

UW–Madison
AAC/Admissions Sub-Committee on
Transfer Credit Software

Report

April 16, 2004

Members

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Charge

Explore UW–Madison's options for transfer software. The working group should press for improvements to the PS Transfer Module, evaluate the DARS Transfer software as an alternative, and prepare an impact and cost analysis for both options.

Meeting Schedule and Agenda Items

October 2003
Committee commissioned by AAC

October 27, 2003
Committee charge; March 2003 report from the AAC/Admissions Sub-Committee on Transfer Credit Evaluation; UW–Madison position paper regarding transfer credit software issues recently submitted to PS; PS transfer credit functionality.

November 12, 2003
PS transfer credit functionality; software functionality requirements list.

December 8, 2003
Case Studies: U Minn–Twin Cities, U Mass (2 institutions), Indiana University (8 institutions), UW System, Cal State U Northridge, Kansas U (7 institutions), SUNY at Stony Brook, U Conn; DARS transfer articulation functionality; standards of transfer credit evaluation service.

January 9, 2004
Daylong demonstration of admissions processes, including ImageNow, workflow and the DARS transfer articulation as implemented by U Minnesota–Twin Cities.

February 9, 2004

Improvements in ISIS transfer credit functionality; exchanges with PS regarding further improvements; potential customizations to ISIS transfer credit; PS and DARS software functionality comparison.

February 23, 2004

Reports/information gathered to date; UW System TIS Phase IV implementation of CAS; additional work/interfaces required with current PeopleSoft transfer credit module vs. implementation of DARS transfer articulation software; final recommendations.

March 18, 2004

Final recommendations; draft report.

April 16, 2004

Finalize report.

May 4, 2004

Presentation to AAC.

SUMMARY CONCLUSIONS

- 1) The PeopleSoft (PS) transfer credit module and the Degree Audit Reporting System transfer articulation (DARS TA) present differences in software features and approaches to transfer credit processing. These differences are not significant enough to warrant installing DARS TA.
- 2) A move from PS to DARS TA would require that new interfaces be built, (i.e. ISIS student records, the course catalog, Info Access, UW System TIS) and that transfer equivalencies stored in PS be migrated to the new system. Additionally, a move from PS to DARS TA would change the current capabilities to provide real-time updates to ISIS and list transfer courses on the UW–Madison record without additional development and programming.
- 3) The Course Applicability System (CAS) provides prospective students with transfer equivalencies and “what-if” degree audits. CAS is designed to interface with DARS TA. No interface between PS and CAS currently exists. However, UW System supports the development of a PS-CAS interface for system-wide implementation of TIS Phase IV.
- 4) Although a number of improvements have been made in the PS transfer credit module, significant deficiencies remain. To enable Admissions staff to improve transfer credit services for prospective students, continuing students, and academic advisors, these deficiencies must be addressed as a campus-wide ISIS priority.
- 5) We must be cognizant of the national trends surrounding transfer credit. Currently enrolled and prospective students are requesting transfer credit in increasing numbers and expecting institutions to provide online transfer equivalencies and “what-if” degree audits even before they enroll in a course or apply for admission. To compete within this market, UW–Madison will need to commit to the timely development of transfer online services as a campus-wide priority.
- 6) We need to improve our current level of transfer credit service as well as move forward with online services. Implementing DARS TA could stall any forward movement until the implementation and related work are complete. Staying with PS will allow us to begin our efforts to improve the software immediately.

RECOMMENDATIONS

Recommendation 1

Continue to use the PeopleSoft transfer credit module.

Recommendation 2

Place transfer credit high on the list of campus-wide priorities and commit necessary resources to customize the PS transfer credit module.

Recommendation 3

Work with top-level PS officials to effect changes in the transfer credit module.

Recommendation 4

Develop a timeline for implementation of transfer credit improvements.

Recommendation 5

Increase efforts to coordinate PS transfer module issues with other PS schools and the Student Records and Admissions Product Advisory Groups (PAGs).

Recommendation 6

Commit the campus resources necessary to provide the lead on the development of an interface between PS transfer equivalencies and CAS for the UW System TIS Phase IV project.

Recommendation 7

AAC should continue to monitor progress toward the goal of improving transfer credit processing on campus.

A. The Context and Charge of the Sub-Committee

In spring 2003, the AAC and Admissions established a sub-committee to examine the undergraduate transfer credit evaluation process and to make recommendations for improvements. One of the final recommendations of this sub-committee was to appoint a working group to explore UW–Madison’s options for transfer software. Because UW–Madison uses DARS software for degree audit and this software includes a transfer articulation component, the specific charge called for a review of DARS TA as an alternative to the PS transfer credit module.

