Education Technology Project Database
and
Payroll System

Notes: The term project and task can be used interchangeably as they pertain to this documentation, and in the moodle interface.

Adding Users: Users first need to be added via the following 2 step process;
1. The student worker must be enrolled in the appropriate course via the standard moodle interface for doing so.
2. From the course the student is enrolled in you must visit the "Timesheet Info" section accessed via the "Timeclock" block. You must then choose the new student via the drop down box "Edit Timesheet Information" and fill out the "Staff Editable" portion of the form.

Creating a project:
Projects can be created through the standard moodle interface for adding modules, however it is preferred that projects be created via the project request form as there is checking for required fields that are not enforced through the standard moodle interface due to limitations in the moodle modules API. Creating a project via the moodle interface will not be covered. Once a project is created you will be able to view a project by clicking on its respective link. This will take you to the project instance, where you will see an overview of the project.

Project Overview: Most of the fields are self explanatory, but I will review a few for clarity.
Start Date: Will default to the first time punch associated with a project. If there are no punches associated with the project then it will default to the requested date.
End Date: Will default to the last time punch associated with a project. If there are no punches associated with the projects then it will default to the start date.
Gantt Chart: This is a quick overview of the project. Sub-projects and events will show up here as well.
Team: This is a quick overview of the team members and their associated roles for the project. This is also a quick way to email all team members for a given project via the quickmail block.
Forum: Every project has a forum associated with it. This is to facilitate collaboration and discussion with a history of communication.

Generic Project	
Description	This is a parent project. To develop some LMS stuff.
Requested Date	03/23/06
Start Date	03/23/06
End Date	03/23/06
Contact	Firstname Lastname Department Email Phone
Status	Active
Manager(s)	
Students Served	10
Project is for a distance ed course	Yes
Task Type(s)	• LMS Development
Parent	None
Sub tasks	None
Priority	Normal
Projected Hours	20.00 + 0.00 Child Task Hours = 20.00 Total Hours
Billed Hours	0 Hours 0.00% of projected hours
Gantt Chart	
Forum	Add a new discussion topic (There are no discussion topics yet in this forum)

Figure: Project Overview

Project Request Form: $CFG->wwwroot/mod/task/request.php

The following is an overview of the project request form.

"Have you requested a project with us in the past": This defaults to yes and hides a form that has the users contact information. The setting of this is not critical as the contact is checked upon form submission to see if they exist in the contact database.

HSU id or email: This field should be preferably filled out with the users hsu id, if they are a non-campus user then this field should be there email address. If the user is not in the database it will prompt them to fill out their contact information regardless upon form submission.

Project type: This input area consists of two columns of checkboxes that reflect the type of project that this is. If boxes in the leftmost column are checked the project will go to CDC, and boxes in the rightmost column will create a project for A/V. If boxes from both columns are checked then there will be two separate projects created one for A/V and one for CDC. These will be used for reporting purposes, and may help for internal project tracking.

Description: The user will input a description of the project. This field is un-editable after project creation so that there is an exact copy of the project request in case we need to refer back to the details at a later date.

I agree: This is a policy related checkbox that will disallow form processing unless this is checked.

Figure: Project Request Form

Project Queue: $CFG->wwwroot/mod/task/queue.php?course=$courseid
There is a hidden link at the top of both courses to the corresponding project queue. This is hidden so that student workers do not see the link. Projects that are in-queue will show up in section 3 of your course. Active projects will show up in section 2, and non-active projects will

be hidden from view. These will be accessible via the project reports/overview. Upon first going to the project queue you will see a list of all projects in the queue, with the requested date, the person who requested it, the description, and a link to update the project. Clicking on "Update" will allow you to process that project in the queue. The following is an overview of the project queue form.

Name: This is the name of the project the default is the username followed by the first 30 characters of the description as submitted via the project request form. Obviously this should be changed to something more meaningful, but should allow for quickly finding a project by user that is still in the queue.

Contact: This is a dropdown box that corresponds to the contact information. This will link to a record so that if a users contact information changes we only need change it in one place. This was identified as a major problem in the old project database as some users had over 30 accounts. The contact information will be updateable via a contact update interface once this is implemented.

Description: This information is static after creation, if any information is inaccurate that needs to be updated via the notes section. This way we have a record of what exactly was requested by the user.

Status: This will update the status of the current project. If you choose 'cancelled', or 'finished' you are required to fill out the notes section to explain why the project has an inactive status.

Manager: This field (or sub-project) is required. This will give a staff contact for the project, this will also be the person that is required to provide weekly status updates. There will be a weekly reminder sent to remind project managers of any projects with an active status that have not been updated within the last week.

Students Served: This field is required. This should be an accurate reflection of how many students are affected by the project in question.

Project for a distance Ed course: This should indicate whether or not this project is for a distance education course or not.

Project is a sub-project of: If this project is a sub-project of another project please indicate here. If this field is set then the manager field is not required, as that will be gleaned from the parent project.

