USER STANDARDS: WHO NEEDS THEM?

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Introduction

The role of users in the design and operation of major computer applications has received increasing attention in recent years. We have moved from a point where data processing tolerated users as a necessary evil to a point where users are increasingly involved in the design and control of computer systems.

Users have taken on this new, expanded role at the University of Minnesota in Student Support Services (SSS), which includes the areas of student financial aid, registration and student records, and admissions and prospective students. Over the past five years SSS has reorganized to better meet its computing needs, adding a fourth major area, Information Systems and Services, whose primary responsibility is coordination of computing and related activities that cross unit lines.

During this period, millions of dollars have been spent on system development, centering on the primary data bases and functions of SSS. Traditional data processing standards (e.g., for programming and documentation) were required in these developments. However, with large numbers of user staff actively involved in developments, guidelines were needed for use in designing reports and screens. So, our first standards were in these two areas; others have come along as needed.

In this presentation, the purposes of user standards will be described. Then a brief explanation and examples of each type of standard will be discussed.

Types of Standards

Several types of standards have been developed in a number of SSS areas viewed as important, highly technical, complex, or confusing:

- Standard terminology
- Data element naming standards
- Billing-related standards
- Forms standards
- Report design standards
- Screen design standards
- Guidelines for procedure manuals

Before discussing each of these types in more detail, it might be useful to describe how standards are developed and maintained.

Responsibilities for Standards

Responsibility for preparing and enforcing standards is primarily lodged in Information Systems and Services (ISS), the SSS unit with the bulk of activities crossing operational unit lines. Within ISS, two units have major responsibility for standards: Systems Development/Operations (SD/O) for standards relating in some way to our computer systems and the Publications Center (PC) for standards that are more editorial in nature.

The development of standards is a complex process involving ISS units as well as staff in the operational areas. Once standards are drafted and reviewed, they may be endorsed as all-SSS standards, to be used by all operational areas. Or, they may remain optional, to be used at the discretion of the operational units (except in ISS, where use of all standards is mandatory).

Optional standards are clearly labeled as ISS standards.

Standard Terminology

The need for a standard terminology affects many different types of standards. Years ago a staff team reviewing old computer reports found, among
others, all the following ways of referring to the College of Liberal Arts on reports:

- College of Liberal Arts
- College of Lib Arts
- Liberal Arts
- Lib Arts
- CLA
- College of L A
- Coll of Lib Arts
- Coll of Liberal Arts

For any given report, the person designing it had to determine the "correct" way to list the college and the person reading it had to decide what the designer meant. Multiply this simple example by all university colleges (25 or so) and the number of individual data elements in SSS data bases (hundreds) and you begin to see the scope of the problem. With the standard terminology there are only three ways to refer to the College of Liberal Arts:

- College of Liberal Arts
- Lib Arts
- CLA

A special "dictionary" has been developed to include all commonly used SSS terms, along with their approved abbreviations (a long and a short version). Exhibit 1 is a sample page of this Approved Word/Phrase List. To be added to the list, items must be approved by the SSS Standards Group. The Approved Word/Phrase List is particularly helpful in forming data element names and abbreviations, building lists of terms for billing-related standards, and designing forms (and in most other standards areas).

Exhibit 2 shows how specific standards relate to major functions, most of which require the use of more than one type of standard.

Data Element Name Standards

SSS has many computer systems supporting student service operations. Underlying all of the reports and screens are the data bases containing student record data—admissions, financial aid, and registration/records information. Within these data bases are hundreds of data elements (e.g., student name); some overlap data bases and others are unique to particular areas. It is good system design to call data elements by the same name wherever they occur—in a file or data base, on a screen, or on a report. In SSS we facilitate this practice by storing data element name standards in our computerized data dictionaries.

Data dictionaries are developed at the same time that other parts of computer systems are developed. They are put together first in draft form, using applicable naming standards (e.g., already-approved element names from related data bases, new element names formed by reference to the Approved Word/Phrase List). When the data base design has been approved, the SSS Standards Group reviews the dictionary and approves its content, including data element name, COBOL name (used by programming staff), a long abbreviation, a short or display abbreviation, and various text information associated with the element (e.g., definition, how it is edited).

