Marks Management & ScanExam Introduction

1. Install Marks Management Software (MMS) and ScanExam

First uninstall your old version of *MMS*. Then, use a web browser to visit ssnds.uwo.ca/softwaredownloads.html and download the install package into a temporary folder on the C: drive. Double click the files to execute the software installation. The *MMS* file download name is **mmsvb6zse.exe** and the *ScanExam* name is **scanxiizse.exe**.

You may register to receive e-mail notifications of new releases and bug reports by clicking on the **Registering** link. At any time you may **Remove** yourself from this list using the links on the software download page.

2. Marks Management

Run the *MMS* software from:
Start > All Programs > Marks Management > Marks Management

The MMS Environment
HELP within MMS:
The HELP menu command provides the best source of documentation for all the features and operations of the software. A Table of Contents and full text word/phrase searching is provided for finding information. A quick lookup of a help topic for any of the commands that appear in the menus is provided by pressing the **F1** key while the command is highlighted. Also, check the FAQ at ssnds.uwo.ca/softwaredownloads.html.

Screen Views
There are **four** views available from the View menu. The view may be changed at any time.
- **Grid Only** displays student and grade information only.
- **Grid with Statistics and Notes** displays fewer students on the screen but includes column statistics, graphs, Student Summary, E-mail Address and Instructor Comments.
- **Grid with Student Photo** displays student pictures if they are available (see HELP for more information).
- **Class Photo Sheets** displays photos without the grid.

Editing MMS Files:
Most cells in a *MMS* file may be edited by first clicking the mouse pointer in the cell to be changed. **When a cell is in edit mode its background colour is white.** Movement is as follows:
- **Tab key** to move to the right.
- **Shift+Tab** to move to the left.
- **Enter key** to move down to the next student within a column.
- **Down arrow** to move down to the next student within a column.
- **Up arrow** to move up to the previous student within a column.
- **Horizontal scroll bar** above the grade columns is used to move across grade columns A through AZ. The quantity of grade columns appearing on the screen

can be increased or decreased by stretching or shrinking the application window and is restricted only by the capacity of the screen.
- **Vertical scroll bar** on the **left** for scrolling through students.

The formula cell may not be edited directly, rather it is set by selecting one of the items available from the FORMULA menu.

The student Status cell (e.g.WDN), course section, and Career Codes fields can not be edited and are changed only under program control using information from a Registrar's class file *Initialize/Update* command.

Flagging:
Students can be flagged for various functions which we will cover later. To flag a student, select the student you wish to flag and choose **Edit > Flag Operations > Flag/Unflag student**. There are various other flagging options available from the **Flag Operations** menu item, including keyboard and mouse shortcuts.

A few of the common uses for flagging are:
- to limit the print of grades to one or a selected group of students
- to send e-mail to one or a selected group of students
- to flag all students prior to a Registrar's Class List Update which will result in quick identification of students in an *MMS* file who are not found in the class list by sorting on the Flag/Section option
- to generate Registrar grade revisions for one or a select group of students
- to save a group of students to a separate file

Sorting:
Using the **Tools > Sort** command you can sort (or order) your *MMS* file. The *MMS* file may be arranged as follows:
- in alphabetical order by last name or career code
- in ascending order by student number or section number
- in ascending or descending order based upon alpha or numeric content in a grade column

MMS sorts are special insofar as secondary keys and missing value codes are automatically applied. For example, **the last name sort automatically uses the first name as a secondary sort key, a career code or section code sort uses the last name and first name as secondary sort keys.** Sorting by the content of a grade column will force all Registrar special codes to the top (ascending sorts) or to the bottom (descending sorts).

Note: Certain *MMS* routines also use the sort to force the file to be rearranged to facilitate various tasks or computations (e.g., a Registrar class list update, Registrar grade printouts).

Saving:
MMS files are now stored in an encoded format to help ensure that their contents are better protected against accidental disclosure or access to private student information.

Before saving an MMS file the instructor must create either an Instructor PIN (8-12 digits) and username or a department PIN and username or both. Both are recommended. Choose **File > PIN(s)** to assign both the Instructor PIN and the Department PIN. You must enter your Western username when you enter the PIN. If you forget your PIN, then you will be prompted to log in using your Western account and your PIN will be displayed for you. It will only work for that username. After you assign a PIN, you can choose any of the **File > Save** options or **File > Exit** and save the file while exiting.

