Using International Standards to drive the Federal Data Quality Process

The MIT Information Quality Industry Symposium, 2007

Aims and Objectives

- NATO AC/135 and DLA undertook the partnership with ECCMA and the involvement with ISO for the following reasons:
  - To automate the codification process
  - To improve the quality and availability of data
  - To help align the NATO Codification System with international standards
  - To increase cooperation with industry

The ECCMA Open Technical Dictionary

- **The ECCMA Open Technical Dictionary (eOTD) is an ISO 22745 compliant open technical dictionary of cataloging concepts used to create unambiguous language independent encoded descriptions of:**
    1. *Individuals*
    2. *Organizations*
    3. *Locations*
    4. *Goods and services*

eOTD
ECCMA Open
Technical Dictionary

- **The ECCMA Open Technical Dictionary (eOTD) is based on the NATO Codification System (NCS) with a more modern database architecture oriented toward the commercial world**
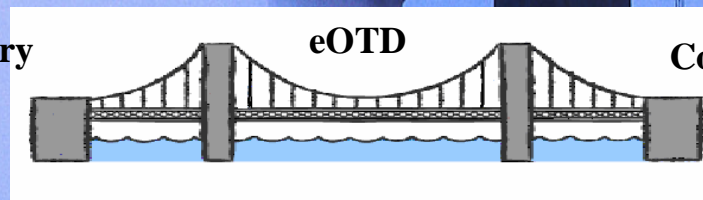
Military/Commercial Bridge

"**There is and always has been a philosophical gulf between the application of cataloging for military purposes and … for commercial. …commercial practices are not precise enough to support cost-effective military inventory management and military cataloging is far too detailed and costly for commercial purposes …ECCMA offers a way to bridge the gulf**"

Mr. Alan Williams
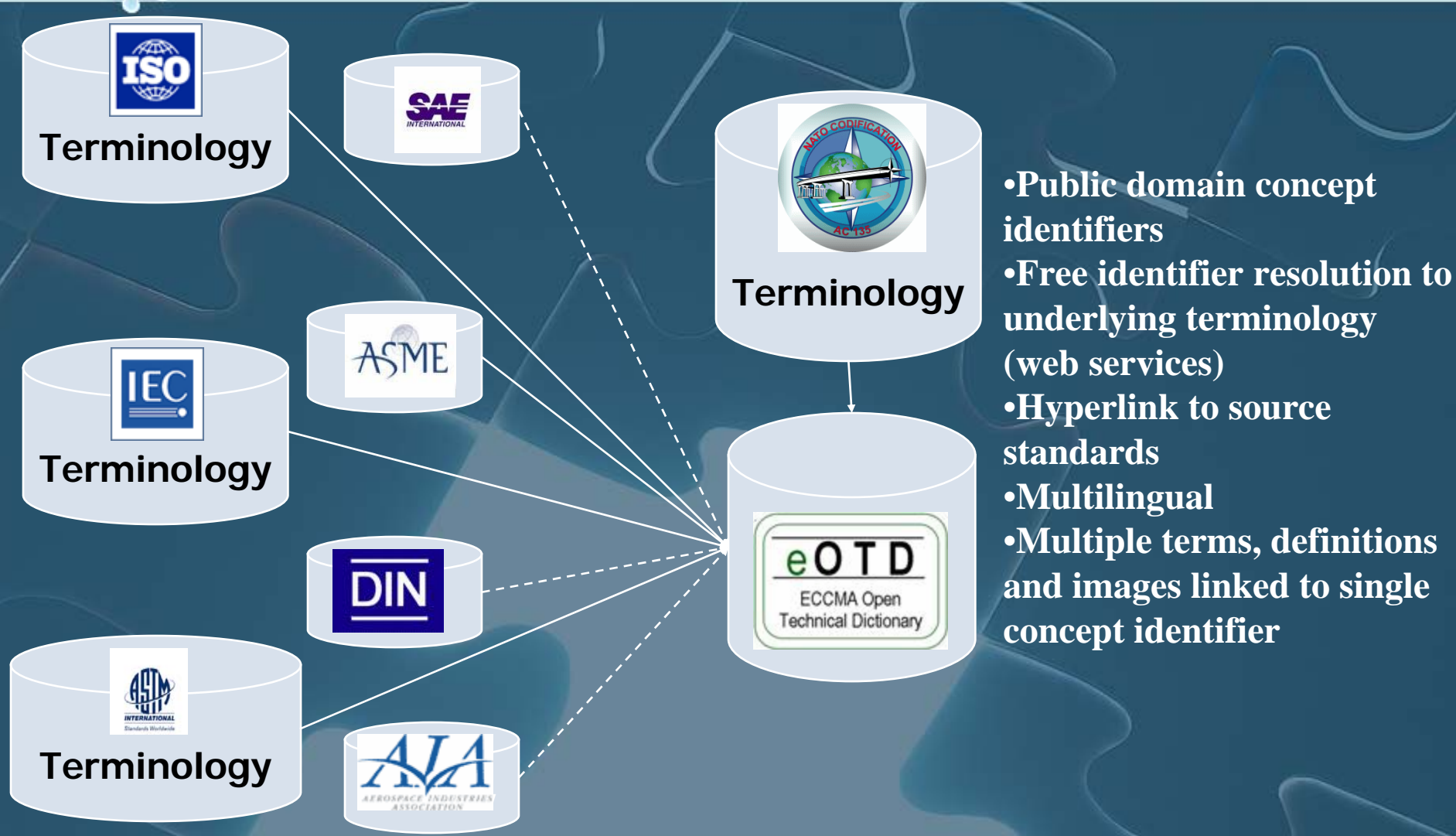Asst Dept Minister
Canadian Dept of National Defence

