Introduction

What is HL7?
- A standard to exchange clinical data
- Widely known and used for interoperability between health IT systems

What is the Arden Syntax?
- A markup language used for representing and sharing medical knowledge

So – what has HL7 to do with Arden?
What brings HL7 and Arden together?

„Arden Syntax“ for CDSS

- First Draft 1989 developed in the „Arden House“ – at that time independent from other standards
- Version 1.0 1992 published by ASTM (USA)
- 1998 the sponsorship moved to HL7 Inc.

„HL7 Arden Syntax Working Group“

- HL7 publishes and further develops the Arden Syntax as HL7 Standard
- Version 2.0 1999 approved by HL7 and ANSI
- Current Version 2.10

Arden Villa, Orange County, New York
What does HL7 mean?

- „Health Level Seven“:
  - „Health“: global interoperability standards for healthcare
  - „Level Seven“ is a reference to the seventh layer of the ISO/OSI Reference Model

![ISO/OSI Reference Model](image)

- Functional, Application oriented
- Communication, transport oriented

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<thead>
<tr>
<th>Layer</th>
<th>Description</th>
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<tr>
<td>7</td>
<td>Application</td>
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<td>6</td>
<td>Presentation</td>
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<td>5</td>
<td>Session</td>
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<td>4</td>
<td>Transport</td>
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<td>3</td>
<td>Network</td>
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<td>2</td>
<td>Data Link</td>
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<td>1</td>
<td>Physical</td>
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Who is Health Level Seven International?

- Not-for-profit volunteer organization
- Headquarter in Ann Arbor, Michigan, USA
- Members: providers, vendors, payers, consultants, government groups, universities and other interested parties
- A well-defined set of operating procedures ensures consensus, openness and balance of interest
- Standards Domain: clinical and related administrative data
- ANSI-accredited
- >1.600 members worldwide
- >35 national affiliates
HL7 Standards

- HL7 provides a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services, e.g.
  - Communication
  - Data Model, Data Types
  - Vocabulary
  - Clinical Documents
  - **Decision support** & knowledge management
  - Medical devices & personalized health devices
  - Disease management
HL7 Standards

- **HL7-Standards**
  - Used globally, most important and implemented standard
  - Standards are developed by specific working groups with a defined consensus based harmonization process ("ballots")
  - Collaboration with other relevant SDO, (ISO TC21, CEN TC251, ASTM, DICOM, IEEE, IHE, IHTSDO, GS1,...)
  - Joint ISO-HL7 Standards

  → Basis for IHE
  → ELGA uses HL7

- **Intellectual Property**
  - Protected IP, owned by HL7 International
  - Standards are free available (registration needed without additional costs)
  - Members of HL7 may reproduce and distribute the standards and create customized constraints
Health Level Seven

HL7 Standards Family

- Version 2.x
  - Messaging
    - RIM
    - Data Types
    - Messaging
    - CDA
    - Structured Product Labelling
    -...

- FHIR
- Arden
  - Electronic Health Record-System Functional Model
- Other
  - Common terminology services
  - Vocabulary
  -...

Organisation "HL7 International"

- Board of Directors
- Members
- Staff
- Affiliates
- Working Groups
Affiliate **HL7 Austria** established 2007
- Official Affiliate of Health Level Seven International
- Organization as „private club“, not-for-profit
- Fully financed by membership fees
- „Open membership“: 82 members total

**Activities**
- Standardization, Ballots (8 CDA IG, HL7 V2 / Z-Seg, codelists, document nomenclature…)
- Conceptual Work: OID, Terminology-Server
- Annual Meetings (March 2 day)
- Education: Workshops, Tutorials, eLearning
- Conferences: IHIC2012 Vienna, pHealth2014 Vienna, IHIC2015 Prague
- Interoperability Forum Meetings
Board (since 2013, re-elected 2015)

- **Chair** („Präsident“): Dr. Stefan Sabutsch
- **Vice-Chair**: Herlinde Toth
- **Treasurer**: Christoph Unfried
- **Vice-Treasurer**: Peter Schöttel
- **Secretary**: Dr. Peter Seifter
- **Vice-Secretary**: Barbara Franz

- **Chair of Technical Committee**: Alexander Mense
HL7 Austria – the community

- **Meetings**
  - Annual Meeting (2-3 d) → 90-100 participants
  - Interoperabilitätsforum 3x p.a. with other SDO

- **Education**
  - HL7 Fundamentals (eLearning course with Int. Certificate)
  - ELGA CDA Implementation Guides
  - ARDEN Syntax Schulung (Workshop)
    - Cooperation with Medexter GmbH
  - FHIR Workshops (upcoming: eLearning)
  - Workshops on current issues

- **Journals**
  - D-A-CH-L: HL7 Mitteilungen (printed, 2x p.a.)
  - HL7 International & Europe News
  - eMail-Newsletter
  - Twitter: [https://twitter.com/HL7_Austria](https://twitter.com/HL7_Austria)
International Standard Development

- HL7 Austria actively contributes to the international working groups
  - Collaboration with other Affiliates
  - Participation in Working Groups
    - Security (Co-Chair Alexander Mense)
    - Arden Syntax (Adlassnig, Fehre)
    - Clinical Decision Support (Adlassnig, Fehre)
    - ePharmacy
    - Etc.

- Arden Syntax – powered by Austrian Know How
Next Annual Meeting

Celebrating 10 Years HL7 Austria
March 15th, 2017
Vienna, „Pfarrwirt“ (oldest restaurant in town)
Visit: http://www.hl7.at/events/hl7-jahrestagung-2017/