

# Essential Integration: ISO 21127 (CIDOC CRM) in a nutshell

- 1. What it is*
- 2. What it's for*
- 3. How it is being used*

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# Background to ISO 21127

- Product of the CIDOC Documentation Standards Group
- Work started in 1996 Crete, hosted by ICS-Forth
- First version presented at ICOM conference Melbourne 1998
- ISO 21127 published sept 2006

# Lentius, profundius, durabilius

- More than 10 years work
- Built on the collective experience of international experts from 5 continents
- Encapsulates practically all the existing standards we could find (CIDOC, mda Spectrum, CIMI, AMICO, FRBR, EAD, *even* Dublin Core...)
- Rich, detailed, comprehensive
- Economical, compact, extensible
- Subjected to hard knocks, crash tested... built to last

# ISO 21127 is an “ontology”

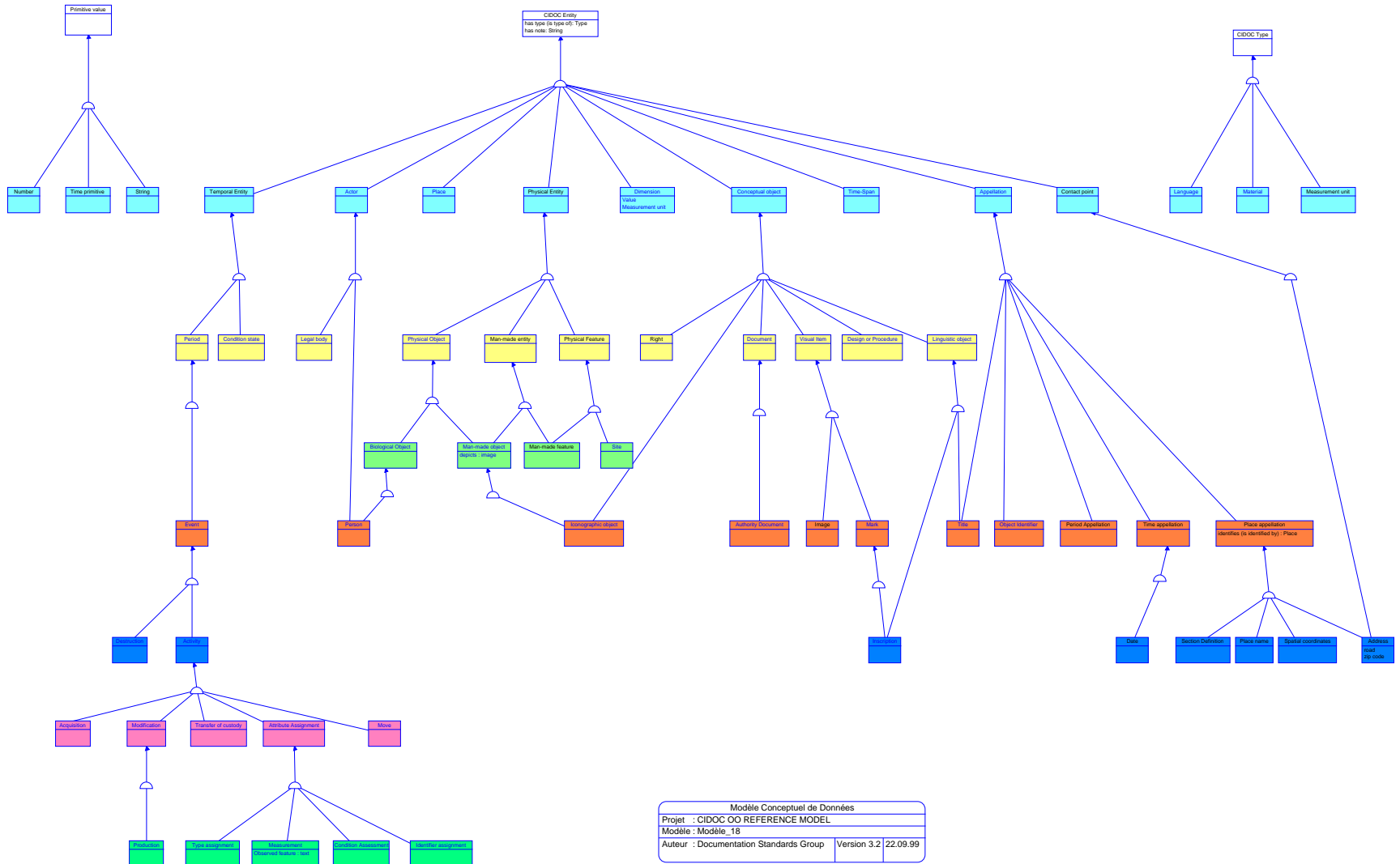
- A formal domain ontology for cultural heritage information:
  - precise and unambiguous
  - describe the things that the cultural heritage sector deals with and how these things relate to each other
  - expressed as an “object-oriented” schema

