Master Schedulizer

Usage Documentation

Created by:

Anh Huynh

Alex Marion

Mahmuda Liza

Purav Barot

Ryan Efendy

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1. About the MasterSchedulizer

MasterSchedulizer serves to streamline the process of creating a plan of study, as well as to allow users to keep track of requirements and electives. Given a user's major(s) and minor(s), MasterSchedulizer creates a generic template which outlines a full college plan. The user can then add tracks, minors, electives, and other classes of interest. MasterSchedulizer will also track requirements and make sure that the plan of study doesn't violate university policy and is possible in the given timeframe (all courses must be available in the chosen term, etc.).

If integrated into Drexel's systems MasterSchedulizer would allow advisors to track advisees with greater ease. Heads of departments could also track the number of students who are taking a specific course in any given quarter giving a better estimate of the needed sections.

2. Installation Instructions

2.1. <u>Install the Java JDK</u>
Since MasterSchedulizer is mostly implemented in Java, it is necessary for the system to have Java installed.
Instructions to install the Java JDK can be found here:
https://www.java.com/en/download/help/download_options.xml

2.2. <u>Install Eclipse (recommended)</u>
MasterSchedulizer was implemented inside the Eclipse IDE. As a result, it is most optimized to run the program inside Eclipse IDE.
Instructions to install the Eclipse can be found here:
https://eclipse.org/downloads/index.php?show_instructions=TRUE

2.3. Open MasterSchedulizer project in Eclipse

3. Operation Instructions

3.1.   Start Master Schedulizer

```
      .--------------------------------------------------------------.
    /    .-.                                                    .-.    \
   |    /   \                                                  /   \   |
   |    |\_.  |                    WELCOME TO                  |    /| |
   |\|   | /|                  MASTER SCHEDULIZER              |\   | |/|
   |  `___'  |                                                 |  `___' |
   |         |                                                 |        |
   |         |---------------------------------------------|   |        |
   \         |                                                 |        /
    \       /                                                  \       /
     `.___.'                                                    `.___.'

      +-----------------------------------------------------------------+
      | = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
      |{>/---------------------------------------------------------\<}|
      |:  |                                                        |  :|
      |  :|                                                        |:  |
      |:  |            Please make a selection:                    |  :|
      |  :|                1) Load Plan of Study                    |:  |
      |:  |                2) Create New Plan of Study              |  :|
      |  :|                3) Print Sample Plan of Study            |:  |
      |:  |                4) Exit                                  |  :|
      |  :|                                                        |:  |
      |:  |                                                        |  :|
      |{>\---------------------------------------------------------/<}|
      | = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
      +-----------------------------------------------------------------+

Enter menu choice: 1
Enter file path: sample.csv
```

Figure 1
The menu that appears when use first runs MasterSchedulizer. User can now choose to execute one of the commands by entering the corresponding number of each command. In this illustration, the user chooses to import an existing POS (whose name is "sample.csv") by entering 1 into the command promt.

3.2. Import an existing POS

```
+---------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/---------------------------------------------------------\<}|
|: |                                                       | :|
| :|                                                       |: |
|: |             Please make a selection:                  | :|
| :|                 1) View Plan of Study                 |: |
|: |                 2) Add Course                         | :|
| :|                 3) Remove Course                      |: |
|: |                 4) Move Course                        | :|
| :|                 5) Save                               |: |
|: |                 6) Back                               | :|
| :|                 7) Exit                               |: |
|: |                                                       | :|
| :|                                                       |: |
|{>\---------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+---------------------------------------------------------------+
Enter menu choice:
```

Figure 2
After entering a file path to an existing POS (a csv file), the user will be prompted to choose view, modify or save the current POS. The user can enter the corresponding number to execute the desired command.

3.3. Create a new POS

Choosing to create a POS will result in the exact same screen as *Figure 2*.

