

Debian Count and Graph Installed Program Information

The presentation shows two different programs to list installed programs on Debian based systems. The presentation imports the data into LibreOffice Calc and graphs some data. The presentation uses "sudo" to perform some operations shown.

Preuss
2/15/2021

Debian 10.8

preuss@csci1110-debian: ~

✕

File Edit View Search Terminal Help

preuss@csci1110-debian:~\$ cat /etc/debian_version

10.8

preuss@csci1110-debian:~\$ uname -a

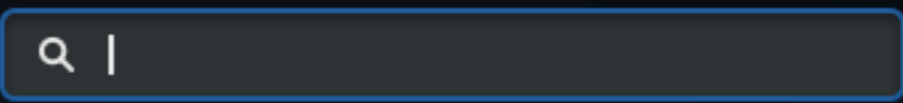
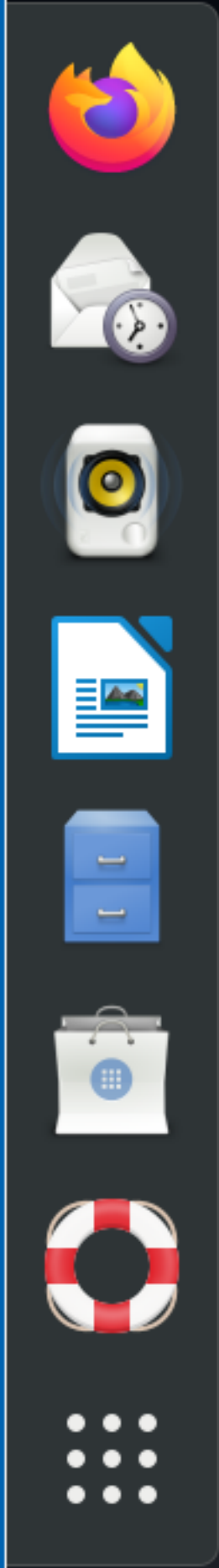
Linux csci1110-debian 4.19.0-14-amd64 #1 SMP Debian 4.19.171-2 (2021-01-30) x86_64 GNU/Linux

preuss@csci1110-debian:~\$ █

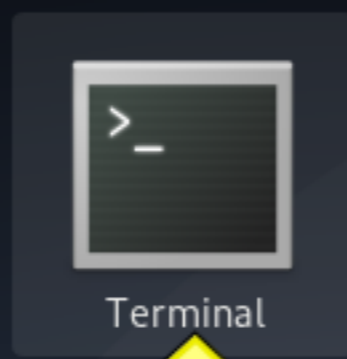
The presentation shows the Linux distribution and kernel version.

The presentation logs into the Linux machine.

This distribution is setup with GNOME environment.
The presentation selects the "Activities" menu option.



terminal



Terminal



XTerm

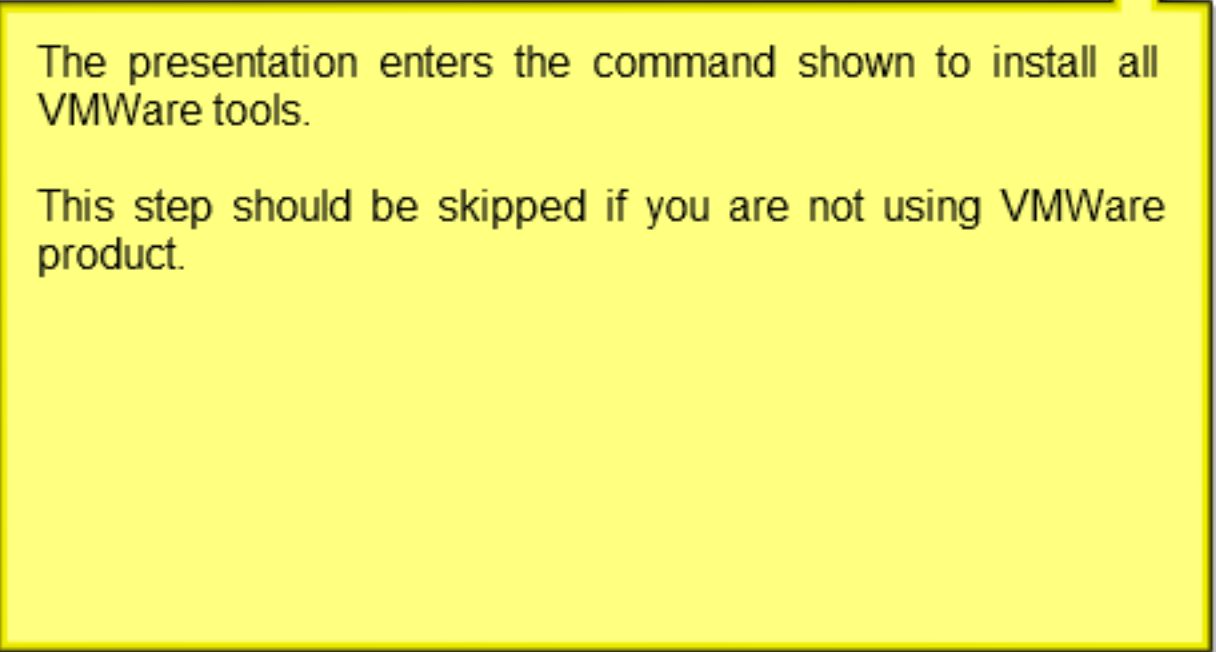
The presentation enters the word "terminal" to get a listing of installed terminals. The presentation clicks on the "terminal icon" to proceed.

