

# Paper Copy to Online — The Push to Get Employees into the 21<sup>st</sup> Century

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## ABSTRACT

With so many students working in the Computing Sites in this technical age, why are so many of us still trying to push paper copies of anything? In an attempt to move from the historical paper-pushing for employee timesheets, personal data, scheduling and inventory, the Information and Access Technology (IAT) Services Computing Sites at the University of Missouri-Columbia has created CSIS, Computing Sites Information System. This tool handles shifts/schedules, clock-in/out, timesheets, site and staff information, sites hardware and software inventories as well as many other pieces of information. Our paper and presentation will discuss the features of CSIS and how we are leaving the paper-pushing world behind and entering the world of technology for our Computing Sites employees and management. A web-based system gives not only management, but also student employees more flexibility giving the employees a tool they can access; manage schedules and personal information at any time. CSIS also allows us the flexibility to evolve and build the tool and its many different pieces as we move into the future and away from the paper-pushing age.

## Categories and Subject Descriptors

H.4.1 Office Automation

**General Terms:** Documentation, Management, Performance, Standardization, Verification.

**Keywords:** Student management, technology, inventory, administration, employees, students, lab management, scheduling, web database.

## 1. INTRODUCTION

As IAT Services Computing Sites at the University of Missouri-Columbia expanded we began to employ more and more students. The paperwork for the employees, the bi-weekly timesheets, and keeping track of personal information became a challenge to keep up with. With mounds of papers stacked up and no system in place to manage it all, what do we do? What about the countless number of machines and software in the Computing Sites? The paper stacks got higher and higher. Why are the Computing Sites still pushing

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paper for everything we do when we live in the 21<sup>st</sup> century with new technology surrounding us? So, with some brainstorming, CSIS, Computing Sites Information System, was born. CSIS is a web-based tool to control everything from employee schedules and timesheets to employee contact information and the inventory of our sites. CSIS has become a vital part of the Computing Sites.

## 2. COMPUTING SITES INFORMATION SYSTEM

The Computing Sites Information System (CSIS) is a web page located at <http://iatsites.missouri.edu>. A Computing Sites employee would log into the page to access the actual site. Once an employee of the Computing Sites has logged in, CSIS will welcome the employee by showing their name and log in time. It will also show a table with the sections we will be discussing in this paper and their associated links. With this web page CSIS has allowed us to take everything from timesheets and scheduling of our employees to hardware and software inventory and roll it up into one web-based form. Permissions for CSIS are given when an employee is hired, and based on their position; certain access to areas of CSIS is given. CSIS is broken down into the following categories:

### 2.1 Payroll Management

The payroll management section includes features for clocking in and out; switching shifts, mass clock in and out and view manage timesheets.

The Clock In/Out/Switch function allows a student to clock in or out of a shift, thus electronically recording the times actually worked. No paper is used to track the hours an employee works because of this. Switch was incorporated into this feature because many of our employees work shifts that are back to back. The switch function allows employees to click one time and clock out of their first shift and into the second shift. It is the employee's responsibility to clock in and out of their shifts on time.

Mass Clock In/Out allows full-time staff and limited student positions to clock in a group of people at one time; the benefit of this is obvious. With more than 100 employees, manually entering meeting and training attendance data for all participants could take hours

Another important part of the payroll management section is the timesheets. CSIS will allow employees and staff to look at timesheets. This benefits the employees by allowing them to view and track the hours worked not only weekly, but for a pay period. CSIS also allows employees to request timesheet corrections. For example if someone forgot to clock out, they can go into CSIS and adjust their own timesheet. Anytime a timesheet is adjusted, an e-mail is sent to that employee's Site Coordinator, who decides if the change will be accepted or denied. With the timesheet automation,

we have taken out the need to print out timesheets. CSIS will e-mail each employee bi-weekly with the hours worked. At this time, each student is responsible for verifying if the total of hours worked is correct. If the total is incorrect, the employee is responsible for e-mailing their Site Coordinator.

## 2.2 Shift Management

Shift management allows us to view and manage everything from where and when employees are currently working, to when they clocked in, as well as the employee's semester schedule. It also allows the Site Coordinators to see who is consistently posting and claiming shifts, in case schedule changes need to be made.

To manage where and when employees are clocked in and working, we have a link called the Duty Roster. This link shows us who is clocked in, where they are supposed to be working, and where they clocked in.