3.4. View POS

```
+---------------------------------------------------------------------------------+
Enter menu choice: 1
+---------------------------------------------------------------------------------+
|                              PLAN OF STUDY                                       |
|                                                                                 |
+---------------------+----------------+----------------+-----------------+
| NAME:               | STUDENT ID#:   | MAJOR:         | CURRENT DATE:   |
+---------------------+----------------+----------------+-----------------+
| FALL QUARTER        | WINTER QUARTER | SPRING QUARTER | SUMMER QUARTER  |
+---------------------+----------------+----------------+-----------------+
|                         Year: 2015 - 2016                               |
+---------------------+----------------+----------------+-----------------+
| CI 101              | CI 102         | PHYS 201       | SUMMER BREAK    |
| CS 164              | CIVC 101       | CI 103         |                 |
| MATH 121            | COOP 101       | CS 172         |                 |
| ENGL 101            | CS 171         | ENGL 103       |                 |
| UNIV 101            | ENGL 102       | MATH 123       |                 |
| PHYS 101            | PHYS 102       |                |                 |
|                     | MATH 122       |                |                 |
|                     |                |                |                 |
+---------------------+----------------+----------------+-----------------+
| total credits:      | total credits: | total credits: | total credits:  |
+---------------------+----------------+----------------+-----------------+
|                         Year: 2016 - 2017                               |
+---------------------+----------------+----------------+-----------------+
| CS 265              | CS 260         | COOP 1         | COOP 1          |
| CS 270              | CS 275         |                |                 |
| MATH 201            | MATH 221       |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
+---------------------+----------------+----------------+-----------------+
| total credits:      | total credits: | total credits: | total credits:  |
+---------------------+----------------+----------------+-----------------+
|                         Year: 2017 - 2018                               |
+---------------------+----------------+----------------+-----------------+
| COM 230             | CS 283         | COOP 2         | COOP 2          |
| CS 281              | CS 360         |                |                 |
| CS 350              |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
+---------------------+----------------+----------------+-----------------+
| total credits:      | total credits: | total credits: | total credits:  |
+---------------------+----------------+----------------+-----------------+
|                         Year: 2018 - 2019                               |
+---------------------+----------------+----------------+-----------------+
| MATH 410            | PHIL 311       | COOP 3         | COOP 3          |
| MATH 311            | CS 451         |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
+---------------------+----------------+----------------+-----------------+
| total credits:      | total credits: | total credits: | total credits:  |
+---------------------+----------------+----------------+-----------------+
|                         Year: 2019 - 2020                               |
+---------------------+----------------+----------------+-----------------+
| CI 491              | CI 492         | CI 493         |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
|                     |                |                |                 |
+---------------------+----------------+----------------+-----------------+
```
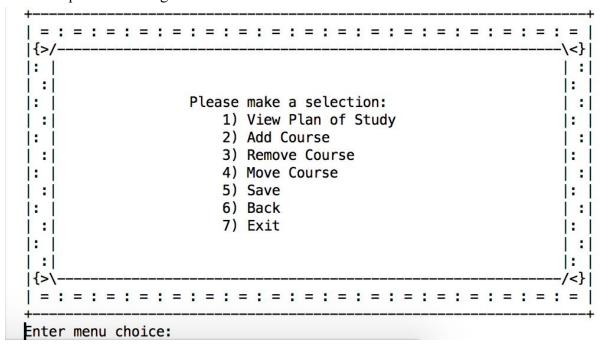
Figure 3
The layout of a POS inside MasterSchedulizer. This POS appears when user chooses to view POS (each menu has this option, so that the user can verify the changes he/she made
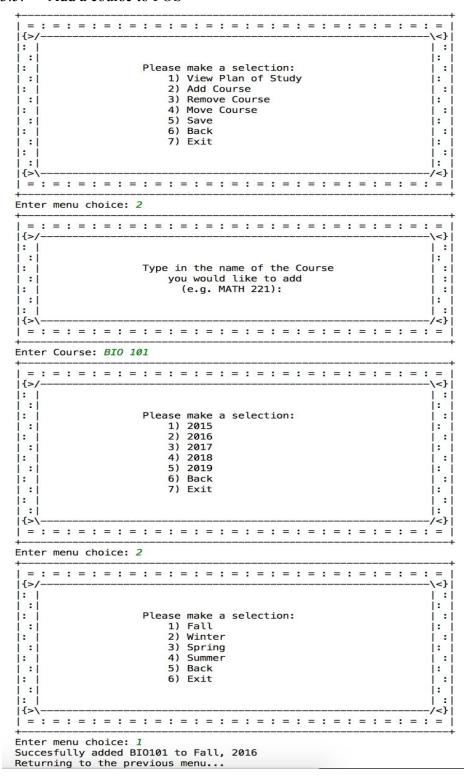
3.5. Add a course to POS

```
+---------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/-----------------------------------------------------\<}|
|:  |                                                   |  : |
| : |                                                   | :  |
|:  |              Please make a selection:             |  : |
| : |                 1) View Plan of Study             | :  |
|:  |                 2) Add Course                     |  : |
| : |                 3) Remove Course                  | :  |
|:  |                 4) Move Course                    |  : |
| : |                 5) Save                           | :  |
|:  |                 6) Back                           |  : |
| : |                 7) Exit                            | :  |
|:  |                                                   |  : |
| : |                                                   | :  |
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| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+---------------------------------------------------------------+
Enter menu choice: 2
+---------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/-----------------------------------------------------\<}|
|:  |                                                   |  : |
| : |                                                   | :  |
|:  |            Type in the name of the Course         |  : |
| : |               you would like to add               | :  |
|:  |                  (e.g. MATH 221):                 |  : |
| : |                                                   | :  |
|:  |                                                   |  : |
|{>\-----------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+---------------------------------------------------------------+
Enter Course: BIO 101
+---------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/-----------------------------------------------------\<}|
|:  |                                                   |  : |
| : |                                                   | :  |
|:  |              Please make a selection:             |  : |
| : |                 1) 2015                           | :  |
|:  |                 2) 2016                           |  : |
| : |                 3) 2017                           | :  |
|:  |                 4) 2018                           |  : |
| : |                 5) 2019                           | :  |
|:  |                 6) Back                           |  : |
| : |                 7) Exit                            | :  |
|:  |                                                   |  : |
| : |                                                   | :  |
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| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+---------------------------------------------------------------+
Enter menu choice: 2
+---------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/-----------------------------------------------------\<}|
|:  |                                                   |  : |
| : |                                                   | :  |
|:  |              Please make a selection:             |  : |
| : |                 1) Fall                           | :  |
|:  |                 2) Winter                         | :  |
|:  |                 3) Spring                         | :  |
|:  |                 4) Summer                         | :  |
| : |                 5) Back                           | :  |
|:  |                 6) Exit                            |  : |
| : |                                                   | :  |
|:  |                                                   |  : |
|{>\-----------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+---------------------------------------------------------------+
Enter menu choice: 1
Succesfully added BIO101 to Fall, 2016
Returning to the previous menu...
```
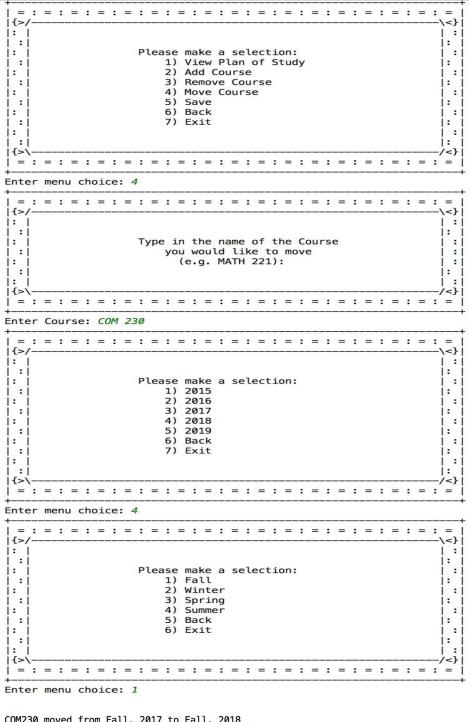
Figure 4