Initialize MMS Class File from Registrar Class File

If you intend to use *MMS* to submit your grades to the Registrar, then you must initialize your file using a Registrar Class List. This can be obtained as follows:

- **Registrar's Faculty/Staff Extranet** – Registrar Class list files and student photos are available from https://www1.regx.uwo.ca/extranet. To gain access to this service you must complete the first two pages of the *Request for Access to Corporate Information* form found at www.uwo.ca/its/accounting/crpfrm.html (Check **OOR ExtraNet Only**).
- **PeopleSoft Student Centre** – Most undergraduate administrators have access to this and it can be used to download class lists. If you have Peoplesoft access, then you can access the Extranet as well.

Choose **File > New** or **File > Initialize or Update from Registrar Class File…** The program will display files in the current folder with the extension *.rcl*.

As a term progresses, or at least prior to submitting final grades, a current class list should be obtained and used to update the *MMS* file to properly reflect student status changes (e.g.WDN), late adds and drops.

Setup Grade Breakdown

This step can be completed either before or after entering grades.

- **TitleA** To enter your own title at the top of each column, just click on TitleA and type in your title.

- **Perfect** The number you enter here depends on whether you have entered the grades as a raw score or as a percentage. If the grades are a percentage then *Perfect* should be 100. If you entered a raw grade out of 15 then *Perfect* should be 15. Column statistics are calculated based on a *Perfect* score of 100 unless specified otherwise.

- **Weight** If a particular test makes up 10% of the final grade, then the weight should be entered as 0.10. The weights of all columns used in the final grade calculation should total 1.00. If a column will not contribute directly to the final grade calculation you do not need to specify a weight.

- **Formula** If, for example, you had four labs but students only had to complete three of them, or only the top three grades would be included in the final grade,

you would enter a formula to calculate the *Best 3 of 4*. If an exam is made up of multiple choice questions and essay questions, you would want to calculate an exam score by totaling the multiple choice mark (entered from *ScanExam*) and the essay mark. You can create custom formulae or use boxed ones.

Enter Grades

There are four different ways to enter grades into *MMS*:

- **File > Load ScanExam grades into column…** You will be prompted to select the column letter in which you wish the grades to go. The *ScanExam* output file has the extension *.dpc* and a DPC file contains lines of data that have the format of student number, some delimiter, and grade (see example in handout). Therefore, this menu item will load both *ScanExam* output files and any other grade files formatted as DPC files.

- **Edit > Match Paste from Clipboard to MMS…** You can cut and paste marks from **Excel**. The transfer of a student number column and a grade column from a spreadsheet (e.g. Excel) requires that the two spreadsheet columns appear adjacent to each other with the student number column always being the first column. Once you have copied the information from the spreadsheet to the clipboard, in *MMS* choose **Edit > Match Paste from Clipboard to MMS**. You will be prompted to select a column letter into which the grades will be pasted. All non-matches are rejected into an error file for subsequent resolution.

- **Edit > Match Copy from MMS to Clipboard…** Copy Marks from another *MMS* file into your *MMS* file.

  1. Open Marks Management twice; one with the Master *MMS* file and one with the lab/tutorial section *MMS* file.
  2. In the Lab section *MMS* file choose **Edit > Match Copy from MMS to Clipboard** (select the final grade column identifier).
  3. In the Master *MMS* file choose **Edit > Match Paste from Clipboard to MMS** (select the column identifier representing the column where you wish to place the lab grades). For students not in the current lab section an NGR will be inserted. When adding subsequent lab sections you will receive a warning. You should click on NO so that the column is updated and NOT overwritten.
  4. Repeat until all lab sections have been entered.

- **Enter Grades Manually**. Marks from things like term papers and essay tests may need to be entered manually. Simply click in the cell and enter the grade.

Note: Whenever you see **** Calculate Recommended **** at the top of your screen, it means that the program recognizes that a change has been made which would change either a student's calculated grade or summary statistics. Unlike spreadsheets which update dynamically, *MMS* displays the **Calculate** message and allows you to choose the timing of the recalculation. You will be prompted to press calculate before critical functions such as submitting grades, or sending grades via e-mail.

Calculate Final Grades

Under Help you should read the *Built in Formulae > Final and Term Grade Calculations* to see what's available. We will just cover the basic final grade calculation in this course.

- **Formula > Specify columns for final grade calc**. If you set up the grade breakdown at the outset, you may have already taken care of it. Ensure that all columns contributing to the final grade calculation have weights that add up to 1.00. Specify the input columns and the output column and click **OK**.
- **Rounding and Bumping**. You may choose to experiment with rounding and bumping the final grade into other columns. **Formula >Round a column of grades** or **Formula > Round and Bump 9's.** Marks are rounded when they are submitted to the Registrar so it would be wise to round your final grade column to save a copy of the rounded grades in your *MMS* file.