In fall 2003, AAC and Admissions appointed this group with the specific charge to:

1. Explore UW–Madison’s options for transfer software;
2. Press for improvements to the PS Transfer Module;
3. Evaluate DARS TA as an alternative; and
4. Prepare an impact and cost analysis for both options.

B. Standards of Transfer Credit Service

The functionality of our transfer software is one of the variables that affect the level of service that Transfer Admissions is able to provide the campus. It is important, therefore, to keep in mind the *Future “Ideal” Standards of Service* outlined in the final report of the spring 2003 subcommittee:

1. The standard of service should be comparable for all undergraduate students (for example, new versus continuing, first-year versus transfer).
2. Official transfer credit evaluations should be completed for every admitted transfer applicant and provided with the offer of admission. When this is not possible, credit evaluations should be provided before the enrollment period.
3. Continuing students should receive timely transfer credit evaluations (within 6 weeks of providing transcript).
4. Complete, updated transfer tables are available as an essential foundation for all other service goals.
5. The transfer credit evaluation technology should interface optimally with the degree audit technology.
6. Self-serve transfer credit evaluations should be available to all students and prospects. A priority for self-service is courses from UWS and WTCS institutions, followed by other institutions from which students transfer large numbers of credits.
7. Ultimately, transfer self-service functionality should include the capability to run "what if" degree-audit scenarios.

C. Information from other Schools

To help us in our review of the issues related to software choice and transfer credit service, we surveyed the software and transfer equivalency service provided by 37 other institutions.¹ We collected information from other schools by making phone inquiries, a broadcast on the PS Higher Education Users Group listservs for Admissions and Student Records, and a survey done by UW System administration of UW System institutions. We were particularly interested in those institutions, which, like us, use PS for their student information system. Because we are committed to the PS software for our student information system, we did not seek information from institutions using other software packages, such as Banner or Datatel, for their student information systems. (See Appendix 1.)

Of the 34 institutions using PS for their student records, 25 use PS to process transfer credit and degree audits while 5 use DARS. An additional 4 institutions use a combination of PS for transfer credit and DARS for degree audit, like we do here.

We felt we would get the best comparison from our peer institutions of comparable size and complexity. One of the aspects we were interested in exploring was whether such peers are able to provide transfer credit evaluations to newly admitted transfer students upon admission (the level of service we provided while working in our Legacy system). We learned that two of our peer institutions, U Minn using DARS and U Mich using PS, have not been able to achieve this level of service. In fact, their level of service is comparable to ours, despite proportionately larger transfer evaluation staffs. This would suggest that the choice of software in and of itself does not determine the level of service an institution is able to provide.

¹ See Appendix 1, Case Studies: Software Used by Other Institutions, 2/25/04

D. PeopleSoft Transfer Credit Functionality

Our initial overview of the PS transfer credit functionality in October 2003 indicated a number of problematic features and deficiencies in the software.² A more recent review³ reveals improvements in the software with the upgrade to Version 8.0 and subsequent bundles. This review also includes a list of UW–Madison customizations made to the ISIS transfer credit module as well as a list of remaining issues that need to be either customized by UW–Madison or resolved in new PS versions/bundles.

In the past seven months, UW–Madison representatives have had several opportunities to convey these transfer credit issues to top-level PS officials.

- September 21, 2003
Tom Scott provided PS official Susan Biedler with our position paper on transfer credit.⁴
- October 29, 2003
Tom Scott, Ilene Seltzer, and Rob Seltzer held a conference call with PS officials Susan Biedler and Adrianna Farella regarding the transfer credit module.
- February 5, 2004
Tom Scott, Ilene Seltzer, Rob Seltzer, Mary Schey, and David Leszczynski held a conference call with PS official Adrianna Farella and representatives from three Indiana University institutions, reviewing in detail the items listed on the position paper submitted September 2003.
- February 27, 2004
Rob Seltzer met with Susan Biedler to provide and discuss an updated position paper on transfer credit.⁵ As a follow-up, Rob Seltzer sent the updated position paper via email to Susan Biedler and Adrianna Farella, and Ilene Seltzer included the paper in a larger UW–Madison PS Enhancement Requests paper to PS officials.

Through these contacts, UW–Madison representatives have raised the awareness of top-level PS officials, coordinated efforts with Indiana University to solicit improvements to the transfer module, and begun a discussion with PS officials of how to resolve the issues (e.g. via a PS upgrade or bundle, via a UW–Madison customization, and / or via a UW–Madison customization which would be adapted by PS). As of this time, we have not received any firm commitment from PS on whether or when PS will address these issues. Any UW–Madison commitment to proceed with customization will be determined by resources available within the Office of Admissions and any special allocation from Campus Administration.

