THE UNIVERSITY OF IOWA

Memorandum

To: **Engineering Faculty Council**
From: **Information Technology Committee:**
Ching-Long Lin (chair)
Asghar Bhatti
Xiaodong Wu, and
Doug Eltoft (ex-officio as director of ECSS)
Subject: **Committee's Final Report**
Date: **23 April 2008**

The IT Committee met six times during the AY 2007-08 to work on and discuss the four charges given by the EFC. Following is a brief report on the work done to meet these charges:

Charge #1: Identify one or two topics per academic year of high interest to the faculty that will be addressed in short course(s) organized and delivered by Engineering Computer Support Services (ECSS).

Recommendations:

(1) According to the 2006-2007 engineering faculty web-survey regarding the topics of the possible short courses, 39.5% of respondents expressed interest in short courses or tutorials on "How to set up and maintain professional-quality personal web pages". The committee recommends that ECSS offer a short course on this topic.
(2) The committee recommends that ECSS set up an on-line request form for faculty and students to submit their thoughts on training courses.
(3) The training courses or tutorials offered by the Information Technology Services (ITS) include Microsoft office products, web publishing, high performance computing and visualization, and more. The committee recommends that ECSS advertise the schedule information of these courses to faculty and students through the ECSS newsletter and website.
(4) The committee recommends that ECSS continue to work with software companies to offer short training courses on popular commercial software packages, e.g. MATLAB.

Charge #2: Develop and oversee criteria by which the utilization of supported and maintained software packages is judged.

The current ECSS policy regarding acquisition, maintenance, and retirement of software is a *cost-share* model. According to this model, DEOs had an allocation from the student computing fee with which to make sure that software of highest priority to their programs would be installed on ECSS. The director of ECSS Doug Eltoft proposed a new policy that all educational software requests be supported 100% with savings achieved by terminating support of under-utilized software packages. The committee has reviewed the new policy for "Software Funding and Management Guidelines" (see attachment #1).

Recommendations:

(1) The committee recommends that the new policy be adopted.
(2) The committee recommends that the software usage statistics (see attachment #2) be compiled by ECSS and the results will then be reviewed by the IT committee in conjunction with the ECSS annual budget (see attachment #3).
(3) The committee recommends that DEOs and faculty be notified when software is flagged that it is not meeting the usage requirements set by the IT committee.
(4) The committee recommends that DEOs be provided with reports of software usage statistics and be consulted prior to the IT committee's decision to terminate software support.

Charge #3: Review and evaluate the role of the ECSS in providing special hardware, software, and computing services in support of teaching activities within the College.

Recommendations:

The committee recommends that faculty directly take special requests to ECSS director Eltoft. If these requests are justified and are within the budget, director Eltoft can approve or disapprove them at his own discretion. Director Eltoft can also choose to forward requests to the IT committee rather than acting on them directly. Larger and more involved requests should be consulted with the IT committee.

Charge #4: Recommend specific charges for the AY 2008-09 Information Technology Committee.

Recommendations:

(1) The IT committee should be charged to assist ECSS with implementation of the new policy, "Software Funding and Management Policies," and review this policy on a regular basis.
(2) Because of increasing utilization of the (only) computer classroom 1245 SC, the IT committee should be charged to find solutions to the schedule conflict issues with 1245 SC, and discuss alternatives for classes which require in-class use of educational software.
(3) It is also recommended that the IT committee be charged to consider the notion that every undergraduate student be issued his/her own laptop for classroom use.

Software Funding and Management Guidelines

Purpose

This document describes the guidelines for the life cycle management of Engineering College software including acquisitions, and removal, and allocation of existing software resources.

Funding Source

Software capital purchases and annual software maintenance costs are funded by student computer fees. The software budget is divided into system software (operating systems, compilers, backup software), utilities (X-WinPro, Ghostview, Acrobat), non-engineering-specific software including productivity tools (Dreamweaver, Microsoft Office), and academic software (e.g., Pro/E, Matlab, ChemCAD).

Guidelines

CSS will fund 100% of purchase costs of new software with in the approved annual budget. CSS will fund 100% of maintenance costs of all software that meets the usage requirements. CSS will purchase additional licenses for software on maintenance when usage warrants.

There will be a trial period for new software. The trial period will always start at the beginning of the fall semester and end at the end of the next spring semester. For software that becomes operational during the fall semester the trial period will start when the software becomes operational and end at the end of the spring semester. For all other software the trial period will start at the beginning of the next fall semester after the operational installation of the software and end at the end of the spring semester. Usage data will be gathered year around and analyzed at the end of each spring semester.