multiple terminals in one window
terminatorX is a realtime audio synthesizer
Use the command line
based sudoku game
command line

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

preuss@csci1110-debian:~\$ sudo apt install open-vm-tools*



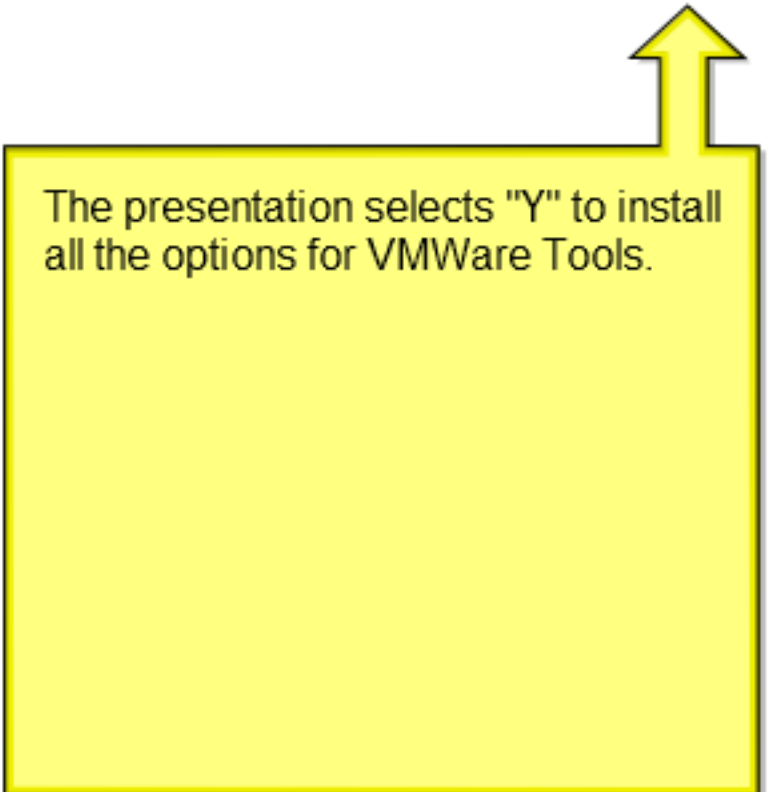
The presentation enters the command shown to install all VMWare tools.

This step should be skipped if you are not using VMWare product.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

```
preuss@csci1110-debian:~$ sudo apt install open-vm-tools*
[sudo] password for preuss:
Reading package lists... Done
Building dependency tree
Reading state information... Done
Note, selecting 'open-vm-tools-desktop' for glob 'open-vm-tools*'
Note, selecting 'open-vm-tools' for glob 'open-vm-tools*'
Note, selecting 'open-vm-tools-dev' for glob 'open-vm-tools*'
The following additional packages will be installed:
  ethtool libdumbnet1 libmsspack0 libxmlsec1-openssl zerofree
Suggested packages:
  cloud-init
Recommended packages:
  xserver-xorg-input-vmouse
The following NEW packages will be installed:
  ethtool libdumbnet1 libmsspack0 libxmlsec1-openssl open-vm-tools open-vm-tools-desktop open-vm-tools-dev zerofree
0 upgraded, 8 newly installed, 0 to remove and 0 not upgraded.
Need to get 1,537 kB of archives.
After this operation, 6,810 kB of additional disk space will be used.
Do you want to continue? [Y/n] █
```