E. DARS Transfer Articulation Functionality

Mike Pflieger provided the committee with a preliminary overview of DARS TA functionality so we could begin to compare it with PS functionality, especially the areas of PS deficiencies. To gain further insight into DARS TA functionality, we contacted staff at U Minnesota, where DARS TA is in use. While we might have contacted Miami University of Ohio, the vendor for DARS, but some felt that it would be more profitable to learn how a peer institution uses the software than to receive a promotional demonstration of the software.

Admissions staff (Mary Schey, Kay Daley, MaryAnn Carlson) held a teleconference on 12/16/03 with Margo Mueller, the DARS/CAS Coordinator at U Minnesota, and George Hudachek, Senior

² See Appendix 2, PeopleSoft Transfer Credit Functionality, 10/26/03

³ See Appendix 3, Current PS / ISIS Transfer Credit Software Status, 2/23/04

⁴ See Appendix 4, Transfer Credit Position Paper, 8/6/03

⁵ See Appendix 5, Recommendations for Transfer Credit Module, 2/26/04

Associate Director in Admissions. Both have been integrally involved in U Minnesota's use of DARS and current implementation of CAS.

On 1/9/04 George Hudachek visited UW–Madison to provide committee members (and others from ISIS Central and the Registrar's Office) with background on the transfer credit process at U Minn. He demonstrated the functionality of DARS TA as it is employed at U Minn and how prospective students will use CAS once U Minn and MnSCU (MN State Colleges and Universities) have implemented their CAS server.

The service goal for U Minn is to provide a credit evaluation shortly after a student is admitted, but the reality is that they are rushing to complete the evaluation right before the orientation program just as we are. U Minn has recently implemented document-imaging and workflow software. They believe that eventually these two software packages will enable them to reduce their transfer credit processing time and achieve their service goal.

The user interface with DARS TA appeared to be more intuitive. Overall setup in DARS tables appeared to require approximately the same amount of work as that required by the PS tables.

A difference between DARS TA and PS is the requirement in DARS TA that transfer equivalencies be built in the setup tables before generating a transfer credit evaluation, a step that is not mandatory in PS. While the two packages are clearly different in this regard, it is not clear whether the additional setup (of one generic transfer articulation for each transfer institution) within DARS is so minor as to be insignificant or whether it would involve a significantly greater amount of work than is currently required by PS. *Neither software package, however, provides the ability we had in the Legacy system to establish an equivalency in the setup tables while creating a student's transfer credit evaluation.*

Another difference has to do with the integration of the UW–Madison course catalog with the transfer module. Since it is not integrated with DARS TA, either UW–Madison courses and their attributes would need to be rebuilt in the DARS module or a real-time interface would need to be created to retrieve UW–Madison courses from the course catalog.

Other differences in the two software options become apparent when comparing business processes / expectations at the two institutions. Some examples of these differences are:

1) Transfer credit in student records:

- U Minn: All transfer credit detail is housed within DARS and is not accessible via their PS student records. A batch process loads only the total transfer credits from DARS to PS. U Minn transcripts list a summary count of transfer credits, not each transfer course.
- UW–Madison: All transfer credit detail is housed within PS and each transaction is recorded in real time on the student's record. Each course evaluated for transfer is listed on the UW–Madison transcript, which allows for prerequisite checks in ISIS during registration. To list courses articulated with DARS TA in ISIS, we would need to build a process to upload them nightly.

2) Transfer setup:

- U Minn: At least one articulation is required to run a DARS TA evaluation.
- UW–Madison: Transfer courses can be equated within a student record even if the transfer articulation is not yet built in the PS tables. This allows us to accommodate unique institutions and courses (e.g., international transfer) with little setup.

3) Transfer credit evaluations:

- U Minn: Because of their current business practices, they do not provide direct equivalencies, but rather departmental electives on their transfer credit evaluations. They did not choose PS in part for this reason because PS requires direct equivalencies and U Minn does not need that capacity.
- UW–Madison: Provides direct equivalencies for transfer courses whenever a UW–Madison equivalent exists, consistent with business practices and as required by UW System policy.

F. PS/DARS Transfer Credit Functionality Comparison

We compared the functionality of both software options as implemented at UW–Madison and U Minn, and we estimated the customizations, interfaces, and conversions necessary to achieve optimal transfer credit service using either product.