Military   eOTD   **Commercial**

Mapped Terminology

Terminology (ISO)

Terminology (IEC)

Terminology (ASTM)

SAE INTERNATIONAL

ASME

DIN

AIA AEROSPACE INDUSTRIES ASSOCIATION

Terminology (NATO CODIFICATION AC 135)

eOTD
ECCMA Open
Technical Dictionary

•**Public domain concept identifiers**
•**Free identifier resolution to underlying terminology (web services)**
•**Hyperlink to source standards**
•**Multilingual**
•**Multiple terms, definitions and images linked to single concept identifier**

Common Concept Encoding

- **Across the supply chains**

- **ERP masters:**
  vendor/customer/material/service

- **Manufacturing/production**

  CAD/CAM/CAE/PDM

- **Facilities/raw materials**

- **Human Resources**

- **Data life cycle management: from design through disposal**

Customer

Production

Vendor

eOTD
ECCMA Open
Technical Dictionary

Facilities

Material

Human
Resources

Common metadata mapping across applications!

156 National standard organization member (one per country)
(AFNOR, ANSI, BSI, CNIS, DIN, Standards Australia.......)

Central Secretariat in Geneva, Switzerland
150 staff (editors and marketing)

192 Technical Committees

3,000 Technical Bodies
50,000 Domain Experts

ISO TC 184 Industrial automation systems and integration

ISO TC 184/SC 4 Industrial Data

ISO 10303 (STEP)

ISO 15926 (Oil & Gas)

ISO 13584 (PLIB)

ISO 29002
⬍
ISO 22745 (Open technical dictionaries and their application to master data)
⬍
ISO 8000-100 Master Data Quality

ISO 22745 & ISO 8000-100 are NATO & DoD funded projects

Representing the US position on industrial data quality to the international community

ISO Member

ISO TC 184/SC 4 Secretariat

ISO TC 184/SC 4 U.S. TAG

ISO 22745 and ISO 8000

Master Data Quality – ISO 8000-110

Supplier and Manufactures recognize that:

Data integration is one of the keys to a long term relationship

The ability to provide their customers with quality data is a significant differentiating factor.

Master Data Quality – ISO 8000-110

Supplier and Manufactures are:

Publishing the specifications of their products, capabilities and services on their web sites.

Looking to increase their visibility and understand that the best way to do this is to improve the quality of their data.

Looking for a Standard that they can use to promote the quality of their data.

