Adolists: A New Concept for Stata

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UK Stata Users Group Meeting

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Motivation

I wanted a tool to

1) create a list of installed user ados, switch systems (or upgrade Stata) and easily install the ados on the new system (possibly after editing the list),

2) create topical lists of user ados that can be shared and easily installed and uninstalled.

   Such lists could also be used to bring structure into the SSC Archive and other download sites.

   Examples:

   - 41 User Ados Everyone Should Know

   - The Collected Works of Nicholas J. Cox, A-H

   - lists on data management, graphics, time-series analysis, income inequality, etc., etc.

New command

- New command called **adolist** to manage (create, install, update, uninstall) lists of ado packages.

- The command uses meta data only (package names, URLs, etc.). The actual contents of the packages is not included in the package lists.

- Heavy use of Mata is made. Therefore, Stata 9 or newer is required.

- Writing this command was not trivial. **adolist** has to go deep into the system and, e.g., parse Stata's user ado track file.

Syntax

Describe a package list

> **adolist** <u>describe</u> *pkl* [, <u>from</u>(*path*)]

Install a package list

> **adolist** <u>install</u> *pkl* [, <u>from</u>(*path*) <u>replace</u> ...]

Update an installed package list

> **adolist** <u>update</u> *pkl* [, ...]

Uninstall a package list

> **adolist** <u>uninstall</u> *pkl* [, ...]

List installed package lists

> **adolist** [**dir**] [, ...]

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Syntax (continued)

Create a package list

    adolist <u>sto</u>re *pkl* [, *store_options*]

    adolist <u>sto</u>re [*packages*] <u>us</u>ing *pkl* [, *store_options*]

    adolist <u>li</u>st [*packages*] [, *store_options*]

store_options	description
<u>he</u>lp	produce a help file
<u>tit</u>le(*str*)	set the title
<u>des</u>cription(*str*)	include a description
<u>au</u>thor(*str*)	identify package list author
nosort	do not sort the package list
<u>re</u>place	overwrite existing files
...	...

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Example

Package list containing programs for the decomposition of wage differentials. The list is called **wagegap** and is located at **net/0** (could also be an URL).

Describe the package list:

    adolist describe wagegap, from(net/0)
    <run>

Install the packages in the list:

    adolist install wagegap, from(net/0)
    <run>

See what's installed:

    adolist dir
    <run>

Stata/MP 10.0 - [Results]

File Edit Data Graphics Statistics User Window Help

Command

```
package list wagegap from D:\Home\jannb\Projekte\Stata\tools\adolist\London07\tal
```

TITLE
    Wage gap decomposition packages

DESCRIPTION
    This package list comprises ado packages used for the
    decomposition of wage or income differentials and related
    problems.

    Assembled by: Ben Jann, ETH Zurich, jann@soz.gess.ethz.ch

SOURCE FILE(S)
    wagegap.pkl
    wagegap.hlp

PACKAGES
    --- Decomposition of outcome differential ---
    oaxaca   module to compute the Blinder-Oaxaca decomposition
    decomp   alternate module to compute the Blinder-Oaxaca decompositior

    --- Difference-in-difference decomposition ---
    jmpierce2   module to compute trend decomposition of outcome differenti
    smithwelch   alternate module to compute trend decomposition of outcome

(type -adolist install "D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk\

D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk

Stata/MP 10.0 - [Results]

