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A Drupal Module for Room Reservations Using 25Live

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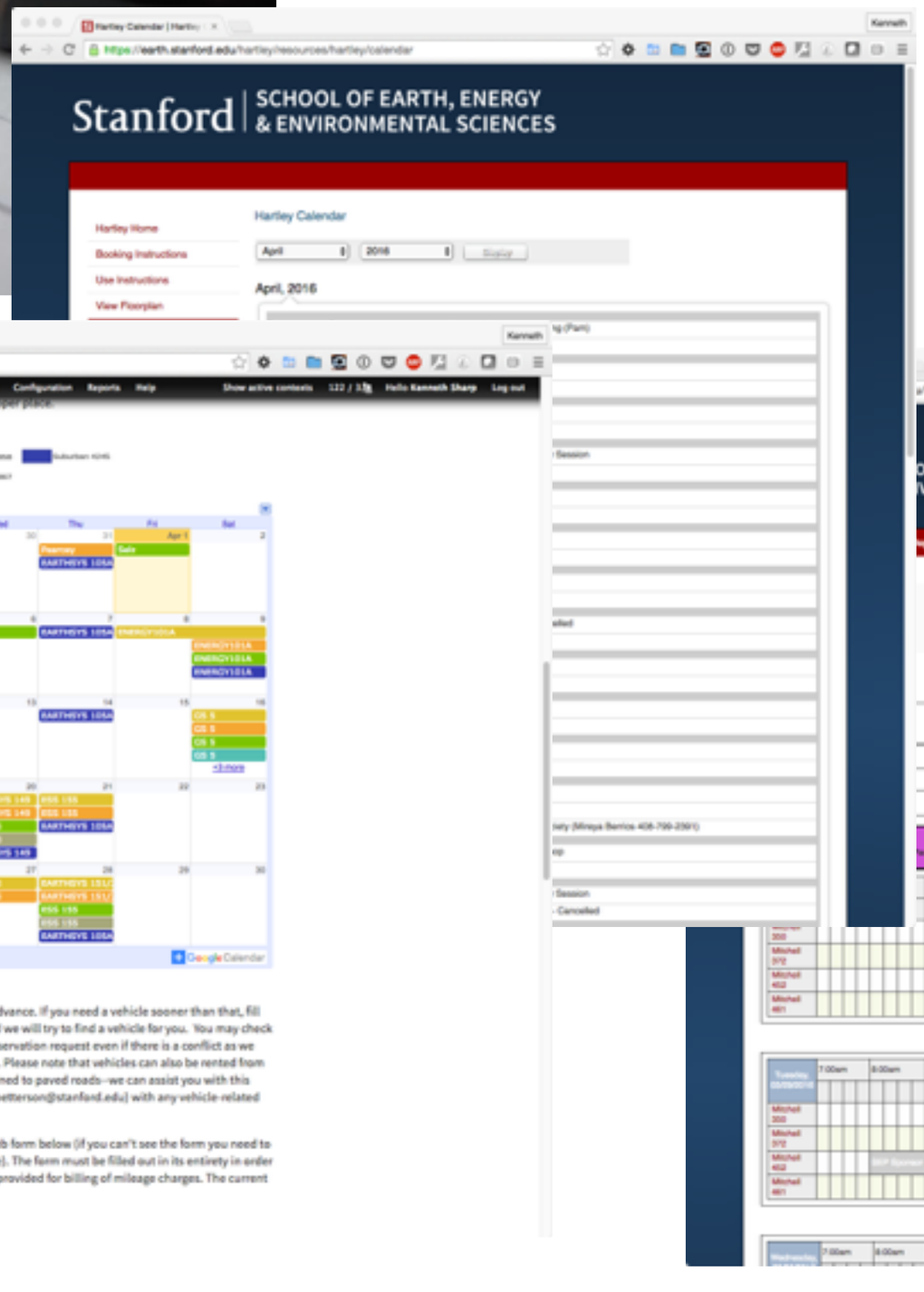
