import — Overview of importing data into Stata

Description Remarks and examples References Also see

Description

This entry provides a quick reference for determining which method to use for reading non-Stata data into memory. See **[U] 22 Entering and importing data** for more details.

Remarks and examples

Remarks are presented under the following headings:

Summary of the different methods

import excel

- `import excel` reads worksheets from Microsoft Excel (`.xls` and `.xlsx`) files.
- Entire worksheets can be read, or custom cell ranges can be read.
- See [D] **import excel**.

import delimited

- `import delimited` reads text-delimited files.
- The data can be tab-separated or comma-separated. A custom delimiter may also be specified.
- An observation must be on only one line.
- The first line in the file can optionally contain the names of the variables.
- See [D] **import delimited**.

jdbc

- Java Database Connectivity (JDBC) is an application programming interface for the programming language Java. The `jdbc` command allows you to connect to, load data from, insert data into, and execute queries on a database using JDBC.
- See [D] **jdbc**.

odbc

- ODBC, an acronym for Open DataBase Connectivity, is a standard for exchanging data between programs. Stata supports the ODBC standard for importing data via the `odbc` command and can read from any ODBC data source on your computer.
- See [D] **odbc**.

infile (free format)—infile without a dictionary

- The data can be space-separated, tab-separated, or comma-separated.
- Strings with embedded spaces or commas must be enclosed in quotes (even if tab- or comma-separated).
- An observation can be on more than one line, or there can even be multiple observations per line.
- See [D] **infile (free format)**.

infix (fixed format)

- The data must be in fixed-column format.
- An observation can be on more than one line.
- `infix` has simpler syntax than `infile` (fixed format).
- See [D] **infix (fixed format)**.

infile (fixed format)—infile with a dictionary

- The data may be in fixed-column format.
- An observation can be on more than one line.
- ASCII or EBCDIC data can be read.
- `infile` (fixed format) has the most capabilities for reading data.
- See [D] **infile (fixed format)**.

import sas

- `import sas` reads Version 7 SAS (`.sas7bdat`) files.
- `import sas` will also read value-label information from a `.sas7bcat` file.
- See [D] **import sas**.

import sasxport5 and import sasxport8

- `import sasxport5` reads SAS XPORT Version 5 Transport format files.
- `import sasxport5` will also read value-label information from a `formats.xpf` XPORT file.
- `import sasxport8` reads SAS XPORT Version 8 Transport format files.
- See [D] **import sasxport5** and [D] **import sasxport8**.

import spss

- `import spss` reads IBM SPSS Statistics (`.sav` and `.zsav`) files.
- See [D] **import spss**.

import fred

- `import fred` reads Federal Reserve Economic Data.
- To use `import fred`, you must have a valid API key obtained from the St. Louis Federal Reserve.
- See [D] **import fred**.

import haver (Windows only)

- `import haver` reads data from Haver Analytics (https://www.haver.com/) databases.
- See [D] **import haver**.

import haverdirect (Windows only)

- `import haverdirect` reads data from Haver Analytics (https://www.haver.com/) cloud servers.
- See [D] **import haverdirect**.

import dbase

- `import dbase` reads a version III or version IV dBase (`.dbf`) file.
- See [D] **import dbase**.

spshape2dta

- `spshape2dta` translates the `.dbf` and `.shp` files of a shapefile into two Stata datasets.
- See [SP] **spshape2dta**.

Examples

▷ Example 1: Tab-separated data

begin example1.raw

```
1       0       1       John Smith      m
0       0       1       Paul Lin        m
0       1       0       Jan Doe f
0       0       .       Julie McDonald  f
```

end example1.raw

contains tab-separated data. The `type` command with the `showtabs` option shows the tabs:

```
. type example1.raw, showtabs
1<T>0<T>1<T>John Smith<T>m
0<T>0<T>1<T>Paul Lin<T>m
0<T>1<T>0<T>Jan Doe<T>f
0<T>0<T>.<T>Julie McDonald<T>f
```

It could be read in by

```
. import delimited a b c name gender using example1
```

◁

▷ Example 2: Comma-separated data

begin example2.raw

```
a,b,c,name,gender
1,0,1,John Smith,m
0,0,1,Paul Lin,m
0,1,0,Jan Doe,f
0,0,,Julie McDonald,f
```

end example2.raw

could be read in by

```
. import delimited using example2
```

◁

▷ Example 3: Tab-separated data with double-quoted strings

begin example3.raw

```
1       0       1       "John Smith"    m
0       0       1       "Paul Lin"      m
0       1       0       "Jan Doe"       f
0       0       .       "Julie McDonald"        f
```

end example3.raw

contains tab-separated data with strings in double quotes.

```
. type example3.raw, showtabs
1<T>0<T>1<T>"John Smith"<T>m
0<T>0<T>1<T>"Paul Lin"<T>m
0<T>1<T>0<T>"Jan Doe"<T>f
0<T>0<T>.<T>"Julie McDonald"<T>f
```

