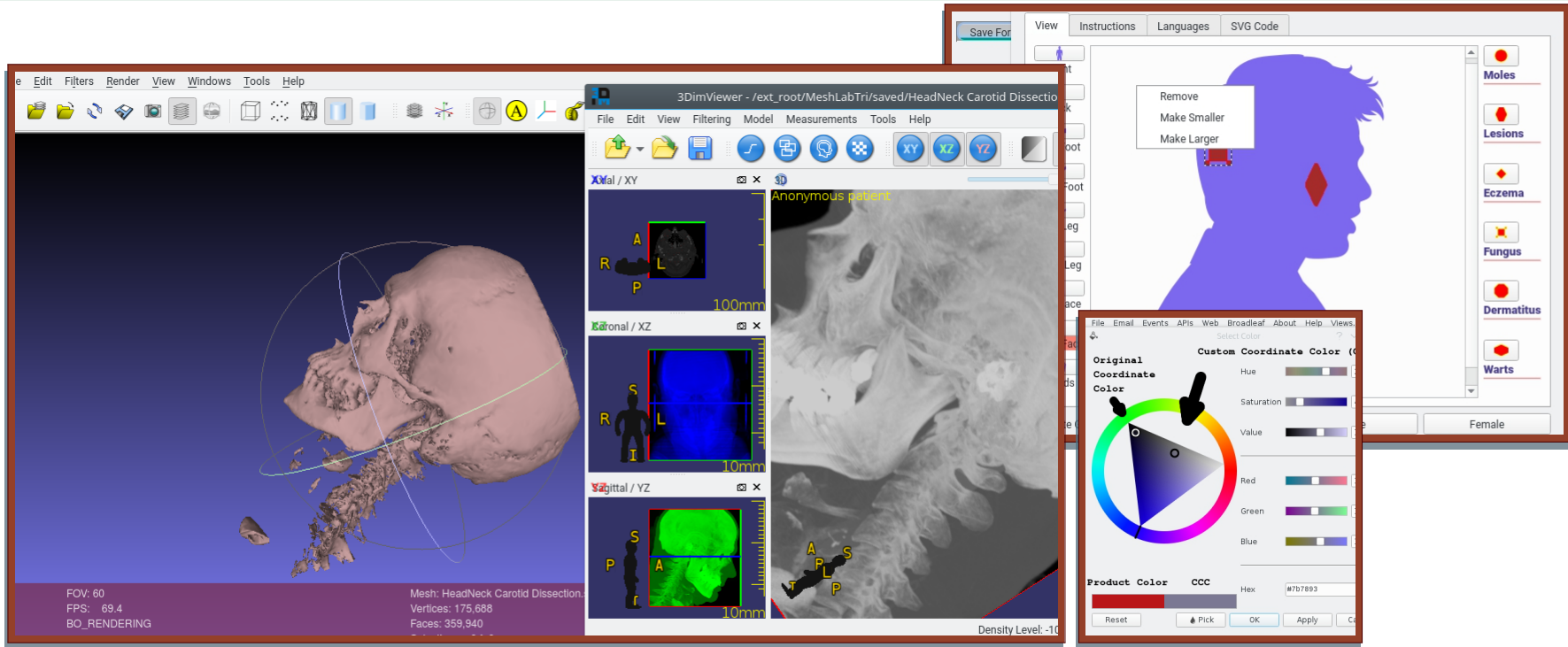


A New Image-Annotation Framework

AXFi

(“Annotation Exchange Format for Images”)



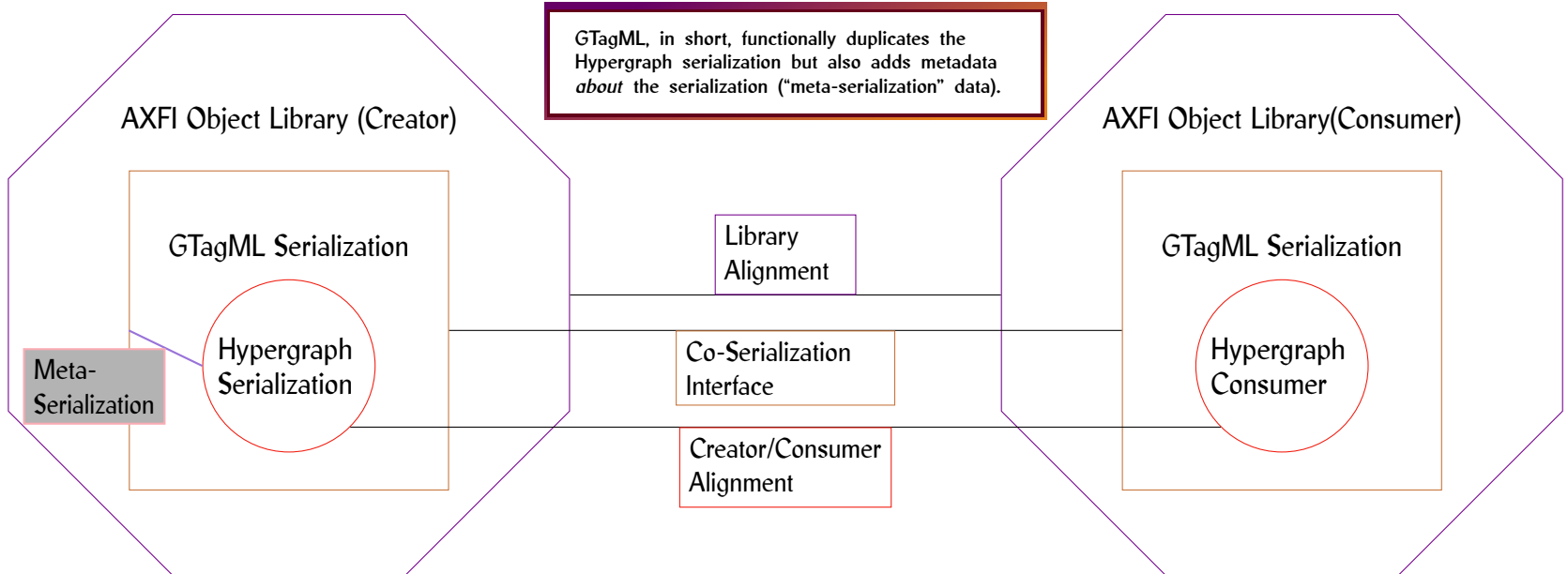
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GTagML (“Grounded” TagML) and Hypergraph Exchange Format