Software that does not meet the usage requirements set by the Faculty IT Committee will no longer qualify for CSS funding. The Faculty IT committee will work with DEOs for software that has been marked for removal. Departments can opt to provide the funding for software no longer funded by CSS. CSS will provide DEOs with reports of software usage statistics following the spring semester and upon request.

Research Use

The funding model applies to the educational portion of any license agreement. When there is a differential cost between an educational version and research version of a software package, the CSS contribution will cover the cost of the educational version. Departments and researchers interested in the research version must cover the purchase and annual cost differential.

Commercial Educational Software Acquisition Policy

In order to maintain a secure and productive computer environment, software must meet the following guidelines to qualify for a network install and CSS funding.

1. Annual maintenance must be purchased for all commercial software. Annual maintenance must include phone support.
2. Software must be able to run as an ordinary user (i.e., not as a Power user or Administrator).
3. Software must support network licensing and must be able to be run from any machine on the College network.
4. Enough licenses must be purchased to adequately support the class (or classes) in which the software will be used. The College recommends purchasing at least a number equal to 20%-25% of the maximum number of students in the class (or classes) or a number equal to the number of seats in the 1245 SC electronic classroom (33).
5. Department(s) using the software are responsible for any reporting requirements (e.g., Ansys requires an annual usage report).

6. CSS must be able to install and manage the software with reasonable effort. CSS reserves the right to reject software based upon the difficulty required to install and support it.

If a purchased package does not meet these guidelines, CSS will not install it on the network. However, the software may be installed on an individual faculty machine or in a research lab.

Annual Software Maintenance Renewal Timeline

Software maintenance renewal processing coincides with budget planning for the new fiscal year. New funding requests will be accepted beginning March 1 and until the funding for that year is exhausted.

Guidelines for Installation Requests

These guidelines apply to all system software including purchased software and donated or free software.

In general, the sooner CSS receives the software, the more likely it is that the install will be completed prior to the start of the next semester. Requests will be processed in the order they are received. Queue order may change if the requesters agree to the change.

Guidelines for Software Removal

When software falls below the usage requirements set by the Faculty IT Committee CSS funding will be discontinued. Departments will be given the option of providing the annual software funding. If no department provides funding the software will be removed from all College computers and the software maintenance contract will be terminated. Software scheduled to be removed may be removed when it is no longer being used or before the start of each fall semester.

Timeline

Compatibility guidelines: Software must be compatible with the supported engineering lab load in order to be installed on the college network. Windows software installations require a minimum of 2-4 weeks from request date to deploy date providing the software meets the compatibility guidelines.

March 1	New software requests open
June 30	Last day to request guaranteed software install for fall; compatibility guidelines apply.
Third week of fall semester	Last day to request software install for fall; install as time permits, compatibility guidelines apply.
December 1	Last day to request software install guaranteed for spring; compatibility guidelines apply.
Third week of spring semester	Last day to request install for spring; install as time permits, compatibility guidelines apply.

