attributes that are not necessary for all applications or all types of images. With an appropriate type hierarchy, it would be appropriate to remove SI_comment for many applications (one may want to have a list of comments, each annotated with the comment provider's identifier and a timestamp). Similarly, it might be appropriate to remove SI_importTime, which is sometimes useful (<i>e.g.</i> , for an image library) but which may be less important than the date the image was created (<i>e.g.</i> , an X-ray image). Consider also SI_updateTime. For some applications, we do not update the image, but we apply changes to create a new image. This comment applies to the SI_setContent and SI_commentText methods, as well. Solution None provided with comment	
12.	USA-P05-012		1-Major Technical	<i>P05-No specific location</i>	The SI_StillImage type, for some applications, is missing critical attributes, such as compression and photometric interpretation (<i>e.g.</i> , whether the image is monochrome or RGB or YBR-FULL, and, if RGB, whether the pixel colors are arranged R-B-G-R-B-G-R-... or R-R-R-...-G-G-...). Solution None provided with comment	
13.	USA-P05-013		1-Major Technical	<i>P05-No specific location</i>	As part of a well-defined type hierarchy, provisions can be made for non-square images. Not all images are square (photorecon and Xrays, for instance), and accordingly need a pixel aspect ratio attribute. Solution None provided with comment	
14.	USA-P05-014		1-Major Technical	<i>P05-No specific location</i>	Hard to assess value of SI_Feature and SI_Featurelist without someone defining exactly what an image "feature" is. Define or delete. Solution None provided with comment	
15.	USA-P05-015		1-Major Technical	<i>P05-05.01, SI_StillImage Types and</i>	Need to define the SI_format attribute. Solution None provided with comment	

SEQ #	Cmnt ID	See Also	Severity	Reference	Description	Addressed By
				<i>Routines</i>		
16.	USA-P05-016		3-Major Editorial	<i>P05-No specific location</i>	<p>This part should be aligned with the editorial and other conventions adopted by ISO/IEC 13249-1, -2, and -3.</p> <p style="text-align: center;">Solution</p> <p>None provided with comment.</p>	

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