In later system development or maintenance the data dictionary is a valuable reference for screen and report designers since it contains not only information about what the element means but also its standard name and abbreviations. Exhibit 3 is a sample page from the Student Data Base Dictionary showing element name (1), COBOL name (2), long abbreviation (3), and short abbreviation (4). This information is used to write design specifications, as well as design reports and screens.

Data dictionaries also have a separate section to facilitate the report and screen design process (Exhibit 4). This section contains only the various forms of acceptable names and abbreviations for data elements.

As in other types of standards, changes to existing data dictionaries are routed to the individual noted on the title page of the dictionary; updates are distributed periodically.

Billing-Related Standards

SSS computer systems are large and complex, with hundreds of programs and reports, multiple data bases and files, and many different staff involved in various systems aspects such as development, maintenance, and bill monitoring. The standards referred to as "billing-related" are designed to make this monitoring easier. Before these standards were implemented, there was often a great deal of difficulty in determining what particular jobs or programs were or what a particular disk file really was since there was no set of standards governing how jobs and data bases were referenced.

The basic building blocks of this system are the names and abbreviations for central data bases and files (see Exhibit 5).

Descriptive names for computer jobs and programs are important to data processing and SSS staff; well-written names give clear information about what a job or program does. Since these job names appear on internal data processing documents such as the call list (i.e., the responsible person to phone if a job does not run correctly) and external documents such as bills, it is important to make them useful. So, standards were developed to guide job/program name assignment.
Seven major types of information may be included in a job/program name:

- Primary job/program function (e.g., UPDATE)
- Primary job/program output (e.g., REPORT)
- Job/program frequency (e.g., WEEKLY)
- Affected data bases/files (e.g., SOB)
- Selection criteria (e.g., NEW STUDENTS)
- Report/document name (e.g., STU ADDR PHONE DIRECTORY)
- Campus/unit restrictions (e.g., DUL)

Each of these categories is described further in Exhibit 6. Note that each term and abbreviation appearing in this table is part of the Approved Word/Phrase List.

To set up a name for a new job, the most complete name (one that reflects what the job does) is written out first, using Exhibit 6. Then the job name is refined using the general rules shown in Exhibit 7.

In general, periods, commas, and similar punctuation marks are not used, since they take up a minimum of two spaces: one for the symbol, one for the usual accompanying blank space. A further problem is that some characters don’t always print as expected owing to differences in printers and associated software programs. The table below provides notes about how common punctuation marks are used in job/program names:

<table>
<thead>
<tr>
<th>Punctuation</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampersand &amp;</td>
<td>Not used.</td>
</tr>
<tr>
<td>Asterisk *</td>
<td>Not used.</td>
</tr>
<tr>
<td>Colon :</td>
<td>Not used.</td>
</tr>
<tr>
<td>Comma ,</td>
<td>Not used.</td>
</tr>
<tr>
<td>Equal sign =</td>
<td>Not used.</td>
</tr>
<tr>
<td>Hyphen -</td>
<td>A single hyphen with no adjacent blanks may be used to set off a period of time or output medium. See Exhibit 7.</td>
</tr>
<tr>
<td>Less/greater &lt; &gt;</td>
<td>Not used.</td>
</tr>
<tr>
<td>Number sign #</td>
<td>Not used.</td>
</tr>
<tr>
<td>Parentheses ()</td>
<td>Used to set off medium or campus/unit restrictions, for example, (DUL) or (FICHE).</td>
</tr>
<tr>
<td>Percent sign %</td>
<td>Not used.</td>
</tr>
<tr>
<td>Period .</td>
<td>Not used.</td>
</tr>
<tr>
<td>Semicolon ;</td>
<td>Not used.</td>
</tr>
<tr>
<td>Single/double &quot;</td>
<td>Not used.</td>
</tr>
<tr>
<td>Quotes &quot;</td>
<td>Used in place of &quot;and&quot; or &quot;,&quot;, for example, STUDENT CREDIT HR/FTE REPORT.</td>
</tr>
</tbody>
</table>