Projected Hours: This should be an estimate of how many hours the project will take to complete.

Team members: This multi-select box (hold ctrl or command on the Mac to select multiple users) is where you can set team members for the project. Keep in mind that once a project's status is no longer in-queue students will NOT be able to log hours against that project unless they are a team member of that project AND the project has an non-inactive status type (cancelled, finished). If there are no in-queue projects and a student is not a team member for an active project they will NOT be able to use the timeclock until this situation changes.

Task Types: Please correct the settings to reflect the actual nature of the project.

Notes: Please include any additional information or add corrections to the description field here.

Events: This section will allow you to add events to the associated projects. This feature is mostly for AV, but could be useful for CDC as well. There is also an event-queue "bidding" screen that is available as outlined.

Event Queue: $CFG->wwwroot/mod/task/eventqueue.php?course=$courseid

This is where student workers will be able to "bid" on events that are occurring. An event will show up in the event queue if there is no user associated with it. By "bidding" on an event the user is associated with the event and added as a team member for the associated project if they were not already a team-member. Here is an overview of the event queue form. The event ID is listed as well as the Start Date/Time, End Date/Time the duration in hours as well as the description and a link to the associated project. A student bids on an even by checking the associated checkbox(es) and then clicking the "Register for Selected Events" box.

			Event Queue			
Take Job	Event ID	Start Date	End Date	Duration (Hours)	Description	Project
☐	168	2006-04-23 [13:52]	2006-04-23 [13:52]	0.00	Meet with Joe Faculty and determine what should be done.	Generic Project
☐	169	2006-03-23 [14:11]	2006-03-23 [14:11]	0.00	Meet with faculty development group	Generic Project
☐	170	2006-03-30 [14:11]	2006-03-30 [14:11]	0.00	Meet with faculty development group	Generic Project
☐	172	2006-04-13 [15:11]	2006-04-13 [15:11]	0.00	Meet with faculty development group	Generic Project
☐	173	2006-04-20 [15:11]	2006-04-20 [15:11]	0.00	Meet with faculty development group	Generic Project
☐	171	2006-04-06 [15:11]	2006-04-06 [15:11]	0.00	Meet with faculty development group	Generic Project
			Register for Selected Events			

Figure: Event Queue

Timeclock/Payroll:

Payroll Overview: This section will give an overview of all punches for the given selected date range. This defaults to the current month. You can also choose to print timesheets from here, which will open up a new window for each student with an associated timesheet. You can also choose which group you wish to use if they are setup for your course.

	Start Date		End Date		
	03/01/2006		03/31/2006		
	View User	All Users			
	View Selected Date Range				
	Print Timesheets				
		User, Admin			
		Pay Student From Account:	Choose...		
		Week of 03/12/2006 to 03/18/2006			
Edit	Status	Date	Time In	Time Out	Hours	Pay
✎	✔	03/17/2006	10:00 AM	04:00 PM	6.00	$49.50
				Sub-Total	6.00	$49.50
				Total	6.00	$49.50
		Confirm Pay Period Accounts			

Figure: Payroll Overview

Pay Period: 03/01/2006 to 03/31/2006							
Student Name: User, Admin							
Workstudy: No							
WEEK	PUNCHES				HOURS	RATE	PAY
03/12/2006 to 03/18/2006	Date	Time In	Time Out	Hours			
	03/17/2006	10:00:00	16:00:00	6.00	6.00	$8.25	49.50
				TOTAL	6.00	$8.25	49.50

Timesheet info: There are two sections for this form. The admin will see both sections, but the student will only see the bottom section. The following will give an overview of both forms broken down by who can edit them. Please note that a staff member will have to enter the Staff portion of the form **before** the student can use the student portion of the form. This is covered above in the add user section. Fields that are obvious or require no user input will be skipped in the following description.

Staff:

Student ID: Fill this in with the student ID.

SSN: This field is here, but should not be used as the requirements for storing SSN's has not been investigated, and will most likely either be not possible or restricted to a two-way encryption system.

Department: Select which department the student belongs to.

Status: Indicate whether the student is an active or inactive employee.

Hire Date: Indicate the date that the student was hired.

Starting Wage: Indicate the starting wage for the student, after this is input the wage is fixed, and will be a record of their starting wage.

Raise History: This will show the history of pay rates and the date the new rate was effective. (Note that this shows up after information is input for the first time)

Current Wage: The current wage that the student is making. Change this value to give a raise. (This only shows up after information is input for this first time)

Staff Editable	Staff Editable
Username: jdoe	**Username:** admin
Student ID:	**Student ID:** 123456789
SSN:	**SSN:**
First Name: John	**First Name:** Admin
Last Name: Doe	**Last Name:** User
Email: john.doe@127.0.0.1	**Email:** root@127.0.0.1
Department: Choose...	**Department:** CDC
Status: Choose...	**Status:** Active
Hire Date: 04/07/2006	**Hire Date:** 03/23/2006
Starting Wage: 0	**Termination Date:**
Save changes	**Starting Wage:** $8.00
	Raise History: Amount Date 8.25 03/23/2006
	Current Wage: 8.25
	Save changes
Figure: Staff editable timesheet info (new)	Figure: Staff editable timesheet info (existing)

Student: (A past record is not kept of this information it is only what is current)

Term: The student will input the term (spring, summer, fall) and the year for which the information is pertinent.