*Transfer rule setup.*⁶ Both PS and DARS TA require two customizations. In addition, two conversion issues would need to be addressed in DARS TA. (See Appendix 6, page 1, for details on the customizations and conversion issues.) A high-level estimate for technical work on the PS customizations indicates that one of the PS customizations would require approximately 6-8 weeks of technical work and the other would require approximately 8-12 weeks of technical work. We do not have estimates on the DARS customizations and conversions necessary; to do so would require a significant investment of technical and functional staff time to research.

*Transfer credit processing.*⁷ PS requires four customizations (ranging in size from 2 weeks to 24 weeks of technical work), and DARS TA would also require customizations and conversions in four areas. (See Appendix 6, page 2, for details on the customizations and conversion issues.) Again, we did not undertake the research to determine cost estimates for the DARS customizations and conversions.

*Web-based transfer equivalency self-service.*⁸ PS delivers an online self-service component that would need customizing were we to use it. Estimates range from 4 to 12 weeks of technical work for necessary changes. DARS does not deliver an online self-service component, but via CAS software, self-service transfer articulations and degree audits are possible without major customizations. (See Appendix 6, page 3, for details.)

*Real time updates.*⁹ The PS transfer module is integrated with the PS student records and all transfer credit transactions are live within ISIS. DARS TA is separate from ISIS, so a process would need to be built to upload transfer credit transactions from DARS TA to ISIS. This would likely be a nightly, rather than a real-time, upload process. (See Appendix 6, page 3.) Switching to a nightly process delays by 12-24 hours the ISIS Enrollment module's ability to check for academic level (year) and course prerequisites satisfied through transfer.

*Campus-wide access.*¹⁰ Because the PS transfer module is integrated with the PS student record, transfer credit evaluations are available to ISIS users through the Student Transfer Summary panels. The transfer rules are available through UW Course Transfer Rules panels. All of the PS system is web-based and available to anyone with security access and a computer. Using DARS TA, which is a client-server product (and thereby limited to users with

⁶ See p. 1 of Appendix 6, PS / DARwin Transfer Credit Software Functionality Comparison + Customizations

⁷ See p. 2 of Appendix 6, PS / DARwin Transfer Credit Software Functionality Comparison + Customizations

⁸ See p. 3 of Appendix 6, PS / DARwin Transfer Credit Software Functionality Comparison + Customizations

⁹ See p. 3 of Appendix 6, PS / DARwin Transfer Credit Software Functionality Comparison + Customizations

¹⁰ See p. 3 of Appendix 6, PS / DARwin Transfer Credit Software Functionality Comparison + Customizations

the client software loaded on their computer), would require campus to access student credit evaluations by submitting a special DARS audit, or through ISIS if data has been uploaded. DARS transfer audits can be generated automatically when submitting a DARS degree audit. Viewing the equivalencies would require the DARwin client, or TIS, or eventually CAS. We would need to upgrade to one of the newer Web-based versions of DARS (3.0 or 3.5) or modify the Web interface under construction in DARS 2.10 to provide Web-based access (See Appendix 6, page 3.)

*Interfaces:*¹¹ We have already built interfaces for PS / TIS and PS / Info Access. A remaining interface for PS will be with CAS. The building of a PS / CAS interface will be supported and funded via the UW System TIS Phase IV implementation. (See next section for more details on TIS Phase IV.) If we switch to DARS TA, we will need to build and maintain four interfaces with: TIS Phase II (UW System will not fund this interface development); Info Access; ISIS course catalog; ISIS student records. The DARS TA / TIS interface would be a replacement of the current PS / TIS interface. (See Appendix 6, page 4.)

G. UWS TIS Phase IV and CAS

The UW System Transfer Information System (TIS) has been developed and implemented in phases. Currently, TIS provides prospective students attending a UW or Wisconsin Technical College System institution with online transfer course equivalencies. The fourth phase of TIS is to implement CAS software to provide prospective students with online “what-if” degree audits and other services.

In the 1997-99 budget, System funds were allocated to implement CAS. However, during this same period, UW–Madison and other UW System institutions were implementing new student information systems. These implementation projects absorbed available institutional resources, the implementation of TIS Phase IV was deferred, and money held in reserve was reallocated in the 2002-2003 budget shortage. UW System is currently seeking funds to implement CAS in the 2005-07 biennium. According to UW System administration, an interface between PS and CAS would likely be built by MILER or purchased from a vendor.¹²

TIS Phase IV would connect a CAS server (maintained by UW System) to our PS transfer module and degree audit program. A prospective student would use CAS to create a portfolio of transfer courses and request “what-if” degree audits.¹³

The use of CAS will not be limited to students currently attending institutions listed in TIS (UW System and the Wisconsin Technical College System). Anyone will be able to log on to CAS and obtain UW–Madison transfer equivalencies and degree audits as long as we have built transfer equivalencies for their current institution.