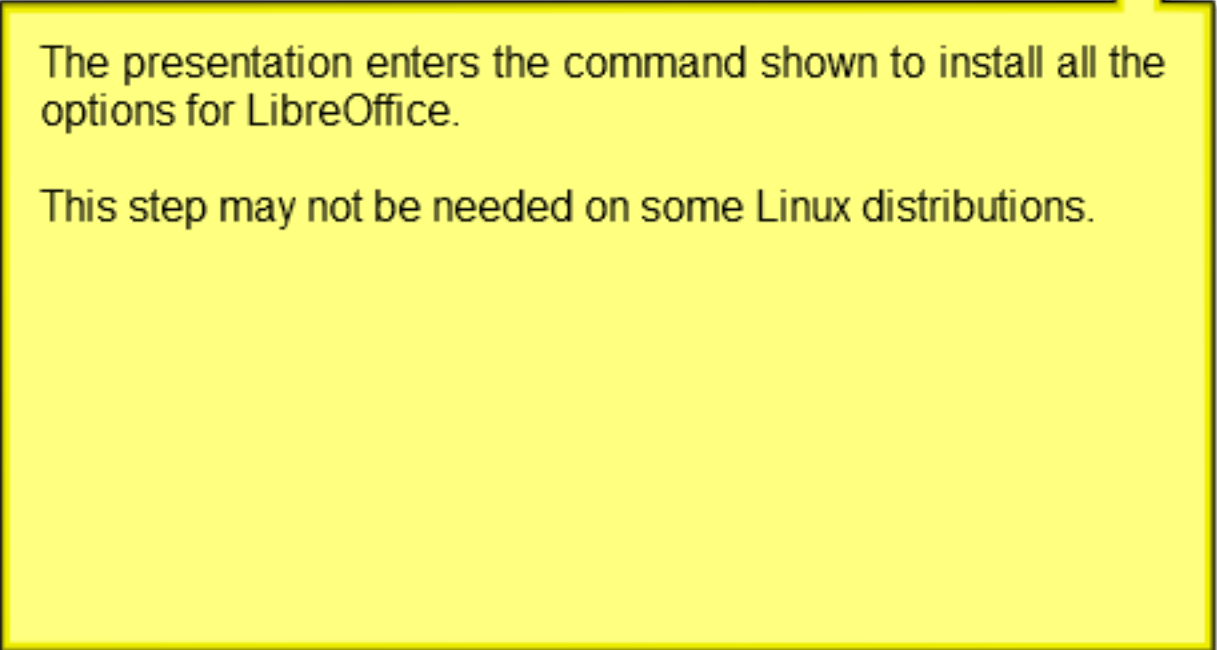


The presentation selects "Y" to install all the options for VMWare Tools.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

preuss@csci1110-debian:~\$ sudo apt install libreoffice*



The presentation enters the command shown to install all the options for LibreOffice.

