Life Sciences Domain Analysis Model - LSDAM

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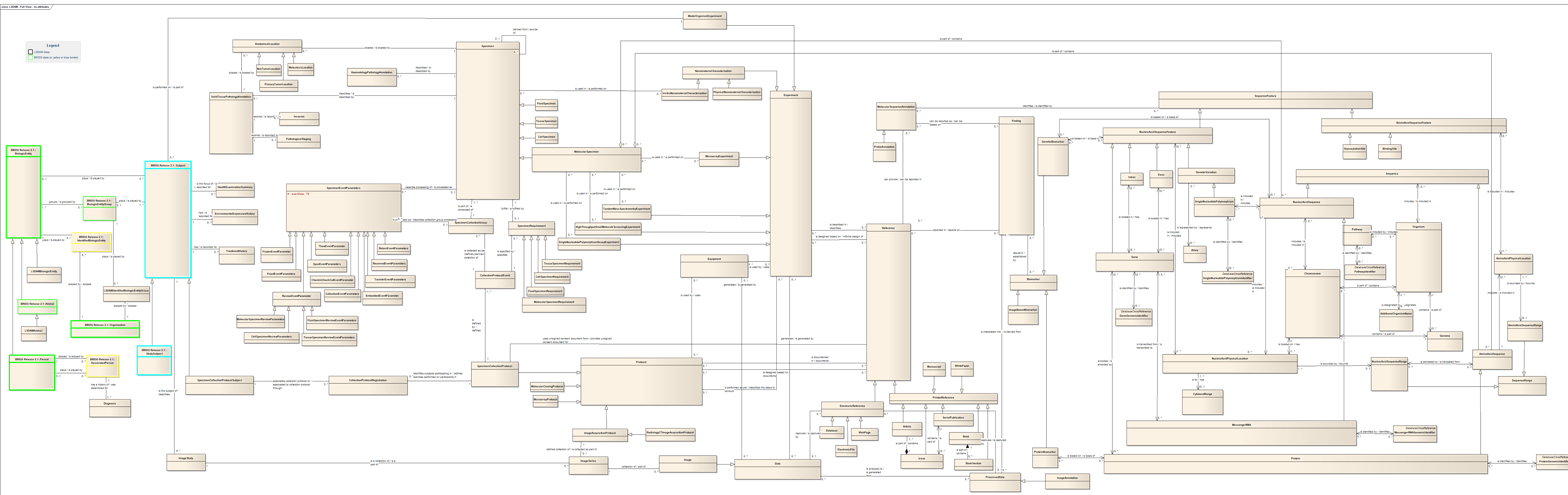
The caBIG® Life Sciences Domain Analysis Model (LSDAM) is a shared view of the semantics of the Life Sciences (LS) domains: Integrative Cancer Research (ICR), Tissue Banking and Pathology Tools (TBPT), and Imaging, and is aligned, where appropriate, with the Clinical Trials Management Systems (CTMS) workspace DAM (that is BRIDG). It is intended to provide the foundation for semantic interoperability among the various applications within the caBIG® Life Sciences domain as well as across to the Clinical Research domain.

Release 1.0 of the LSDAM is primarily focused on elevating the visibility of cross-workspace and cross–application "touch points" within the LS domain. The DAM was built via a bottom-up approach, leveraging existing project implementation models and domain-specific harmonization efforts, scoped by the ICR interoperability (ICRi) scenarios (on gForge at: https://gforge.nci.nih.gov/plugins/wiki/index.php?Use%20Cases&id=512&type=g) and the Life Sciences Governance Team priorities. The model will evolve to support common concepts in a more abstract manner, as common concepts are identified. As the model evolves, it is expected there will be further alignment with BRIDG, and that standards external to caBIG® will be addressed. The initial release of the model will be fully annotated and will undergo a semantic review by the caBIG® VCDE workspace. A future release of the LSDAM will be registered in the NCI cancer Data Standards Repository (caDSR).

LSDAM in caBIG® Life Sciences Workspace

➢ LSDAM harmonization will be part of the standardization process for all projects within the caBIG® LS WS
➢ Provides a template or framework from which project-specific analysis models may be created by constraining or extending the LSDAM as required to support project-specific requirements
➢ Extensions developed to support the project-specific requirements may be used to further extend the LSDAM once they are vetted and approved
➢ Once registered in caDSR, the LSDAM will provide a base set of common data elements that may be incorporated into other models
➢ LSDAM provides a basis for compatibility review by cross-cutting workspace reviewers

Current Status

➢ LSDAM R 1.0 was released in July 2009 and can be found on the LSDAM gForge site:
   https://gforge.nci.nih.gov/plugins/scmsvn/viewcvs.php/requirements/LSDAM.EAP?root=lsdam&view=log
➢ Release 1.0 is bound to the ISO 21090 Data Types standard

Next Steps

➢ Socialize the model within the LS community, collect and address feedback
➢ Evolve the model to build in more abstraction in support of common concepts and further alignment with BRIDG
➢ Build sub-domain-specific views (Specimen, Experiment, etc.)
➢ Harmonize with relevant LS standards external to caBIG® (potentially the HL7 Specimen and Clinical Genomics models, FuGE, MAGE)
➢ Register the LSDAM in the caDSR