Attachment #2	ECSS Software Usage Statistics															
Program	12/4/2006-12/3/2007					12Months	12 Months			22Months						
						> 5Min	> 5 Min									
	Cost/Time	Staff Cost	Extent	Running Total	Running Percent	Launches	$/launch			Usage	Usage	launch-hours	$/hour	$/launch-hour	hours/launch	
				$0.00						(seconds)	(hours)					
Mathematica	$3,100.00	$1,600.00	$4,700.00	$4,700.00	4.65%	7,614	$0.62			**48,626,856.00**	**13,507.46**	102845800	$0.35	$0.00005	1.77	
MATLAB	$8,393.02	$400.00	$8,793.02	$13,493.02	13.36%	7,839	$1.12			**51,281,926.00**	**14,244.98**	111666394	$0.62	$0.00008	1.82	
Interactive Heat Transer	$0.00	$3,200.00	$3,200.00	$16,693.02	16.53%	2,432	$1.32			**16,166,523.00**	**4,490.70**	10921384	$0.71	$0.00029	1.85	
ANSYS	$480.00	$1,600.00	$2,080.00	$18,773.02	18.59%	1,457	$1.43			**14,006,892.00**	**3,890.80**	5668900	$0.53	$0.00037	2.67	
ProEngineer	$2,250.00	$3,200.00	$5,450.00	$24,223.02	23.98%	3,787	$1.44			**28,498,401.00**	**7,916.22**	29978735	$0.69	$0.00018	2.09	
PSpice	$0.00	$1,600.00	$1,600.00	$25,823.02	25.57%	583	$2.74			**3,480,087.00**	**966.69**	563581	$1.66	$0.00284	1.66	
Energy10	$0.00	$400.00	$400.00	$26,223.02	25.96%	131	$3.05			**766,309.00**	**212.86**	27885	$1.88	$0.01434	1.62	
Maple	$0.00	$800.00	$800.00	$27,023.02	26.76%	192	$4.17			**2,054,825.00**	**570.78**	109591	$1.40	$0.00730	2.97	
AutoCAD Application	$5,500.00	$3,200.00	$8,700.00	$35,723.02	35.37%	1,800	$4.83			**13,624,521.00**	**3,784.59**	6812261	$2.30	$0.00128	2.10	
ChemCAD	$2,175.00	$1,600.00	$3,775.00	$39,498.02	39.11%	536	$7.04			**6,191,959.00**	**1,719.99**	921914	$2.19	$0.00409	3.21	
Arena	$250.00	$6,400.00	$6,650.00	$46,148.02	45.69%	829	$8.02			**9,128,180.00**	**2,535.61**	2102017	$2.62	$0.00316	3.06	
Virtuallab	$0.00	$3,200.00	$3,200.00	$49,348.02	48.86%	389	$8.23			**3,170,133.00**	**880.59**	342550	$3.63	$0.00934	2.26	
Casca	$0.00	$800.00	$800.00	$50,148.02	49.65%	66	$12.12			**313,922.00**	**87.20**	5755	$9.17	$0.13900	1.32	
edrawings	$0.00	$800.00	$800.00	$50,948.02	50.44%	58	$13.79			**357,761.00**	**99.38**	5764	$8.05	$0.13879	1.71	
Tecplot	$703.12	$800.00	$1,503.12	$52,451.14	51.93%	88	$17.08			**886,455.00**	**246.24**	21669	$6.10	$0.06937	2.80	
Scitor Process	$0.00	$3,200.00	$3,200.00	$55,651.14	55.10%	175	$18.29			**825,220.00**	**229.23**	40115	$13.96	$0.07977	1.31	
Kenpave	$0.00	$800.00	$800.00	$56,451.14	55.89%	40	$20.00			**319,107.00**	**88.64**	3546	$9.03	$0.22563	2.22	
STELLA®	$1,437.00	$400.00	$1,837.00	$58,288.14	57.71%	42	$43.74			**461,430.00**	**128.18**	5383	$14.33	$0.34124	3.05	
SimTraffic	$0.00	$1,600.00	$1,600.00	$59,888.14	59.30%	34	$47.06			**278,371.00**	**77.33**	2629	$20.69	$0.60858	2.27	
PS8	$0.00	$3,200.00	$3,200.00	$63,088.14	62.46%	60	$53.33			**574,745.00**	**159.65**	9579	$20.04	$0.33406	2.66	
ABQ651	$7,138.00	$1,600.00	$8,738.00	$71,826.14	71.11%	66	$132.39			**593,362.00**	**164.82**	10878	$53.01	$0.80325	2.50	
West Point Bridge Design	$0.00	$800.00	$800.00	$72,626.14	71.91%	18	$44.44			**107,207.00**	**29.78**	536	$26.86	$1.49244	1.65	
SURFCAM	$0.00	$800.00	$800.00	$73,426.14	72.70%	12	$66.67			**65,394.00**	**18.17**	218	$44.04	$3.67006	1.51	
HCS2000	$0.00	$1,600.00	$1,600.00	$75,026.14	74.28%	17	$94.12			**187,703.00**	**52.14**	886	$30.69	$1.80510	3.07	
Staadpro	$250.00	$1,600.00	$1,850.00	$76,876.14	76.11%	17	$108.82			**63,393.00**	**17.61**	299	$105.06	$6.17994	1.04	
HecHMS	$33.33	$800.00	$833.33	$77,709.47	76.94%	7	$119.05			**172,924.00**	**48.03**	336	$17.35	$2.47837	6.86	
WolfPack	$0.00	$400.00	$400.00	$78,109.47	77.34%	3	$133.33			**32,426.00**	**9.01**	27	$44.41	$14.80294	3.00	
LINDO	$150.00	$1,600.00	$1,750.00	$79,859.47	79.07%	11	$159.09			**62,163.00**	**17.27**	190	$101.35	$9.21331	1.57	
Mathcad	$1,939.00	$1,600.00	$3,539.00	$83,398.47	82.57%	22	$160.86			**416,621.00**	**115.73**	2546	$30.58	$1.39001	5.26	
HecRAS	$33.34	$800.00	$833.34	$84,231.81	83.40%	5	$166.67			**161,067.00**	**44.74**	224	$18.63	$3.72519	8.95	
TSIS	$0.00	$1,600.00	$1,600.00	$85,831.81	84.98%	9	$177.78			**65,724.00**	**18.26**	164	$87.64	$9.73769	2.03	
TRAF	$0.00	$1,600.00	$1,600.00	$87,431.81	86.57%	7	$228.57			**45,755.00**	**12.71**	89	$125.89	$17.98398	1.82	
QCP ®	$1,300.00	$400.00	$1,700.00	$89,131.81	88.25%	5	$340.00			**31,115.00**	**8.64**	43	$196.69	$39.33794	1.73	
IDL	$3,200.00	$1,600.00	$4,800.00	$93,931.81	93.00%	9	$533.33			**874,866.00**	**243.02**	2187	$19.75	$2.19462	27.00	
Delmia	$0.00	$6,400.00	$6,400.00	$100,331.81	99.34%	9	$711.11			**71,292.00**	**19.80**	178	$323.18	$35.90866	2.20	
Budget				$101,000.00	100.00%											
sub totals	$38,331.81	$62,000.00														
TOTAL		$100,331.81														
DATA Architect		R				3				**56,862.00**	**15.80**	47				
Eagle		R				5				**436.00**	**0.12**	1				
Minitab		R				351				**3,885,558.00**	**1,079.32**	378842				
Molecular Conceptor		NA				95				**2,989.00**	**0.83**	79				
SAS		R				2				**3,711,792.00**	**1,031.05**	2062				
Weather Maker		NA				**8**				**8,193.00**	**2.28**	18				

