

## **Annual Report for INCITS H2**

Covering the Period from June 2006 through June 2007

Title of INCITS Technical Committee: Database

Submitted 28 June 2007

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H2 Technical Committee on Database

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### ***1. Informal Description of Work:***

The H2 Technical Committee on Database develops standards for the syntax and semantics of database languages. Computer processes and human users store, retrieve, update and administer large structured data collections using these languages. In addition to developing new SQL standards and addenda to ANSI and ISO/IEC SQL standards, H2 has TAG authority for ISO/IEC JTC1 SC32 and coordinates its work with related projects of SC32's Working Groups WG3 and WG4 on Database Languages, and SQL Multimedia and Application Packages respectively - and maintains liaison with other de jure standards bodies and consortia activities.

### ***2. Executive Summary***

H2 met 7 times since my June 2006 report to the INCITS Executive Board – 6 teleconferences and 1 face-to-face meeting in San Diego, CA. In addition, H2 delegations participated in ISO/IEC SC32 WG3 and editing meetings (3 electronic and 1 face-to-face in Urumqi CHINA), as well as an SC 32 Study Period on new database and security requirements in Clearwater, FL. H2 voting membership increased during the period from 13 to 16.

During the reporting period, ISO/IEC JTC1 published the Corrigendum for all 9 parts of

SQL, and new versions of standards for three SQL/MM Parts: Data Mining, Framework, and Spatial. SC 32 WG 3 progressed to FCD all 9 parts of SQL 200n ISO/IEC 9075: Framework, Foundation, CLI, PSM, MED, OLB, Schemata, JRT, and XML. Editing of the CD for SQL/MM History that began last year in Urumqi will be continued in New York on 16-20 July 2007.

### **3. Significant Accomplishments**

a. Published Standards:

- i. ISO/IEC 9075-1:2003/Cor.1:2006
  - Part 1 – Framework
  - Part 2 – Foundation
  - Part 3 – CLI
  - Part 5 – PSM
  - Part 9 – MED
  - Part 10 – OLB
  - Part 11 – Schemata
  - Part 13 – JRT
  - Part 14 – XML
- ii. SQL/MM:200n ISO/IEC 13249 (2<sup>nd</sup> Generation) Part 6 Data Mining
- iii. SQL/MM:200n ISO/IEC 13249 (3<sup>rd</sup> Generation)
  - Part 1 – Framework
  - Part 3 -- Spatial

a. Progressed to FDIS – NONE

b. Progressed to FCD

- i. SQL 200n ISO/IEC 9075
  - Part 1 – Framework
  - Part 2 – Foundation
  - Part 3 – CLI
  - Part 5 – PSM
  - Part 9 – MED
  - Part 10 – OLB
  - Part 11 – Schemata
  - Part 13 – JRT
  - Part 14 -- XML

c. Progressed to CD last year with editing continued/ongoing

- i. SQL/MM: 200n ISO/IEC 13249 (1st Generation)
  - Part 7 -- History

d. Registered Working Draft – NONE

#### 4. Significant Challenges

- a. **Participation:** For years I have reported stable or slowly declining H2 participation, reflecting consolidation in the relational database management system (RDBMS) industry as well as maturing of the SQL specification. I am pleased to note that, following last year's reported increase in voting membership from 12 to 13 due to Ingres Corp breaking off from CA (with both obtaining/retaining H2 voting membership), during the current reporting period H2 added three voting members – George Washington University, Johns Hopkins University, and Software Workshop – all from outside the RDBMS vendor community. H2 voting membership is now 16 – a 33% increase over the past 2 years.
- b. **New Project Initiatives:** The JTC1 SC32 WG4 project for SQL/MM Part 7 History was progressed to CD in April 2006 over US objections. Because of the number of substantive issues identified on the CD ballot, the CD editing meeting in Urumqi CHINA did not conclude; a continuation editing meeting will be held when WG4 gathers in New York City from 16-20 July 2007.

The base document for History was submitted by Japan last year. This year, Japan offered draft base documents and proposed a new work item (that to-date has not been approved) in another area -- security. Contributions for both of these initiatives appear to be essentially documentation of products from small Japan domiciled companies. While this is not prima facie indication of a problem, H2 believes that neither has sufficient technical constituency nor likely marketplace acceptance in the US, and therefore questions the value of making them international standards.