# Object oriented schema???

- *Basic object-oriented concepts:*
  - *Classes* (object, actor, event)
  - *Properties* (current location, stolen by, took place on)
  - 80 classes, 131 properties
  - *Hierarchy* of general to specific concepts (animal... fish... herring... red herring)
  - *Inheritance* (what's true of the general is true of the particular)

*No need to change your software*

# ISO 21127 (CIDOC CRM)

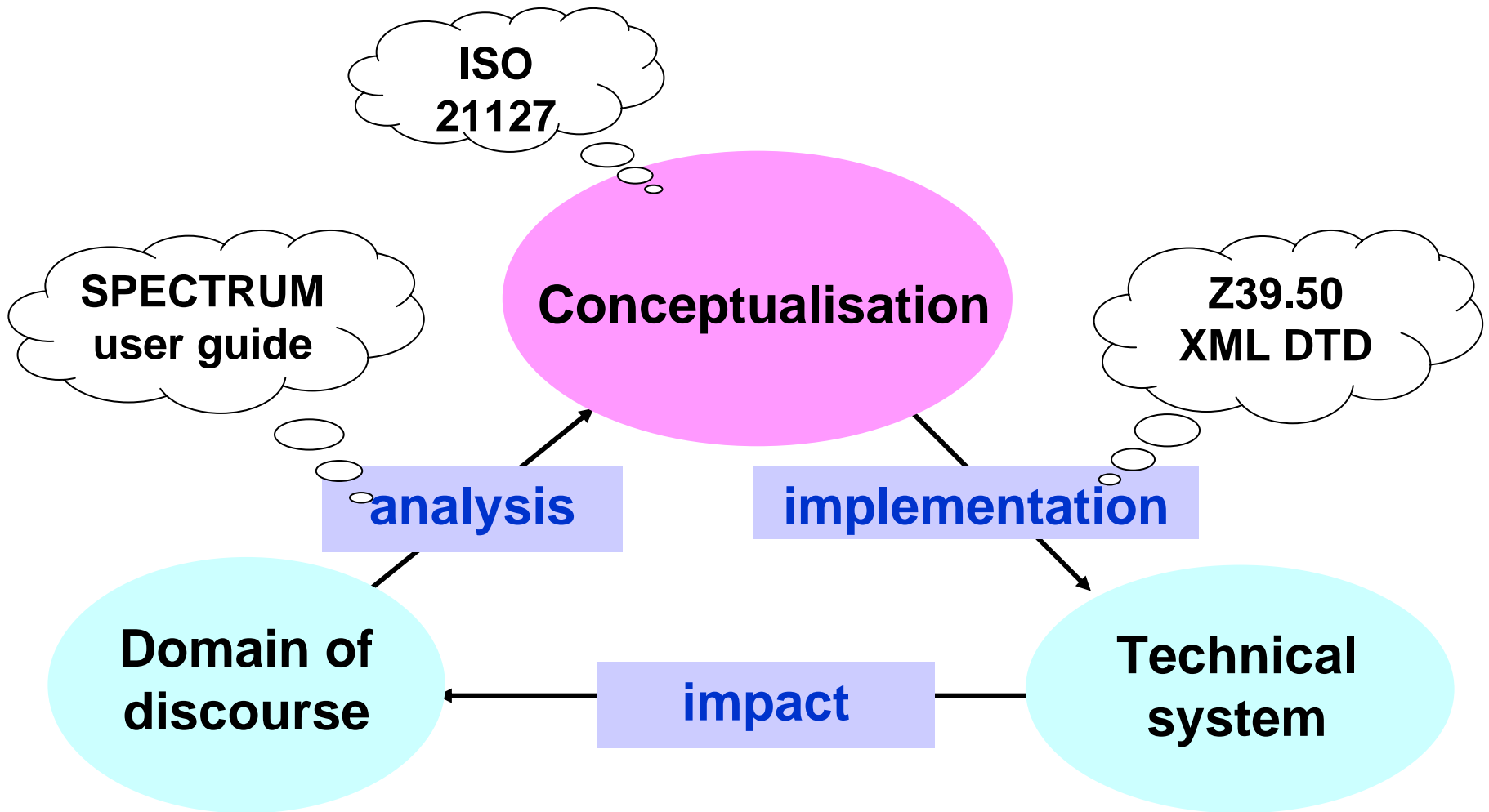


# So what's it for?..

- Establish a *conceptual basis* for integration and access to cultural heritage information
  - A bridge to help communication between *culture* people and *technical* people
  - A basis for design of new systems e.g. databases, XML DTD, etc.
  - A common reference for mediation between systems

... *conceptual glue*

# Where does it fit in?



# Things *not* covered by ISO 21127

- Implementation issues
  - optimising, interface design, storage
- Business rules and constraints
- Business processes, work-flow, user profiles...

