



# ACE – ACORD Certified Expert

Life, Annuity, and Health Implementation

**Mike Bauer**

Technical Architect, ACORD

# Agenda

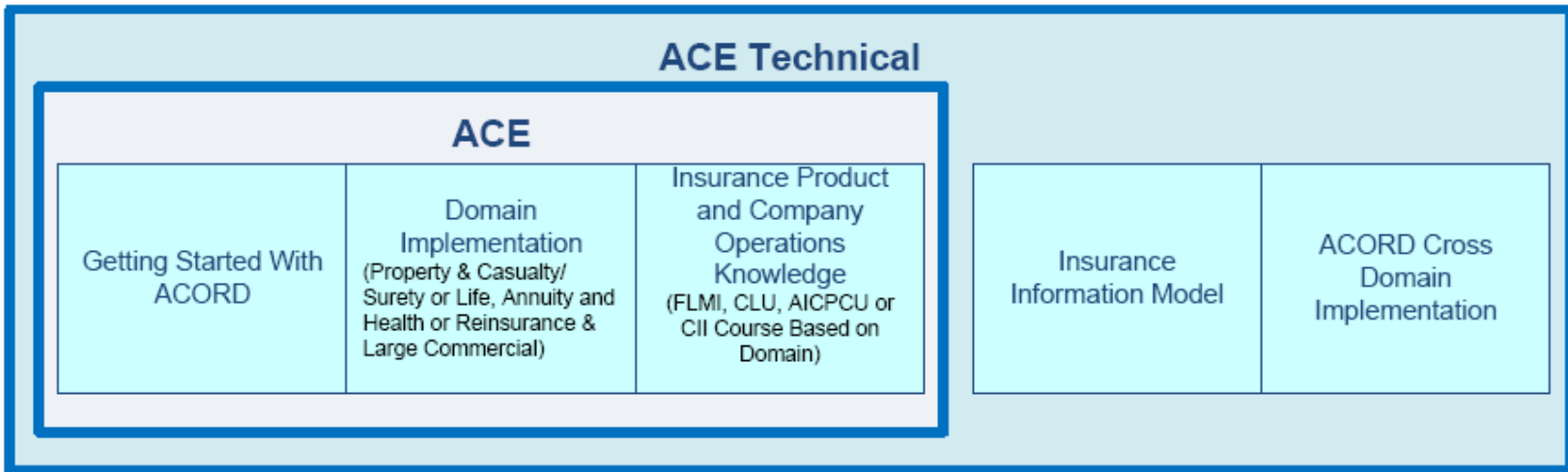
- About ACE
- ACE Study Guide
- ACE Sample Questions
- A couple of lessons

# What is the ACE Designation?

- **A**CORD
- **C**ertified
- **E**xpert
  
- Focus is on ACORD Standards
- Implementation knowledge and expertise
- Domain specific – for example, LAH

# You call yourself an expert?

1. ACORD History, Governance, Process
2. Insurance Industry and Operations
3. Standards Implementation



# Where can I learn more?

- [ace@acord.org](mailto:ace@acord.org)
- To learn more about the ACE program and how you can participate in the program as a Subject Matter Expert or designee, contact Beth Grossman at [bgrossman@acord.org](mailto:bgrossman@acord.org)

# Part 1 - Getting Started With ACORD

- Knowledge of ACORD
- Participation in the process
- Voting on Standards
- Versioning and retiring standards
- Legal considerations