This step may not be needed on some Linux distributions.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

```

libreoffice-avmedia-backend-vlc libreoffice-base libreoffice-base-drivers libreoffice-canzeley-client libreoffice-dev libreoffice-dev-common
libreoffice-dev-doc libreoffice-dmaths libreoffice-evolution libreoffice-gtk2 libreoffice-help-ca libreoffice-help-cs libreoffice-help-da
libreoffice-help-de libreoffice-help-dz libreoffice-help-el libreoffice-help-en-gb libreoffice-help-es libreoffice-help-et libreoffice-help-eu
libreoffice-help-fi libreoffice-help-fr libreoffice-help-gl libreoffice-help-hi libreoffice-help-hu libreoffice-help-it libreoffice-help-ja
libreoffice-help-km libreoffice-help-ko libreoffice-help-nl libreoffice-help-om libreoffice-help-pl libreoffice-help-pt libreoffice-help-pt-br
libreoffice-help-ru libreoffice-help-sk libreoffice-help-sl libreoffice-help-sv libreoffice-help-tr libreoffice-help-vi libreoffice-help-zh-cn
libreoffice-help-zh-tw libreoffice-java-common libreoffice-kde libreoffice-kde5 libreoffice-l10n-af libreoffice-l10n-am libreoffice-l10n-ar
libreoffice-l10n-as libreoffice-l10n-ast libreoffice-l10n-be libreoffice-l10n-bg libreoffice-l10n-bn libreoffice-l10n-br libreoffice-l10n-bs
libreoffice-l10n-ca libreoffice-l10n-cs libreoffice-l10n-cy libreoffice-l10n-da libreoffice-l10n-de libreoffice-l10n-dz libreoffice-l10n-el
libreoffice-l10n-en-gb libreoffice-l10n-en-za libreoffice-l10n-eo libreoffice-l10n-es libreoffice-l10n-et libreoffice-l10n-eu
libreoffice-l10n-fa libreoffice-l10n-fi libreoffice-l10n-fr libreoffice-l10n-ga libreoffice-l10n-gd libreoffice-l10n-gl libreoffice-l10n-gu
libreoffice-l10n-gug libreoffice-l10n-he libreoffice-l10n-hi libreoffice-l10n-hr libreoffice-l10n-hu libreoffice-l10n-id libreoffice-l10n-in
libreoffice-l10n-is libreoffice-l10n-it libreoffice-l10n-ja libreoffice-l10n-ka libreoffice-l10n-kk libreoffice-l10n-km libreoffice-l10n-kmr
libreoffice-l10n-kn libreoffice-l10n-ko libreoffice-l10n-lt libreoffice-l10n-lv libreoffice-l10n-mk libreoffice-l10n-ml libreoffice-l10n-mn
libreoffice-l10n-mr libreoffice-l10n-nb libreoffice-l10n-ne libreoffice-l10n-nl libreoffice-l10n-nn libreoffice-l10n-nr libreoffice-l10n-nso
libreoffice-l10n-oc libreoffice-l10n-om libreoffice-l10n-or libreoffice-l10n-pa-in libreoffice-l10n-pl libreoffice-l10n-pt
libreoffice-l10n-pt-br libreoffice-l10n-ro libreoffice-l10n-ru libreoffice-l10n-rw libreoffice-l10n-si libreoffice-l10n-sk libreoffice-l10n-sl
libreoffice-l10n-sr libreoffice-l10n-ss libreoffice-l10n-st libreoffice-l10n-sv libreoffice-l10n-ta libreoffice-l10n-te libreoffice-l10n-tg
libreoffice-l10n-th libreoffice-l10n-tn libreoffice-l10n-tr libreoffice-l10n-ts libreoffice-l10n-ug libreoffice-l10n-uk libreoffice-l10n-uz
libreoffice-l10n-ve libreoffice-l10n-vi libreoffice-l10n-xh libreoffice-l10n-za libreoffice-l10n-zh-cn libreoffice-l10n-zh-tw
libreoffice-l10n-zu libreoffice-librelogo libreoffice-lightproof-pt-br libreoffice-mysql-connector libreoffice-nlpsolver libreoffice-numbertext
libreoffice-ogltrans libreoffice-pdfimport libreoffice-report-builder libreoffice-report-builder-bin
libreoffice-script-provider-js libreoffice-script-provider-python libreoffice-sdbc-firebird
libreoffice-sdbc-postgresql libreoffice-smoketest-data libreoffice-style-breeze libreoffice-style-sifr
libreoffice-texmaths libreoffice-voikko libreoffice-wiki-publisher libreoffice-writer2latex
libreofficekit-dev librepository-java libresid-builder0c2a librngom-java libsac-java libsaxonhe-java libsdl-image1.2
libserver-api-java libserver3.1-java libsidplay2 libsisu-guice-java libsisu-inject-java libsisu-ioc-java
libsnappy-java libsnappy-jni libspatialaudio0 libstax-ex-java libstdc++-8-dev libstreambuffer-java libteckit0
libtexlua53 libtexluajit2 libtommath1 libtsan0 libtxw2-java libubsan1 libupnp13 libusageenvironment3
libvclcore9 libvoikko1 libwagon-http-java libwagon-provider-api-java libwebsocket-api-java libxcb-xinerama0
libexternal-java libxml-commons-resolver1.1-java libxml-java libxmlbeans-java libxom-java libxsom-java libxxhash0
libzstd-dev lmodern manpages-dev mariadb-client mariadb-client-10.3 mariadb-client-core-10.3 openjdk-11-jre
qt5-phonon4qt5-backend-vlc python3-libvoikko qt5-gtk-platformtheme qttranslations5-l10n qtwayland5 sonnet-plugins
texlive texlive-base texlive-binaries texlive-fonts-recommended texlive-latex-base texlive-latex-recommended tipa
liblc-plugin-video-output voikko-fi
0 upgraded, 580 newly installed, 0 to remove and 0 not upgraded.
Need to get 1,007 MB of archives.
After this operation, 3,079 MB of additional disk space will be used.
Do you want to continue? [Y/n]