In the Support Center the Support Specialist monitors the duty roster at the beginning of every shift to ensure that all of our sites are covered and that everyone is where they should be. If someone is not clocked in or something looks strange, the Support Specialist can then have a fellow Support Specialist go to the site and investigate or call and find out why the Consultant is not at work. Besides showing the name of the employee that should be working it also tells us what Computing Site they should be in and what time the actual shift starts. If an employee is clocked in there will be a green IN next to the employee's name as well as what time and where they clocked in. If an employee is not clocked in at the time the shift starts a red Not Yet will indicate this. This feature helps us determine where employees are, since our Computing Sites are all over campus.

Under Shift Management, the employees can also check their schedules. When an employee's schedule is made, it is created for the whole semester excluding breaks and holidays. By doing this, each employee has a consistent schedule that they work all semester. The schedule is based on availability submitted prior to the start of the semester. Giving a semester-long schedule means that we have to be flexible when course schedules change or projects come up. By giving the employee the option of looking at their schedule either by the summary or weekly views, employees can post any shift that might conflict with another engagement. Posting a shift allows other employees to pick up additional hours by claiming any shifts that have been posted. Once an employee claims a shift, they become responsible for working that shift.

The Unclaimed Shifts link contains available shifts, which have been posted by the student employee, or are special project shifts. If someone is not able to work an assigned shift they can post that shift. A link to Unclaimed Shifts allows other employees to see what shifts have been posted. Once a posted shift has been claimed by another employee, CSIS e-mails the employee that posted the shift letting them know that it has been picked up, thus excusing them from working the shift. CSIS then puts the newly claimed shift onto the weekly schedule for the new employee. When an employee picks up a shift, their name is tied to that shift and they are expected to work it. By placing the shift on their weekly schedule, the student can easily check to see when they are working and where. It is the employee's responsibility to make any shift they are scheduled to work.

## 2.3 Communicate

Because communication is very important in the Computing Sites, we incorporated a simple e-mail client as well as a way to access the On-Call Site Coordinator. As our sites are open many hours and have a large number of employees, this allows everyone in the Computing Sites to contact each other if needed.

The e-mail client is only for those who are employed by the Computing Sites and have access to CSIS. The client includes everyone who works for the Computing Sites; their names are visible so that one can easily select someone from the list. The client also includes a subject line and place to type in the e-mail message. This is very helpful, since not everyone can remember the first and last names of all the Computing Sites employees and searching through the university address book can be a challenge. By listing all employees in the Computing Site a person can easily e-mail another employee. It is important and strongly suggested in training that this list not be spammed and used only for work-related purposes. It is a tool given to make e-mailing another employee much more convenient.

The On-Call feature allows the on-call Site Coordinator to be reached at any time in case of an emergency. There are times that the Computing Sites can not be fully staffed or something goes awry, and for that reason, the Site Coordinators rotate an on-call phone. The On-Call in CSIS allows you to see who is on-call and the phone number for the on-call phone.

The phone number is only visible during the hours of 1 am to 6:30 am. Limiting the times that the on-call phone number can be viewed helps to make sure that everyone is following the proper procedures. If there is a problem in the sites during the normal working hours, we want the Consultants to use the appropriate procedures and contact the Support Center at 771-SITE. The Support Center is staffed from 6:30 am to 1 am daily. This helps limit the number of calls that go directly to the Site Coordinator and allows for quicker customer service.

It is also advised in training that the on-call phone number only be called in case of emergencies or situations that the Consultant or Support Specialist cannot handle.

## 2.4 IATS Reports

For selected employee positions, CSIS is connected to other major servers within IAT Services. Doing this allows those employees to see if certain servers or networking areas are having problems, giving us better communication with other groups in IAT Services and better information for our customers in the Computing Sites.

## 2.5 User Management

There are two links in the User Management section; the first link allows employees to keep their personal information up-to-date as well as allowing other employees with permissions to see this information. The second link allows the Site Coordinator to manage permissions given to CSIS users.

Once a new employee is hired, a CSIS account is created for them. This allows the employee to have access to CSIS, and the Site Coordinator to give appropriate permissions and a place to keep personal information on each employee. For instance, we can set permissions for the employee position, as well as track employee salary, start date, phone number/address as well as emergency contact information. The Computing Sites also employs students

who must limit the number of hours they can work per week based on another campus position or international student status. By having each employee listed in CSIS we can easily limit individuals to the hours they are allowed to work.

Only full-time staff can see all information in the employee accounts; some student positions, however, are limited to the information they can see for other student employees. For example: Support Specialists can access an employee's phone number to call if the employee has not shown up for a shift. It is up to each employee to keep their account information current.