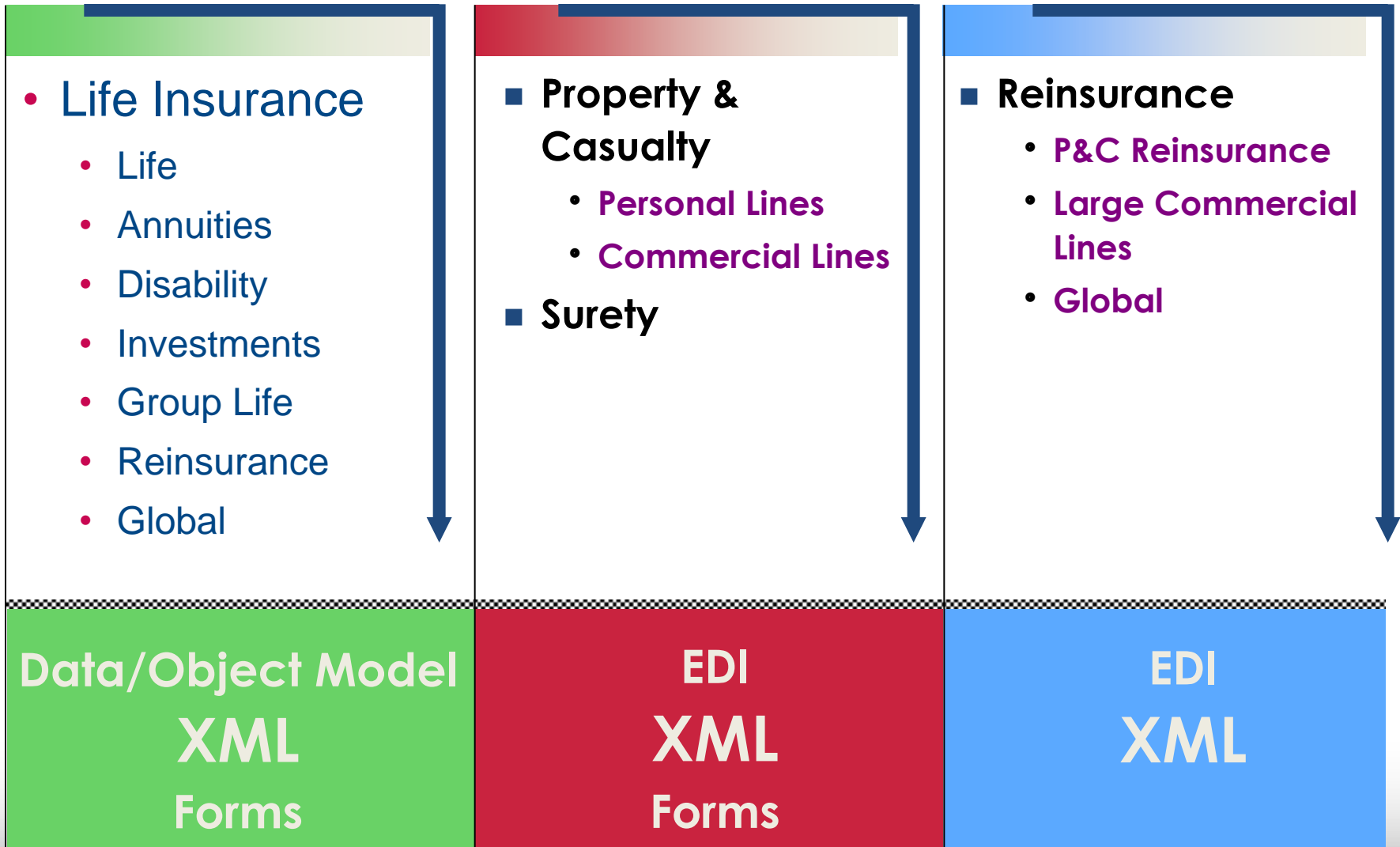
# Part 2 - General Insurance Knowledge

- Basic understanding of insurance principles
- Insurance company operations
- FLMI
- CLU
- AICPCU
- Or other ACORD approved courses

## Part 3 – Domain Specific Knowledge

- The Life, Annuity, and Health Standard
- One the three ACORD Standard Domains
  - Life, Annuity, and Health
  - Property, Casualty, and Surety
  - Reinsurance and Large Commercial

# Standards Supported

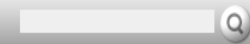


# LAH Implementation Study Areas

- Knowledge of ACORD Standards
- Business Process Mapping
- Data Transformation
- Integration Considerations
- Enriching and Customizing the Standard

# Knowledge of ACORD Standards

- ACORD Reference Materials
  - Teams – <http://teams.acord.org>
  - Downloading the Standards
  - Learning about working groups



Home > Standards > Downloads

## Standards Downloads



ACORD is committed to helping the industry achieve the goal of straight-through processing. We offer many public standards specifications and documentation for download from this website, as well as **Members Only** documentation to aid member organizations in implementing the specifications.