Submit grades to the Registrar

- **File -> Registrar Reports -> Grade Submission -> e-file form > Create and send file to Registrar.** Choose the column letter representing the column that contains the final grade (please select the column letter CAREFULLY as this is a possible source of ERROR). You will be prompted to enter your UWO Username and Password. Read the summary screens carefully to confirm that the file has sent and where a copy of the file is saved.
- If you are off campus choose **File -> Registrar Reports -> Grade Submission -> e-file form > Create file only**. This will save an encrypted copy of the grade file. Contact your department for instructions on submitting it.
- All encrypted grade files are saved in a subfolder called *gradesubmissions* in your current folder.
- Encrypted grade files can be viewed by choosing **File -> Registrar Reports -> Grade Submission -> e-file form > View encrypted files**.

Print grades

- **File -> Registrar Reports -> Grade Submission -> print form** and select the letter representing the column where the final marks are listed. This produces a copy for signing should your department require that.

- **File > Print** There are a number of options to choose from. Only print options labeled **(masked ids)** are appropriate for posting grades on your door. The first 4 digits are masked and the remaining digits are sorted numerically to abide by FIPPA regulations.

Grade Revisions

Simply enter the revised grades in a column to the right of the original grade. Then flag the student(s) whose grades need to be revised (double-click student and * appears in section column). Ensure that the revised grade is in a column to the right of the original

grade. Then **File > Registrar Reports > Grade Revision > e-file form** (see *Submit Grades to the Registrar* above) or **print form**. Select the columns representing the originally submitted grade and the revised grade. As above, all encrypted grade files are saved in a subfolder called *gradesubmissions* in your current folder.

WebCT-OWL

You can transfer grade information from MMS grade columns to WebCT-OWL Instructor GradeBooks and from WebCT-OWL GradeBook columns into MMS grade columns. UWO WebCT-OWL and MMS differ somewhat in how they manage student information. WebCT-OWL uses the student's unique Western e-mail address while MMS uses the Registrar's unique student number. MMS also maintains student e-mail address information so it is capable of linking its information to WebCT-OWL, however it is important that both the MMS and the WebCT-OWL files are initialized from Registrar files to ensure accuracy between the two systems.

Export MMS Grade Column(s) Directly into WebCT-OWL Gradebook

MMS grade columns may be exported directly into a WebCT-OWL gradebook via the Grade Upload module. In order to run, the module requires that Java is installed on your computer. Choose **Tools > WebCT-OWL > Export MMS grade columns directly into WebCT-OWL Gradebook**. Follow the more detailed instructions in MMS Help.

Please contact the UWO WebCT-OWL support staff if you require assistance or have difficulties obtaining the required module for using this feature.

Import Grades as CSV for WebCT-OWL

WebCT grade columns exported into a file using the WebCT-OWL CSV export format can be directly loaded into MMS grade columns by choosing **Tools > WebCT-OWL > Import WebCT-OWL Grade Columns CSV into MMS**.

> **Note:** A WebCT-OWL export CSV file may have multiple grade columns, however the loading of a multiple columns file must be done in MMS one column at a time. MMS will prompt for both the desired WebCT-OWL named column which is to be loaded and the MMS destination column.

E-mail Grades to Your Students

You can use *MMS* to send e-mail's to the students in your class. If you use this feature, the students should be instructed to either use their University e-mail address or set automatic forwarding of their UWO e-mail.

Choose **Tools > Send E-Mail.** The default settings will have the *Mail From* address set to **noreply@uwo.ca** and the *SMTP Mail Server* will be **smtp.uwo.ca**. If you wish to change either of these, just click on the item and it will go into an edit screen.

First you must **Flag** the students to whom you are sending e-mail. Then choose **Tools > Send E-Mail > Send Message, Grades, Attachments…** Type any text you wish to

appear in the message. To attach grades, click on the box beside *Grades* and select the grade columns you wish to send. To attach a file, click in the box beside *Attach File #* and browse and select your file. When you are ready to send the message, click **Send** at the top. You will be notified when the messages have been sent. A copy of the sent messages will be saved in your current directory under *mailfolder#* by student number. If you wish to see what the e-mail will look like first, choose **Tools > Send E-mail > Send Sample E-mail to Instructor.**

3. ScanExam-II

Run the *ScanExam* software from:
    Start > All Programs > ScanExam-II > ScanExamII

The ScanExam Environment
The HELP menu command provides the best source of documentation for all the features and operations of the software. A Table of Contents and full text word/phrase searching is provided for finding information. A quick lookup of a help topic for any of the commands that appear in the menus is provided by pressing the **F1** key while the command is highlighted. Also, check the FAQ at ssnds.uwo.ca/softwaredownloads.html.