It could be read in by

```
. infile byte (a b c) str15 name str1 gender using example3
```

or

```
. import delimited a b c name gender using example3
```

or

```
. infile using dict3
```

where the dictionary `dict3.dct` contains

begin dict3.dct

```
infile dictionary using example3 {
        byte   a
        byte   b
        byte   c
        str15  name
        str1   gender
}
```

end dict3.dct

◁

▷ Example 4: Space-separated data with double-quoted strings

begin example4.raw

```
1 0 1 "John Smith" m
0 0 1 "Paul Lin" m
0 1 0 "Jan Doe" f
0 0 . "Julie McDonald" f
```

end example4.raw

could be read in by

```
. infile byte (a b c) str15 name str1 gender using example4
```

or

```
. infile using dict4
```

where the dictionary `dict4.dct` contains

begin dict4.dct

```
infile dictionary using example4 {
        byte   a
        byte   b
        byte   c
        str15  name
        str1   gender
}
```

end dict4.dct

◁

▷ Example 5: Fixed-column format

begin example5.raw

```
101mJohn Smith
001mPaul Lin
010fJan Doe
00 fJulie McDonald
```

end example5.raw

could be read in by

```
. infix a 1 b 2 c 3 str gender 4 str name 5-19 using example5
```

or

```
. infix using dict5a
```

where dict5a.dct contains

begin dict5a.dct

```
infix dictionary using example5 {
                a       1
                b       2
                c       3
        str     gender  4
        str     name    5-19
}
```

end dict5a.dct

or

```
. infile using dict5b
```

where dict5b.dct contains

begin dict5b.dct

```
infile dictionary using example5 {
        byte      a         %1f
        byte      b         %1f
        byte      c         %1f
        str1      gender    %1s
        str15     name      %15s
}
```

end dict5b.dct

◁

▷ Example 6: Fixed-column format with headings

begin example6.raw

```
line 1 : a heading
There are a total of 4 lines of heading.
The next line contains a useful heading:
----+----1----+----2----+----3----+----4----+-
1       0       1       m       John Smith
0       0       1       m       Paul Lin
0       1       0       f       Jan Doe
0       0               f       Julie McDonald
```

end example6.raw

could be read in by

```
. infile using dict6a
```

where dict6a.dct contains

begin dict6a.dct

```
infile dictionary using example6 {
_firstline(5)
               byte    a
               byte    b
_column(17)    byte    c          %1f
               str1    gender
_column(33)    str15   name       %15s
}
```

end dict6a.dct

or could be read in by

```
. infix 5 first a 1 b 9 c 17 str gender 25 str name 33-46 using example6
```

or could be read in by

```
. infix using dict6b
```

where `dict6b.dct` contains

begin dict6b.dct

```
infix dictionary using example6 {
5 first
                a         1
                b         9
                c         17
          str   gender    25
          str   name      33-46
}
```

end dict6b.dct

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▷ Example 7: Fixed-column format with observations spanning multiple lines

begin example7.raw

```
a b c gender name
1 0 1
m
John Smith
0 0 1
m
Paul Lin
0 1 0
f
Jan Doe
0 0
f
Julie McDonald
```

end example7.raw

could be read in by

```
. infile using dict7a
```

where `dict7a.dct` contains

begin dict7a.dct

```
infile dictionary using example7 {
_firstline(2)
            byte   a
            byte   b
            byte   c
_line(2)
            str1   gender
_line(3)
            str15  name   %15s
}
```

end dict7a.dct

or, if we wanted to include variable labels,

```
. infile using dict7b
```

where dict7b.dct contains

begin dict7b.dct

```
infile dictionary using example7 {
_firstline(2)
            byte   a          "Question 1"
            byte   b          "Question 2"
            byte   c          "Question 3"
_line(2)
            str1   gender     "Gender of subject"
_line(3)
            str15  name   %15s
}
```

end dict7b.dct

infix could also read these data,

```
. infix 2 first 3 lines a 1 b 3 c 5 str gender 2:1 str name 3:1-15 using example7
```

or the data could be read in by

```
. infix using dict7c
```

where dict7c.dct contains

begin dict7c.dct

```
infix dictionary using example7 {
2 first
                a        1
                b        3
                c        5
          str   gender   2:1
          str   name     3:1-15
}
```

end dict7c.dct

or the data could be read in by

```
. infix using dict7d
```

where dict7d.dct contains

begin dict7d.dct

```
infix dictionary using example7 {
2 first
                 a       1
                 b       3
                 c       5
/
          str    gender  1
/
          str    name    1-15
}
```

end dict7d.dct

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Video example

Copy/paste data from Excel into Stata

References

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———. 2018a. Web scraping NBA data into Stata. *The Stata Blog: Not Elsewhere Classified.* https://blog.stata.com/2018/10/10/web-scraping-nba-data-into-stata/.

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Dicle, M. F., and J. D. Levendis. 2011. Importing financial data. *Stata Journal* 11: 620–626.

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Jakubowski, M., and A. Pokropek. 2019. piaactools: A program for data analysis with PIAAC data. *Stata Journal* 19: 112–128.

Also see

[D] **edit** — Browse or edit data with Data Editor

[D] **export** — Overview of exporting data from Stata

[D] **input** — Enter data from keyboard

[U] 22 Entering and importing data