Units: The number of units the student is taking.

Undergrad/Grad: Indicate whether the student is an undergraduate or a graduate student.

Other departments working for: The student needs to indicate if they are working for any other departments on campus.

Work Study: Indicate whether the student is paid for work-study.

Work Study Award: Indicate the amount of the work-study award.

Student Schedule: This is an array of checkboxes where the student will indicate their weekly schedule this will be used to determine the over/under hours report as described later.

Figure: Timesheet info student view

Reports/Overview: The following is a brief overview of the reporting functionality that will be available, and the status of development.

Project Overview: You can get to the project overview by going to any project and then clicking on "tasks" in the breadcrumb trail. Below is the form for filtering which projects you would like to see. The following is a brief overview of the form elements.

- Course: This is which course you would like to see projects from; or if you would like to see projects from all courses
- Group: Will filter based on groups if the course selected has any groups. This may show "No groups Available" like in the screenshot if the selected course does not have any groups.
- Project Name: This field will search through the project names and descriptions to find any projects matching the string given
- Manager: Filter projects by who is managing them.
- Staff: Filter projects by student worker.
- Staff Status: This defaults to "Active" meaning that only active students are shown, those enrolled in the course. "Active/Inactive" will show all users associated with a project regardless of their current status.
- Contact: Filter projects based on the project contact
- Contact Department: Filter projects based on department
- Project Type: Filter based on the type of project
- Project Status: View projects with selected projects only. This is the only way to view archived or inactive/finished project.
- Billable: Show only those projects that are billable.
- Start/End Date: These fields default to the current month and will show you all projects that were requested within the given date range or have had hours logged against them in the given date range.

Figure: Project Overview Filter Form

The following shows the headers that will be visible on the project overview screen. As can be seen from the diagram all columns can be sorted with the exception of "Type" and "Team" because they can have multiple items in them.

Project Name ↑↓	Billable ↑↓	Type	Requested Date ↑↓	Start Date ↑↓	End Date ↑↓	Name(first↑↓, last↑↓)	Contact Email ↑↓	Department ↑↓	Team

Figure: Example project report query headers

Payroll Reporting: The following reports are available via the timetracker.
- Monthly student assistant hours
- Monthly student hours by unit

- Monthly student assistant hours by student
- Student assistant hours from date x to date y
- Active student assistant list with pay rate, next scheduled review/raise, start date and projected termination date
- Archived student assistant list (done via profiles page)
- Student assistant semester schedule

Project Checking/Monitoring: The following features will be implemented to insure that we are obtaining quality data, staying current with project information and employees are working the hours they are scheduled to work.

Weekly reports:

- Weekly status report for project managers. On a weekly basis projects will be monitored and checked to see if they have been updated in the last week to reflect their status. If a project has not been updated within a week an email will be generated to the project manager listing all of their active projects that have not been updated within the last week.
- Hours reported for students that worked 15% more or less than there scheduled hours. For instance this is +/- 3 hours for a student scheduled to work 20 hours. The following is a screenshot of the weekly hours report. The rows will highlight red if the absolute value of the percent difference is greater than 15, that is, if they worked 15% more or 15% fewer hours than they were scheduled to work. The negative value on the percent difference column indicates that the student in question worked fewer hours than they were scheduled. To get to this screen you must go through the timetracker block and click on the 'hours' tab. This is available only if you are an admin. A value of 9,999 indicates that they were not scheduled for any hours but they worked (this avoids a divide by zero error).

Week: 03/21/2006

View Selected Date Range

Weekly Report 03/21/2006

User	Scheduled	Worked	Percent	Percent Difference
	19.00	16.36	86.11	-13.89
	0.00	0.00	100.00	0.00
	15.00	14.35	95.67	-4.33
	16.00	20.05	125.31	25.31
	20.00	2.55	12.75	-87.25
	0.00	0.00	100.00	0.00
	19.00	16.92	89.05	-10.95
	17.00	18.14	106.71	6.71
	0.00	10.13	9,999.00	9,999.00
	12.00	10.23	85.25	-14.75
	0.00	0.00	100.00	0.00
Total	108.73	118.00	92.14	-7.86

Figure: weekly hour report

Daily Reports:

- A daily project queue update will happen at 8:00PM informing the respective areas that there are projects in the queue that need attention. This report will be mailed out to the teachers for the course.

Potential Additions for a Later Date:

- Add billing component with associated accounts
- Automatically subscribe/unsubscribe project team members to associated forum.
- Add gantt option to show user punches, and different display options.
- Invoicing
- Others?