Navigating
- The **Browse Forward** and **Browse Back** buttons permit sequential browsing forward and backward through the file.
- The **Flip Page** button turns over the sheet to view questions 61-180.
- You can also find a specific student number by choosing **Edit > Find Student** and enter the student number you are searching for.
- The **Serial #** is a number assigned by the scanner. This is a feature that ITS has on their scanner. If there are no Serial Numbers assigned (as in SSC), ScanExam assigns them sequentially starting at 0001.
- The **Exam Code** must be used when multiple versions of exams are written (111,222,…).

Screen Views
- **Student Scan Sheets**: This is the Default view. Displays student answers as they appear on the answer sheet. Click to shade or unshade an answer choice. Grading on right changes dynamically as you make changes. Cyan highlights indicate problems. Red question numbers indicate wrong answers.

- **Exam Analysis**: Display of various statistics that you can select from the menu at the bottom left of the screen. All statistics use student percentage scores rounded to one decimal place and not Raw scores.

- **Master Answer Key**: Looks just like the Student Scan Sheet view except the navigation buttons on the left are gone, the student number is 999999999 and the Exam Code is fixed as blank or 000. A question with no answer is displayed as cyan. If a question has more than one answer, the second answer is not displayed.

ScanExam supports two formats. The extended format allows for more answer choices as well as multiple answers. (Show **Format > Extended Multiple Responses** and show the sheets).

Bring the exams to be scanned

If your course is a Main Campus Social Science course you can bring your scan sheets to our main office for scanning. You should check with the office for the procedures for submitting exams to be scanned. If ITS is scanning your exams, you should check with them for instructions.

- The exams will be scanned and the results will be e-mailed to you as a DAT file.

- Save that DAT file to your hard drive and make a note of the folder where you saved it.

- You should reclaim the scanned sheets for later reference.

Open a DAT file in ScanExam-II
Choose **File > Open DAT File (Scanned Exams)**. Open the file from the location where you saved it from your e-mail. The default in *ScanExam* assumes that all questions have a weight of 1, the score is the sum of the weights with no penalty, there is a single version of the exam, and there is only one correct answer for each question. The **Scan Error Summary** is displayed when the file is opened for your attention.

Enter the Master Answer Key
Normally a Master Answer Key is handed in with the *ScanExam* sheets to be scanned. The student number is 999999999 and the Exam Code is blank or 000. If you did not include a Master Answer Key, then you must enter one now.

Click on **View > Master Answer Key**. You will be prompted to enter the number of the last exam question. After that, the answer key will be displayed and all answers will be cyan. For each question, click on the correct answer choice.

Load Master Answer Key
This is an ideal solution for classes with multiple sections writing the same test. With this method, there is no Master Scan Sheet, or multiple copies of it, that can be lost. Enter the Master Answer Key in a ScanExam file. Enter your Exam mappings for multiple versions of the same exam. Then save it by choosing **Options > Save Options into an OPT file**. Send the OPT file to the TAs responsible for marking. The TAs then open a DAT file and choose **Options > Load Options from an OPT file**. *(Later if a question is determined to be a bad question, the correction can be made to the OPT file, a new version can be sent to the TAs and loaded.)* There is very little room for error.

Check the Data

- **Edit > Scan Error Summary**. Locate each sheet with errors by clicking the **Find Next ERROR** command button. Questions with errors are displayed in cyan. Errors are caused by incomplete erasures, more than one answer choice

being selected, faint answer marks, blank answers, missed or multiply marked bubbles in the student answer field, or a missing exam or section code if these are used. Compare errors with the original sheets.

To search for specific types of errors, choose **Edit > Find** and select an option from the menu. You can also click on the **Find Next ERROR** button in combination with other keys. You can see the key combinations when you hover over the **Find Next ERROR** button.

- **Edit > Validate Student Numbers**. You can validate the student numbers in your *ScanExam* file against a Registrar's Class List file or the *MMS* file for the class. Any exam sheet student number that cannot be matched against the authority file is reported in a list on the screen. Locating invalid sheets must be done by using the **Edit > Find Student** command.
It is Important to do this before you load the scan exam grades into MMS.