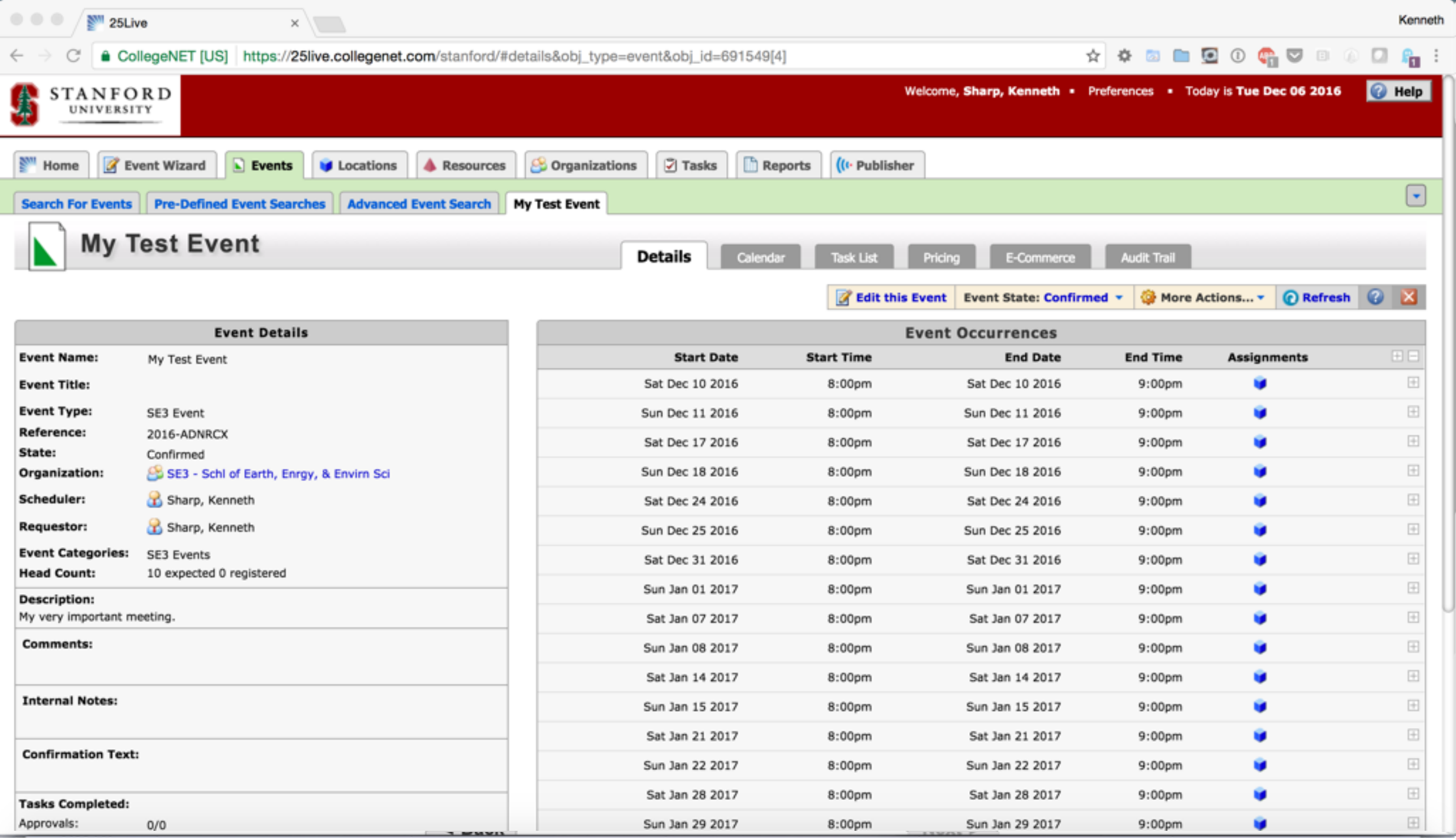
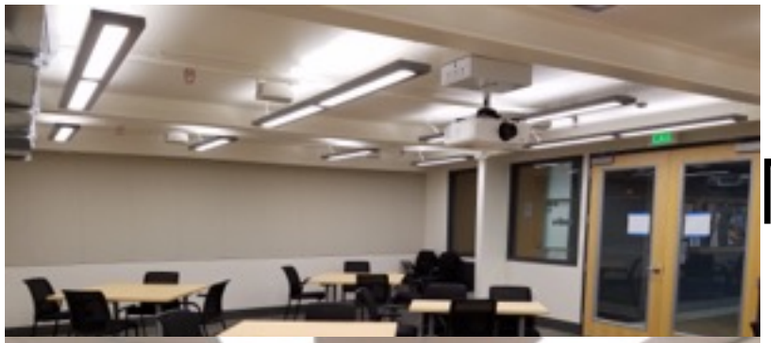
Bookable resources managed by variety of applications: Pen&Paper, Google Calendar, PHPScheduleIt, Drupal 6.x, etc.

