



caBIG[®]

cancer Biomedical
Informatics Grid[™]

caLIMS v2: cancer Laboratory Information Management System



caLIMS2

***A Brief Update for
ICR Workspace***

January 26, 2011





caLIMS2

Update for caLIMS v2.0



Today's presentation includes:

- About the development team and community
- Reminder of project description/goals
- Demo of Modules: Administration, Customer Service, Inventory, and Reports
- Project Wiki and JIRA Project: sources for additional information about the caLIMS v2 project
- Timeline and issues
- Questions, suggestions, comments, etc.



Collaboration: LPG and CBIIT

- NCI/LPG: Jenny Kelley, Bob Clifford, Cu Nguyen, Henry Zhang
- CBIIT: Juli Klemm, Robert Shirley, Rachel Shortt
- Moxie Informatics: Sasikumar Thangaraj, Michael Visee, and Mike Connolly
- LS Mentors: Stephen Goldstein, Chris Piepenbring
- SAIC-F: Rod Winkler, Ulli Wagner

caLIMS v2 Development Working Group (DWG): JAX- Abigail Ames/Grace Stafford, IUPUI – Ganesh Shankar, UT – Scott Hunike-Smith, UAZ – Dave Thompson/Nirav Merchant, DFCI – Jomol Mathew/Erica Woulf/Doug Buell, UPenn – Avrum Goodblatt, Dartmouth – Paul Thompson, LabAnswer – Deven Atnoor, UCSF – Mark Bridge/Sudeep Basnet/Alyssa Lalanne, Baylor – David Steffen, NYU SOM – Jose Salcedo

NCI LIMS Consortium – group interested in LIMS development



The purpose of the caLIMS v2 project is to create a research Laboratory Information Management System (LIMS) that is interoperable within established caBIG® standards and guidelines and will track a complete laboratory workflow that uses materials from a specimen management service (e.g. caTissue) to generate experimental results for one of the caBIG® data management services (e.g. caArray).

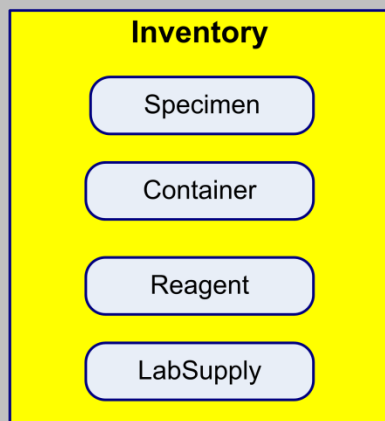
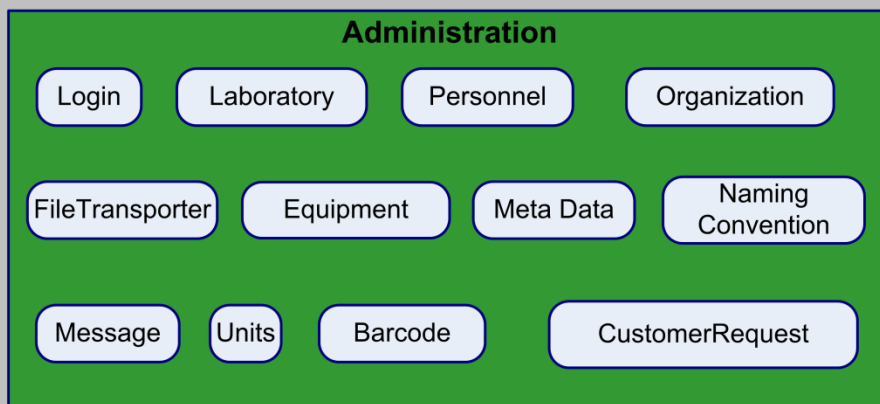


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caLIMS v2.0 Core Modules



caLIMS2 System Modules



Common classes: Audit, Status, Type, Document, Notes, SOP, EnvironmentalCondition, Events, ExternalIdentifier, Safety, Scheduling.



- **Location is combination of several entities:**

- *Location* – address, bldg, room, floor
- *StorageSpace* – compartment, shelf
- *StorageDevice* – freezer, coldbox, LN2 container
- *Container* – rack, box, tube, etc.