- c. **Publishing Approved Standards:** Recognizing recent difficulties in pushing approved standards through to publication, we monitored the progress of the Corrigendum for all 9 parts of ISO/IEC 9075 SQL resulting in the following timetable:
  - i. Editor submitted approved Corrigendum to the SC32 Secretariat in Mid-September, 2006
  - ii. A month later (after several e-mail messages) the SC 32 Secretariat submitted the document to ITTF
  - iii. ITTF worked on it in December-January correcting a couple of typographical errors in section headings.
  - iv. The Corrigendum became available on the ISO web store in April 2007.

## 5. Expected Challenges

- a. H2 is working to publish a revision of all 9 parts of SQL in 2008. Difficulty synchronizing with international meetings and processing documents through JTC 1 will make this challenging.
- b. With the US undecided about whether and what additional SQL extensions are required, Japan is driving the international program by introducing specifications of questionable global marketplace relevance. H2 has to expend volunteer resources to ensure that these activities do not result in standards that are harmful to US interests.
- c. W3C may progress soon a specification for XML Update; if/when this occurs, we will have to extend SQL/XML to align with the W3C Recommendation.

## 6. Committee Activities

- a. Meetings During Reporting Period

Date	Type/Location	Meeting Description
<b>2006</b>		
June 12 – July 7	Electronic editing meeting	SQL 9 Parts CD
July 27	Electronic meeting	#170
August 21-25	Electronic editing meeting	DCOR SQL
August 28-29	Electronic meeting	#171
September 18-29	Urumqi, CHINA	SC 32 WG3 & WG4 Mtgs
November 21	Electronic meeting	#172
<b>2007</b>		
February 5-9	SC 32 Study Period	Clearwater, FL
February 20-21	San Diego, CA	#173
March 15	Electronic meeting	#174
April 13	Electronic meeting	#175
April 10 – May 25	Electronic editing meeting	SQL 9 Parts FCD
June 13	Electronic meeting	#176

- b. Future Meetings

Date	Type/Location	Meeting Description
<b>2007</b>		
July 9-13	New York, NY	#177
July 9-20	New York, NY	Co-Located with SC32 WG3 SC 32, WG 3 & WG 4
August 24	Electronic meeting	#178

October 22-24	Vancouver, BC CANADA	#179
November 16	Electronic meeting	#180
November	Europe	WG 3 Interim Meeting

## **7. Liaison Activities**

H2 maintains liaison with related activities and groups within ANSI/INCITS, ISO/IEC and other domestic and international organizations. ([See H2-SD-003 2005-02-04](#)).

## **8. Membership and Officers**

### a. Officers

#### i. *Chairman:*

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#### iv. *Vice Chairman:*

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vii. *Vocabulary Representative:*  
Michael Gorman (see above)

b. Membership

H2 voting membership increased from 13 to 16 during the reporting period. Combined with last year's addition of Ingres when they split off from CA, H2 participation grew 33% over the past 2 years.

H2 participants represent virtually all major vendors/producers of relational database management systems - but even with the splitting of CA and Ingres, only a few remain. Membership also includes an increasing number of representatives of other kinds of organizations; all three new members – George Washington University, Johns Hopkins University, and Software Workshop – are from outside the database vendor community. The ([See H2 membership](#))

## **9. Future Trends and Related Activities**

By expanding SQL capabilities to include facilities related to first Java and now XML, H2 is working to guarantee that SQL - the current lingua franca for database access - is maintained and enhanced so that it will continue its relevance in the future. When currently underway work on SQL/XML is completed, there is no consensus among H2 participants about whether or what future work is required. H2 has decided, however, the manner in which future work will be pursued if/when it is initiated.

## **10. Other Administrative Information**

Projects assigned to H2 appear in the INCITS/SD-4 ([H2 projects](#))

H2 continues to maintain an account to cover meeting expenses ([see H2-2007-044](#)).

H2 procedures are intended to include only those things not specified in the INCITS SD-2. They have not been revised since publication of the RD-2. ([See H2-SD-002 2003-02-14](#)).

**Submitted by: Dr. Donald R. Deutsch, Chairman  
H2 Technical Committee on Database  
28 June 2007**

Attachments:

- a. [Committee Projects: INCITS/SD – 4](#)
- b. [Participation Data H2 membership](#)
- c. [Internal Procedures H2-SD-002 2003-02-14](#)
- d. [Financial Statement H2-2007-044](#)
- e. [Liaison List H2-SD-003 2005-02-04](#)