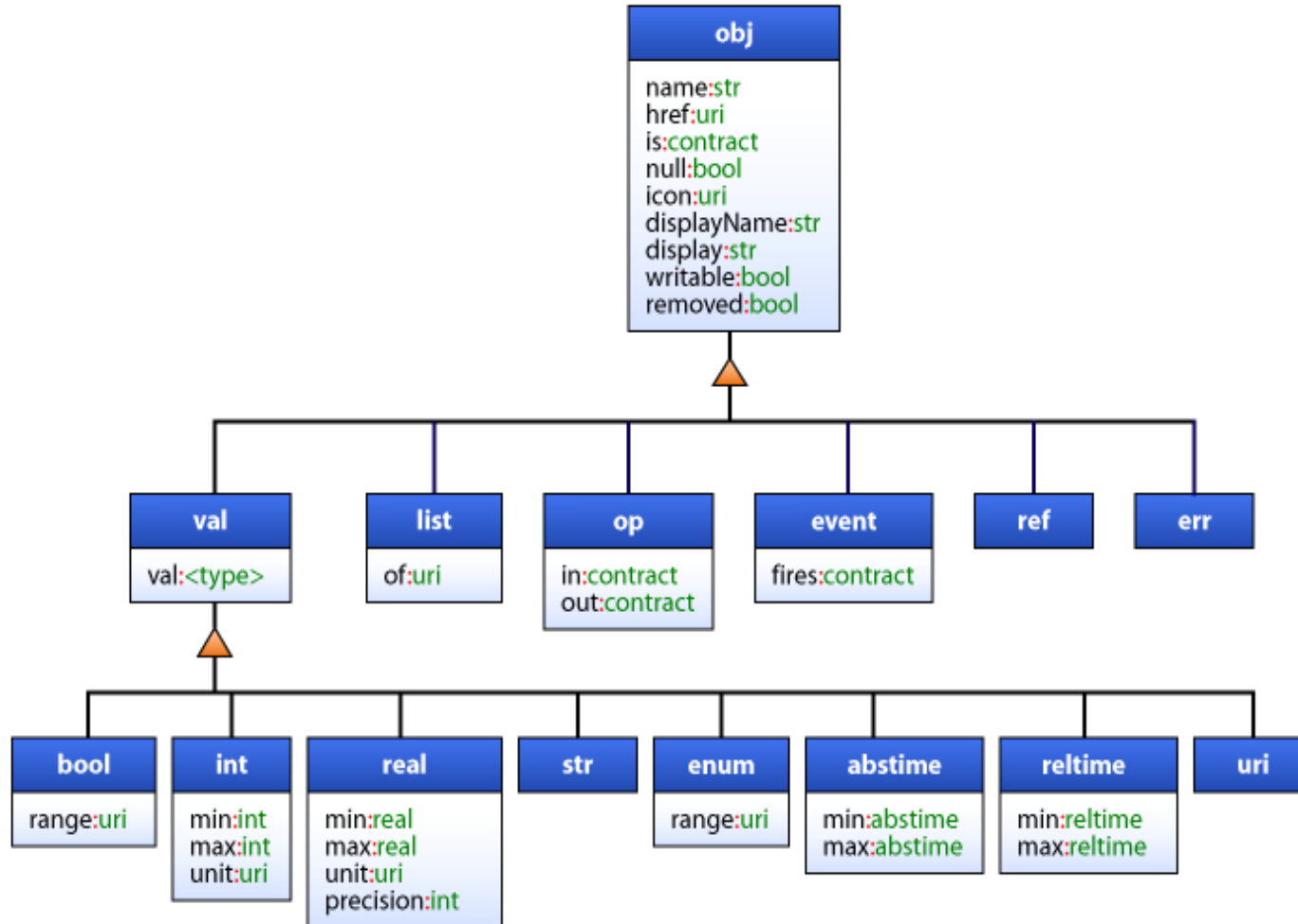


oBIX – a Work In Process

Creeping toward Public Review

- XML standard
- Enterprise friendly protocol
- High fidelity

- Object Model: modeling
- XML Syntax: serialization
- URLs: naming
- Contracts: semantics
- Extendibility: philosophy
- Protocol Bindings: networking



```
<obj href="http://myhome/thermostat/">  
  <obj name="spaceTemp" is="obix:RealPoint ..">  
    <real name="value" val="73.1"/>  
  </obj>  
  
  <obj name="setpoint" is="obix:RealPoint ..">  
    <real name="value" val="74"/>  
  </obj>  
  
  <str name="description" val="In Living Room"/>  
  
</obj>
```

- Uniform/Universal Resource Identifier
- AKA: URLs
- Naming for WWW
- Relative URLs
- Assigning everything with a URL

- Typing/Semantics
- Contract = list of URIs to template objects (is attribute)
- Prototype "inheritance"
- Mixins - multiple "inheritance"
- Tagging – Semantic Web
 - Taxonomy: standard contracts
 - Folksonomy: vendor/user contracts

- Embrace vendor specific extensions!
- Easy to mix together standard and vendor contracts
- Philosophically like Java/C#:
 - Small fixed grammar (obj model/XML)
 - Standard libraries (spec)
 - Vendor libraries (everything else)

- HTTP
 - Read - GET
 - Write - PUT
 - Invoke – POST
- SOAP
 - Wrap read, write, invoke inside SOAP envelope
 - XML Schema
 - WSDL
- Security
- More...
 - Email (SMTP, POP3)
 - Messaging (MQ, JMS)

- Assign every document a URL
- Wire documents together with URLs
- Standard document formats: HTML, GIF, JPEG, SVG
- Semantics: work in progress
- Search: Google / OWL

- Assign every device an IP address and URL
- Assign every piece of data and service in a device a URL
- Wire data together via URLs
- Standard format: oBIX documents
- Semantics: oBIX contracts

- Normalization
- Watches
- Points
- Histories
- Alarming

- Subscription
- Client makes watch via WatchService
- Add/Remove URIs to watch
- Client polls server for changes
- Leased

- Normalized Points:
 - obix:BoolPoint
 - obix:RealPoint
 - obix:EnumPoint
 - obix:StrPoint

```
<obj href="obix:Point">  
  <obj name="value"/>  
  <obj name="status" is="obix:Status"/>  
  <abstime name="timestamp" null="true"/>  
</obj>
```

```
<obj href="obix:Status">  
  <bool name="overridden"      val="false" />  
  <bool name="disabled"        val="false" />  
  <bool name="fault"           val="false" />  
  <bool name="down"            val="false" />  
  <bool name="inAlarm"         val="false" />  
  <bool name="unackedAlarm"    val="false" />  
  <bool name="historyStart"    val="false" />  
  <bool name="historyEnd"      val="false" />  
</obj>
```

- obix:History
- History.query
- History.rollup

- obix:Alarm
- obix:StatefulAlarm
- obix:AckAlarm
- obix:AlarmSubject

- Open source – Public Domain
- Obj API
- XML Encoder/Decoder
- ObixSession
- Obixc
- Swing Tool
- <http://sourceforge.net/projects/obix>

- oBIX goes to Public Review this month
- Transition to least restrictive IP policy offered under OASIS.
- Initial planning for components begins
- Continued deployment of oBIX by early adopters

- <http://obix.org/>
- <http://sourceforge.net/projects/obix>