



Importing Data into Matlab

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Spring 2008

Introduction

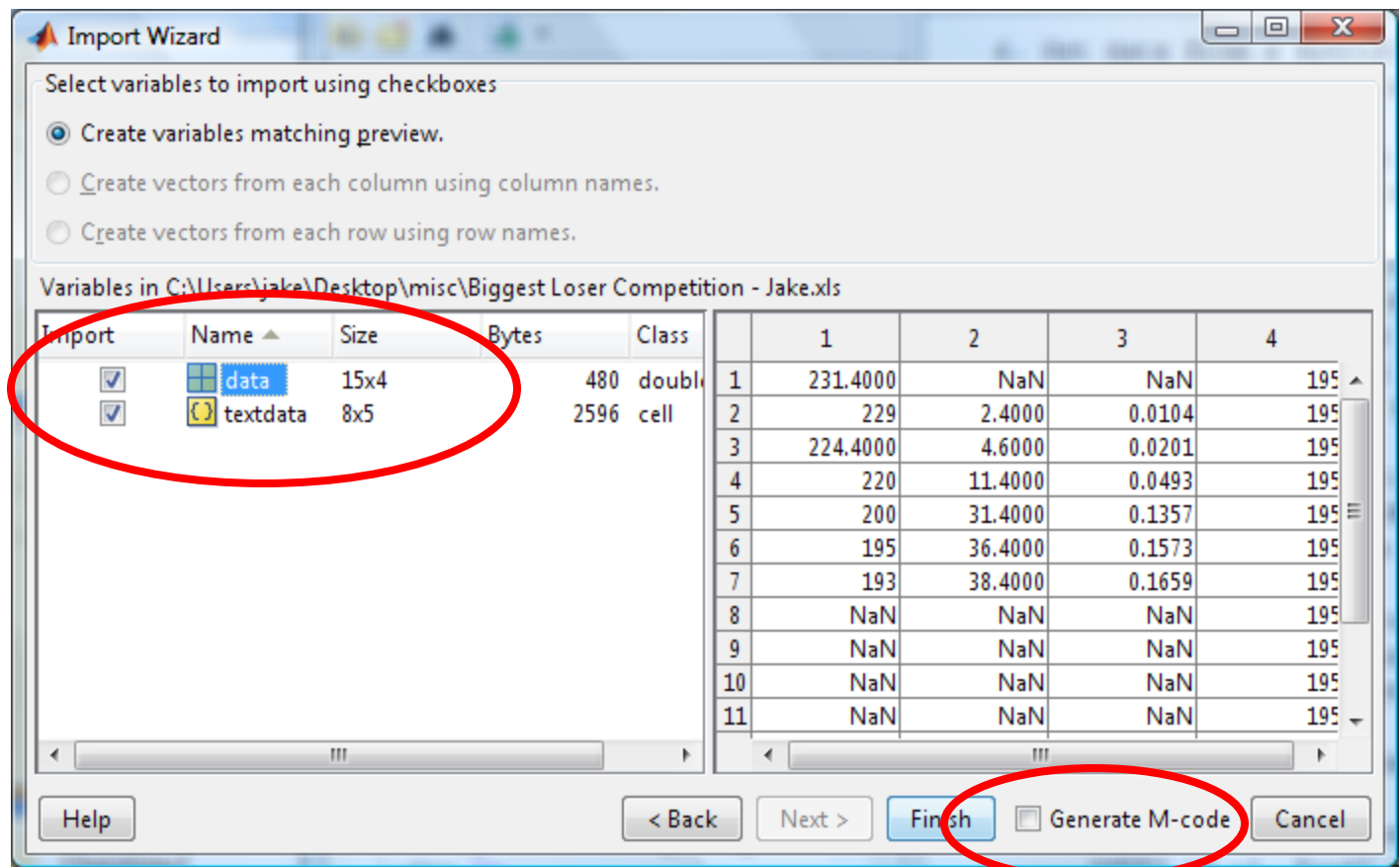
- We often want to import data into Matlab
- This data can be from a variety of sources:
 - Spreadsheets
 - CSV files
 - Other text files
 - Movies (avi)
 - Images (bmp, gif, jpg, png, tiff, etc.)
 - Audio (wav, etc.)

Reading Excel Files

```
[NUMERIC, TXT, RAW] = XLSREAD(FILE, SHEET, RANGE)  
A = xlsread('data.xls', 'Sheet1')
```

Import Wizard

File/Import Data...



Others

[A,D,H]=IMPORTDATA(FILENAME, DELIM,HLINE)

- Uses filename to choose which “helper” to use to import data into the variable A, delimiter into D, and header line number into H

Example – Book1.xlsx

name	hw 1	hw 2	final
john	10	8	18
jane	9	8	17
chris	10	9	19
carla	10	8	18

[a,b,c]=xlsread('book1.xlsx')

- a =
 - 10 8 18
 - 9 8 17
 - 10 9 19
 - 10 8 18
- b =
 - 'name' 'hw 1' 'hw 2' 'final'
 - 'john' " " "
 - 'jane' " " "
 - 'chris' " " "
 - 'carla' " " "
- c =
 - 'name' 'hw 1' 'hw 2' 'final'
 - 'john' [10] [8] [18]
 - 'jane' [9] [8] [17]
 - 'chris' [10] [9] [19]
 - 'carla' [10] [8] [18]

`A=importdata('book1.csv',' ',1)`

`A =`

`data: [4x3 double]`

`textdata: {5x4 cell}`

More...

```
>> A.data
```

```
ans =
```

```
10    8   18
```

```
9     8   17
```

```
10    9   19
```

```
10    8   18
```

More

```
>> A.textdata
```

```
ans =
```

'name'	'hw 1'	'hw 2'	'final'
'john'	[]	[]	[]
'jane'	[]	[]	[]
'chris'	[]	[]	[]
'carla'	[]	[]	[]

More general approaches

- `textscan`
- `sscanf`
- `fscanf`



Questions?