The process of adding a course to the current POS. After specifying a course to add, the user will proceed to choose a school year and a quarter to add to

3.6.   Move a course throughout POS

```
+----------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/------------------------------------------------------\<}|
|: |                                                        |: |
| :|                                                        | :|
|: |              Please make a selection:                  |: |
| :|                 1) View Plan of Study                  | :|
|: |                 2) Add Course                          |: |
| :|                 3) Remove Course                       | :|
|: |                 4) Move Course                         |: |
| :|                 5) Save                                | :|
|: |                 6) Back                                |: |
| :|                 7) Exit                                | :|
|: |                                                        |: |
| :|                                                        | :|
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| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+----------------------------------------------------------------+
Enter menu choice: 4
+----------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/------------------------------------------------------\<}|
|: |                                                        | :|
| :|                                                        |: |
|: |            Type in the name of the Course              | :|
| :|                you would like to move                  |: |
|: |                   (e.g. MATH 221):                     | :|
| :|                                                        |: |
|: |                                                        | :|
|{>\------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+----------------------------------------------------------------+
Enter Course: COM 230
+----------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/------------------------------------------------------\<}|
|: |                                                        | :|
| :|                                                        |: |
|: |              Please make a selection:                  | :|
| :|                 1) 2015                                |: |
|: |                 2) 2016                                | :|
| :|                 3) 2017                                |: |
|: |                 4) 2018                                | :|
| :|                 5) 2019                                |: |
|: |                 6) Back                                | :|
| :|                 7) Exit                                |: |
|: |                                                        | :|
| :|                                                        |: |
|{>\------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+----------------------------------------------------------------+
Enter menu choice: 4
+----------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/------------------------------------------------------\<}|
|: |                                                        | :|
| :|                                                        |: |
|: |              Please make a selection:                  | :|
| :|                 1) Fall                                |: |
|: |                 2) Winter                              | :|
| :|                 3) Spring                              |: |
|: |                 4) Summer                              | :|
| :|                 5) Back                                |: |
|: |                 6) Exit                                | :|
|: |                                                        |: |
| :|                                                        | :|
|{>\------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+----------------------------------------------------------------+
Enter menu choice: 1

COM230 moved from Fall, 2017 to Fall, 2018
Returning to the previous menu...
```
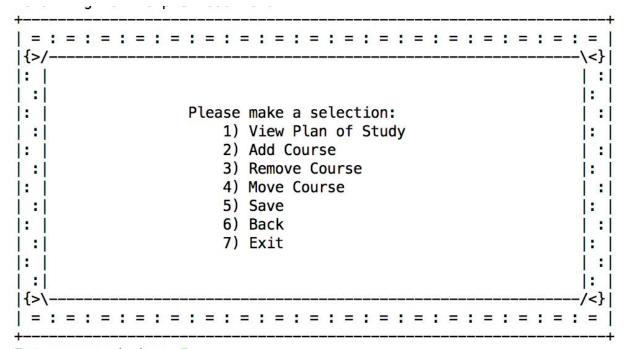
Figure 5

