

Conflict Checker

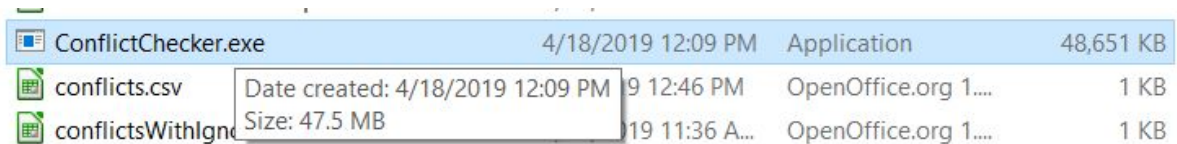
And How to Use it

So you want to start using the Conflict Checker? Below is a tutorial detailing all you will need to know to begin using this application.

1) Open the application

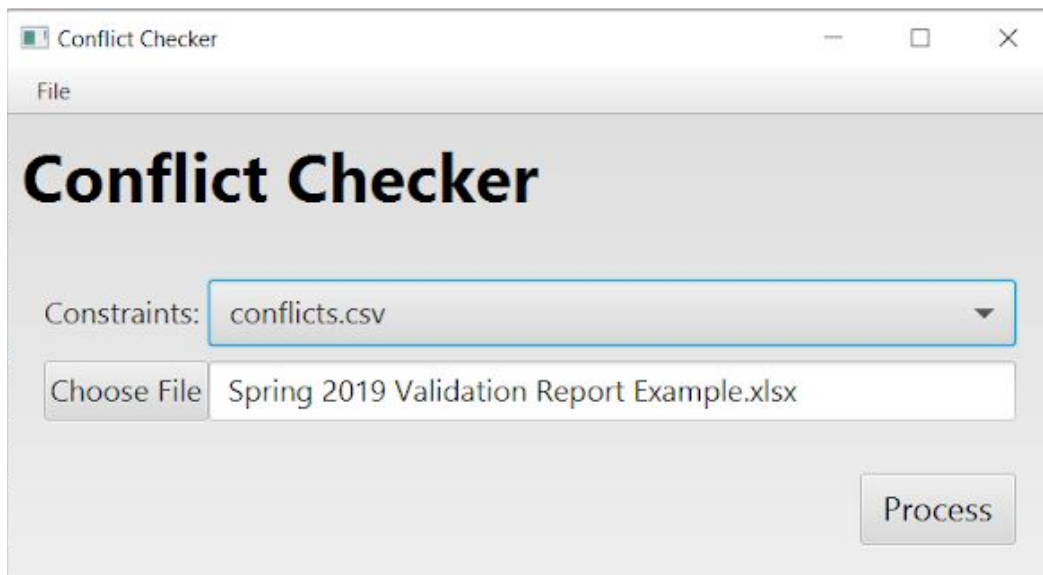
Simply double click the ConflictChecker.exe in your file explorer to start the application.

If java is not already installed on your computer, the program will open up your browser to the java install page.



ConflictChecker.exe	4/18/2019 12:09 PM	Application	48,651 KB
conflicts.csv	Date created: 4/18/2019 12:09 PM	OpenOffice.org 1...	1 KB
conflictsWithIgn...	Size: 47.5 MB	OpenOffice.org 1...	1 KB

2) A Graphic User Interface (GUI) will be opened with all the capabilities necessary to check for conflicts.