### Quicklinks

- Contact Standards
- Standards Programs
- Standards Calendar

#### Cross Domain

- Public Downloads

#### Life, Annuity & Health

- Public Downloads

#### Property & Casualty/Surety

- Public Downloads

#### Reinsurance & Large Commercial

- Public Downloads

**Looking for ACORD Forms?** [Click here.](#) (Note: You must be signed in to download forms.)

## Downloads

**CD**

**Cross Domain Specifications and Documentation**  
An archive of downloadable specifications that apply to all the domains managed by ACORD.

**CD Members**

**Cross Domain Members Only**  
Contains additional specifications and documentation that apply to all domains managed by ACORD but available to members only.

**LAH**

**Life, Annuity & Health Specifications and Documentation**  
An archive of downloadable specifications for the Life Standards including XML for Life Specification and Life Data Model.

**LAH Members**

**Life, Annuity & Health Members Only**  
Contains a variety of documents to assist companies in implementing and verifying the Life & Annuity Standards. This section requires a valid Username and Password.

**PCS**

**Property & Casualty/Surety XML Specifications and Documentation**  
Contains the latest official version of the XML for P&C specification, as well as an archive of draft and pilot

**PCS Members**

**Property & Casualty/Surety Members Only**  
XML Standards: Includes the P&C XML Windows Help File, ACORD Forms and Mapping File. This section



## Insurance Data Standards



[Home](#) > [Standards](#) > [Development](#) > [Working Groups](#)

### Working Groups

- [Cross Domain](#)
- [Life, Annuity & Health](#)
- [Property & Casualty/Surety](#)
- [Reinsurance & Large Commercial](#)

[<< BACK TO DEVELOPMENT](#)

## Life, Annuity & Health Working Groups



Listings Updated for Winter/Spring 2010 Cycle

### Automated Vendor Invoicing

- Site:** <http://teams.acord.org/apps/org/workgroup/uvrequirements>
- Email:** [uvrequirements@teams.acord.org](mailto:uvrequirements@teams.acord.org)
- Chair(s):** Karen Mottley, Prudential; James Bielak, EMSI
- See Proposal** [Download](#)

**Description:** The current process for vendor invoicing is labor intensive. Invoices are typically submitted via spreadsheets with significant variations by vendor, both in format and data provided. Recipients of these submissions must review each one manually and match it with underwriting requirements received. To meet this need, the group will be completing the Invoicing Implementation Guide; coordinating a pilot implementation with key vendors; and updating the existing transactions and model elements based on the results of the pilot.

Major milestones tied to the scope of the project are as follows: a Maintenance Request for new messages in the standard, transactions, UML diagrams, Implementation Guide(s), sample XML business messages, etc.

### Employee Benefits

- Site:** <http://teams.acord.org/apps/org/workgroup/life-empben>
- Email:** [life-empben@teams.acord.org](mailto:life-empben@teams.acord.org)
- Chair(s):** Burt Tower, M3 Insurance Solutions; Tim Jordan, Hartford Life
- See Proposal** [Download](#)

#### Enrolled in a Group?

If you are already a member of a group, please go to [Teams.ACORD.org](#).

#### Joining a Working Group

If you are already registered on [teams.acord.org](#):

- Log into [teams.acord.org](#) using your existing username and password
- When you find the group you wish to join, click to enter and view the information
- If you wish to join this group, click on "Join Group"

If you are already registered on [www.acord.org](#) but not [teams.acord.org](#):

- Send an email to [workinggroups@acord.org](mailto:workinggroups@acord.org)
- Indicate which group(s) you wish to join
- You'll receive a confirmation

# ACORD Reference Materials

- Data Model
- Help File
- Implementation Guides
- Form Instruction Guides
  - When to use each
  - How to use each

# Standards Use, Structure, and Basics

- Design paradigms common to all objects
- Distinguish between wrapper information and business data
- Hierarchy in the data model
  - Top Level objects
    - Type and use
    - Structure and organization
    - Rules for relating Top Level objects

[Previous section](#)

## 7.94 <CodeList>

### Description

Code List

### Definition

A list of code values as implemented by an owning Party. A code may also be referred to as a "lookup" or "enumeration."