Creator/Consumer Alignment between applications is enforced first by an object-sharing protocol using Hypergraph-based serialization and followed by GTagML serialization.

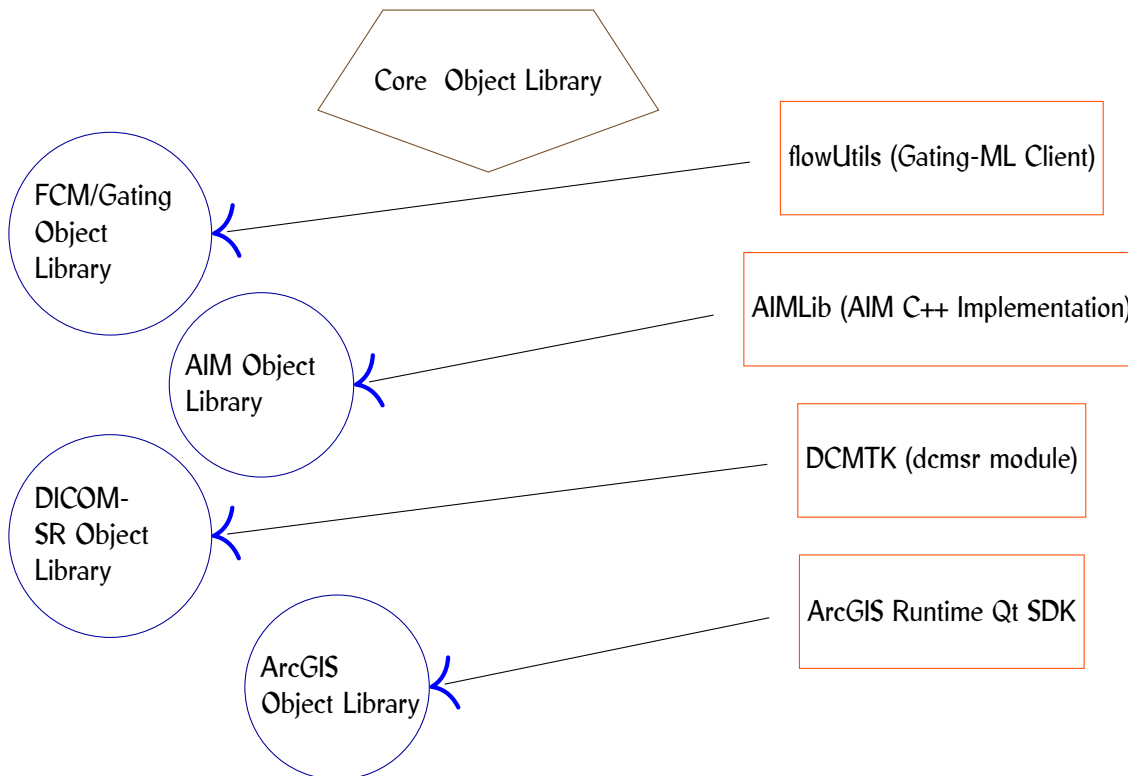
GTagML includes metadata identifying how GTagML nodes relate to data types, object instances, and procedures implemented in the Object Libraries.

GTagML, in short, functionally duplicates the Hypergraph serialization but also adds metadata *about* the serialization (“meta-serialization” data).



AXFI Extended Object Libraries

AXFI extensions for domains such as Flow Cytometry, DICOM, and Geographic Information Systems leverage the GTagML/Hypergraph model while functionally emulating existing “reference” libraries.



For AXFI extensions, the protocol would be to establish a functional equivalence (for maximum adaptability) among Hypergraph serialization, GTagML serialization, and Reference Implementations for markup formats providing the extended semantics being added to AXFI.

AXFI Host Libraries and Application Integration

Complementary to AXFI Object Libraries, AXFI Host Libraries bridge Object Libraries with the applications where they are embedded.

The Host Library therefore shares computational resources with both the Co-Serialization Interface and the host GUI code.

The Host Library adds rigor to the annotation framework by systemitizing HCI protocols and the host Event Model; these models complement the annotation data provided by the Object Library.

Imaging Events

Annotation Events

Sort by:

Geometric

Abnormality



Row: 1 Column: 5 Abnormality: ?

Image Zoom:

Annotations...

Show

Hide

Image and Group Transforms ...

Pan

Zoom

Group Transform

Single Annotation Transforms ...

Pan

Rotate

Zoom



Toward a Unified Event Model

One benefit of merging image-annotation frameworks is that, while the semantic and geometric meaning of annotations varies across scientific fields, HCI protocols (as annotations are viewed and manipulated by users) are largely the same.