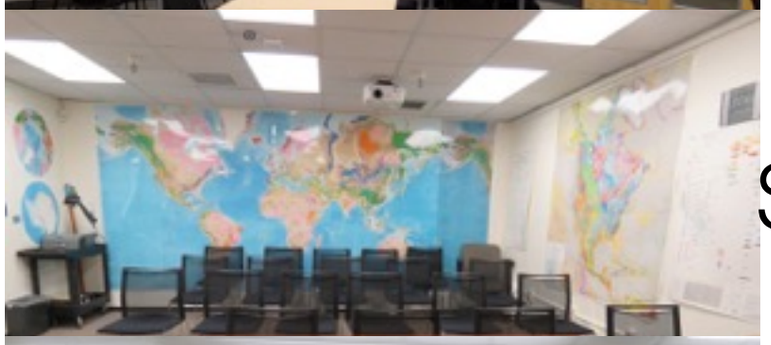




- Powerful, but complex with many options and features.
- Complicated security and workflow configuration.
- Requires training to use effectively.



Meeting Rooms



Seminar Rooms

Teaching Labs

Event Spaces

Vehicles

Each room type has its own rules for

- who can reserve,
- for how long,
- under what constraints,
- at what cost,
- and with whose approval.

- Not practical for all Stanford Earth faculty, staff, and students.
- Only admin staff will have direct access to 25Live.
- How will others reserve rooms?

Meeting Rooms (reservations needing no approval):

From 25Live:

Stanford Earth admin staff may reserve/cancel rooms for complex (recurring, multi-day, or multi-location) events.

From Drupal page:

All Stanford Earth associates may login and reserve rooms for one-time events of up to 4 hours.

Rooms/Vehicles/Event Spaces (any needing approval):

From 25Live:

Only members of R25 Security Group (Stanford Workgroup) who "own" the room may reserve in 25Live.

From Drupal page:

All Stanford Earth associates may login and make tentative reservation for rooms for one-time events of up to 4 hours. Email sent (by Drupal, not 25Live) to members of room-owning security group to confirm/deny reservation. 25Live "To Do" task created for members of room-owning security group.

Some rooms may honor "blackout dates" set in Drupal module. Different from 25Live blackout dates.

Computer Lab:

From 25Live:

Only IT manager group may reserve space via 25Live.

From Drupal page:

Read-only calendar view.

Hartley Conference Center:

From 25Live:

Only Hartley manager and backup admins may view/reserve space or confirm/deny requests via 25Live.