### Revision History

Last update: 2009-12-18 Last update version: 2.21.90 Last update MR: 09-2.012.01

Properties/Attributes	Type	Usage	Description
<a href="#">@id</a> ID		Optional	ID A unique XML ID used as a reference for a given XML document <b>Revision History:</b> Last update: 2009-12-18 Last update version: 2.21.90 Last update MR: 09-2.012.01
<a href="#">@DataRep</a> Data Representation Type Default: Partial		Optional	Data Representation <b>Revision History:</b> Last update: 2009-12-18 Last update version: 2.21.90 Last update MR: 09-2.012.01
<a href="#">@OwnerPartyID</a> IDREF		Optional	Reference to Party representing "owner". On CodeList, references the Party that is the owner of this implementation of the code list. Note that the owner in this context is the owner of a specific implementation or the definitions of the codes in this list. This is NOT the "provider" of the standardize list (see ProviderDomain). So, for example, this property would never refer to ACORD. It would reference the trading-partner that owns the specific interpretations. <b>Revision History:</b> Last update: 2009-12-18 Last update version: 2.21.90 Last update MR: 09-2.012.01
<b>Start Group: Sequence Optional</b>			
<a href="#">&lt;CodeListKey&gt;</a>	<a href="#">PERSISTKEY</a>	Optional	<b>Revision History:</b> Last update: 2009-12-18 Last update version: 2.21.90 Last update MR: 09-2.012.01
<a href="#">&lt;CodeListSysKey&gt;</a>	<a href="#">SYSKEY</a>	Optional Repeating	<b>Revision History:</b> Last update: 2009-12-18 Last update version: 2.21.90 Last update MR: 09-2.012.01

# Business Process Mapping

- Identify process to be mapped
- Decompose process into discrete activities
- General understanding of existing transactions
- Sequence transactions to complete a business process
- Perform gap analysis

# Data Transformation

- For example
  - Model a decreasing term policy
  - Model benefits on riders
  - Associate beneficiaries to a policy
- Identify required and optional data
- Use object type codes to make a generic object specific
- Show relations between top objects

# Coverage Versus Rider

- Policy Lifecycle and Product Working Group Meeting
  - Working on a way to tell when to use each
    - Please feel free to contribute your business reasons

# Data Transformation

- Be able to create valid XML structures
- Analysis of data
  - For the sender and receiver
  - Create mapping specification
  - Including data translation, code conversion, data formatting, etc.
- Tools used for mapping
- Processing unstructured data (images)

# Integration Considerations

- Explain basic message choreography
  - Batch versus real-time
  - Transmittal versus inquiry
  - Messaging options:
    - Fire and forget
    - Test mode
- Error handling
- Testing and Certification Facility (TCF)

# Plug and Play Consortium Meeting

- 2:00 – 4:00 PM
- Breakers IJ
  
- Going eye-to-eye with the ambiguities

# Enriching the Standards

- LAH Versioning
  - Numbering and compatibility
- How to fill the gaps using
  - Maintenance Requests (MRs), extensions, and version upgrades
- Methods of extending the model
- Procedures and process for MRs

# Plenary Focus Group

- Making recommendations to improve the MR process
- Kicking around some ideas:
  - Is one Plenary enough?
  - Need to automate the process
  - Ways to improve training and share “tribal knowledge”
  - Taking a close look at the voting cycle

# Test Preparation

- Work Experience
- Active Participation
- Knowing the Data Model
- Knowing the Business Messages
- Familiarity with ACORD
  - Processes
  - Governance

# 1.A-1. Knowledge of ACORD Standards / ACORD Reference Materials and Standards

A developer is tasked with building an application to validate that ACORD XML sent to their organization is valid. Which standards deliverable is most helpful to the developer?

- a) The Standards Metadata File (.xml)
- b) The Help File (.chm)
- c) The XML Schema Files (.xsd)
- d) The Transaction-specific implementation guide (.doc)

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## 1.A-2. Explain the uses, structure, and elements of the ACORD data and messaging standards

The details of an in-force annuity policy are best modeled underneath which top-level object?

- a) Holding
- b) PolicyProduct
- c) Policy
- d) Annuity

## 1.A-2. Explain the uses, structure, and elements of the ACORD data and messaging standards

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- c) Policy
- d) Annuity

## IV.A. ACORD Standard Version Upgrades / Interpret Version Changes

A company has implemented an ACORD TXLife 2.16 transaction and has ensured that this transaction is valid with respect to the schema. Which assumption(s) about this transaction can be made?