Example:

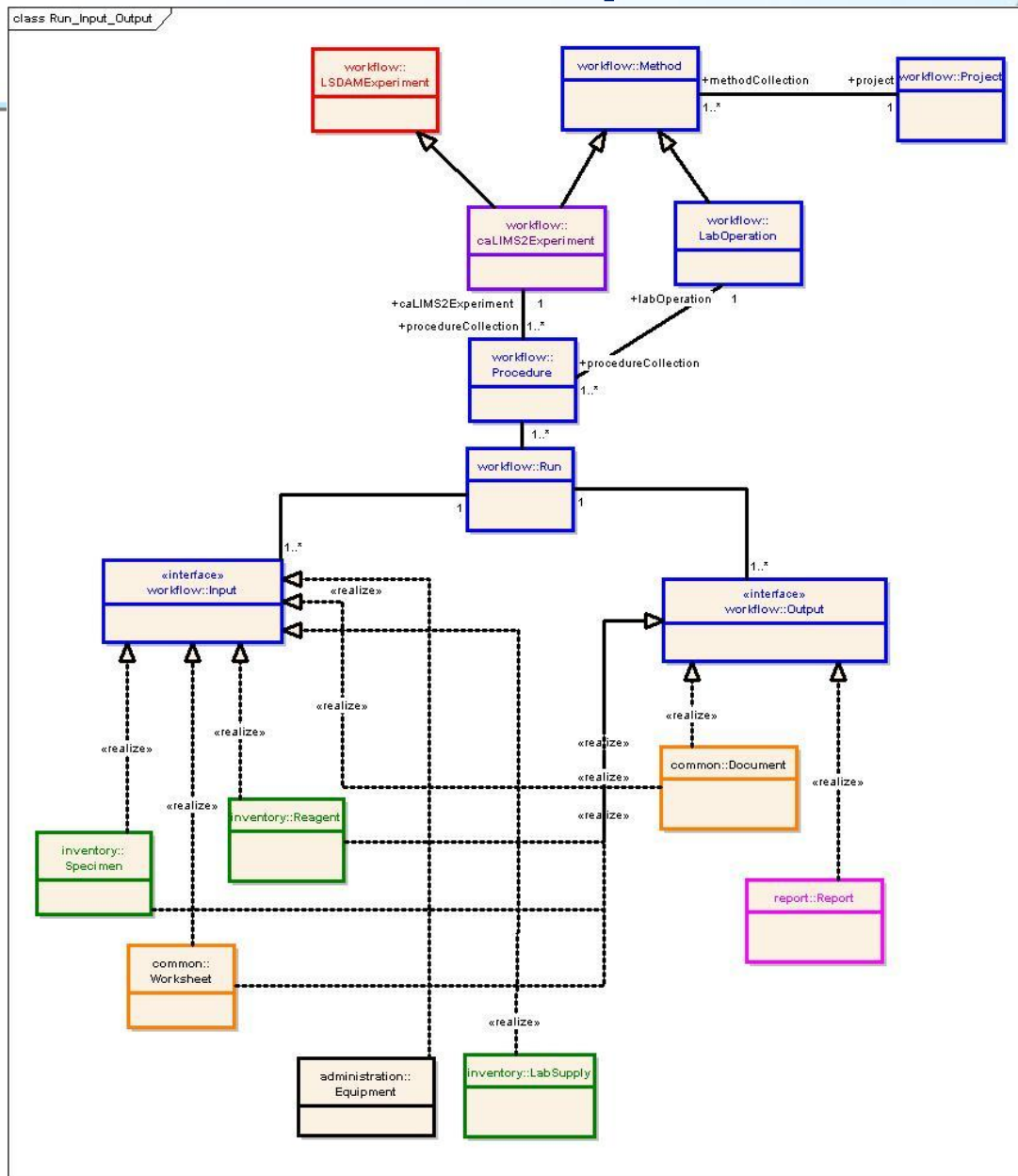
Identify the *StorageDevice*, *StorageSpace* and *Locations* in the following set of associated entities: *Sample*, *Tube*, *Box*, *Rack*, *Shelf_Section*, *Shelf*, *Compartment*, *Freezer*, *Bay*, *Room*, *Suite*, *Floor*, *Building*, *Address*.

Item →	Entity Name
Sample	→ Sample
Tube	→ Container (simple)
Box	→ Container (complex: row/column)
Rack	→ Container (complex: dimension1/dimension2)
Shelf Section	→ Location (child of Shelf)
Shelf	→ Location (internal Location Collection)
Compartment	→ StorageSpace
Freezer	→ StorageDevice
Bay	→ Location (child of room)
Room	→ Location (child of suite)
Suite	→ Location (child of floor)
Floor	→ Location (child of building)
Building	→ Location (parent)
Address	→ ContactInfo associated with Building.