Attachment #3		ECSS	Annual	Budget		
Category		budgeted salary+ fringe	budgeted general expense	service income	student computer fees	totals
fund		050	050	260	240 / 676	
Income		$626,633.28	$144,656.00	$260,650.00	$487,329.82	**$1,519,269.10**
caryover funding		$0.00	$0.00	$161,073.23	$233,069.42	**$394,142.65**
totals		$626,633.28	$144,656.00	$421,723.23	$720,399.24	**$1,913,411.75**
Expense						
Salaries						
7.3 FTE staff		$626,633.28				$626,633.28
2.3 FTE staff				$211,555.82		$211,555.82
						$838,189.10
Maintenance						
hardware					$9,331.94	$9,331.94
application software					$57,045.95	$57,045.95
						$66,377.89
Operations						
student staff			$36,177.08			$36,177.08
student fringe			$2,641.01			$2,641.01
office supplies			$914.79	$308.55		$1,223.34
books			$504.34			$504.34
lab support			$3,995.58	$6,792.06	$2,269.00	$13,056.64
bonuses			$4,500.00			$4,500.00
bonus fringe			$211.50			$211.50
non-cap software			$11,300.05	$1,759.80		$13,059.85
TNS			$12,240.73	$252.00		$12,492.73
telephone			$0.00	$2,001.63		$2,001.63
bad debt recovery			$0.00	$35.74		$35.74
repair/maint			$18,041.88	$17,315.66		$35,357.54
travel / training			$11,480.35	$10.92		$11,491.27
food			$33.47			$33.47
memberships			$270.00			$270.00
non cap equip			$16,444.89	$21,077.92		$37,522.81
shipping			$84.90	$18.90	$194.07	$297.87
FSG			$12,859.20	-$50,583.03		-$37,723.83
computing services			$8,657.00	$458.60	$16,387.00	$25,502.60
fuel			$619.73	$50.96		$670.69
van			$3,679.50	$334.50		$4,014.00
						$163,340.28
capital equipment						
hardware				$56,941.62	$550,467.25	$607,408.87
software					$40,345.54	$40,345.54
						$647,754.41
Expense totals		$626,633.28	$144,656.00	$268,331.65	$676,040.75	**$1,715,661.68**
income - expense		$0.00	$0.00	$153,391.58	$44,358.49	**$197,750.07**