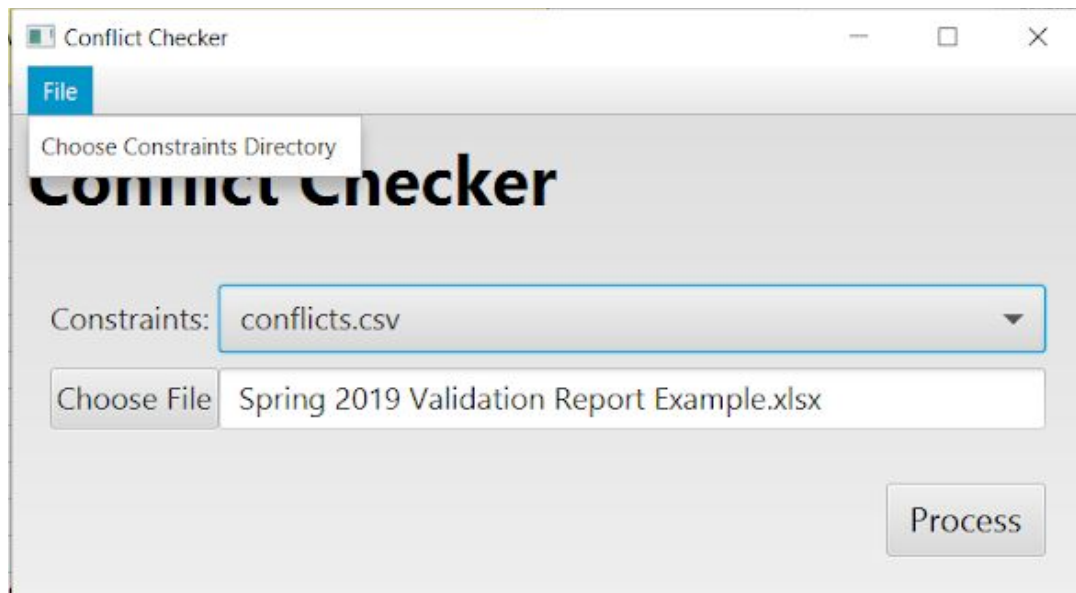


3) In order to check for conflicts, the class constraints must be described in a csv file. The file must be saved as a csv to work properly, but if you are using excel, you should be able to open, edit, and save your conflicts without any problems as a csv.

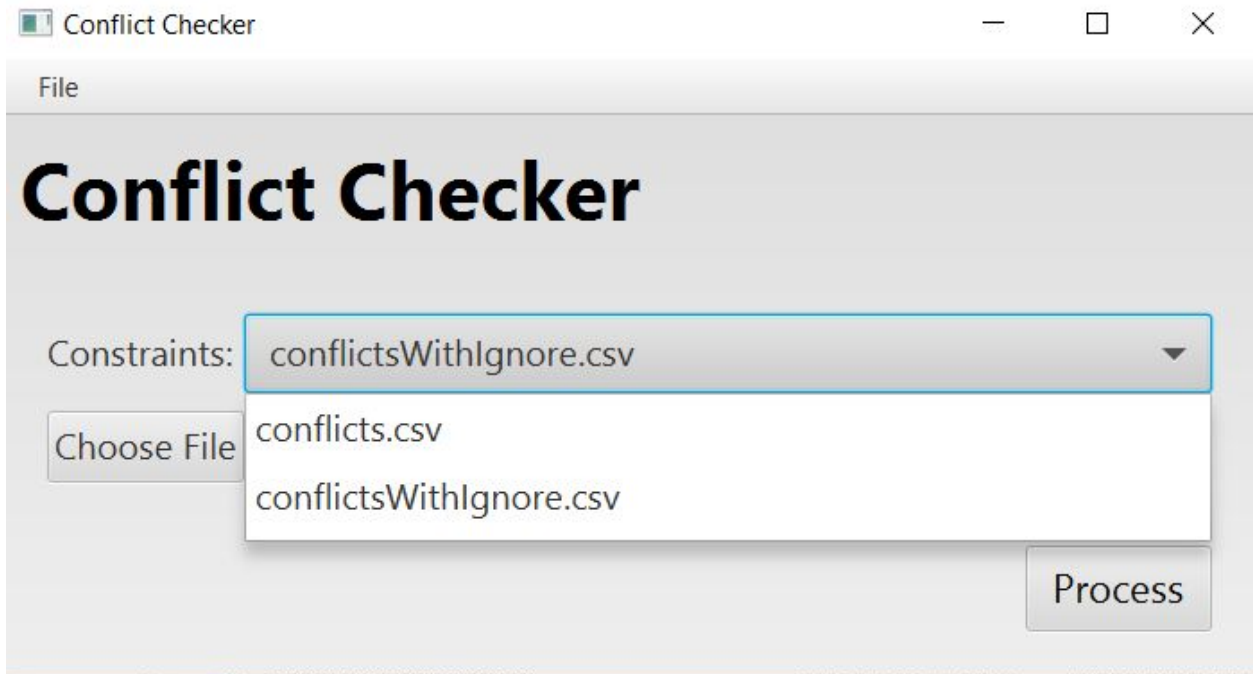
- a. Each individual conflict is defined as a row in the conflicts file, while each line begins with the priority of that conflict. e.g.:

19	Priority	CS-HU250	CS271	CS310	CS390	ECE230	ECE330		
20	Non-priority	CS361	CS430	CS472	CS474	CS457	CS464	CS450	CS436
21	ignore	cs436	cs536						
22	ignore	cs475	cs575						

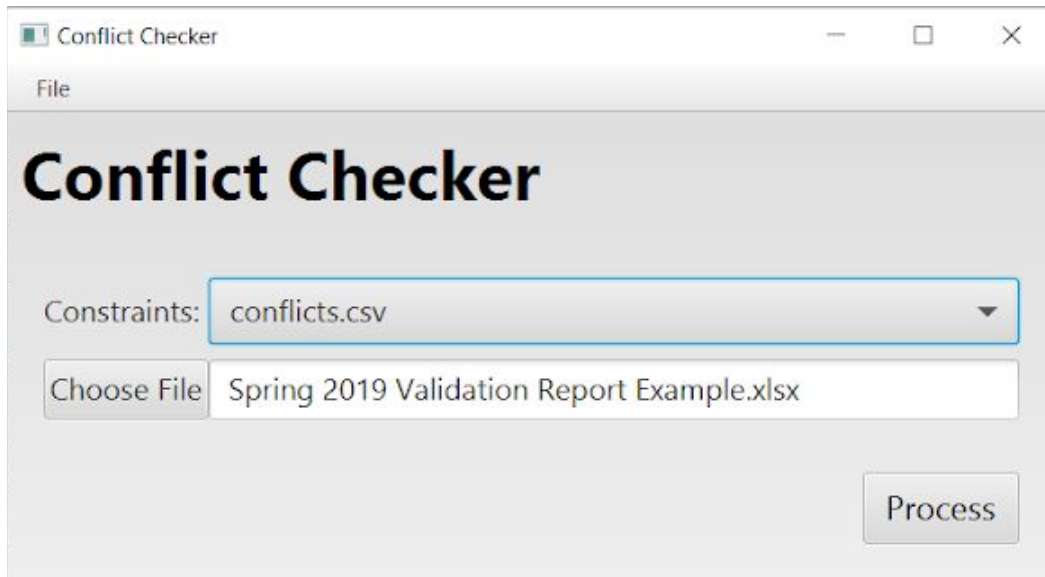
- b. On line 19, we are defining a Priority conflict that enforces CS-HU250, ECE230, and ECE330, etc... should not be scheduled together
- c. Conflicts should be defined with their class code only. No other information.
- d. The 'ignore' priority can be used to define classes that should not be checked for room and instructor conflicts (like dual listed undergrad and graduate classes).
- 4) The next step in the process is to tell the Conflict Checker where your conflicts.csv file is.
- a. Taking a second look at the GUI, if you click "File", the option "Choose Constraint Directory" should appear.



- b. Click that and navigate through the file chooser to the directory where your constraint files are located. The application remembers this directory, so you should only need to set this once.



- c. On the main GUI, select the constraints file you have just created.



- d. Finally click “Choose File” and select the .xlsx file that contains the current schedule from PeopleSoft that you would like to check for conflicts from. Finally click “Process” and let the program do its magic!
- *protip: You can drag the schedule file into to program instead of using the file chooser
- 5) After selecting the necessary files, and clicking “Process”, Excel will automatically open that contains the original schedule, a highlighted conflicts schedule, and a tree version of the conflicts. Below is how to read and use each of these.
 - a. First off, the excel file opens on the tab containing the original file, so nothing should appear different except for the new tabs on the bottom:

AutoSave

Off

Spring 2019 Validation Report ExampleHighlighted.xlsx - Excel

Kolton Hahn

File

Home

Insert

Draw

Page Layout

Formulas

Data

Review

View

Help

Tell me

Clipboard

Font

Alignment

Number

General

Conditional Formatting

Format as Table

Cell Styles

Insert

Delete

Format

Σ

Sort & Filter

Find & Select

Q15

06:00 pm-07:15 pm TuTh

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Subject	Catalog Nr	Descr	Strm	Session Co	Course ID	Class Nbr	Class Secti	Combined	Prerequisite	Units	Requireme	Componer	Grading
2	COMPUT	598	Seminar	1193	1	125599	14003	1			4-Jan	SEM	REG	
3	COMPUT	691	Doctoral Comprehensive Ex.	1193	1	125616	14196	1			6-Jan	LEC	PF	
4	COMPUT	693	Dissertation	1193	1	125600	14299	1			12-Jan	LEC	PIP	
5	COMPUT	693	Dissertation	1193	1	125600	14301	2			12-Jan	LEC	PIP	
6	COMPUT	693	Dissertation	1193	1	125600	14302	3			12-Jan	LEC	PIP	
7	COMPUT	693	Dissertation	1193	1	125600	14303	4			12-Jan	LEC	PIP	
8	COMPUT	693	Dissertation	1193	1	125600	14304	5			12-Jan	LEC	PIP	
9	COMPUT	693	Dissertation	1193	1	125600	14306	6			12-Jan	LEC	PIP	
10	COMPUT	693	Dissertation	1193	1	125600	14307	7			12-Jan	LEC	PIP	
11	COMPUT	693	Dissertation	1193	1	125600	14308	8			12-Jan	LEC	PIP	
12	COMPUT	693	Dissertation	1193	1	125600	14728	9			12-Jan	LEC	PIP	
13	COMPUT	693	Dissertation	1193	1	125600	14745	10			12-Jan	LEC	PIP	
14	COMPUT	693	Dissertation	1193	1	125600	14758	11			12-Jan	LEC	PIP	
15	CS	111	Introduction to Programmin	1193	1	125392	13241	1		Prerequisi	3	LEC	REG	
16	CS	117	C++ for Engineers	1193	1	100240	12998	1		Prerequisi	3	LEC	REG	
17	CS	117	C++ for Engineers	1193	1	100240	13095	2		Prerequisi	3	LEC	REG	

Schedule of Classes Validation

Highlighted Schedule

Conflicts

- b. Second in the line of Conflict Checker features is the “Highlighted Schedule” tab seen above. This tab contains an overview of the conflicts by reducing redundant columns and highlighting what is causing a conflict in any given row
- Green = Constraint Conflict; Orange = Room Conflict; Blue = Instructor Conflict.
 - Constraint Conflicts indicate an error with the file you created for the program, Room Conflicts indicate that a room is double booked, and an Instructor Conflict indicates an instructor is expected to be in two classes at one time.

	A	B	C	D	E	F	G	H	I	J	K	L
15	CS	253	Intro to Systems Programming	2	01/14/2019-05/03/2019	10:30 AM-11:45 AM TuTh	CCP243	Conrad,Jim				
16	CS	253	Intro to Systems Programming	3	01/14/2019-05/03/2019	09:00 PM-04:15 PM TuTh	CCP243	Olschansky,Cathie				
17	CS	321	Data Structures	1	01/14/2019-05/03/2019	04:30 PM-05:45 PM TuTh	CCP259	Yeh,Jyh-Haw				
18	CS	321	Data Structures	2	01/14/2019-05/03/2019	12:00 PM-01:15 PM MoWe	CCP259	Cutchin,Steven				
19	CS	332	Ethical Hacking	1	01/14/2019-05/03/2019	06:00 PM-08:45 PM Mo	CCP260	Skinner,Vince				
20	CS	354	Programming Languages	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM TuTh	CCP260	Buffenbarger,James R				
21	CS	354	Programming Languages	2	01/14/2019-05/03/2019	09:00 AM-10:15 AM TuTh	CCP259	Kennington,Casey Reed				
22	CS	361	Intro to Theory of Computation	1	01/14/2019-05/03/2019	12:00 PM-01:15 PM TuTh	CCP243	Sherman,Elena				
23	CS	401	Intro to Web Development	2	01/14/2019-05/03/2019	06:00 PM-07:15 PM MoWe	CCP243	Kennington,Conrad				
24	CS	402	Mobile Application Development	1	01/14/2019-05/03/2019	06:00 PM-07:15 PM TuTh	CCP243	Zray,Michael				
25	CS	410	Databases	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM MoWe	CCP259	Spezzano,Francesca				
26	CS	421	Algorithms	1	01/14/2019-05/03/2019	10:30 AM-11:45 AM TuTh	CCP260	Thomas,Matthew H				
27	CS	421	Algorithms	2	01/14/2019-05/03/2019	04:30 PM-05:45 PM TuTh	CCP260	Dagher,Gaby				
28	CS	425	Intro to Computer Networks	1	01/14/2019-05/03/2019	10:30 AM-11:45 AM TuTh	CCP259	Hou,Yanliang				
29	CS	436	Natural Language Processing	1	01/14/2019-05/03/2019	03:00 PM-04:15 PM TuTh	CCP260	Kennington,Casey Reed				
30	CS	441	Computer Architecture	2	01/14/2019-05/03/2019	04:30 PM-05:45 PM TuTh	BUCH110	STAFF,STAFF				
31	CS	450	Programming Language Transla	1	01/14/2019-05/03/2019	03:00 PM-04:15 PM MoWe	CCP243	STAFF,STAFF				
32	CS	453	Operating Systems	1	01/14/2019-05/03/2019	12:00 PM-01:15 PM TuTh	CCP259	Hindman,Lucas S				
33	CS	469	Human Computer Interaction	1	01/14/2019-05/03/2019	12:00 PM-01:15 PM MoWe	CCP243	Wu,Danxiang				
34	CS	471	Software Engineering	1	01/14/2019-05/03/2019	04:30 PM-05:45 PM MoWe	CCP260	STAFF,STAFF				
35	CS	475	Software Security	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM MoWe	CCP260	Wu,Danxiang				
36	CS	481	Senior Design Project	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM TuTh	CCP259	Panter,Shane Kay, Schmidt,Marissa R				
37	CS	481	Senior Design Project	2	01/14/2019-05/03/2019	09:00 AM-10:15 AM TuTh	CCP243	Panter,Shane Kay				
38	CS	505	Teaching & Learning CS II	1	01/14/2019-05/03/2019	04:30 PM-05:45 PM MoWe	CCP243	Thomas,Matthew H, Hagenah,Sara				
39	CS	510	Databases	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM MoWe	CCP259	Spezzano,Francesca				
40	CS	516	Intro to Web Development	1	01/14/2019-05/03/2019	06:00 PM-07:15 PM MoWe	CCP259	Kennington,Conrad				