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caLIMS v2.0 OM – Experiment





caLIMS v2.0 OM – Experiment2



- **All types of ‘Specimen’ can act as key specimen and/or as “reagent”**
 - Example: Primers – used as “reagent” in PCR but have properties of nucleic acids
- **Run = Execution of Procedure (step of Method/Assay)**
 - Procedure: Input types (DNA/primers; *.cel)
 - specific Inputs (sampleDNA1/PCR1/PCR2; demo1.cel)
 - Procedure: Output types (PCR product; *.chp)
 - specific Inputs (sampleDNA1PCRprod1; demo1.chp)
 - Procedure: Parameters types (thermocycler program)
 - specific Inputs (1: 95 oC 4 min; 2: 30X (95 oC 30 sec; 65 oC 30 sec; 72 oC 1 min); 3: 4 oC hold)



caLIMS v2.0: Demo of v2.C3I0



- **Demonstration of application**
 - Administration – person, organization, lab, equipment, software, location, etc.
 - Inventory – containers, specimens, lab supplies, etc.
 - Customer Service – customer request, services, service items, rates, accounts, etc.
 - Reports – queries, report design, reports, etc.
- **Remember – still in development!**
 - Still some ‘bugs’
 - Still focused on functionality rather than ‘pretty’



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caLIMS v2 Project: NCI JIRA

<https://tracker.nci.nih.gov>



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Dashboards | Projects | Issues | Agile | Create Issue

caLIMS2

- Summary
- Issues
- Road Map
- Agile
- Change Log
- Popular Issues
- Calendar
- Versions
- Components
- Labels

Summary

Description

LPG caLIMS2 project

URL: <https://wiki.nci.nih.gov/display/caLIMS2>

Lead: [Sasikumar Thangaraj](#)

Key: CALIMS2

Issues: Due

- [CALIMS2-414](#)
Biospecimen 'Create' pages are missing some key Specimen fields
- [CALIMS2-433](#)
Association of Container to StorageSpace and StorageDevice not created
- [CALIMS2-559](#)
List Reports page - add 'Execute Report' action button

Issues: 30 Day Summary

Date	Issues
28-Dec	5
4-Jan	10
11-Jan	15
18-Jan	25
25-Jan	35

Versions: Due

- [Backlog](#)
- [0.1](#)
- [0.2](#)

Activity Stream

January 21 - 1:00 PM

- [Michael Visee](#) changed the Assignee to 'Michael Visee' on [CALIMS2-571](#) (Analysis of requirements for the audit trail implementation)
- [Michael Visee](#) started progress on [CALIMS2-571](#) (Analysis of requirements for the audit trail implementation)

January 20 - 3:00 PM

- [Michael Visee](#) resolved [CALIMS2-574](#) (JTA exception due to Nullpointer error on Human Service)
- [Michael Visee](#) commented on [CALIMS2-574](#) (JTA exception due to Nullpointer error on Human Service) saying:
Error was related to the HumanTaskWorkItemHandler.
When using persistence with JPA, the session must be configured with a CommandBasedWSHumanTaskHandler instead of a simple WSHumanTaskHandler.
- [Michael Visee](#) started progress on [CALIMS2-574](#) (JTA exception due to Nullpointer error on Human Service)

January 20 - 11:00 AM

- [Mike Connolly](#) changed the Assignee to 'Mike Connolly' on [CALIMS2-570](#) (Project CRUD uses cases)
- [Mike Connolly](#) started progress on [CALIMS2-570](#) (Project CRUD uses cases)



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caLIMS v2 Wiki:

<https://wiki.nci.nih.gov/x/2oMYAQ>



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caLIMS2 Wiki Home page

Tools ▾

by [Ann Willey](#), last edited by [Sasikumar Thanagaraj](#) on Aug 23, 2010 ([view change](#))

Contents

- [Overview of caLIMS2](#)
- [Using the caLIMS2 Wiki](#)

Where

- [caLIMS2 Software](#)
- [caLIMS2 Development](#)
- [caLIMS2 Download](#)
- [caLIMS2 GForge project](#)
- [Report Bugs](#)

Content

- [caLIMS2 Wiki Home](#)
- [caLIMS2 Background](#)
- [caLIMS2 Project Goals](#)
- [caLIMS2 Overview](#)
- [caLIMS2 Features](#)
- [caLIMS2 Documentation](#)
- [caLIMS2 Collaborations](#)
- [caLIMS2 Presentations](#)
- [caLIMS2 Development Working Group](#)
- [caLIMS2 Software](#)
- [caLIMS2 Communication](#)
- [NCI LIMS Consortium](#)
- [caLIMS2 Community Input](#)
- [caLIMS2 Deployment Artifacts](#)
- [caLIMS2 Contact Us](#)

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- [caLIMS2 Project Goals](#)
- [Project Background](#)
- [Project Overview](#)
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- [Project Documentation](#)
- [Project Collaborations](#)
- [caLIMS2 Presentations](#)
- [caLIMS2 Software and Development](#)
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Using the caLIMS2 Wiki

This is the wiki home page of **caLIMS2** (Cancer Laboratory Information Management System 2). Project team members may edit this page and add more pages. Any user may add a comment and we welcome feedback!