# Naming conventions

- E number and nominal forms for entities
  - e.g. *E39 Actor*
- P number and verb phrases for bi-directional link properties
  - e.g. *P2 has type (is type of)*

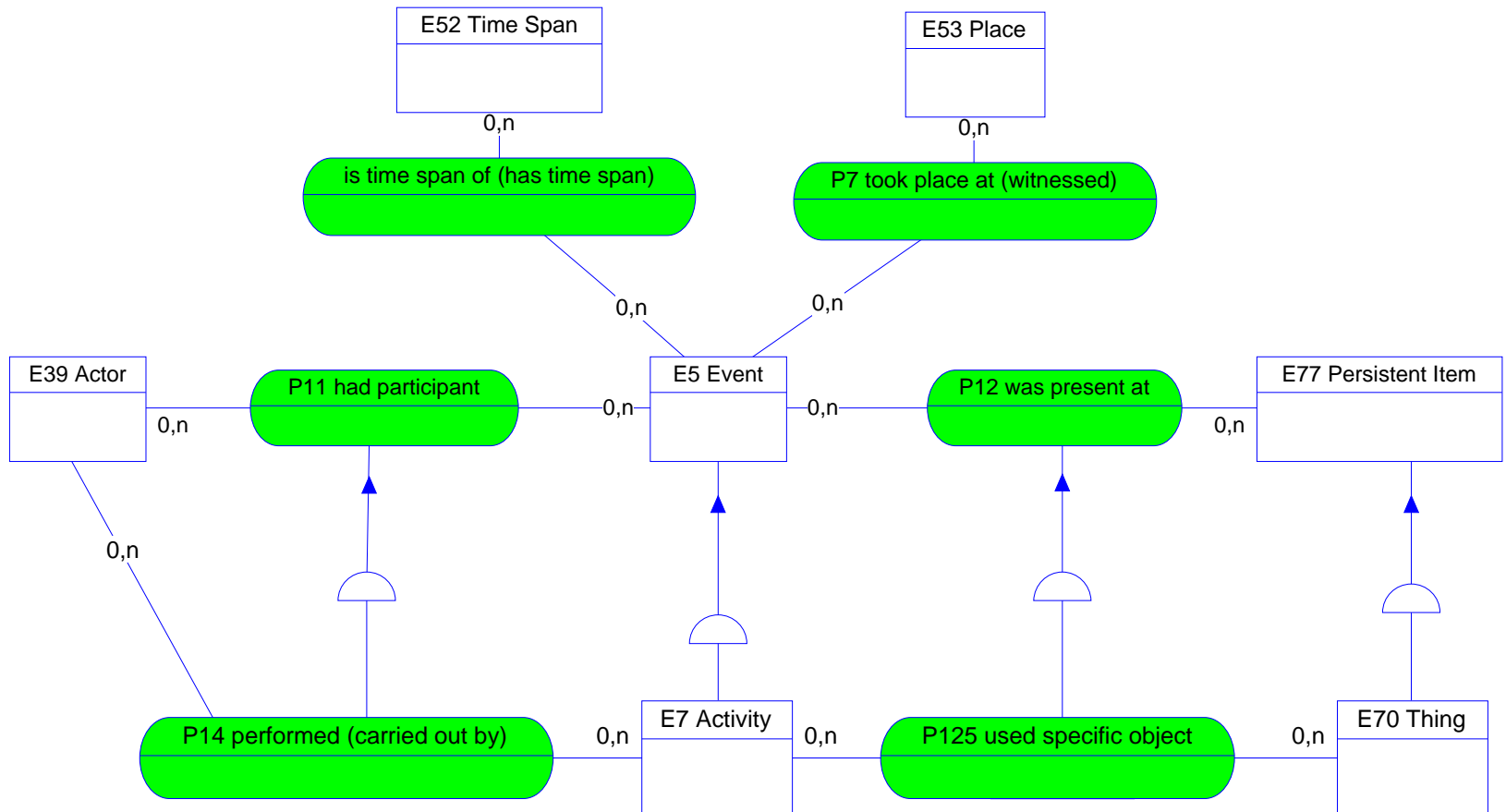
*Facilitates translation and data transfer*

# An example class...

## E71 Man-Made Thing

<b>Subclass of</b>	E70 Stuff
<b>Superclass of</b>	E24 Physical Man-Made Stuff E28 Conceptual Object
<b>Scope note</b>	<p>This class comprises discrete, identifiable man-made items that are documented as single units.</p> <p>These items are either intellectual products or man-made physical things, and are characterized by relative stability. They may for instance have a solid physical form, an electronic encoding, or they may be logical concepts or structures.</p>
<b>Examples</b>	Beethoven's 5th Symphony (E73) Michelangelo's David Einstein's Theory of General Relativity (E73) The taxon <i>Fringilla coelebs</i> (E55)
<b>Properties</b>	P102 has title (is title of): E35 Title (P102.1 has type: E55 Type) P103 was intended for (was intention of): E55 Type

# Core concepts...



# People using ISO 21127

- Musinfo, Geneva multi-institutional database design
  - Germanisches Nationalmuseum Nuremberg, XML DTD's
  - RLG Cultural Materials, database design
  - English heritage MIDAS XML, mapping project
  - Sculpteur, IST project information management
  - Finnish National Gallery, guide to good practice
  - ArchTerra, Italian virtual archeology museum
- ... [Complete list on the website](#)

# Documentation

<http://cidoc.ics.forth.gr>