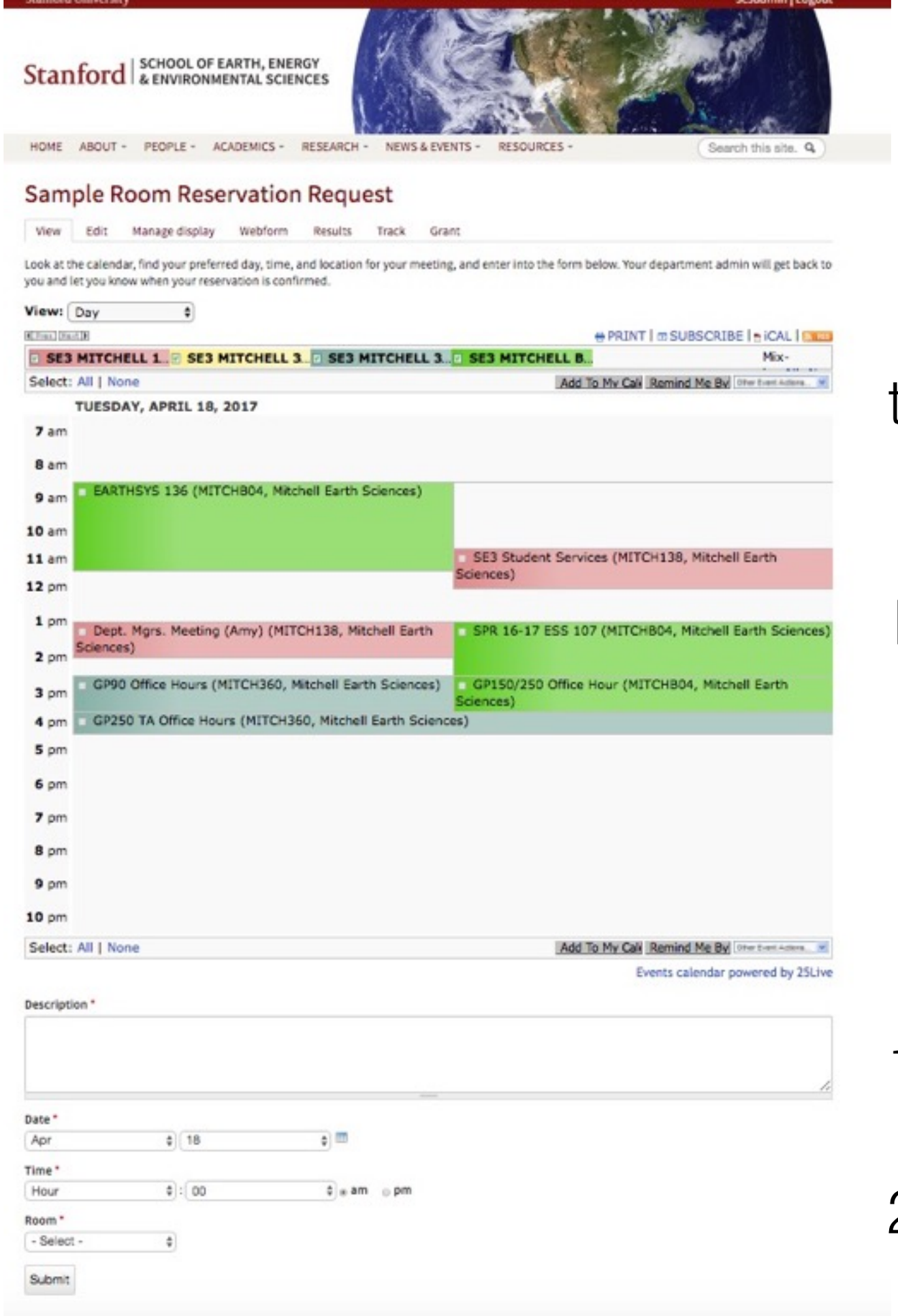
From Drupal Page:

All Stanford University associates may login and make tentative reservations. Non-SE3 associates must provide PTA for billing. Other event attributes added to Drupal form. Cost calculated from 25Live price sheets for inclusion in confirmation email.

Let's Integrate with Drupal!

Why?

1. Most Stanford Earth websites are Drupal.
2. It's a CMS *and* an application framework.
3. Deep familiarity with Drupal API (Maslow's Hammer).
4. Rapid deployment within Stanford Earth.
5. Large potential user base in Drupal community.



Attempt 1:

25Live Publisher “spud” displays read-only calendar along with a Drupal web form to email request to department admin.