## 2.6 Sites Management

There is one link in the sites management sections of CSIS and that link is called View/Manage Sites. Although that is the only link, it provides our employees with a tremendous amount of information specific to each Computing Site on campus.

After clicking on the View/Manage Sites link, the employee will see an alphabetical list of every Computing Site on campus. Beside the name of the site it lists the type of site, the team it belongs to and whether it is a staffed or un-staffed site. By viewing this information, an employee can quickly see if the particular site is general access, classroom or residential. By listing its team, an employee can determine who needs to be e-mailed or contacted in case of a site issue. It also indicates if a particular site is staffed or not.

One of the functions most utilized in sites management and the View/Manage Sites link is the cleaning link. Next to each site name is a link to cleaning. This function allows the Consultant to see what machines need to be cleaned in a particular site and to mark off once they have cleaned the machines. This feature was added so we could get rid of the paper and pencil old-fashioned way of tracking cleaning. Now, a Consultant can click on the view/manage sites link, locate the site currently working in and click on the cleaning link. A list of machine names will open in a window. The Consultant can select the two machines to clean for a particular shift. Once cleaned, the Consultant will place a check mark in the box under the machine's name and hit the submit button at the bottom of the screen. By clicking on the submit button that Consultant has stated that they have cleaned those particular machines.

Our policy states that two machines per shift must be cleaned. This tool is used to check that each machine is getting cleaned on a weekly basis and that each Consultant working is indeed cleaning and marking off two machines per shift. To help make sure cleaning is taking place, our Support Specialists run reports that show what machines have been cleaned, then use that report as they complete their rounds to double check that the machines getting marked off are getting cleaned.

## 2.7 Inventory Management

Inventory management is as it sounds. We can view and manage the hardware and software that we have in all of our Computing Sites on campus. As we have to keep our equipment up-to-date, we have a three-year cycle that we use to replace our machines. This is noted in this section of CSIS as well as the serial information on every machine in our Computing Sites.

The Swap feature is a new link in CSIS that helps us determine where machines go, or if machines need to be replaced for any reason. Let's say we cannot get the motherboard to work. Our technical crew will take the machine that is not working out of the Computing Site and replace it with one that is working, swapping

out that machine in the inventory section of CSIS. This makes sure we can account for all of the machines in the Computing Sites.

The same goes for software. To keep an accurate account of the software that we have in the different Sites and different platforms all over campus, we keep this information in CSIS so that it can be easily updated. When a piece of software is updated in CSIS, the web editor for the Computing Sites is automatically e-mailed so that changes to the Computing Sites web pages can be made. This helps to make sure that both the Sites and web pages are current on the software offer and communication is not dropped.

## 2.8 Sites Reports

Many of the reports are restricted to full-time staff and some senior level student positions, but our Consultants and Support Specialist can see and run one report from the Sites Report Section. This report is: Submit A Problem. If a piece of equipment fails in a Computing Site, the Consultant is asked to call into the Support Center immediately and also asked to submit a problem report from the sites report section of CSIS. This report includes the employee name, the problem and specifics of the equipment, as well as what troubleshooting has been done to try to resolve the problem. This report is then printed out and placed on the out-of-order equipment. This serves two purposes for us: one, anyone can see the equipment is out-of-order. Two, it allows the next level of support to see what troubleshooting has been done to try to resolve the issue. By running the report we get a readable printout to put on the machine.

There are other reports that can be run from the sites report section of CSIS by the Site Coordinators and some senior level student positions. The Availability Report, for instance, is used every semester by the Coordinator Support, a senior student position, to build the semester schedule. Before each semester, employees are asked to submit their availability. Once submitted, it is stored in CSIS. When it is time to build the schedule for the upcoming semester, the Availability Report is run and the results stored in an Excel spreadsheet so we can easily see when employees are available to work. Again, we are taking out the paper and pencil aspect of building the schedules and instead building in a spreadsheet where the employee tells us when they desire to work during the next semester.

Cleaning Report is another link in the sites report section. This link allows us to run reports that show who has cleaned and what machines have been cleaned. By running this report, we can determine if a Consultant is not cleaning during shifts, or what machines are not getting cleaned. Cleaning is a job duty that each Consultant is required to do during a shift. Running this report weekly allows us to make sure that the Consultant is doing the job we have asked them to do. The report is based on the Cleaning link in the Sites Management section of CSIS.