- c. Finally, we have the tree view under the tab “Conflicts.” This view will likely make narrowing down where a conflict is coming from the easiest.
- In this view, each conflict is separated into three groups: Instructor, Room, and Constraint Conflicts. From there, the left most line indicates the exact reason for the conflict.
 - If you follow the ‘tree’ structure depicted below, you can see which classes have invoked that conflict. Looking at this one, most the information you could need to detect conflicts should be readily apparent:

Continues on next page

Instructor	Subject	Catalog Nbr	Descr	Class Section	Meeting Dates	Meeting Time/Days	Room	Instructors
Kennington, Casey Redd	Conflict 1							
	CS	436	Natural Language Processing	1	01/14/2019-05/03/2019	03:00 PM-04:15 PM TuTh	CCP260	Kennington, Casey Redd
	CS	536	Natural Language Processing	1	01/14/2019-05/03/2019	03:00 PM-04:15 PM TuTh		Kennington, Casey Redd
Xu, Dianxiang	Conflict 1							
	CS	475	Software Security	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM MoWe	CCP260	Xu, Dianxiang
	CS	575	Software Security	1	01/14/2019-05/03/2019	01:30 PM-02:45 PM MoWe	CCP260	Xu, Dianxiang
Hou, Yantian	Conflict 1							
	CS	425	Intro to Computer Networks	1	01/14/2019-05/03/2019	10:30 AM-11:45 AM TuTh	CCP259	Hou, Yantian
	CS	525	Computer Networks	1	01/14/2019-05/03/2019	10:30 AM-11:45 AM TuTh	CCP259	Hou, Yantian
Fails, Jerry Alan	Conflict 1							
	CS	469	Human Computer Interaction	1	01/14/2019-05/03/2019	12:00 PM-01:15 PM MoWe	CCP243	Fails, Jerry Alan
	CS	569	Human Computer Interaction	1	01/14/2019-05/03/2019	12:00 PM-01:15 PM MoWe		Fails, Jerry Alan
Kennington, Conrad	Conflict 1							
	CS	401	Intro to Web Development	2	01/14/2019-05/03/2019	06:00 PM-07:15 PM MoWe	CCP243	Kennington, Conrad
	CS	516	Intro to Web Development	1	01/14/2019-05/03/2019	06:00 PM-07:15 PM MoWe		Kennington, Conrad

Now that is all you need to know about the Conflict Checker! Delving into the program and exploring some of its functionality is the best way to become familiar with its features.

If you do need more information, refer to the project's README which contains some information on individual files.

Good luck with your scheduling needs!

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Developed for: Boise State Computer Science Department