Galaxy sample tracking streamlines the delivery of data from sequencing runs to customers
how?
example facility process

- A customer submits a sequencing request to a facility and delivers the samples, selecting a data library for the run results
example facility process

- A customer submits a sequencing request to a facility and delivers the samples, selecting a data library for the run results
- The facility bar codes the samples, scanning the tubes at each station in the lab
example facility process

• A customer submits a sequencing request to a facility and delivers the samples, selecting a data library for the run results

• The facility bar codes the samples, scanning the tubes at each station in the lab

• The customer can watch the progress
example facility process

- A customer submits a sequencing request to a facility and delivers the samples, selecting a data library for the run results.
- The facility bar codes the samples, scanning the tubes at each station in the lab.
- The customer can watch the progress.
- When the run is complete, the resulting data is transferred to the requested data library.
who does what?

customer

create Galaxy sequencing request → add samples → submit request

facility manager

transfer datasets to Galaxy data library ← update sample states ← assign barcodes to samples

Sunday, May 16, 2010
example sequencing request lifecycle

<table>
<thead>
<tr>
<th>State</th>
<th>Description</th>
<th>Last Update</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Received</td>
<td></td>
<td>27 minutes ago</td>
<td>bar code scanner</td>
</tr>
<tr>
<td>Run Started</td>
<td></td>
<td>Feb 25, 2010</td>
<td>bar code scanner</td>
</tr>
<tr>
<td>Library Complete</td>
<td></td>
<td>Feb 25, 2010</td>
<td>bar code scanner</td>
</tr>
<tr>
<td>Library Started</td>
<td></td>
<td>Feb 25, 2010</td>
<td>bar code scanner</td>
</tr>
<tr>
<td>Sample Received</td>
<td></td>
<td>Feb 25, 2010</td>
<td>Sample added to the system</td>
</tr>
<tr>
<td>New</td>
<td></td>
<td>Feb 25, 2010</td>
<td>Samples created.</td>
</tr>
</tbody>
</table>

Select the new state of the sample from the list of possible state(s)

- Sample Received (Current)

Comments

Optional

Save
transferring the data

- Remote file browser to select datasets on the sequencer and transfer them to the requested Galaxy data library
What if my facility does things differently?
You define the process

• The layout of the request and sample forms is defined by the lab and can be changed over time
You define the process

- The layout of the request and sample forms is defined by the lab and can be changed over time

- Lifecycle “states” of the request are defined by the “stations” in the lab
You define the process

- The layout of the request and sample forms is defined by the lab and can be changed over time
- Lifecycle “states” of the request are defined by the “stations” in the lab
- Bar code scanners can be used, but manual data entry is also supported
You define the process

- The layout of the request and sample forms is defined by the lab and can be changed over time.
- Lifecycle “states” of the request are defined by the “stations” in the lab.
- Bar code scanners can be used, but manual data entry is also supported.
- Configure the sequencer information for communication with Galaxy.
You define the process

- The layout of the request and sample forms is defined by the lab and can be changed over time.
- Lifecycle “states” of the request are defined by the “stations” in the lab.
- Bar code scanners can be used, but manual data entry is also supported.
- Configure the sequencer information for communication with Galaxy.
- Permissions to submit requests is granted to specific users.
What if my facility uses a LIMS? Will it work with Galaxy?
Yes!

- Galaxy sample tracking complements existing LIMS applications, it is not intended to replace them.
Yes!

- Galaxy sample tracking complements existing LIMS applications, it is not intended to replace them.

- Galaxy uses a generic messaging engine with a very simple XML api for communication with the sequencer. This same messaging engine can communicate with a LIMS application.