Production Turnover Documentation (PTD) Procedures

When newly developed jobs or programs and associated disk files are ready to be put into use on a regular basis, they go through a data processing process called production turnover. During production turnover, various matters are settled such as run schedule, job name, project number to be billed, and relationship to other jobs. SSS has a particular interest in ensuring that job name, disk file description, and project number to be billed are correct and meet standards. There is a separate process in SD/O governing that procedure; job names and disk file descriptions used must conform to the standards described above. Applicable standards are Standard Terminology, Data Element Name Standards, Data Dictionary, and Billing-Related Standards.

Forms Standards

Forms include internal and external documents that students, staff, faculty, or others complete. Form letters, whether preprinted or developed on word processors, are also considered forms and subject to these standards. Forms standards have been developed to ensure both consistency and flexibility in SSS forms.

Forms standards are relatively easy to use, as far as mechanics go. They make use of the documented data element naming conventions in our data dictionaries and standard terminology. The biggest problem in form design is not the lack of use of the standards, but the failure to do the necessary forms analysis before proceeding with the design.

Exhibits B and 9 show forms exemplifying most key features of the forms standards:

- Type font (Helvetica for typeset, Letter Gothic for typed)
- Form size (3 available)
- Location of UM logo and form name
- Incorporated instructions
- Boxed format, upper left captions
- Initial caps in captions
- Check boxes and response options
- "For office use only" section
- Distribution line for NCR copies
- Centrally assigned form number/revision date

Report Design Standards

Report design standards are intended for use with all computer-generated reports. The flexible standards allow for some variation depending on programming language used (e.g., COBOL vs. EZTRIEVE), printer capabilities (e.g., laser vs. line), and the like. Major features of the report design standards include:

- Standard University/SSS identification
- Job description, job name, run date, page
- Standardized titles to include key report aspects (e.g., sort and selection criteria, data date being reported)
- Identification of all control breaks
- Use of standard element names and abbreviations from the data dictionaries
- Use of standard terminology
- Rules for spacing and location of column headers
- Specifications for designating subtotal and total information
• Rules for punctuation use
• Location of footnotes
• Handling of reports to be divided before distribution
• Table numbers on multi-table reports

Exhibit 10 shows some of these key features.

Screen Design Standards

SSS computing systems are typically developed within each operational area; however, when put into production, screens and functions are shared by staff across operational areas as well as staff on other campuses and in the colleges. Standardization of the screens greatly facilitates training and use of our systems.

Screen standards include the following features:
• Size—24 rows by 80 columns
• Reserved column for screen formatting
• Reserved space before each data field for "attribute byte"
• Distinction between entry and display fields
• Location/style of screen title
• Location/format for date/time information
• Reservation of most of line 2 for non-display "passline" information
• Location for USERID
• Location for BATCH number if an update screen
• Location for selection of new screen options
• Reservation of row 24 for IMS and Tables/OLI messages
• Consistent location/format for key student identifiers
• Use of standard element names and long or short abbreviations from the data dictionary
• Guidelines for making screens less cluttered visually
• Consistent rules for use of PF keys
• Standard messages
• Use of standard flag (*) to indicate "more data"

These may be noted in Exhibit 11.

Guidelines for Procedure Manuals

Guidelines for documenting office procedures are intended for use at all levels of documentation, from a single procedure to an entire set of linked computer system/manual procedure manuals. Advantages in similar formats across SSS units are considerable, ranging from easing staff training and transition from unit to unit to facilitating editorial support for procedure manual preparation.

As is the case with other standards, the mechanics are the easy part. The hard part is organizing the text and planning how and by whom the manual will be used. In general, manuals are widely reviewed before becoming final—within the operational unit (including management staff) and sometimes outside (e.g., S0/0 staff for computer system related manuals).