Check for bad questions

- **View > Exam Analysis > General Item Analysis**. There are a lot of things in the General Item Analysis that we won't cover in this course. You can read about them in the Help on in the User Notes on the web. One important and easy thing to look for is a *Zero or Negative Point Bi-Serial*. A negative point bi-serial means that the worst students got the answer right while the best students got it wrong. Zero means either nobody or everybody got it right. That could indicate an error on the answer sheet or an ambiguous question or answer choice. A point bi-serial of +.30 and above is very good.

Apply Custom Weights

- **Choose Options > Custom Weights**. The default weight for each question is one. If you wish to change that for any questions, scroll through the question and simply enter the changed weight. Click on **OK** once you have entered all the weight changes.

Transfer Grades to Marks Management
Tools > Create DPC file (for MMS loads) and choose either **percentage grades** or **raw score**. If you choose *raw score* remember if you have excluded a question. The file is created with a *.dpc* extension that you will be prompted to name and save in the folder of your choosing. It's important to remember where you save the file. The output file is compatible for loading into the Marks Management System (*MMS*) as well as spreadsheet packages such as Excel.

Transfer Grades to WebCT-OWL
Tools > Create CSV file (for WebCT-OWL loads) and choose either **percentage grades** or **raw score**. If you choose *raw score* remember if you have excluded a question. The file is created with a *.dpc* extension that you will be prompted to name and

save in the folder of your choosing. You will be prompted for an MMS or RCL file to validate against. If you validate with an MMS file, you will be prompted to enter the Access PIN for that file. The output file is compatible for loading into *WebCt-OWL* as well as spreadsheet packages such as Excel.

Flagging Students

The ability to flag students for a variety of purposes is provided both for Scan Exam purposes and for general uses by instructors. For example, Scan Exam uses flagging to control student e-mail sends, create subset DAT files, create subset Export CSV files, create subsets based upon subset exam analysis where exam codes and/or section codes are used. Flags placed on students are retained when a DAT file is saved. Choose **Edit > Flag Operations**. When a group of students are flagged for e-mails, the summary statistics sent with the e-mail are for the full class unless a subset is selected.

E-mail Grades from ScanExam

You must have an RCL file or an *MMS* file for your class before you can e-mail from *ScanExam.*   It is recommended that you validate student numbers (see above) before using this feature. The *ScanExam* program will validate for you when you attempt to send mail and if there is a mismatch, the send mail will be cancelled. As with *MMS*, if you use this feature, the students should be instructed to either use their Western e-mail address or set automatic forwarding of their Western e-mail.

Flag the students you wish to e-mail. Then choose **Tools > Send HTML Student E-Mails.** The default settings will have the *Mail From* address set to **noreply@uwo.ca** and the *SMTP Mail Server* will be **smtp.uwo.ca**. If you wish to change either of these, just click on the item and it will go into an edit screen.

When you use E-mail in *ScanExam*, only flagged students in the *ScanExam* file will be sent mail. Choose **Tools > Send HTML Student E-Mails > Send Scores, Answers, Exam Stats…** You will be prompted to select a corresponding *MMS* or RCL file. If you validate with an MMS file, you will be prompted to enter the Access PIN for that file. Next, type any text you wish to appear in the message. To attach a file, click in the box beside *Attach File #* and browse and select your file. When you are ready to send the message, click **Send** at the top. You will be notified when the messages have been sent. A copy of the sent messages will be saved in your current directory under *mailfolder#* by student number.

Before sending your message to students, you can choose to **Send sample e-mail to Instructor**. The first flagged student's grades will be sent to the instructor e-mail that you enter. The students will remain flagged until the actual send.

Exam Mapping

When doing custom question or custom answer mapping, when taken from the perspective of the student writing the exam, ask where the question or answer would be found on the master key. If the first question on my mapped exam is question 10 on the master key, then 10 is the mapping. If the E answer is in the A position, D in B, C in C,

B in D, and A in E, then the mapping is EDCBA. See the Help item for more information.

There is also a Create Mapped Exams Tool which will assemble your exams from a bank of prepared questions while applying the preset or Custom mapping rules. See the Help on **Options > Preset Question Mapping** and **Tools > Create Mapped Exams (000-999)**.

Printing

There are various print options that can be found by choosing **File > Print**. For TAs consulting with students in their office where they might not have a computer, the option to **Print Student Answers** gives you a list that can be cut up and shown to students individually. Additionally, **Print Exam Analysis > Descriptive** gives the score statistics and summary and three graphs and it is acceptable to post this information. Finally, if you choose **Print Option Settings** you will see the answers and options as they apply individually to each of your mapped versions.