H. Cost / Impact Analysis

Whether we switch to DARS TA or continue to use the PS transfer module, the allocation of additional resources will be necessary to move us toward improvements in transfer credit service. A summary of the resources and work associated with each system is given below.

¹¹ See p. 4 of Appendix 6, PS / DARwin Transfer Credit Software Functionality Comparison + Customizations

¹² See p. 3 of Appendix 7, Transfer Information System Phase 4

¹³ See pp. 1-2 of Appendix 7, Transfer Information System Phase 4

DARS TA:

- ❑ *Implementation:* As with the implementation of any new software, switching to DARS TA would require detailed and extensive research, analysis, and testing by technical, functional, and analytical staff. Throughout this process, a number of gaps between current business and analytical processes and software functionality would likely surface and need to be addressed by staff from Admissions, ISIS central, DoIT, Registrar's Office, Financial Services, Academic Planning and Analysis, and possibly some schools and colleges.
- ❑ *Conversion:* Transfer credit data and setup tables currently stored in ISIS would need to be converted to DARS TA. This may include up to 260,000 transfer course equivalencies, and 2,500 transfer institutions. Decisions would need to be made about which institutions and articulations to import. Additional conversion issues would include the reduction from two fields for department and course number in PS to one field in DARS TA and the association of course attributes with UW–Madison course equivalencies. The committee did not gather information regarding the cost, level of complexity, or time required for such a conversion.
- ❑ *Customizations:* At this point, we have identified five customizations necessary in DARS TA in order to provide optimal transfer credit processing efficiency: 1) auto update of UW–Madison course number changes; 2) view/search equivalencies in setup tables by effective date; 3) display of UW–Madison course title/credits; 4) ability to add/update transfer rules via a student record; 5) ability to create a transfer credit evaluation without building equivalencies in the setup. Another issue to keep in mind is the degree to which UW–Madison has customized the DARS degree audit module and how that might drive further customizations in DARS TA.
- ❑ *Interfaces:* We would need to build interfaces between DARS TA and TIS Phase II (current) and Info Access as well as create interfaces between ISIS student records and the course catalog. We would also need to modify the Web interface currently under construction for DARS degree audit in order to provide campus-wide access to DARS TA.
- ❑ *Upload process:* We would need to build a process to upload transfer credit from DARS TA to ISIS. It is unclear whether we could maintain our ability to post transfer credit in real time and list transfer credit detail on the student record and transcript.
- ❑ *Training:* Training would be necessary for staff in Admissions, Registrar's Office, schools/colleges, and any others who need to refer to transfer credit information.
- ❑ *Additional Staffing:* Implementation of new software would benefit from additional technical and functional staffing resources beyond the current staffing level in order to continue to provide transfer credit service at a minimal level.
- ❑ *Financial Costs:* Without an in-depth analysis of a DARS TA implementation, we are unable to provide an estimate of financial costs.

PS Transfer Module:

- ❑ *Implementation:* Implementation is complete. Upgrades, patches, and fixes may raise some costs of which we are currently unaware.
- ❑ *Conversion:* not applicable

- ❑ *Customizations:* Admissions has identified seven customizations and two “fixes” (i.e. corrections to the software) necessary to process transfer credit efficiently: 1) option to add/update transfer rules via a student record; 2) specialized fields in the setup tables; 3) auto update of UW–Madison course number changes; 4) display of UW–Madison course title/credits; 5) override option of the number of transfer course credits to reflect accurate number of degree credits; 6) ability to correct external courses in transfer evaluation panels; 7) designated table release and capture student input in self-serve. The two fixes would correct the order of incoming courses and the accurate addition of multiple credit evaluations for one student. We are currently working with high-level PS executives and staff to assign ownership between UW–Madison and PS to the seven customizations and two fixes.
- ❑ *Interfaces:* The remaining interface that needs to be built is with CAS, which will be supported by UW System and implemented as part of TIS Phase IV.
- ❑ *Upload process:* not applicable
- ❑ *Training:* Some additional training of Admissions staff may be necessary if PS is significantly altered.
- ❑ *Additional Staffing:* Further analysis, testing, and implementation of the customizations and interface listed above will require technical and functional staff support beyond the current staffing level devoted to transfer credit.
- ❑ *Financial Costs:* The customizations listed above will involve substantial DoIT charges. Although we have a high-level analysis for the technical work that may be involved in these customizations (anywhere from 2 weeks to 24 weeks per customization), we will need more detailed analyses to estimate costs and project an implementation timeline.