Before

- lack of clarity on data requirements
- disparate data format
- disparate data content
- disparate metadata
- potentially subjective human judgment
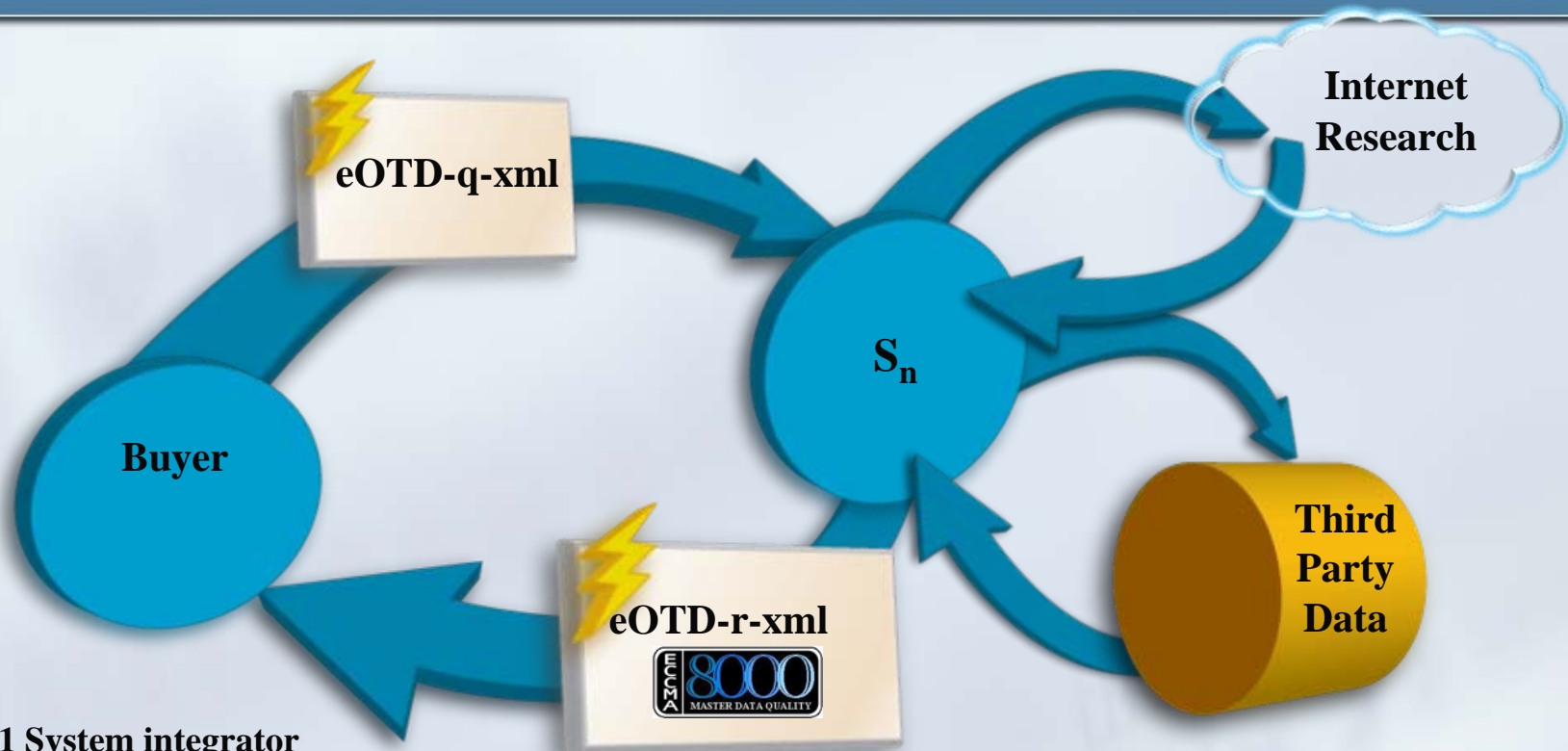- operate as an additional process

Transformation Through Standardization

- application process able data requirement statements
- consistently mapped metadata
- standard characteristic data exchange format

After

Automated Data Gathering

Internet Research

eOTD-q-xml

S_n

Buyer

eOTD-r-xml

ECCMA 8000 MASTER DATA QUALITY

Third Party Data

S1 System integrator
S2 Manufacturer
S3 Supplier
S4 Wholesaler
S5 Company that does manual internet research
S6 Company that does automated internet research
S7 Company that sells parts data
S_n... Company that provides data services

Benefits to NATO and DoD

Faster access to better industrial data

Automated request for characteristic data

Automated response from industry

Faster National Stock Number (NSN) assignment
More complete records
Better search resolution
Fewer duplicates
Reduced acquisition lead time
Lower design and life cycle costs
Increased supportability
Increased safety of systems and equipment

The eOTD is a foundation for design collaboration and industry standards.
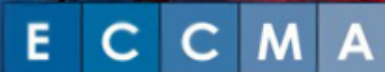
ISO 22745 and the eOTD are the foundational enablers for the breakthrough our industry needs in the next generation of direct, accurate, and effective collaboration across the supply chain at meaningful and granular levels of data exchange never before imagined.
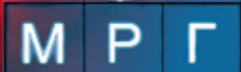
Alton Sanders
Senior Manager,
IDS Engineering Standards Control Function

PW Knowledge and Reuse Management (KARMA)

Approved for external release under various references

http://www.eotd.ru/

Google

Новости секретариатов

Page ▾ | Tools ▾

Федеральное агентство
по техническому регулированию и метрологии
───────────────────────────
ФГУ "Федеральный центр каталогизации"