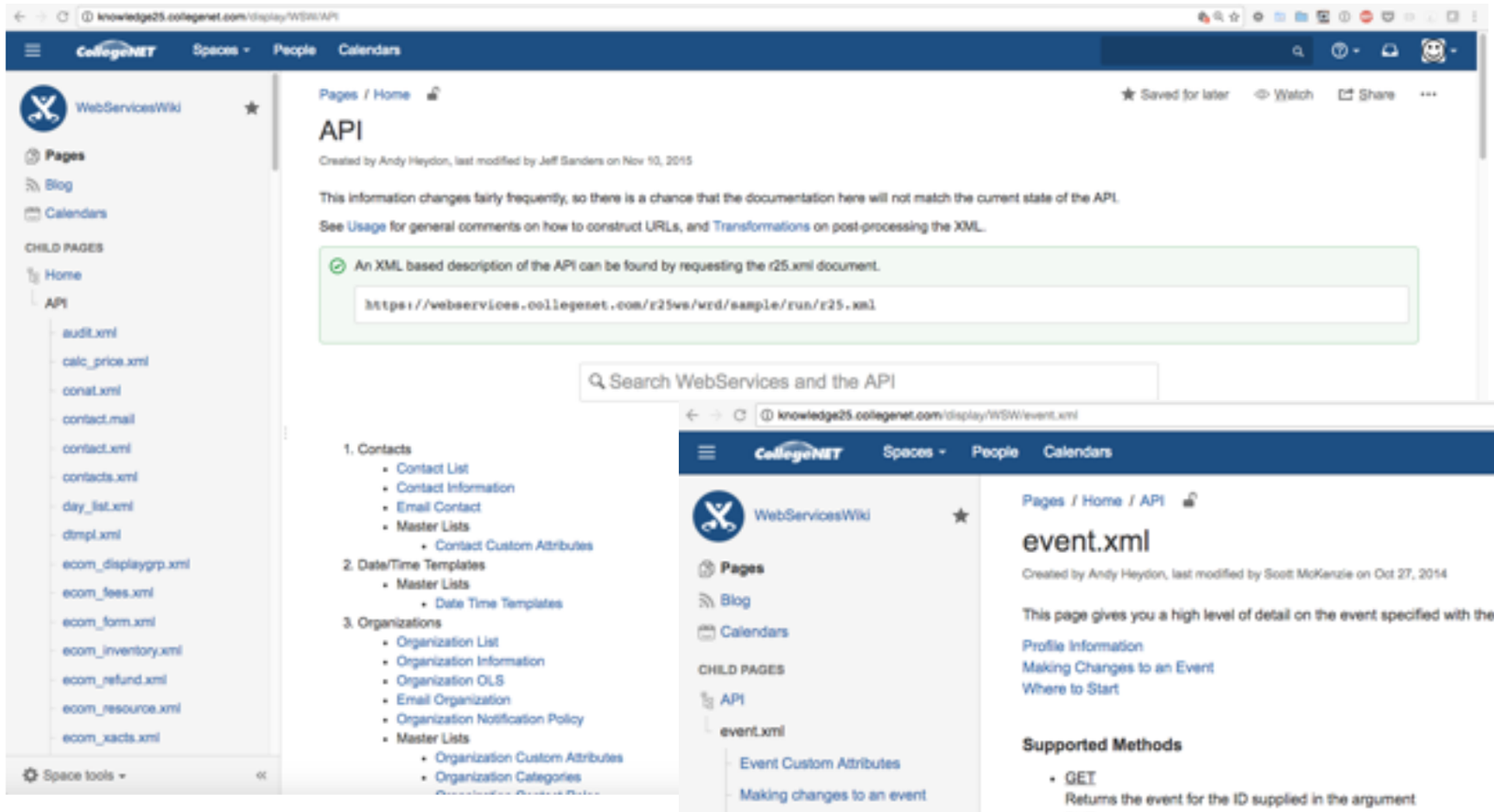
Department admin then books room in 25Live and notifies user that room has been reserved.