```

The presentation selects "Y" to install all the options for LibreOffice.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

```
preuss@csci1110-debian:~$ cd ~/
preuss@csci1110-debian:~$
```



The presentation changes to the home directory of the current login.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

preuss@csci1110-debian:~\$ dpkg-query -l >> product_list.txt



This is the first option to gather a list of installed programs on Debian.

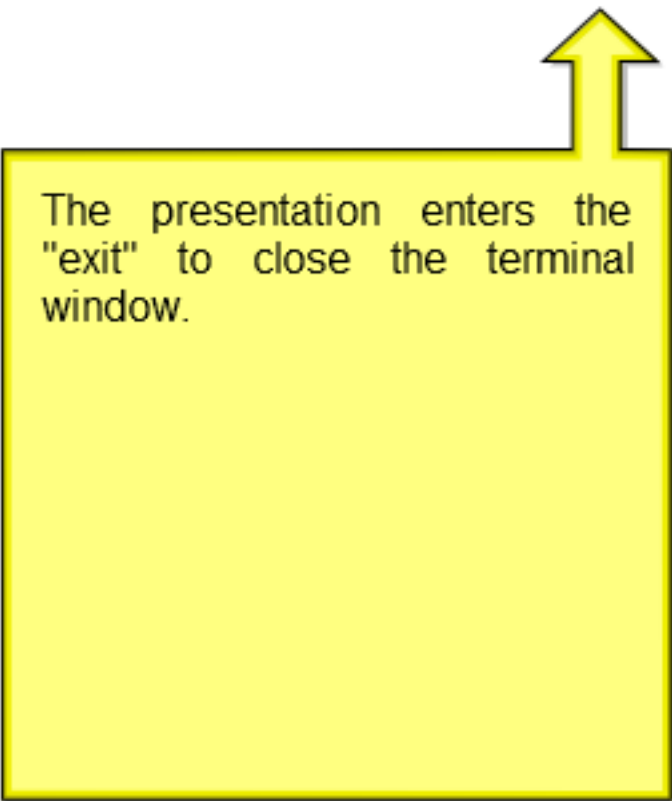
The presentation enters the command shown to list installed programs.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

preuss@csci1110-debian:~\$ dpkg-query -l >> product_list.txt

preuss@csci1110-debian:~\$ exit

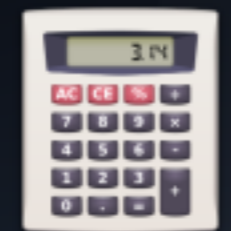


The presentation enters the "exit" to close the terminal window.

🔍 Type to search...



AisleRiot Solitai...



Calculator



Calendar



Cheese



Chess



Clocks



Documents



Evolution



Files



Firefox ESR



Hitori



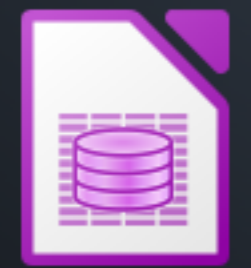
Iagno



Klotski



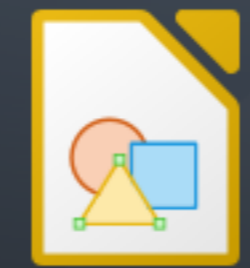
LibreOffice



LibreOffice Base



LibreOffice Calc



LibreOffice Draw



LibreOffice Imp...



LibreOffice Wri...




Lights Off




























The presentation opens the GNOME menu and clicks on "LibreOffice Calc".




Untitled 1 - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help



Liberation Sa 10                           

A1  Σ =

	A	B	C	D	E	F	G	H	I	J	K
1											
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Sheet1

Sheet 1 of 1 | Default | English (USA) | I_ | Average: ; Sum: 0 | 100%

LibreOffice Calc is now running.