The typical manual consists of the following sections, with those indicated by an asterisk (*) optional:
• cover page
• table of contents
• list of tables*
• list of figures*
• list of exhibits*
• text of manual
• exhibits*
• appendices*
• glossary of special terms*
• index*

The Guidelines for Office Manuals addresses the following topics:
• Production guidelines (e.g., use of WP center)
• Page numbering and page headings
• Margins
• Paragraph style (block)
• Section/subsection numbering and titles
• Vertical lists
• Inclusion of examples
• Inclusion of tables, figures, exhibits, appendices
• Format for table of contents, lists of tables and figures
• Format of glossaries and indexes

Exhibit 12 shows a sample page from the Guidelines for Office Manuals.

Conclusions

The development of standard ways of doing certain computing-related tasks in the user area has helped us design more useful and visually appealing reports, screens, and forms. Billing information is clearer, making job scheduling and problem tracking easier. Communication between data processing and SSS staff has been improved. Finally, materials developed to document standards are used to train users who will be working on development projects, thus greatly expanding our available staff.

Other user groups, working with their own systems or those jointly designed with the assistance of a data processing shop, may wish to consider the adoption of similar standards tailored to their own needs to achieve similar objectives.

For more information contact:

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### Exhibit 1

**Sample Page: Approved Word/Phrase List**

<table>
<thead>
<tr>
<th>WORD/PHRASE</th>
<th>ABBREVIATION</th>
<th>DISPL ABBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACADEMIC</td>
<td>ACAD</td>
<td></td>
</tr>
<tr>
<td>ACCOUNT</td>
<td>ACCT</td>
<td></td>
</tr>
<tr>
<td>ACCOUNTS PAYABLE</td>
<td>ACCT PAY</td>
<td>A/P</td>
</tr>
<tr>
<td>ACCUMULATE</td>
<td>ACCUM</td>
<td></td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>ACH</td>
<td></td>
</tr>
<tr>
<td>ACT APITUDE RATING</td>
<td>AAR</td>
<td></td>
</tr>
<tr>
<td>ACTION</td>
<td>AC/</td>
<td></td>
</tr>
<tr>
<td>ACTIVE</td>
<td>ACTV</td>
<td></td>
</tr>
<tr>
<td>ACTIVE STUDENT FILE LOOKALIKE</td>
<td>ASF</td>
<td></td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>ACTY</td>
<td></td>
</tr>
<tr>
<td>ADDITIONAL</td>
<td>ADDL</td>
<td></td>
</tr>
<tr>
<td>ADDRESS</td>
<td>ADDR</td>
<td></td>
</tr>
<tr>
<td>ADDRESSING AND MAILING</td>
<td>ADDR/MAILG</td>
<td>A/N</td>
</tr>
<tr>
<td>ADJUST (ED) (MENT)</td>
<td>ADJ</td>
<td></td>
</tr>
<tr>
<td>ADMISSION</td>
<td>ADM</td>
<td></td>
</tr>
<tr>
<td>ADMIT</td>
<td>ADN</td>
<td></td>
</tr>
<tr>
<td>ADVISE (ER) (ING)</td>
<td>ADV</td>
<td></td>
</tr>
<tr>
<td>AFFILIATION</td>
<td>AFFI</td>
<td>AFF</td>
</tr>
<tr>
<td>AGENT</td>
<td>AGT</td>
<td></td>
</tr>
<tr>
<td>AGRICULTURE</td>
<td>AGRI</td>
<td>AG</td>
</tr>
<tr>
<td>ALLOCATE</td>
<td>ALLOC</td>
<td>ALLOC</td>
</tr>
<tr>
<td>ALLOWED</td>
<td>ALLOW</td>
<td>ALLOW</td>
</tr>
<tr>
<td>ALTERNATE</td>
<td>ALT</td>
<td></td>
</tr>
<tr>
<td>AMERICAN COLLEGE TESTING PROGRAM</td>
<td>ACT</td>
<td>A</td>
</tr>
<tr>
<td>AMERICAN INDIAN</td>
<td>AI</td>
<td></td>
</tr>
</tbody>
</table>