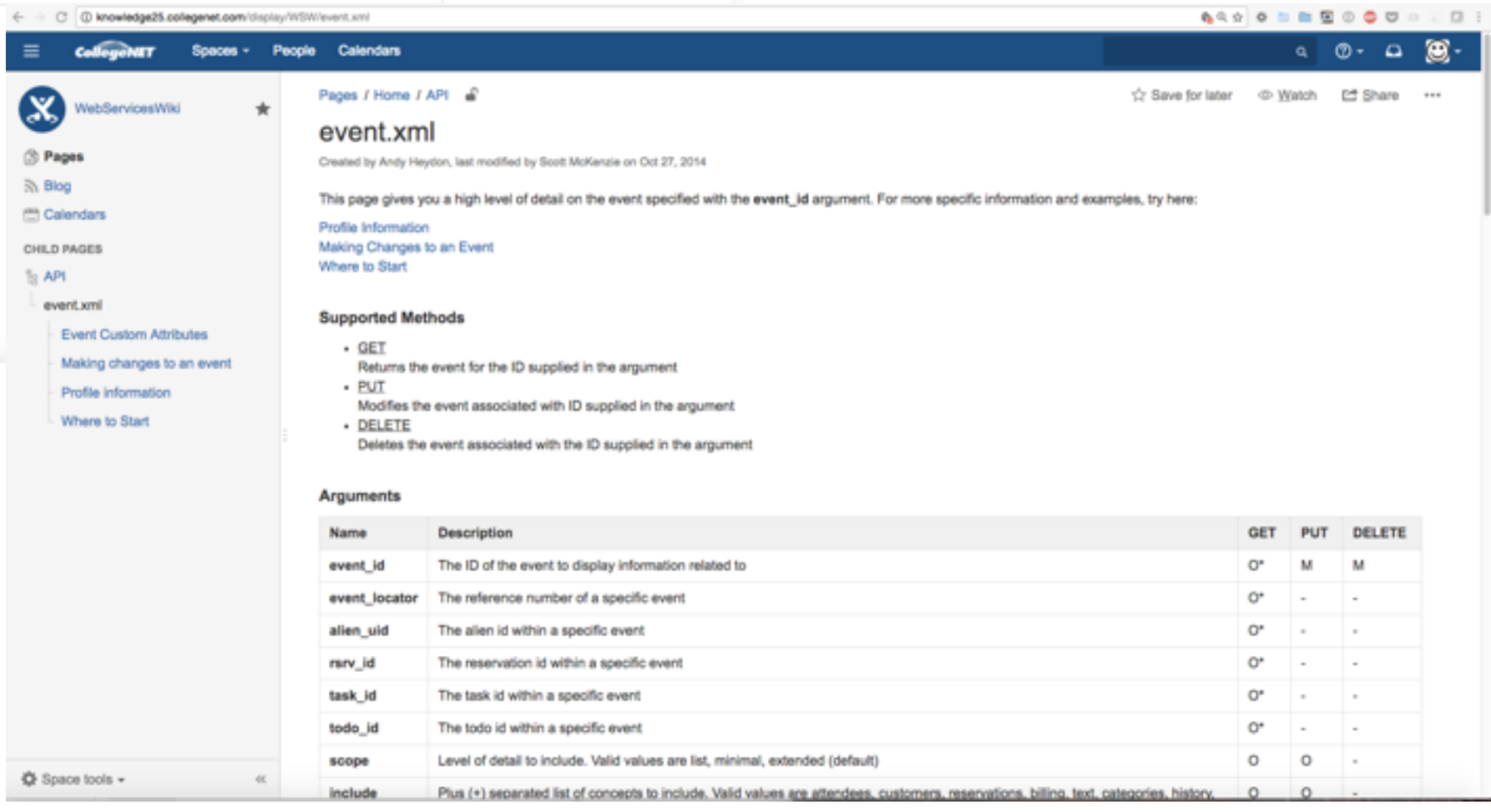
Problems:

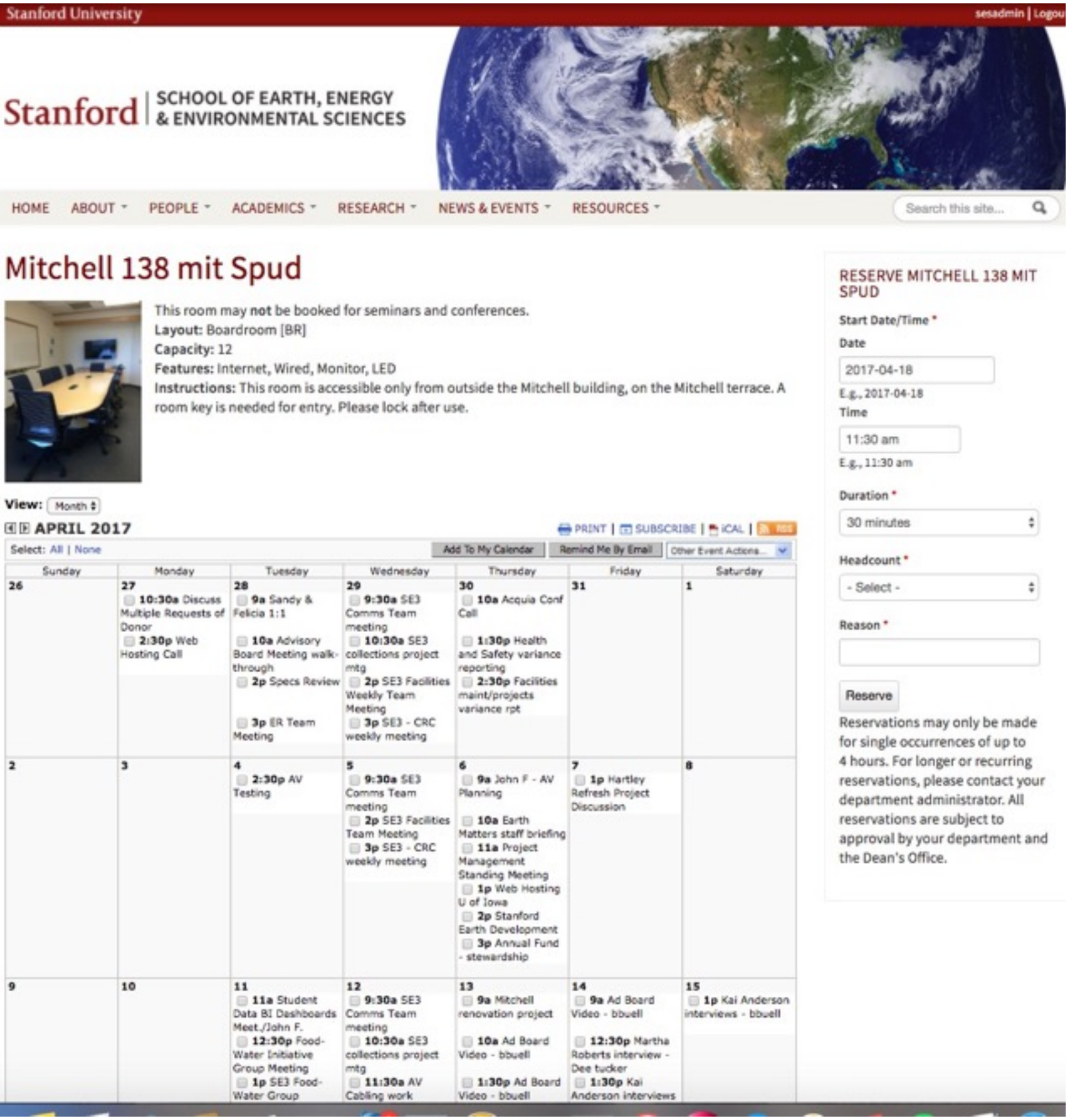
1) Admins hated it because more work for them.
2) Users hated it because no immediate feedback.