Untitled 1 - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

- New
- Open... ← The presentation selects "File | Open" to continue.
- Open Remote...
- Recent Document
- Close
- Wizards
- Templates
- Reload
- Versions...
- Save
- Save Remote...
- Save As...
- Save a Copy...
- Save All
- Export...
- Export as PDF...
- Send
- Preview in Web Browser
- Print Preview Shift+Ctrl+O
- Print... Ctrl+P
- Printer Settings...
- Digital Signatures
- Properties...
- Exit LibreOffice Ctrl+Q

English (USA) | I | Average: ; Sum: 0 | 100%

Cancel | Open | [Search] | Open

Recent | Home | preuss | Documents

Name | Size | Modified

The presentation clicks on the login name shown.

+ Other Locations

Version: [Dropdown]

Read-only

All files [Dropdown]

Cancel | Open | [Search] | Open

- Recent
- Home
- Documents
- Downloads
- Music
- Pictures
- Videos

preuss Documents

Name	Size	Modified
Desktop		Yesterday
Documents		Yesterday
Downloads		Yesterday
Music		Yesterday
Pictures		Yesterday
product_list.txt	310.9 kB	13:25
Public		Yesterday
Templates		Yesterday

The presentation clicks on the file containing the list of installed programs.

Version: [Dropdown]
 Read-only

All files [Dropdown]

Text Import - [product_list.txt]

Import

Character set:

Language:

From row: - +

Separator Options

Fixed width Separated by

Tab Comma Semicolon Space Other

Delimiters Trim spaces String delimiter:

Quoted field as text Detect special numbers

10 20 30 40 50 60 70 80

```

=Unknown/Install/Remove/Purge/Hold
s=Not/Inst/Conf-files/Unpacked/half-conf/Half-inst/trig-aWait/Trig-pend
3 | / ERR?=(none)/Reinst-required (Status,Err: uppercase=bad)
4 | | / Name Version
5 +++-----
6 ii accountsservice 0.6.45-2
7 ii acl 2.2.53-4
8 ii adduser 3.118
9 ii adwaita-icon-theme 3.30.1-1
10 ii aisleriot 1:3.22.7-2
11 ii alsa-utils 1.1.8-2
12 ii anacron 2.3-28
13 ii ant 1.10.5-2

```

Help OK Cancel

The presentation changes the "Separator Options" to "Fixed width" as shown.

Text Import - [product_list.txt]

Import

Character set: Unicode (UTF-8)

Language: Default - English (USA)

From row: 1

Column type:

Column	Type
1	Text
2	Text
3	Text
4	Text
5	Text
6	Text
7	Text
8	Text
9	Text
10	Text
11	Text
12	Text
13	Text

Help OK Cancel

The presentation clicks in the ruler to insert a line as shown.

The presentation clicks in the ruler to insert another line as shown.

	Standard	Standard
1	Desired=Unknown/Install/Remove/Purge/Hold	
2	Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-a	
3	/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)	
4	/ Name	Version
5	+++-----	-----
6	ii accountsservice	0.6.45-2
7	ii acl	2.2.53-4
8	ii adduser	3.118
9	ii adwaita-icon-theme	3.30.1-1
10	ii aisleriot	1:3.22.7-2
11	ii alsa-utils	1.1.8-2
12	ii anacron	2.3-28
13	ii ant	1.10.5-2

Text Import - [product_list.txt]

Import
 Character set: Unicode (UTF-8)
 Language: Default - English (USA)
 From row: 1

Separator Options
 Fixed width
 Tab Comma Other
 Merge delimiters
 Quoting delimiter: " None

Other Options
 Format quoted fields as numbers

Fields
 Column type:

The presentation clicks in the ruler to insert a line as shown.

The presentation clicks in the ruler to insert a line as shown.

Architecture	Description
amd64	query and manipulate u
amd64	access control list -
all	add and remove users a
all	default icon theme of
amd64	GNOME solitaire card g
amd64	Utilities for configur
amd64	cron-like program that
all	Java based build tool

Help OK Cancel

File Edit View Insert
Liberation Sa
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Sheet1

Text Import - [product_list.txt] ✕

Import

Character set: Unicode (UTF-8) ▾

Language: Default - English (USA) ▾

From row: 1 - +

Separator Options

Fixed width Separated by

Tab Comma Semicolon Space Other []

Merge delimiters Trim spaces String delimiter: " ▾

Other Options

Format quoted field as text Detect special numbers

Fields

Column type: Standard ▾

Once the presentation has the lines inserted, the presentation selects "OK".