1. It is valid with respect to the ACORD 2.7 schema
  2. It is valid with respect to the ACORD 2.16.90 schema
  3. It is valid with respect to the ACORD 2.20 schema
  4. It is valid with respect to the ACORD 2.17 schema
- 
- a) 1, 2, & 3
  - b) 2, 3, & 4
  - c) 1, 3, & 4
  - d) 1, 2, & 4

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  4. It is valid with respect to the ACORD 2.17 schema
- 
- a) 1, 2, & 3
  - b) 2, 3, & 4**
  - c) 1, 3, & 4
  - d) 1, 2, & 4

# VI. Enriching and Customizing the Standard

During the mapping of a business activity to an ACORD transaction, a gap between the logical definition of the activity and the selected ACORD transaction is discovered. The activity requires several pieces of company-specific information about a Widget.

The transaction must remain compliant with the current version of the ACORD model. Furthermore, the supporting tools do not support the XML Schema “Any” type.

Given these requirements, in order to fully map this activity you should:

- a) Map to a single OLifeExtension structure
- b) Map to several KeyedValue structures
- c) Submit an emergency Maintenance Request (MR)
- d) Submit a vendor namespace extension

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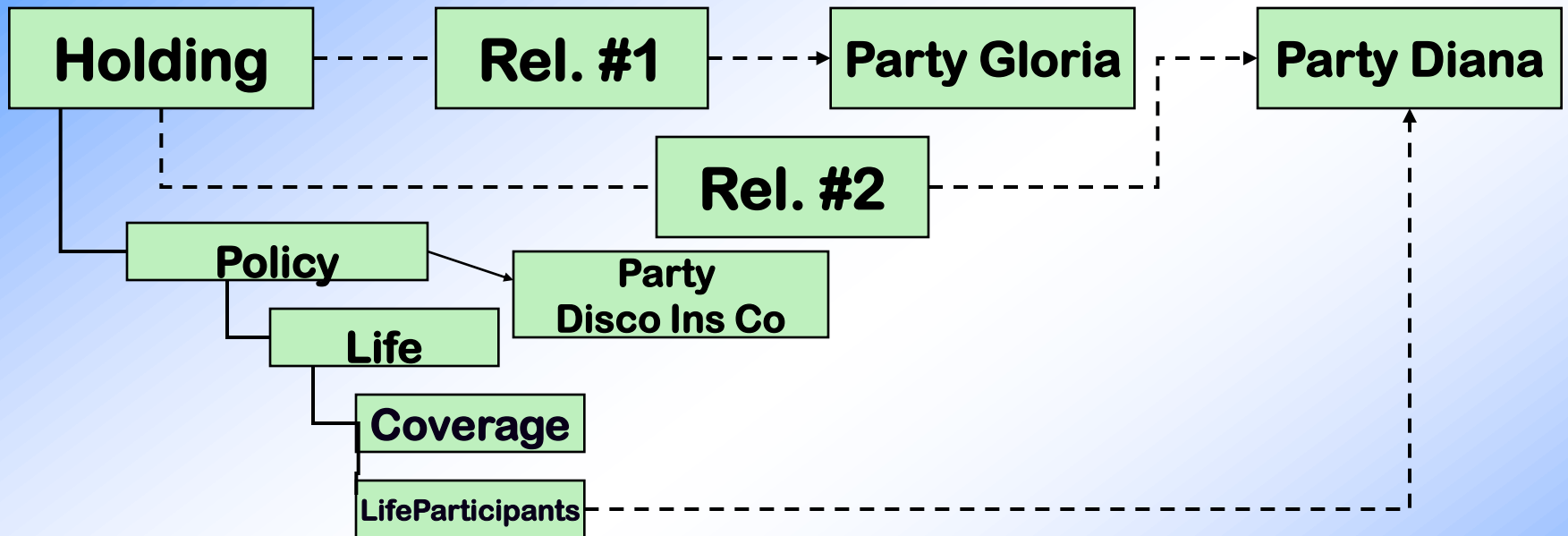
# Data Transformation Lesson

- Example: Under holding
  - Model a decreasing term policy
  - Model coverage options or benefits on riders
  - Associate beneficiaries to a policy
  - Represent the insured/owner on the policy

# Holding Level Term Example

- It is a level term life insurance policy where Diana Ross is the insured
- We also know it is a life insurance policy
- The policy is owned by Diana Ross and sold by agent Gloria Gaynor, issued by Disco Insurance Co.