File Edit Data Graphics Statistics User Window Help

Command

```
.           adolist install wagegap, from(net/0)
checking oaxaca consistency and verifying not already installed...
installing into .\ado\plus/...
installation complete.
checking decomp consistency and verifying not already installed...
installing into .\ado\plus/...
installation complete.
checking jmpierce2 consistency and verifying not already installed...
installing into .\ado\plus/...
installation complete.
checking smithwelch consistency and verifying not already installed...
installing into .\ado\plus/...
installation complete.


.
end of do-file

. do_example do/3.ihlp, nor

.           adolist dir


PACKAGE LISTS installed on your system:
    wagegap              Wage gap decomposition packages

(type -adolist describe pklname- for more information on pklname)
```
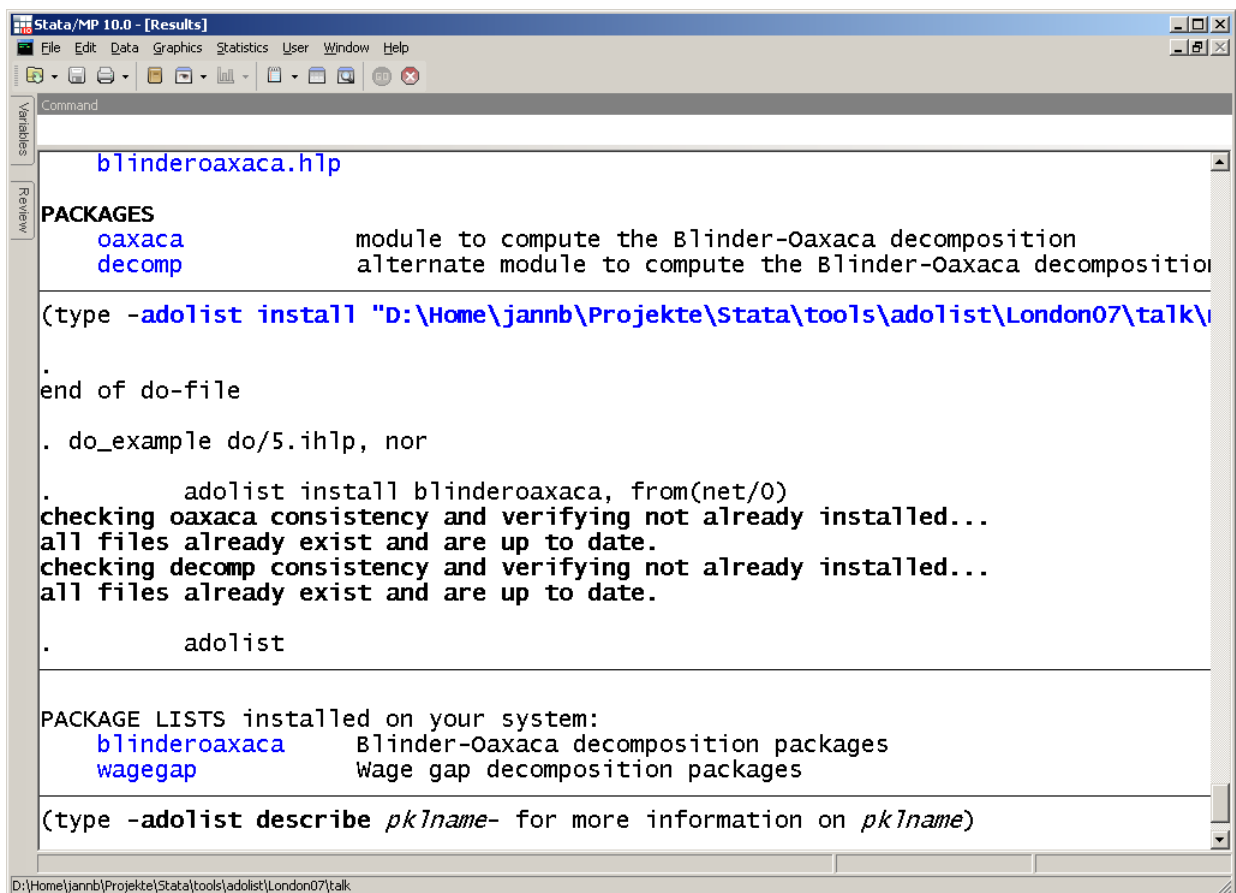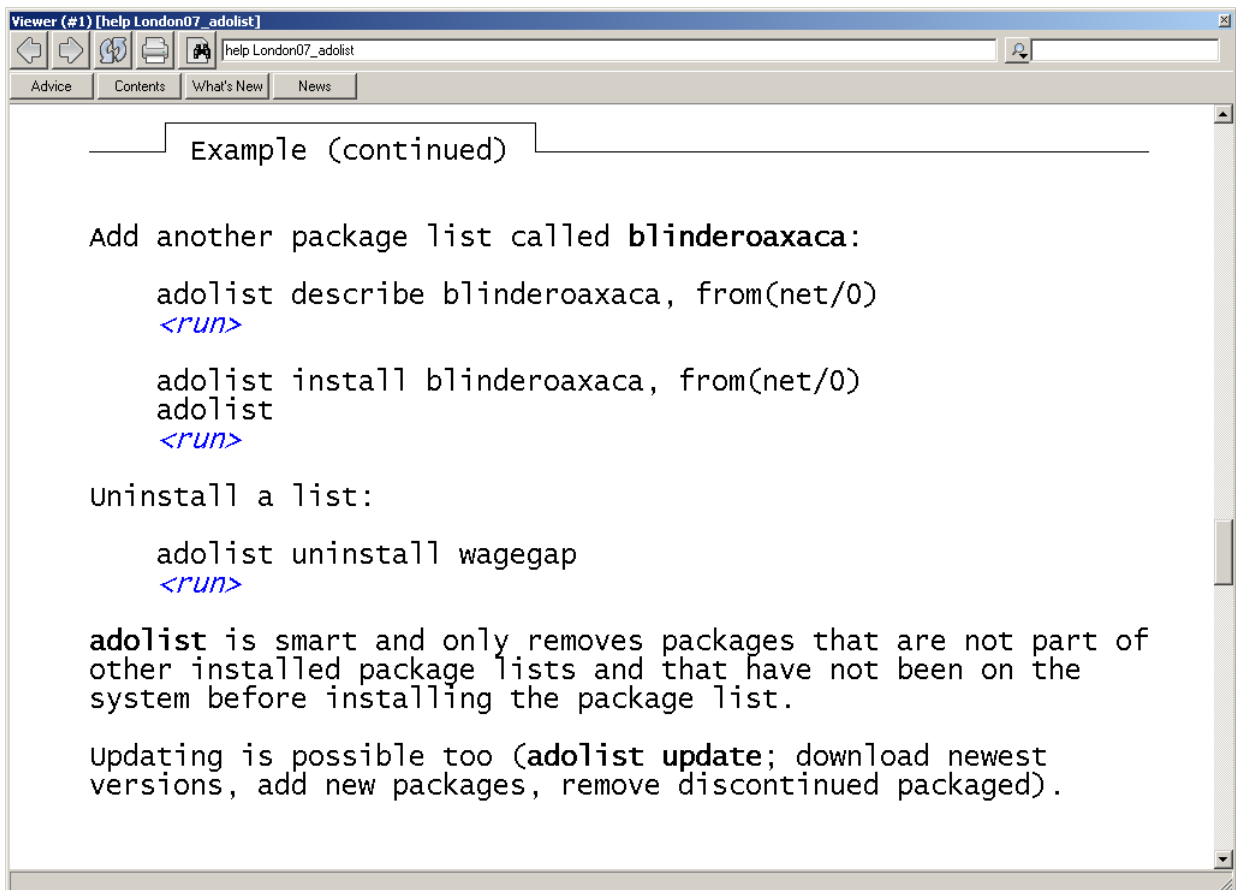
D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk

help London07_adolist

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```
                ┌─ Example (continued) ─┐


        Add another package list called blinderoaxaca:

                adolist describe blinderoaxaca, from(net/0)
                <run>

                adolist install blinderoaxaca, from(net/0)
                adolist
                <run>

        Uninstall a list:

                adolist uninstall wagegap
                <run>

        adolist is smart and only removes packages that are not part of
        other installed package lists and that have not been on the
        system before installing the package list.

        Updating is possible too (adolist update; download newest
        versions, add new packages, remove discontinued packaged).
```

Stata/MP 10.0 - [Results]

File Edit Data Graphics Statistics User Window Help

Command

```
        blinderoaxaca.hlp

PACKAGES
        oaxaca                  module to compute the Blinder-Oaxaca decomposition
        decomp                  alternate module to compute the Blinder-Oaxaca decompositio

(type -adolist install "D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk\

.
end of do-file

. do_example do/5.ihlp, nor

.          adolist install blinderoaxaca, from(net/0)
checking oaxaca consistency and verifying not already installed...
all files already exist and are up to date.
checking decomp consistency and verifying not already installed...
all files already exist and are up to date.

.          adolist


PACKAGE LISTS installed on your system:
        blinderoaxaca           Blinder-Oaxaca decomposition packages
        wagegap                 Wage gap decomposition packages

(type -adolist describe pklname- for more information on pklname)
```

D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk

```
PACKAGE LISTS installed on your system:
    blinderoaxaca        Blinder-Oaxaca decomposition packages
    wagegap              Wage gap decomposition packages

(type -adolist describe pklname- for more information on pklname)

.
end of do-file

. do_example do/6.ihlp, nor

.          adolist uninstall wagegap

package jmpierce2 from D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk\n(
        'JMPIERCE2': module to compute trend decomposition of outcome differentials

(package uninstalled)

package smithwelch from D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk\(
        'SMITHWELCH': module to compute trend decomposition of outcome differential:

(package uninstalled)

.
end of do-file

.
```

```
                Example (continued)


    Creating a package list from installed packages.

    First check what's around:

        adolist list
        <run>

    Store the package list to a file and also produce a help file:

        adolist store using mystuff, help replace
        <run>

    Add other packages, etc.:

        adolist store                                  ///
            oaxaca decomp "gdecomp SSC <title>"        ///
                using mystuff,                         ///
                    help replace nosort                ///
                    author(Ben Jann)                   ///
                    title(A bunch of ados)
        <run>
```
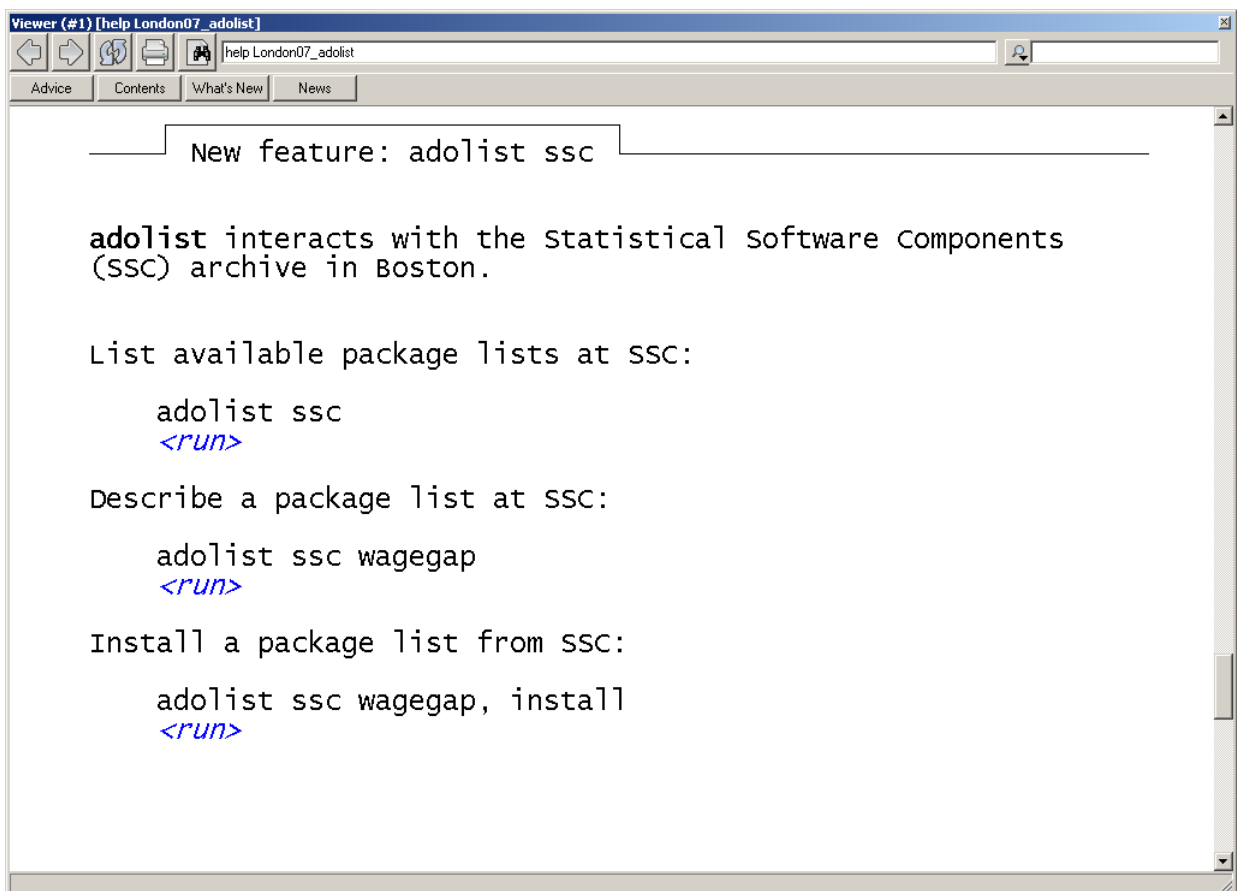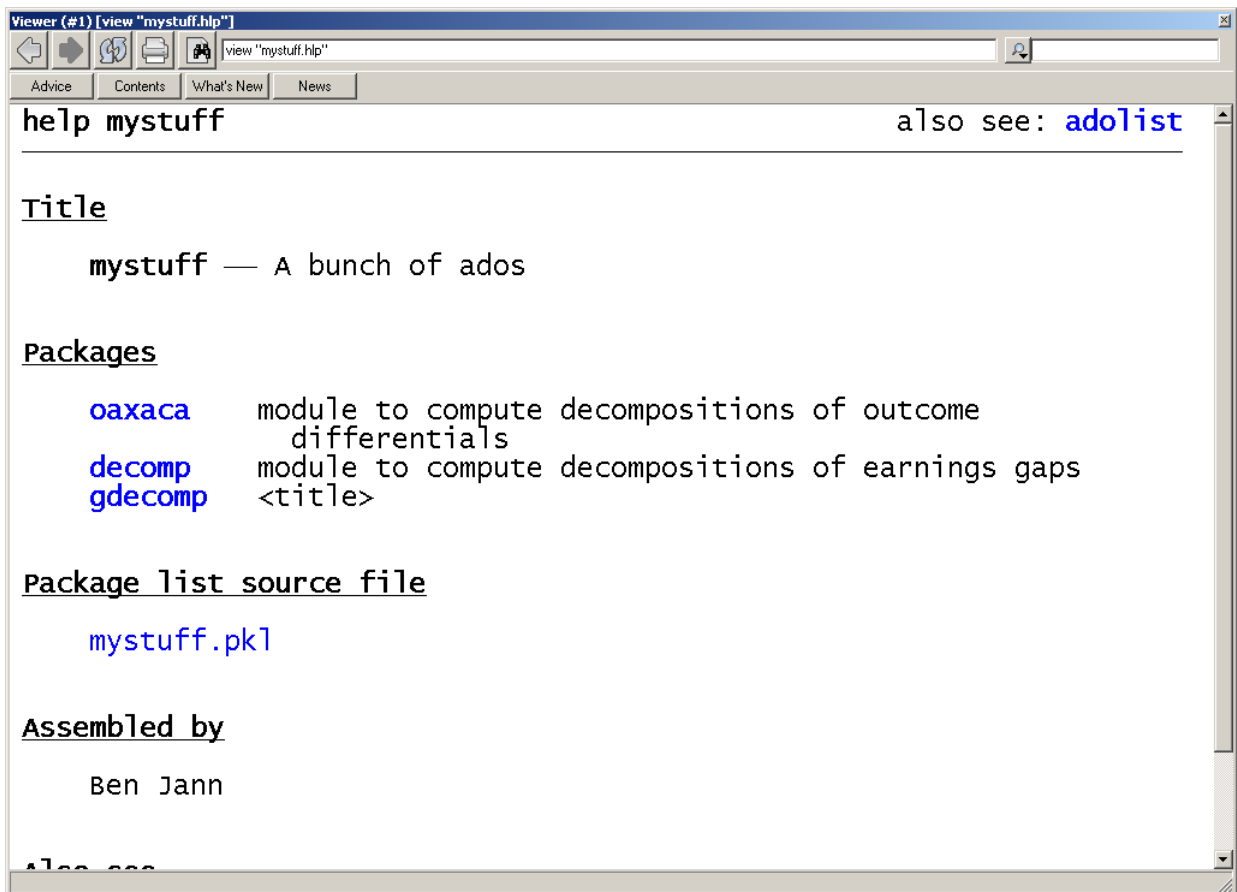
```
(package uninstalled)