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caLIMS v2 Project Wiki



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caLIMS2 Development Working Group

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Added by [Jenny Kelley](#), last edited by [Jenny Kelley](#) on Aug 17, 2010 ([view change](#))

Contents

- [caLIMS2 Development Working Group Overview](#)
 - [Meeting Information](#)
 - [Community Input](#)
 - [Special Interest Working Groups \(SIGs\)](#)
 - [Design artifacts and detailed documentation](#)
- [caLIMS2 Development Group Members:](#)

Wiki Content

- [caLIMS2 Wiki Home](#)
- [caLIMS2 Background](#)
- [caLIMS2 Project Goals](#)
- [caLIMS2 Overview](#)
- [caLIMS2 Features](#)
- [caLIMS2 Documentation](#)
- [caLIMS2 Collaborations](#)
- [caLIMS2 Presentations](#)
- [caLIMS2 Development Working Group](#)
- [caLIMS2 Software](#)
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- [NCI LIMS Consortium](#)
- [caLIMS2 Community Input](#)
- [caLIMS2 Contact Us](#)

caLIMS2 Development Working Group Overview

The goal of the caLIMS2 project working group is to provide input and guidance to the development of an open source Laboratory Information Management System (LIMS) that is caBIG® silver compliant and will be easy to customize and extend to support multiple disciplines (genomics, proteomics, etc.) and laboratory types - basic research, clinical research, public health, and core facilities. Communities interested in having input to the design and development of the application or who have an interest in being an early adopter are welcome to join!

To join the working group, send email request with full name, affiliation, and email address to [Jenny Kelley](#) or to [Bob Clifford](#).

Meeting Information

There are regular working group meetings on the first and third Tuesdays of the month at 1 pm Eastern time. Communication is through these meetings and meeting notes, this wiki, and the NCI LIMS Consortium List-serve. We anticipate having a community Forum site set up within this Wiki site sometime in the near future. Development meeting notes can be found on our GForge site using this link: [caLIMS2 DWG meeting notes](#). If you would like more information or would like to join the DWG, please contact [Jenny Kelley](#) or [Bob Clifford](#).

Community Input

For additional ways to contribute input to the caLIMS2 Development team, please see the: [caLIMS2 Community Input page](#). We are now gathering laboratory workflow examples from our community which will guide the development team as they create template laboratory workflows for the caLIMS2.

Special Interest Working Groups (SIGs)

More information on the caLIMS2 SIGs can be found on the SIG pages:
[Interface SIG \(ISIG\)](#)
[Business Information Management, Object Model, Analysis, Barcode & RF SIGS](#)

Design artifacts and detailed documentation

Design artifacts and detailed information can be found on the [Documentation page](#).

caLIMS2 Development Group Members:

Project/Affiliation	Name	Email
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caLIMS v2.0: project timeline – as of 1/26/11



- Use case model - completed
- Logical model – completed and submitted to caDSR
- caLIMS v2.0.0.5M1 (sample inventory search only) – released
- caLIMS v2.0
 - Funding for FY2010: 1 lead architect + 2 full time resources
 - Q1 – completion of v1.0 OM and submission to caDSR- done
 - Q2 – Construction began (Infrastructure + Administration module (Aug. 24, 2010))
 - Q3 – Inventory, Customer Service and Report modules
 - Q4 – Workflow module: on hold pending budgeting issues
 - **2011 Q1/ early Q2 – release Milestone caLIMS v2.c3l0 with admin, inventory, customer service, and report functionalities and appropriate documentation**
 - 2011 Q3 – best case scenario, beta release caLIMS v2.0 with basic workflow functionalities added (caLIMS v2.0 DWG members/early adopters)



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caLIMS v2 - communication



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ents

- Overview of caLIMS2
- Using the caLIMS2 Wiki

ware

- caLIMS2 Software
- caLIMS2 Development
- caLIMS2 Download
- caLIMS2 GForge project
- Report Bugs

Content

- caLIMS2 Wiki Home
- caLIMS2 Background
- caLIMS2 Project Goals
- caLIMS2 Overview
- caLIMS2 Features
- caLIMS2 Documentation
- caLIMS2 Collaborations
- caLIMS2 Presentations
- caLIMS2 Development Working Group
- caLIMS2 Software
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caLIMS v2 NCI GForge site:

<http://gforge.nci.nih.gov/projects/calims2>

caLIMS v2 JIRA: <https://tracker.nci.nih.gov>

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1) NCI Laboratory of Population Genetics, 2) Moxie Informatics



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caLIMS v2: Update end



- Questions, suggestions, comments, etc.