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### Exhibit 2

**SSS Standards Applying to Functions**

<table>
<thead>
<tr>
<th>Function</th>
<th>Applicable Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer report layout</td>
<td>Standard Terminology</td>
</tr>
<tr>
<td></td>
<td>Data Element Name Standards</td>
</tr>
<tr>
<td></td>
<td>Data Dictionary</td>
</tr>
<tr>
<td></td>
<td>Report Design Manual</td>
</tr>
<tr>
<td></td>
<td>Billing-Related Standards</td>
</tr>
<tr>
<td>Computer system development</td>
<td>Standard Terminology</td>
</tr>
<tr>
<td></td>
<td>Data Element Name Standards</td>
</tr>
<tr>
<td></td>
<td>Data Dictionary</td>
</tr>
<tr>
<td></td>
<td>Report Design Manual</td>
</tr>
<tr>
<td></td>
<td>Screen Design Manual</td>
</tr>
<tr>
<td></td>
<td>Billing-Related Standards</td>
</tr>
<tr>
<td></td>
<td>Forms Standards</td>
</tr>
<tr>
<td></td>
<td>Guidelines for Office Manuals</td>
</tr>
<tr>
<td>CRT screen layout</td>
<td>Standard Terminology</td>
</tr>
<tr>
<td></td>
<td>Data Element Name Standards</td>
</tr>
<tr>
<td></td>
<td>Data Dictionary</td>
</tr>
<tr>
<td></td>
<td>Screen Design Manual</td>
</tr>
<tr>
<td></td>
<td>Billing-Related Standards</td>
</tr>
<tr>
<td>Form development</td>
<td>Standard Terminology</td>
</tr>
<tr>
<td></td>
<td>Data Element Name Standards</td>
</tr>
<tr>
<td></td>
<td>Data Dictionary</td>
</tr>
<tr>
<td></td>
<td>Forms Standards</td>
</tr>
<tr>
<td>Office manual development</td>
<td>Guidelines for Office Manuals</td>
</tr>
<tr>
<td>Production turnover process</td>
<td>Standard Terminology</td>
</tr>
<tr>
<td></td>
<td>Data Element Name Standards</td>
</tr>
<tr>
<td></td>
<td>Data Dictionary</td>
</tr>
<tr>
<td></td>
<td>Billing-Related Standards</td>
</tr>
</tbody>
</table>
Exhibit 3
Sample Page: Student Data Base Data Dictionary

ELEMENT NAME: UNIT CODE, INSTRUCTIONAL

COBOL NAME: UNIT-CODE-INSTRUCTIONAL

FIELD NUMBER: C0000010(1)

TYPE: ALPHANUMERIC

USAGE: DISPLAY

PICTURE: 00002

STATUS/DATE: 05.10/16/80

ABBREVIATION: UNIT CD

DB/FILE ID: SDBP0001/2/3

DB/FILE NAME: STUDENT DATA BASE

DEFINITION:

CODE INDICATING UNIVERSITY INSTRUCTIONAL UNIT (E.G., 17 - COLLEGE OF LIBERAL ARTS). A COMPLETE CODE LIST IS AVAILABLE FROM THE OFFICE OF ADMISSIONS AND RECORDS.

CODES USED:

TWO CHARACTERS WHICH MAY BE BLANK OR NUMERIC AS FOLLOWS:

02 MGMT  SCHOOL OF MANAGEMENT
03 VMED  COLLEGE OF VETERINARY MEDICINE
04 DENT  SCHOOL OF DENTISTRY
05 DH  DENTAL HYGIENE PROGRAM
06 COED  COLLEGE OF EDUCATION
07 TECH  INSTITUTE OF TECHNOLOGY
08 GRAD  GRADUATE SCHOOL, TWIN CITIES AND DULUTH CAMPUSES
09 LAW  LAW SCHOOL
10 CBS  COLLEGE OF BIOLOGICAL SCIENCES
11 MED  MEDICAL SCHOOL
12 MOT  MEDICAL TECHNOLOGY
14 NURS  SCHOOL OF NURSING
15 PHAR  COLLEGE OF PHARMACY
17 CLA  COLLEGE OF LIBERAL ARTS
18 UC  UNIVERSITY COLLEGE
19 GC  GENERAL COLLEGE
20 PUB  H SCHOOL OF PUBLIC HEALTH
21 PT  PHYSICAL THERAPY
23 OT  OCCUPATIONAL THERAPY PROGRAM
24 DUL  DULUTH CAMPUS, NON-GRADUATE SCHOOL (NO LONGER USED)
25 MSCI  MORTUARY SCIENCE
26 MAYO  MAYO GRADUATE SCHOOL OF MEDICINE
27 MOR  MORRIS CAMPUS