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Help OK Cancel

[Spreadsheet View]

K
[Grid]

product_list.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Liberation Sa 10 [Icons]

A1 f_x Σ = Desi

	A	B	C	D	E
1	Desi	red=Unknown/Install/Remove/Purge/Hold			
2	St	atus=Not/Inst/Conf-files/Unpacked/halF	-conf/Half-inst/trig-aWait/Trig-pend		
3	/ E	rr?=(none)/Reinst-required (Status,Err	: uppercase=bad)		
4	/	Name	Version	Architecture	Description
5	+++-		Err:510	Err:510	Err:510
6	ii	<u>accountsservice</u>	0.6.45-2	amd64	query and manipulate user account informat
7	ii	<u>acl</u>	2.2.53-4	amd64	access control list - utilities
8	ii	<u>adduser</u>		3.118 all	add and remove users and groups
9	ii	<u>adwaita-icon-theme</u>	3.30.1-1	all	default icon theme of GNOME
10	ii	<u>aisleriot</u>	1:3.22.7-2	amd64	GNOME solitaire card game collection
11	ii	<u>alsa-utils</u>	1.1.8-2	amd64	Utilities for configuring and using <u>ALSA</u>
12	ii	<u>anacron</u>	2.3-28	amd64	<u>cron-like</u> program that doesn't go by time
13	ii	<u>ant</u>	1.10.5-2	all	Java based build tool like make
				all	collection of tasks, types and other tools fo
				all	Java based build tool like make - optional lil
				amd64	Apache HTTP Server (modules and other bi
				amd64	Automated Password Generator - Standalor
				amd64	user-space parser utility for AppArmor
				amd64	Software component metadata managemen
				amd64	<u>commandline</u> package manager
				all	APT configuration snippet to enable icon do
			3.19	all	package change history notification tool
				amd64	package management related utility program
				amd64	Color Management System, calibrator and p
				all	Color Management System, calibrator and p

Average: ; Sum: 0 | 100%

The presentation views the correctly imported data.

product_list.txt - LibreOffice Calc

Toolbar with icons for file operations, editing, and formatting. The font is Liberation Sa, size 10. The active cell is G4, containing the formula =Arch_Version.

	B	C	D	E	F	G
1	red=Unknown/Install/Remove/Purge/Hold					
2	atus=Not/Inst/Conf-files/Unpacked/halF					
3	rr?=(none)/Reinst-required (Status,Err : uppercase=bad)					
4	Name	Version	Architecture	Description	Arch	Arch_Version
5	Err:510	Err:510	Err:510	Err:510	Err:510	
6	accounts-service	0.6.45-2	amd64	query and manipulate user account information		
7	acl	2.2.53-4	amd64	access control list - utilities		
8	adduser	3.118	all	add and remove u		
9	adwaita-icon-theme	3.30.1-1	all	default icon theme		
10	aisleriot	1:3.22.7-2	amd64	GNOME solitaire c		
11	alsa-utils	1.1.8-2	amd64	Utilities for configu		
12	anacron	2.3-28	amd64	cron-like program		
13	ant	1.10.5-2	all	Java based build t		
14	ant-contrib	1.0~b3+svn177-10	all	collection of tasks		
15	ant-optional	1.10.5-2	all	Java based build t		
16	apache2-bin	2.4.38-3+deb10u4	amd64	Apache HTTP Ser		
17	apg	2.2.3.dfsg.1-5	amd64	Automated Passw		
18	apparmor	2.13.2-10	amd64	user-space parser		
19	appstream	0.12.5-1	amd64	Software compone		
20	apt	1.8.2.2	amd64	commandline pack		
21	apt-config-icons	0.12.5-1	all	APT configuration		
22	apt-listchanges	3.19	all	package change history notification tool		
23	apt-utils	1.8.2.2	amd64	package management related utility programs		
24	argyll	2.0.1+repack-1	amd64	Color Management System, calibrator and profiler		
25	argyll-ref	2.0.1+repack-1	all	Color Management System, calibrator and profiler (data files)		

The presentation enters the word "Arch" in column "F" and the word "Arch_Version" in column "G".

product_list.txt - LibreOffice Calc

Toolbar with icons for file operations, editing, and formatting.