.
end of do-file

. do_example do/7.ihlp, nor

.             adolist list
*! Stata package list  12sep2007

decomp.pkg "D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk\net\d"  `"mod
oaxaca.pkg "D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk\net\o"  `"mod

.
end of do-file

. do_example do/8.ihlp, nor

.             adolist store using mystuff, help replace
(mystuff.pkl created; containing 2 packages)
(mystuff.hlp created)

.
end of do-file

.
```

D:\Home\jannb\Projekte\Stata\tools\adolist\London07\talk

```
help mystuff                                    also see: adolist
```

Title

```
    mystuff — Package list
```

Packages

```
    decomp    module to compute decompositions of earnings gaps
    oaxaca    module to compute decompositions of outcome
              differentials
```

Package list source file

```
    mystuff.pkl
```

Also see

```
    Online:  ado, adoupdate, ssc, sj, stb; adolist (if installed)
```

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```
help mystuff                                    also see: adolist
```

Title

mystuff — A bunch of ados

Packages

oaxaca   module to compute decompositions of outcome
           differentials
decomp   module to compute decompositions of earnings gaps
gdecomp   <title>

Package list source file

mystuff.pkl

Assembled by

Ben Jann

Also see

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```
          ┌─ New feature: adolist ssc ─┐
```

adolist interacts with the Statistical Software Components
(SSC) archive in Boston.

List available package lists at SSC:

        adolist ssc
        <run>

Describe a package list at SSC:

        adolist ssc wagegap
        <run>

Install a package list from SSC:

        adolist ssc wagegap, install
        <run>

```
>                         title(A bunch of ados)
(mystuff.pkl created; containing 3 packages)
(mystuff.hlp created)

.
end of do-file

. do_example do/10.ihlp, nor

.           adolist ssc

http://fmwww.bc.edu/repec/bocode/0/
Ado package lists


PACKAGE LISTS you could describe:
    wagegap             Wage gap decomposition packages

DIRECTORIES you could -net cd- to:
    ../

(type -adolist ssc pklname- for more information on pklname)


.
end of do-file

.
```

```
    Assembled by: Ben Jann, ETH Zurich, jann@soz.gess.ethz.ch

SOURCE FILE(S)
    wagegap.pkl
    wagegap.hlp

PACKAGES
    --- Decomposition of wage differentials ---
    oaxaca              module to compute Blinder-Oaxaca decomposition
    decomp              alternate module to compute Blinder-Oaxaca decomposition
    decompose           antecessor of oaxaca

    --- Difference-in-difference decomposition ---
    jmpierce2           module to compute trend decomposition of wage differentials
    smithwelch          alternate module to compute trend decomposition of wage dif

    --- Generalizations ---
    gdecomp             module to compute non-linear Blinder-Oaxaca decomposition
    fairlie             module to compute Fairlie decomposition for binary outcomes
    jmpierce            module to compute decomposition of differences in various st
    dfl                 module to compute DiNardo/Fortin/Lemieux counterfactual den

    --- Related packages ---
    devcon              module to apply the deviation contrast transform
    margeff             module required by gdecomp

(type -adolist ssc wagegap, install- to install)
```

Viewer (#1) [help London07_adolist]

help London07_adolist

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─────┐ Summary ┌─────

- **adolist** makes it easy to handle package lists, I believe.

- My hope is that people will pick it up and create lists and post them on SSC. This would tidy up the archive a bit.

- What are your favorite user ados?

  If you want to contribute and compile a package list, send the list to Kit Baum, who will be happy to make it available in the SSC archive. Don't hesitate to contact me if you need assistance.

Viewer (#1) [help London07_adolist]

help London07_adolist

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Thank you for listening!

PS: I should not have held this talk because providing such functionality would really be Stata Corp's business.

This stuff is too low in the system to be done by me. My suggestion would be to renew and generalize the existing -net- technology. For example, it would be useful to be able to include references to other packages (dependencies) in package definitions.

<clean-up>