Employee Report is most useful when you want a list of your employees at any given time. This is a customized report, which based on the information selected, will pull up the information needed for site employees. All active employees or all employees from a particular team can be listed with anything from their name to their student number. The same kind of customized report can also be done for the hardware and software found in the Computing Sites. If a list of hardware and software is needed for a particular Computing Site, a customized report can be pulled with the information selected by the drop down menus. This is done in the

same way it could be done for a list of employees, i.e. Hardware Report and Software Report, found in the Site Reports section.

Besides Computing Sites and employee specific information, there are reports that are used to look at the fiscal aspect of the Computing Sites. For instance, a report can be run to look at the payroll, not for our employees, but more specifically, where we are spending our money. How much money are we spending in a particular Computing Site every week or month keeping it staffed, the hours it is open? How much training are we doing in a certain semester? Is it the same or different than previous semesters? The reports allow us to pull information so we can monitor the Computing Sites fiscal issues.

The PeopleSoft report tracks and records our employee timesheets for a pay period. This link in the Sites Report section allows a report to be run listing all the employees who worked during the selected pay period and the number of hours worked. This report is run at the end of every pay period, where the Site Coordinator can check it against the actual records kept in CSIS under the View/Manage Timesheets link. The report is checked by the Site Coordinator, and then sent to the departments Human Resources/Fiscal Officer. Again, no more paper and signatures! The report is run, double checked and then sent out via e-mail so the employee can get paid.

These are just some of the examples of the reports we can run for the Sites Report section of CSIS and how they have benefited us and moved us from the paper pushing era to electronic era.

### **3. NAVIGATION CENTER**

CSIS is now our navigation center or hub for information. We have also provided links to other web-based information. For example, we have links to the IAT Services web site and the Computing Sites web pages. This allows us to quickly help the customer with any questions they might have.

To also help with customer issues, we have a link to the University of Missouri campus map, which is a good resource if a customer needs assistance in locating other Computing Sites on campus. We also have a link to Revamp our password program, where a Computing Sites employee with the correct permissions could help walk a customer through the creation of a university account or resetting of a password.

We also use CSIS to house our training information. Currently CSIS supplies a link to the Consultant training documentation and a separate link to the Support Specialist documentation. This documentation is password-protected as some training information is sensitive. Currently these links go to documentation in PDF format so it can easily be searched or printed as needed. We are revamping this for the Fall 04 semester to convert the training documentation to an online, web-based format.

The Master Calendar provides access to all staff and employee events in addition to important deadlines and dates for the semester and upcoming semesters. The master calendar keeps everyone

informed as to what is going on during the semester in the Computing Sites.

Along with the master calendar, we have links so that our employees can easily and quickly fill out their renewal application form, availability and, if interested, a promotion application. All of our students are hired for one semester, and at the end of the semester, employees are required to fill out a renewal application and their availability for the upcoming semester if they want to continue to work for the Computing Sites. By supplying these links, employees can easily access these forms, and complete them at their leisure as long as the forms are submitted by the deadline date.

### **4. CONCLUSION**

Gone are the days of pushing paper across the desk for every employee hired and terminated, for every computer and software added or removed. CSIS has allowed us to recycle all that paper and save more trees by creating a web-based system that staff and student employees can utilize and access at any time.

CSIS has now allowed us to electronically allow employees to clock in and out of shifts, record the time worked so that timesheets are electronic and not a piece of paper that has to be printed out and signed, then passed on to others. It has allowed us to build a semester long schedule giving the employees the flexibility to post and pick up shifts as needed. It has given the Computing Sites a simple e-mail client to keep the lines of communication open with Computing Sites employees. More than anything else it has given us a web-based storage system for every employee, computer and software used in the Computing Sites, with the option to run customized reports at any time for any information needed. Not only has CSIS help eliminate (or at least cut back) the paper work needed to do certain jobs required by making everything accessible via the web, it has made the whole process easier and faster for everyone who works in the Computing Sites.

IAT Services Computing Sites are consistently looking at CSIS and how it can continue to make our lives easier with the ever changing world of technology, management needs, employees, and equipment. We are currently looking at ways to incorporate an announcement board for up-to-date information, our Mentoring Program, and parts of our evaluation process. At this time we have one person programming the CSIS application and just keeping it up and running can be a full-time job. We are always open to change if it can improve a process that is currently in place. Requests for change are documented with pros and cons then presented to the Computing Site Manager; at her discretion the changes are implemented.

Having a centralized, web-based database to store valuable information has helped in many ways to move from the paper-pushing era to an electronic one. It has become a significant part of the Computing Sites training, communication, and day-to-day process.