# Level Term Life Insurance Policy



## Notes

- Holding.HoldingTypeCode = OLI\_HOLDTYPE\_POLICY
- Relation #1.RoleCode = OLI\_REL\_PRIMAGENT
- Relation #2.RoleCode = OLI\_REL\_OWNEDBY
- Policy.LineOfBusiness = OLI\_LINEBUS\_LIFE
- Policy.ProductType = OLI\_PRODTYPE\_TERM

## Notes

- Coverage.IndicatorCode = OLI\_COVIND\_BASE
- Coverage.LifeCovTypeCode = OLI\_COVTYPE\_TERMLEVEL
- LifeParticipant.LifeParticipantRoleCode = OLI\_PARTICROLE\_PRIMARY

# Enhancing and Customizing the Standard

- Keyed Value
  - Named Value Pairs
  - Simple
- OLifEExtension
  - Block of XML of type Any
  - Allows inclusion of anything, recommend only using well-formed XML
  - Recommend not using mixed-type data
  - More flexible
- May also use Namespaces

# Keyed Values

- Provides a mechanism to extend the ACORD model in a standard way
- KeyedValue object contains:
  - <VendorCode>
  - <KeyName>
  - <KeyValue>
- Strategically placed in object model hierarchy

# Keyed Value Example

<KeyedValue>

  <KeyName>PetName</KeyName>

  <VendorCode>82</VendorCode>

  <KeyValue>Rufus</KeyValue>

</KeyedValue>

<KeyedValue>

  <KeyName>PetAge</KeyName>

  <VendorCode>82</VendorCode>

  <KeyValue>6</KeyValue>

</KeyedValue>

# OLifEExtension

- Provides a more flexible mechanism to extend the ACORD model in a standard way
- OLifEExtension object contains:
  - <OLifEExtension>
    - <MyData>
      - ...Any Well Formed XML...
    - </MyData>
  - </OLifEExtension>
- Available in every object in the model

# OLifEExtension Example

```
<OLifEExtension VendorCode="82"  
  ExtensionCode="Pet">  
  <Pet>  
    <PetName>Rufus</PetName>  
    <PetAge>6</PetAge>  
  </Pet>  
</OLifEExtension>
```

# Namespaces

- Actually, a fairly advanced topic
- A way to differentiate two tags that have the same name
- Used when you'd like to combine elements from two (or more) XML Schemas into a single Document
- Also used to extend Schemas

`<ns:Age>1.5</ns:Age>`

# In Summary

- LAH Implementation Study Areas
  - Knowledge of ACORD Standards
  - Business Process Mapping
  - Data Transformation
  - Integration Considerations
  - Enriching and Customizing the Standard

Welcome to the ACORD XML Specification Help System

- ACORD Life, Annuity & Health Standard
  - 1 Introduction
    - 1.1 References
  - 2 Naming Conventions
    - 2.1 General Rules
    - 2.2 Programming Language Compatibility
    - 2.3 Specification File Names and Versioning
    - 2.4 Object, Aggregate, and Table Names
    - 2.5 Data Item, Element, Tag Names
    - 2.6 Standard Abbreviations
    - 2.7 Standard Class Words
  - 3 Data Type Conventions
  - 4 Implementation Conventions
    - 4.1 Using NameSpaces
    - 4.2 Entity Recognition Rules
    - 4.3 How to handle Object IDs
    - 4.4 How to handle typecodes
    - 4.5 How to handle type code assignment
    - 4.6 How to handle default values
    - 4.7 How to support read-only properties
    - 4.8 How to know what spec version this document is based on
    - 4.9 How to identify the source of my XML for Life Insurance file
    - 4.10 How to extend XML for Life Insurance for proprietary information
    - 4.11 How to handle sending multiple XML documents in a single file
    - 4.12 How to specify replacement file versus partial file
    - 4.13 How to handle Empty Tags using ACORD Schema
    - 4.14 Property use at multiple hierarchical levels
    - 4.15 Expressing Relationships in XMLife
    - 4.16 Expressing Policy Roles (Participant/LifeParticipant vs. Relation)
    - 4.17 XML Encryption
    - 4.18 How to handle Vendor Codes
    - 4.19 Use of Partial Dates
    - 4.20 Expressing Choice Collections
  - 5 Root Elements
  - 6 Transactions
    - 6.1 Request/Response model
    - 6.2 Tying Requests and Responses Together
    - 6.3 Transaction Versioning
    - 6.4 Error Processing
    - 6.5 Security
    - 6.6 Synchronous vs. Asynchronous Processing
    - 6.7 Batch Transaction Processing
    - 6.8 Obtaining Result Messages
    - 6.9 Reuse of the XMLife Schema Representing the ACORD Data Model
    - 6.10 Single vs. Multiple Transaction Schemas