(CONTINUED)
Exhibit 5
Student Record Data Base/File Names/Abbreviations by System

**DATA DICTIONARY**
- Data Dictionary Data Base (UCC10)
  - Abbreviation: UCC10

**STUDENT DATA BASE & RELATED FILES**
- Student Data Base, Demographic (SDBP0001)
  - Abbreviation: DSH
- Student Data Base, Active (SDBP0002)
  - Abbreviation: ASB
- Student Data Base, Inactive (SDBP0003)
  - Abbreviation: SI0DB
- (Student) Daily Audit Data Base
  - Abbreviation: SDAB
- (Student) Weekly Audit File
  - Abbreviation: SWF
- Student Data Base Secondary Indexes
  - Abbreviations: SDB SEC INDEX, SDB FILE NO SEC INDEX, SDB SSN SEC INDEX, SDB NAME SEC INDEX

**COURSE DATA BASES & RELATED FILES**
- Course Card Master (old format file)
  - Abbreviation: CCM
- Authorized Course Master (old format file)
  - Abbreviation: ACM
- Course Offering Data Base
  - Abbreviation: CODB
- Course Audit Data Base
  - Abbreviation: CADB
- Future Course Offering Data Base
  - Abbreviation: FCODB

**TABLES DATA BASE**
- Tables Data Base
  - Abbreviation: TDB
- Tables/DLI Data Bases
  - Abbreviation: TDB

**APPLICANT FILE & RELATED FILES**
- Applicant File (current)
  - Abbreviation: APPL FILE
- Applicant File (historical)
  - Abbreviation: APPL HIST FILE
- Admissions/Prospective Students Data Base
  - Abbreviation: ADMDB
- Admissions/Prospective Students Data Base Secondary Indexes
  - Abbreviations: ADMDB SEC INDEX, ADMDB FILE NO SEC INDEX, ADMDB SSN SEC INDEX, ADMDB NAME SEC INDEX

**REGISTRATION DATA BASES & RELATED FILES**
- Send/Receive Data Base
  - Abbreviation: SR0D
- Student Accum Data Base
  - Abbreviation: SADB
- Daily Accum Data Base
  - Abbreviation: DADB

**COMPUTER CHECK DATA BASE & RELATED FILES**
- Computer Check Data Base
  - Abbreviation: CCEB

**SECURITY DATA BASE**
- Security Data Base
  - Abbreviation: SECDB

**ASF/SM/TRANSCRIPT & RELATED FILES**
- Active Student File Look-Alike
  - Abbreviation: ASF
- Student Master File Look-Alike
  - Abbreviation: SMF
- Student Master File (3-quarter)
  - Abbreviation: 3-QUARTER SMF
- Transcript File
  - Abbreviation: TRANSF FILE

Exhibit 6
Job/Program Name Key Words Reference

<table>
<thead>
<tr>
<th>Category</th>
<th>Suggested Key Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Job/program function</td>
<td>BACKUP, BKUP</td>
</tr>
<tr>
<td></td>
<td>COPY, CPY</td>
</tr>
<tr>
<td></td>
<td>DISTRIBUTE, DIST</td>
</tr>
<tr>
<td></td>
<td>IMAGE COPY, IM CPY</td>
</tr>
<tr>
<td></td>
<td>INITIALIZE, INIT</td>
</tr>
<tr>
<td></td>
<td>LOAD</td>
</tr>
<tr>
<td></td>
<td>PRODUCE, PROD</td>
</tr>
<tr>
<td></td>
<td>PURGE, PEAR</td>
</tr>
<tr>
<td></td>
<td>RELOAD, RELD</td>
</tr>
<tr>
<td></td>
<td>REORGANIZE, REORG</td>
</tr>
<tr>
<td></td>
<td>REPLACE, REST</td>
</tr>
<tr>
<td></td>
<td>UNLOAD, UNLD</td>
</tr>
<tr>
<td></td>
<td>UPDATE, UPD</td>
</tr>
<tr>
<td></td>
<td>VALIDATE, VAL</td>
</tr>
</tbody>
</table>