МРГ

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eOTD
ECCMA

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Секретариат МРГ

Проект eOTD.ru

eOTD ECCMA

Стандартизация

В мире

Сайт

English

май, 2007

Сегодня

вск	пон	втр	срд	чет	пят	суб
	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Выберите дату

Новости секретариатов

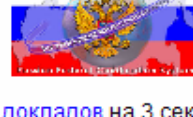### Новости проекта

ECCMA-RUSSIA

16.04.2007
О создании представительства ECCMA-RUSSIA

На IX Международной конференции подписано Соглашение между ФГУ "Федеральный центр Каталогизации" и Международной Ассоциации по управлению кодами электронной торговли (ECCMA) о создании организации "ECCMA-RUSSIA" как регионального представительства, ответственного за проект создания российской версии открытого технического словаря eOTD ECCMA

О подготовке к первому Заседанию МРГ "Открытый технический словарь продукции России"

Внимание!

Руководителям и специалистам предприятий и организаций!

Лента новостей

Новости 1 - 4 из 7
Начало | Пред. | **1** 2 | След. | Конец | Все

16.04.2007
О результатах IX конференции

В разделе "Проект eOTD.ru - Мероприятия - Прошедшие" размещены материалы по завершившейся IX Международной конференции по каталогизации, включая РЕШЕНИЕ, Общую информацию, Доклады участников и Фотосессию
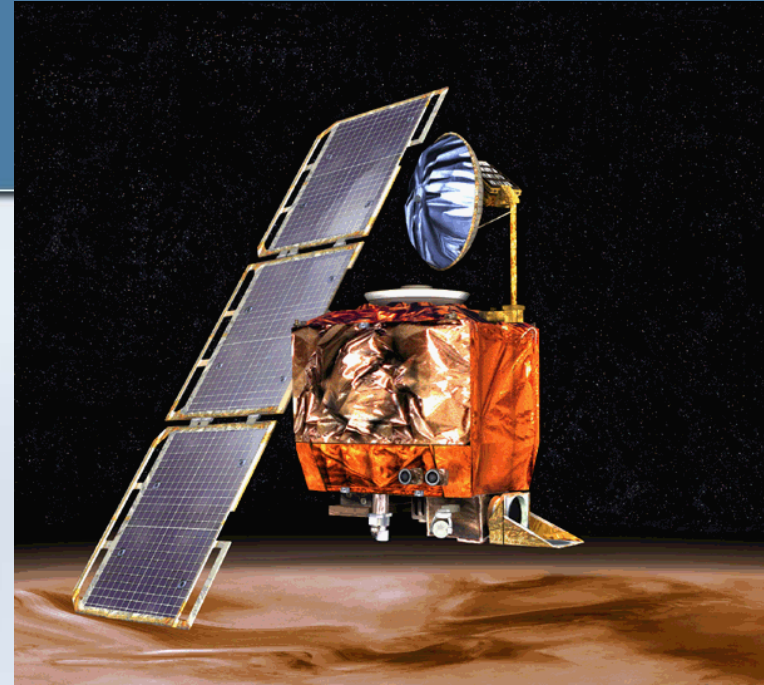
27.03.2007
IX Международная конференция по каталогизации
В разделе Анонсы мероприятий обновлена информация. Добавленны темы и тезисы докладов на 3 секции "Создание Российской версии eOTD ECCMA"

22.01.2007
Письмо участникам конкурса на выбор Секретариатов отраслей и подотраслей
В разделе "Новости секретариатов" опубликован проект письма участникам конкурсов на право выполнения функций

http://www.eotd.ru/#

Internet

100%

How Expensive Can Bad Quality Data Be?

In this case $125,000,000

The price of a Mars Climate Orbiter

Mars Orbit Insertion Burn	M/D/Y HH:MM:SS PDT (Earth Receive Time, 10 min. 49 sec. Delay)	Distance (miles)	Speed (miles/hr)	Force (Pounds)
Begin	9/23/99 02:01:00	121,900,000	12,300	143.878
End	9/23/99 02:17:23		9,840	

Mars Orbit Insertion Burn	YYYYMMDD EDT (Earth Receive Time, 10 min. 49 sec. Delay)	Distance (km)	Speed (km/sec)	Force (Newtons)
Start	19990923 05:01:00	196,200,000	5.5	640
Finish	19990923 05:17:23		4.4	

YOUR POINTING AT IT WON'T HELP - THE COMPUTER RECORDS SHOWS NONE IN STOCK.