# Welcome to the ACORD Life/Annuity Standards Help System!

The ACORD Life/Annuity Standards Help System (ACORD Life/Annuity Standards Help System) was designed to make the navigation and use of the ACORD Life Specification easier. The ACORD Life/Annuity Standards Help System includes the complete specification and is produced from the same source materials as the PDF version of the specification. In addition to the standard content, this help system also provides the following features:

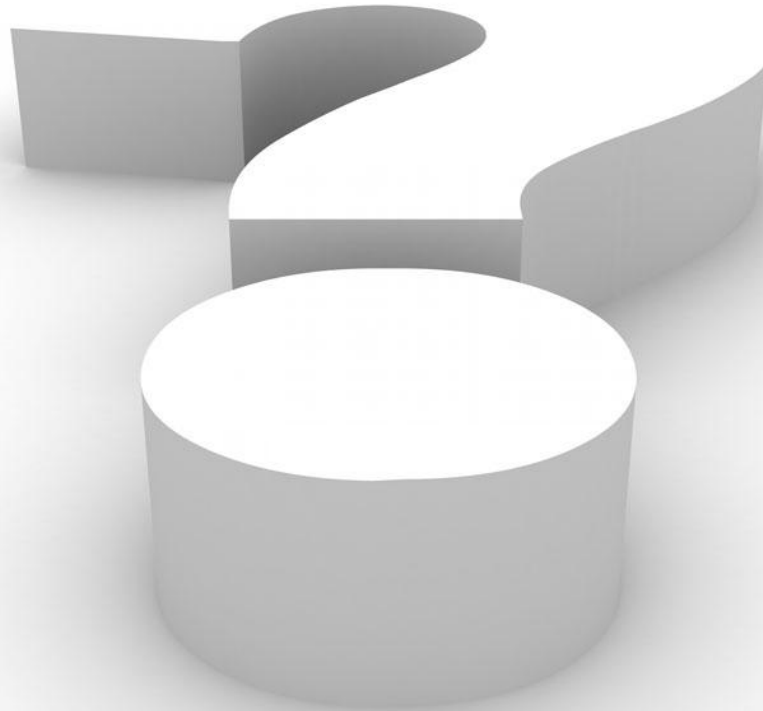
- Complete lists of all the [properties](#), [objects](#), and [lookups](#) defined in the specification. From these pages you can easily navigate to a complete description of the type selected.
- A complete [data dictionary](#) listing the objects and properties by name, their data type and primary description.
- Master lists of the Objects, Properties, and Lookups are available from the [navigation bar](#) at the top of each page in the help system.
- The basic specification has been enhanced with:
  - hypertext links between the properties, objects and lookups
  - a complete list of places the object is used
  - A complete [data dictionary](#) listing all properties and objects including the data type and description of the item.

In addition to these features that are designed into the content, the HTML Help Viewer provides features described in the "The HTML Help Viewer" subject included with this Help system.

## Related Topics:

- [ACORD Life/Annuity Standards Help System Navigation bar](#)
  - [List of Objects](#)
  - [Lists of Properties](#)
  - [List of lookups](#)
  - [A data dictionary](#)
- [Using the Help Viewer](#)

[www.acord.org](http://www.acord.org)





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