25Live Web Services API

- RESTful, XML-based
- One can build complete custom front end to 25Live







Attempt 2:

25Live Publisher “spud” displays read-only calendar along with a Drupal custom form to reserve room via 25Live API.

Solves Problem 1: no extra work for admins.

Problem 2 remains: no immediate feedback for users. Spuds take 15-20 minutes to update.

Stanford University

sesadmin | Logout

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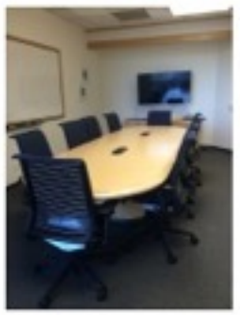


This room may **not** be booked for seminars and conferences.
Layout: Boardroom [BR]
Capacity: 12
Features: Internet, Wired, Monitor, LED
Instructions: This room is accessible only from outside the Mitchell building, on the Mitchell terrace. A room key is needed for entry. Please lock after use.

< > today **Apr 16 — 22, 2017** month week day

	SUN 4/16	MON 4/17	TUE 4/18	WED 4/19	THU 4/20	FRI 4/21	SAT 4/22
6am							
7am							
8am							
9am		9:00 - 10:00 EI team meeting		9:30 - 10:30 SE3 Comms Team meeting			
10am		10:30 - 12:00 E-IPER Match Meeting			10:00 - 12:00 EI Full team meeting		
11am			11:00 - 12:30 SE3 Student Services				
12pm							
1pm			1:30 - 2:30 Dept. Mgrs. Meeting (Amy)				
2pm				2:00 - 3:00 SE3 Facilities Team Meeting			
3pm				3:00 - 4:00 SE3 - CRC weekly meeting			
4pm							
5pm							

RESERVE MITCHELL 138

Start Date/Time *

Date

2017-04-18

E.g., 2017-04-18

Time

03:00 pm

E.g., 03:00 pm

Duration *

30 minutes

Headcount *

- Select -

Reason *

Reserve

Reservations may only be made for single occurrences of up to 4 hours. For longer or recurring reservations, please contact your department administrator. All reservations are subject to approval by your department and the Dean's Office.

Attempt 3:

At server, get list of events from 25Live API, format as needed by FullCalendar, and feed to browser.

Populate form by click&drag on calendar.

Happy, happy, joy, joy.