| Primary Job/program output | FLOPPY DISK, FLOPPY |
| | REPORT, RPT |
| | ROSTER, ROST |
| | TAPE, TP |
| | LIST, LIST |
| | TRANSACTION REGISTER, TRANS REG |
| | TRANSCRIPT, TRANSCR |

| Job/program frequency | DAILY, DLY |
| | WEEKLY, WKL |
| | MONTHLY, MHLY |
| | QUARTERLY, QTRLY |
| | ANNUAL |
| | YEARLY, YRLY |
| | SECOND WEEK |
| | FIN WEEK |

| Affected data bases/files | See Exhibit 5 for file/data base names and abbreviations. |

| Selection criteria | NEW STUDENTS, NEW STUD |
| | OMSSA STUDENTS, OMSSA |
| | REGISTRATION, REG |

| Report/document name | STUDENT ADDRESS PHONE DIRECTORY |
| | OFFICIAL REGISTRATION STATISTICS |

| Campus/unit restrictions | TWIN CITIES, TC |
| | CROOKSTON, CRK |
| | DULUTH, DUL |
| | MINNEAPOLIS, MPLS |
| | MORRIS, MOR |
| | ST PAUL, STP |

For unit, use abbreviations found in Tables/DLI Table SSSD19.
Exhibit 7
General Rules for Forming Job/Program Name

<table>
<thead>
<tr>
<th>Situation/Rule</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job restricted to campus/unit:</td>
<td>MAJOR ADVISER REPORTS (DUL)</td>
</tr>
<tr>
<td>Put campus or unit abbreviation in parentheses following job name</td>
<td>1ST DAY CLASS LISTS (CRKIWAS)</td>
</tr>
<tr>
<td>Job run at specific time:</td>
<td>OFF REG STAT-2ND WK</td>
</tr>
<tr>
<td>Put time notation following a single hyphen (no spaces)</td>
<td></td>
</tr>
<tr>
<td>Job with run time and campus/unit restriction:</td>
<td>CLASS LISTS-2ND WK (MOR)</td>
</tr>
<tr>
<td>List time restriction first followed by unit/campus restriction (one space)</td>
<td>FISAP REPORT-YRLY (TC)</td>
</tr>
<tr>
<td>Job produced on fiche or other medium:</td>
<td>COLL ROSTER-4TH WK (FICHE)</td>
</tr>
<tr>
<td>Exact form may vary depending on what other restrictions for run schedule and/or campus/unit may exist.</td>
<td>2ND WK COLL ROST-FICHE (DUL)</td>
</tr>
<tr>
<td>Jobs which perform multiple functions:</td>
<td>STRIP APPL FILE/UPD SD8</td>
</tr>
<tr>
<td>Include multiple functions in job name, using a slash (/) to represent &quot;and.&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Exhibit 8
Sample Form: Request for Change of College

REQUEST FOR CHANGE OF COLLEGE
WITHIN THE UNIVERSITY
University of Minnesota

Please print or type. Do not erase. No carbon is needed.

Student Name (last, first, middle, honors)

Student ID Number Social Security Number Birthdate (month/day/year) Telephone Number

Current Home Address (include apartment number)

City State Zip Code

College When Last Registered Terms and Year When Last Registered

Fall Winter Spring Summer

College to Which Transfer Requested Terms and Year Transfer to Be Effective

Fall Winter Spring Summer

Students signature authorizing release of University of Minnesota records

Have you resided outside of Minnesota since you last registered? D Yes D No

If you do, where _______________________________________________________________________

Are you an international student? D Yes D No

If yes, with what? _______________________________________________________________________

If you attended Continuing Education and Extension classes at the University of Minnesota? D Yes D No

Have you attended other educational institutions since you last registered at the University of Minnesota? D Yes D No

If yes, give the institutions name, location, and dates attended

Names of Colleges

If you are a General College student, you must have a General College counselor sign this form before submitting it to the Office of Admissions.

