

# Enhancing the AAHA & AAEP Diagnostic Subsets

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#### Helmuth von Moltke

"No battle plan survives contact with the enemy."



#### Seth Godin

"No software design survives a collision with the user"



#### **AAHA & AAEP Diagnostic Terms**

- Lists of veterinary <u>concepts</u> represented by standardized <u>terms</u>.
- **➤** "Interoperable" with SNOMED CT®
  - > and other SNOMED-based lists
- > Include (only) terms used by veterinarians
  - Account for acceptable synonyms
  - Provide indication of "preference"



#### **AAHA & AAEP Diagnostic Terms**

- Concept list (subset) + description list (subset) + description labels
  - Creates abilities:
    - ➤ Standardize MEANING
    - **➤ Do NOT** <u>restrict</u> language choices
      - Language manipulated by experts
      - CAN be manipulated locally
- **➤ These are "reference subsets" of SNOMED CT®** 
  - Provide concepts and manipulate language
  - ➤ IHTSDO calls these "REFSETS"



#### **AAHA & AAEP Diagnostic Terms**

- > AAHA refset (April 15<sup>th</sup> release)
  - **≥**3505 Concepts
  - >6315 Descriptions (terms)
- > AAEP refset (April 15<sup>th</sup> release)
  - **► 1111 Concepts**
  - **► 1815 Descriptions**
- ➤ Overlap
  - >366 concepts
  - Description preferences are not identical



# Refset lifecycle

- Creation of refset ID
  - The original state of the refset is zero content.
- > ALL content in a refset is addition, replacement or removal.



## Refset logical structure

- > Two lists
  - > A list of concepts selected for veterinary significance
  - A list of terms (language representations)
- Primary and foreign keys between the lists
- Histories
  - of concepts
    - in core or the extension
    - > in the refset
  - > of terms
    - in core or the extension
    - > in the refset



# Distributing reference sets

- First release format (RF1) did not survive first contact with "other languages and dialects".
- Veterinary-speak is a variant (dialect?) of medical speak.
  - > RF1 Deficiencies
    - ➤ No way to distribute delta versions (change sets)
    - > No way to distribute independent history of the term list
  - > RF1 Irritations
    - ➤ Unhelpful information included in the release



- > Things we wanted to do but could not
  - 1. Distribute only acceptable descriptions
  - 2. CLEARLY designate preferred terms
  - 3. Distribute history of the refset itself
  - 4. Distribute various levels file specifications
    - > Full distribution
    - **>** Snapshot
    - **≻**Changes only



- > RF1 Work-around(s)
  - **➤** Only acceptable descriptions
    - >Appended a list of "acceptable descriptionIDs"
  - Designate preferred terms
    - >Appended a list of "preferred descriptionIDs"
  - History of the refset itself
    - ➤ No work around (and no demand)
  - > File content types
    - ➤ No work around (and no demand)



- ➤ Things required by the RF1 schema that we wanted to avoid
  - **►** Unwanted attributes
    - >isPrimitive status
    - >conceptStatus
    - > SNOMED ID (e.g., DD-92110)
    - >CTVIII codes (e.g., x70sy)



- ➤ Properly represent SNOMED CT ® (RF2)
  - ➤ Now only two description "statuses"
    - >"fully specified name"
    - > "synonym"



## Refset content types

#### > Full release

- Complete content of the refset
- > All first version content + additions, corrections, retirements

#### Delta release

- > A change set
- ➤ Additions, corrections, retirements for a specified time period.

#### > Snapshot

> The content of the refset at a particular point in time.



## **Design goals**

- > One schema/format for three release types
  - ➤ Full release = every concept, every description, plus history
  - ➤ Snapshot (current state) = most recent version of every concept and every description
    - Full release includes "hidden" snapshot
  - \*\*This bullet has been edited since the original presentation. Please be advised that a snapshot is a theoretical concept that has not been executed yet. Interested parties are encouraged to contact the lab.\*\*
  - ➤ Change set = only changes since some previous state



# **Using the formats**

- One schema/format for three release types
  - > Full release = analysis of historical data
    - ➤ Content additions, modifications, retirements over the life of the subset
  - ➤ Change set = clearly identify only changes made to some existing state of the refset
    - > Reduced processing overhead of new versions
  - ➤ Snapshot (current state) = confirm correct existing version of your installation



#### Release plan

- > SNOMED is currently releasing in RF2
- **→** April 15, 2013 (AAHA and AAEP)
  - > Public RF1
  - > Alpha RF2
- > October 15, 2013 (AAHA and AAEP)
  - > Public RF1
  - > Public RF2
    - > Informal beta test and comment
- Dual release for some number of "versions"



#### Release plan

- > Present RF2 resources
  - > Full release file
  - **≻**Schema
  - Draft documentation
- > Future RF2 resources
  - ➤ Posted (static) Full release file on existing schedule
    - **Documentation**
  - **➤** Webservice for all formats



#### **Contact us**

- **>** http://vtsl.vetmed.vt.edu
- > Suggestions for "tweaks" welcome