

Use grep to select date fields

```
$ head dates
Wed, 16 Jan 2008 11:19:57 +0200
Sun, 18 Dec 2011 21:14:33 +0200
Fri, 22 Oct 2004 06:58:32 -0400 (EDT)
Tue, 11 Sep 2007 21:46:55 -0700
Sat, 11 Sep 2010 08:10:37 +0300
Mon, 17 Dec 2007 21:05:46 +0200
Sun, 25 Dec 2011 23:35:27 +0200
Thu, 18 Dec 2003 12:02:55 -0500 (EST)
Thu, 1 Apr 2004 10:25:14 +0300
Thu, 15 Sep 2005 10:26:29 +0300
$ wc -l dates
21181 dates
$
```

Clean up the data

```
$ sort dates | head
Date Review Due: November 31st
Date:
Date:
Date:
Date:
Date:
Date:=20
Date:=20
Date:=20
Date:=20Mon,=2010=20Aug=202009=2016:49:24=20-0700=20(PDT)
$ grep -v Date dates >dates.clean # Cleanup the file
$ sort dates.clean | head
Fri, 1 Apr 2005 00:49:19 -0800
Fri, 1 Nov 2002 06:23:15 -0500 (EST)
Fri, 2 Jun 2006 18:14:19 -0400
Fri, 4 Jan 2002 13:01:27 +0100
Fri, 6 Jun 2014 18:15:51 +0300 (EEST)
Fri, 8 Jul 2005 11:14:35 +0100
Fri, 8 Jul 2005 11:17:09 +0100
Fri, 1 Apr 2005 00:15:15 +0300
Fri, 1 Apr 2005 00:40:50 +0300
Fri, 1 Apr 2005 00:41:54 +0300
$ mv dates.clean dates
$
```

Sort by fields

```
$ sort -k 2 dates | head -5 # Sort by second and subsequent fields
Tue, 1 Apr 1997 23:57:47 +0300
Wed, 1 Apr 1998 18:52:20 +0200
Sat, 1 Apr 2000 04:01:35 -0500 (EST)
Sat, 1 Apr 2000 04:08:03 -0500 (EST)
Sat, 1 Apr 2000 10:49:49 +0200
$ sort -k 2,2 -k 1,1 dates | head -5 # Sort by second, then first field
Fri, 1 Apr 2005 00:15:15 +0300
Fri, 1 Apr 2005 00:40:50 +0300
Fri, 1 Apr 2005 00:41:54 +0300
Fri, 1 Apr 2005 00:42:01 +0300
Fri, 1 Apr 2005 00:44:02 +0300
$ sort -k 5.5,5.6 dates | head -5 # Sort by time minutes
Fri, 1 Apr 2005 09:00:22 +0100
Fri, 10 Dec 2010 10:00:52 +0100
```

```
Fri, 11 Apr 2008 23:00:03 +0300
Fri, 11 Jul 2014 00:00:31 +0300
Fri, 11 May 2001 17:00:53 -0700
$
```

Reverse sorting

```
$ sort -k 4 dates | head -5 # Sort by year
Fri, 1 Jan 1988 01:40:15 +0300
Mon, 7 Mar 1994 14:04:51 -0500
Mon, 7 Mar 1994 14:04:51 -0500
Sun, 22 Dec 1996 22:37:16 +0200
Wed, 2 Apr 1997 00:01:40 +0300
$ sort -k 4r dates | head -5 # Reverse sort by year
Thu, 7 Jan 2016 21:15:43 -0600
Tue, 5 Jan 2016 19:31:07 +0200
Thu, 7 Jan 2016 17:36:48 -0500
Fri, 8 Jan 2016 09:44:23 +0100
Mon, 9 Mar 2015 23:58:37 +0200
$
```

Sort by month

```
$ sort -k 3 dates | head -5 # Alphabetic sort by month
Wed, 2 Apr 1997 00:01:40 +0300
Fri, 11 Apr 1997 00:44:03 +0100
Thu, 10 Apr 1997 00:46:38 +0100
Fri, 18 Apr 1997 09:29:37 +0300 (EET DST)
Wed, 9 Apr 1997 10:03:28 +0200
$ sort -k 3M dates | head -5 # Chronological sort by month
Fri, 1 Jan 1988 01:40:15 +0300
Fri, 10 Jan 1997 00:06:32 +0000
Fri, 10 Jan 1997 10:44:23 +0200
Fri, 10 Jan 1997 10:47:21 +0200
Fri, 10 Jan 1997 13:28:41 +0200
$ sort -k 3M -k 2n dates | head -5 # .. and numerical by date
Fri, 1 Jan 1988 01:40:15 +0300
Mon, 1 Jan 2007 17:57:36 +0200
Mon, 1 Jan 2007 20:16:50 +0200
Mon, 1 Jan 2007 20:25:32 +0200
Mon, 1 Jan 2007 22:00:32 +0200
$
```

Specify field delimiter

```
$ head -8 /etc/passwd
root:*:0:0:root - freefall:/root:/bin/csh
toor:*:0:0:Bourne-again Superuser:/root:
daemon:*:1:1:Owner of many system processes:/root:/usr/sbin/nologin
operator:*:2:5:System &:/usr/sbin/nologin
bin:*:3:7:Binaries Commands and Source:/usr/sbin/nologin
tty:*:4:65533:Tty Sandbox:/usr/sbin/nologin
kmem:*:5:65533:KMem Sandbox:/usr/sbin/nologin
games:*:7:13:Games pseudo-user:/usr/sbin/nologin
$ sort -t : -k 4n /etc/passwd | head -8 # Sort by numeric group-id
root:*:0:0:root - freefall:/root:/bin/csh
toor:*:0:0:Bourne-again Superuser:/root:
daemon:*:1:1:Owner of many system processes:/root:/usr/sbin/nologin
operator:*:2:5:System &:/usr/sbin/nologin
pop:*:68:6:Post Office Owner:/nonexistent:/usr/sbin/nologin
bin:*:3:7:Binaries Commands and Source:/usr/sbin/nologin
news:*:8:8:News Subsystem:/usr/sbin/nologin
```

```
man:*:9:9:Mister Man Pages:/usr/share/man:/usr/sbin/nologin
$
```

Obtain unique output

```
$ wc -l dates # Number of dates
21083 dates
$ sort dates | uniq | wc -l # Number of unique dates
20930
$ sort -u dates | wc -l # Number of unique dates
20930
$
```

Merge sorted files

```
$ sort dates >sorted
$ sort -C dates && echo 'Sorted!' # See if file is sorted (no)
$ sort -C sorted && echo 'Sorted!' # See if file is sorted (yes)
Sorted!
$ time sort dates dates >/dev/null # Sort two files
```

```
real    0m0.580s
user    0m0.546s
sys     0m0.015s
$ sort dates >sorted # Merge two sorted files
$ time sort -m sorted sorted >/dev/null
```

```
real    0m0.060s
user    0m0.046s
sys     0m0.015s
$
```

Sort suffixed numbers

```
$ du -h | # Output disk usage in human-readable form
> sort -rh | # Order human-readable numbers (in reverse)
> head
3.2G    .
1.8G    ./lib
917M    ./share
340M    ./lib/x86_64-linux-gnu
334M    ./lib/gcc
257M    ./bin
250M    ./lib/debug
236M    ./lib/python2.7
236M    ./lib/debug/usr
235M    ./lib/debug/usr/lib
$
```