25Live Application

25Live Database

Drupal Block

Drupal Form API

FullCalendar Select

25Live API

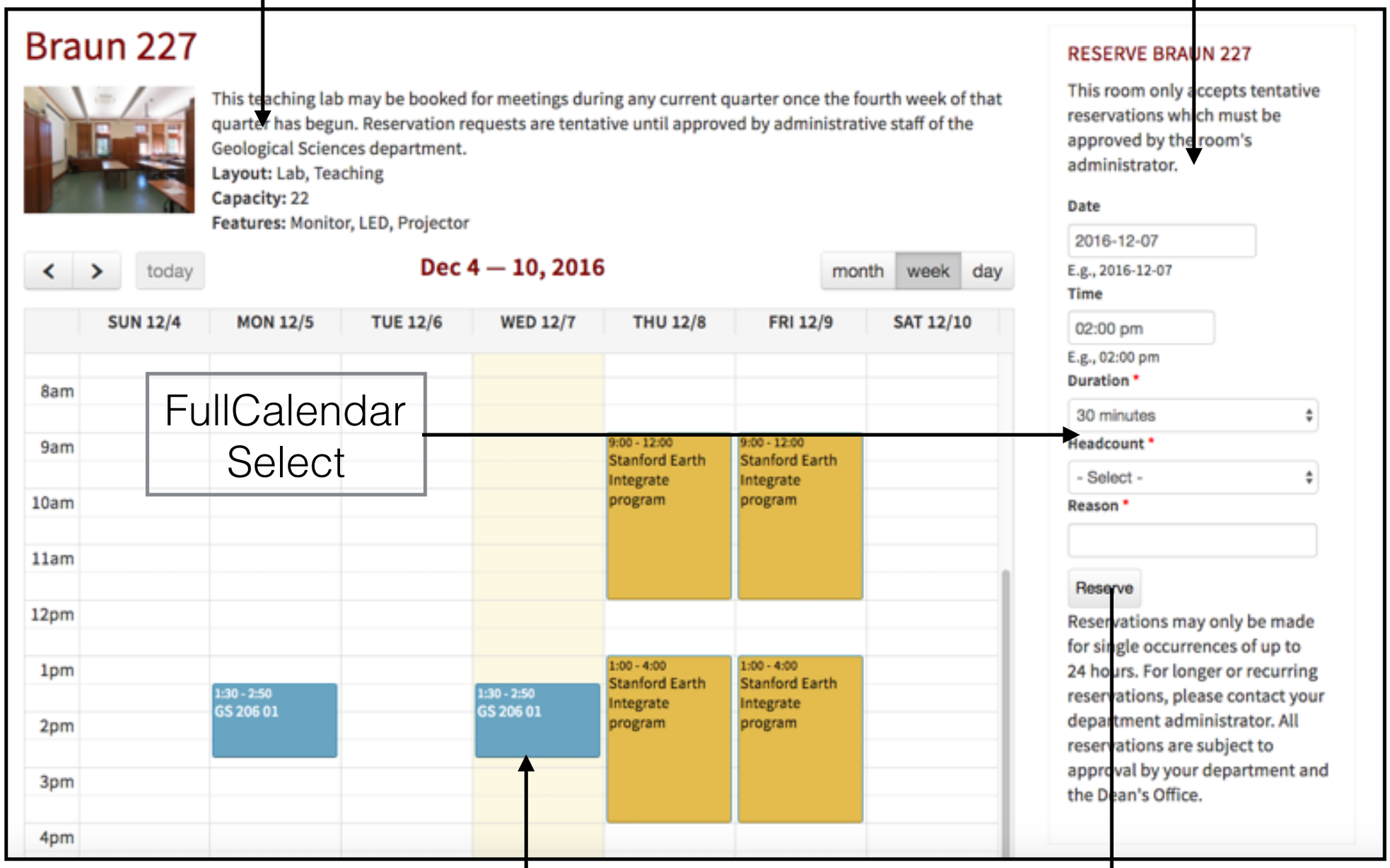
events.xml

R25 Drupal module

jQuery/ FullCalendar

event.xml

Drupal Form API



What still needs doing?

1. Move some functionality to platform-agnostic library.
2. Migrate to Drupal 8.
3. Replace WebAuth awareness with SAML awareness.
4. Improve config to populate select lists with locations from 25Live instead of making user input location codes.
5. Make use of short-term caching to store reservation data.
6. Define rooms as entity objects.

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Module is available at:
https://code.stanford.edu/ksharp/stanford_r25

Thank you!

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