The process of moving a course throughout the current POS. After specifying a course to move, the user will proceed to choose a school year and a quarter to move to

3.7. Remove a course from POS

```
+--------------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/----------------------------------------------------------\<}|
|: |                                                          | :|
| :|                                                          |: |
|: |              Please make a selection:                    | :|
| :|                  1) View Plan of Study                   |: |
|: |                  2) Add Course                           | :|
| :|                  3) Remove Course                        |: |
|: |                  4) Move Course                          | :|
| :|                  5) Save                                 |: |
|: |                  6) Back                                 | :|
| :|                  7) Exit                                 |: |
|: |                                                          | :|
| :|                                                          |: |
|{>\----------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+--------------------------------------------------------------------+
Enter menu choice: 3
+--------------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/----------------------------------------------------------\<}|
|: |                                                          | :|
| :|                                                          |: |
|: |              Type in the name of the Course              | :|
| :|                  you would like to remove                |: |
|: |                     (e.g. MATH 221):                     | :|
| :|                                                          |: |
|: |                                                          | :|
|{>\----------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+--------------------------------------------------------------------+
Enter Course: BIO 101
BIO101 was removed from Fall, 2016
Returning to the previous menu...
```

Figure 6

The process of removing a course from the current POS. After specifying a course to move, the user will proceed to choose a school year and a quarter to move to

3.8. Save POS as csv

```
+------------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/----------------------------------------------------------\<}|
|: |                                                        | : |
| :|                                                        |: |
|: |              Please make a selection:                  | : |
| :|                 1) View Plan of Study                  |: |
|: |                 2) Add Course                          | : |
| :|                 3) Remove Course                       |: |
|: |                 4) Move Course                         | : |
| :|                 5) Save                                |: |
|: |                 6) Back                                | : |
| :|                 7) Exit                                |: |
|: |                                                        | : |
| :|                                                        |: |
|{>\----------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+------------------------------------------------------------------+
Enter menu choice: 5
Plan of study sucessfully saved to null0.csv
Returning to the previous menu...
```

Figure 7
*The menu that appears when user chooses to save the current POS to the local machine
as a csv file named "null0.csv". This file is stored directly in the MasterSchedulizer
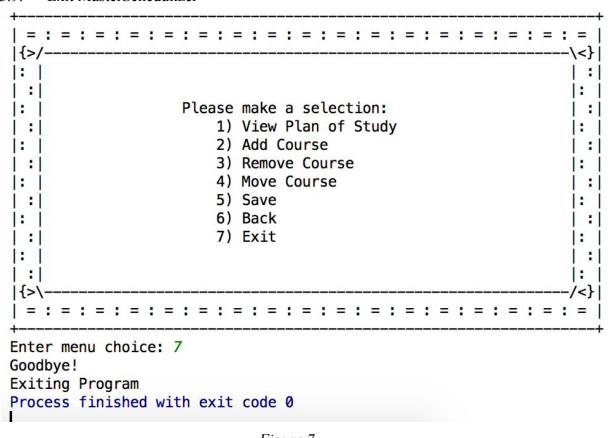project folder.*

3.9. Exit MasterSchedulizer

```
+------------------------------------------------------------------+
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
|{>/------------------------------------------------------\<}|
|: |                                                          | :|
| :|                                                          |: |
|: |              Please make a selection:                    | :|
| :|                  1) View Plan of Study                   |: |
|: |                  2) Add Course                           | :|
| :|                  3) Remove Course                        |: |
|: |                  4) Move Course                          | :|
| :|                  5) Save                                 |: |
|: |                  6) Back                                 | :|
| :|                  7) Exit                                 |: |
|: |                                                          | :|
| :|                                                          |: |
|{>\------------------------------------------------------/<}|
| = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = : = |
+------------------------------------------------------------------+
Enter menu choice: 7
Goodbye!
Exiting Program
Process finished with exit code 0
```

Figure 7

The menu that appears when user chooses to exit from the program