Advisor's Signature

If office use only

Office of Admissions

College Office

Student's Name (last, first, middle)

Student's ID Number

College Office Phone

If office use only

Signature of Counselor

Office of Admissions

College Office Phone

If office use only

Signature of Counselor

Office of Admissions

[student signature]

[student's signature]

If office use only

Signature of Counselor

Office of Admissions

College Office Phone

If office use only

Signature of Counselor

Office of Admissions

College Office Phone
SENIOR CITIZEN REGISTRATION
University of Minnesota

Use this form to audit or register for credit through the Senior Citizen Education Program. Use a separate form for each course. Complete this form and take it to your instructor. After you receive permission from the instructor to enter the course, ask the instructor to sign this form. Then return the form to the Registration Center or Records Office. Retain the pink copy.

Student Name (last, first, middle, former)  Sex (check one):  [ ] Male  [ ] Female  Today's Date (month/day/year)

Street Address  City  State  Zip Code

Birthdate (month/day/year)  Student ID Number (if any)  Social Security Number  Telephone Number

Term and Year  [ ] Fall  [ ] Winter  [ ] Spring  [ ] Summer Session I  [ ] Summer Session II  1B

Instructor's Signature  Graduate School Approval (required for 8xxx courses)  for office use only

Instructor's Campus Address

UNIVERSITY OF MINNESOTA
OFFICE OF ADMISSIONS AND RECORDS
RECIPROCITY ROSTER
REC-PAR-002-048-04, 05/02/04, PAGE 2

CAMPUS CODE/NAME 041, DULUTH
YEAR/TERM 1983, FALL

UNIV OF MN  FILE NUMBER  SEC SEC NO  STUDENT NAME  UNIT  POLY CLASS  CODE  UNVAD  GRAD  PROFIL  UNVAD  GRAD  PROFIL

111111  000-00-0000  CANINO PATRICIA J  DOLS  4  13.0  483.60
222222  000-00-0000  DURST STUART S  DOLS  3  15.0  471.38
333333  000-00-0000  HARTFELD JESSICA L  IDES  4  17.0  448.12
444444  000-00-0000  KOREL PATRICIA E  DISE  4  14.0  325.04
555555  000-00-0000  MUISTTRE KENNETH D  DOLS  2  10.0  324.86
666666  000-00-0000  SHELBOURN KEVIN E  IDSR  4  20.0  527.20
777777  000-00-0000  SMALING DAVID F  IDVAD  0  15.0  481.90
888888  000-00-0000  STANFORD MARILYN  IDVAD  0  15.0  750.19
999999  000-00-0000  TOWNS TERRY  DICE  2  15.0  356.40

TOTAL THIS PAGE  NUMBER OF STUDENTS: 9  110.0  21.0  .0  5,021.60  1,432.95  .00 (00056)
Consult the documentation editor in the Publications Center at 376-1666 if you need help formatting your manual.

2.6 Vertical Lists
Double-space between a vertical list and the text preceding it. Do not punctuate entries in a list unless they are complete sentences or are followed by complete sentences (in which case use periods, not semicolons, and initial-cap).

For lists with long entries, use numbers followed by a period and one space. Indent one-digit numbers (1 through 9) five spaces from the left text margin; indent two-digit numbers (10 through 99) four spaces to maintain alignment of entries. Single-space within each long entry but double-space between entries. See the example below.

Set off lists that are subordinate to other lists by double-spacing. Begin the subordinate list at the left text margin of the larger list.

**EXAMPLE:**

In applying the policies, take these factors into account:

1. The type of information being requested (public vs. private).
   - Items of public information include:
     a. name
     b. address (unless student has requested suppression of release outside the university)
     c. telephone number (see note about address)
     d. dates of enrollment
     e. date of enrollment termination
     f. major
     g. class
     h. adviser
     i. degrees received and dates of receipt

(continued)