Font: Liberation Sa, Size: 10

Formula bar: F5:F6, fx Σ = amd64

	B	C	D	E	F	G
1	red=Unknown/Install/Remove/Purge/Hold					
2	atus=Not/Inst/Conf-files/Unpacked/halF					
3	rr?=(none)/Reinst-required (Status,Err : uppercase=bad)					
4	Name	Version	Architecture	Description	Arch	Arch_Version
5		Err:510	Err:510	Err:510	Err:510	amd64
6	accounts-service	0.6.45-2	amd64	query and manipulate user account information	all	
7	acl	2.2.53-4	amd64	access control list - utilities		
8	adduser		3.118	add and remove users and groups		
9	adwaita-icon-theme	3.30.1-1	all	default icon theme of GNOME		
10	aisleriot	1:3.22.7-2	amd64	GNOME solitaire card game collection		
11	alsa-utils	1.1.8-2	amd64	Utilities for configuring and using ALSA		
12	anacron			cron-like program that doesn't go by time		
13	ant			Java based build tool like make		
14	ant-contrib			collection of tasks, types and other tools for		
15	ant-optional			Java based build tool like make - optional		
16	apache2-bin			Apache HTTP Server (modules and other tools)		
17	apg			Automated Password Generator - Standalone		
18	apparmor			user-space parser utility for AppArmor		
19	appstream			Software component metadata management		
20	apt			commandline package manager		
21	apt-config-icons			APT configuration snippet to enable icon d		
22	apt-listchanges			package change history notification tool		
23	apt-utils			package management related utility program		
24	argyll			Color Management System, calibrator and		
25	argyll-ref			Color Management System, calibrator and profiler (data files)		

The presentation is counting the number of architecture listings.

This list has only two architecture types. The presentation copies both types to column "F" as shown.

product_list.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Toolbar with icons for file operations, editing, and formatting. The font is Liberation Sa, size 10. The formula bar shows `=countif(`.

Tooltip: COUNTIF(Range, Criteria): The range of cells to be evaluated by the criteria given.

	Name	Version	Architecture	Description	Arch	Arch_Version
1	reus=Unknown/Install/Remove/Purge/Hold					
2	atus=Not/Inst/Conf-files/Unpacked/halF	-conf/Half-inst/trig-aWait/Trig-pend				
3	rr?=(none)/Reinst-required (Status,Err	: uppercase=bad)				
4						
5		Err:510	Err:510	Err:510	Err:510	=countif(
6	accountsservice	0.6.45-2	amd64	query and manipulate user account information	amd64	
7	acl	2.2.53-4	amd64	access control list - utilities	all	
8	adduser		3.118 all	add and remove users and groups		
9	adwaita-icon-theme	3.30.1-1	all	default icon theme of GNOME		
10	aisleriot	1:3.22.7-2	amd64	GNOME solitaire card game collection		
11	alsa-utils	1.1.8-2	amd64	Utilities for configuring and using ALSA		
12	anacron	2.3-28	amd64	cron-like program that doesn't go by time		
13	ant	1.10.5-2	all	Java based build tool like make		
14	ant-contrib	1.0~b3+svn177-10	all	collection of tasks, types and other tools for Apache Ant		
15	ant-optional	1.10.5-2	all	Java based build tool like make - optional libraries		
16	apache2-bin	2.4.38-3+deb10u4	amd64	Apache HTTP Server (modules and other binary files)		
17	apg	2.2.3.dfsg.1-5	amd64	Automated Password Generator - Standalone version		
18	apparmor	2.13.2-10	amd64	user-space parser utility for AppArmor		
19	appstream	0.12.5-1	amd64	Software component metadata management		
20	apt	1.8.2.2	amd64	commandline package manager		
21	apt-config-icons	0.12.5-1	all	APT configuration snippet to enable icon downloads		
22	apt-listchanges		3.19 all	package change history notification tool		
23	apt-utils	1.8.2.2	amd64	package management related utility programs		
24	argyll	2.0.1+repack-1	amd64	Color Management System, calibrator and profiler		
25	argyll-ref	2.0.1+repack-1	all	Color Management System, calibrator and profiler (data files)		

The presentation enters the beginning of the formula as shown. In the example, the presentation selects "D6" and while holding down the left button selects all the entries in column "D".

product_list.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help



Liberation Sa 10 [font settings icons]

SUM fx [error icon] [check icon] =countif(D6:D2160)

			D	E	F	G
2157	<u>zenity</u>	3.30.0-2	amd64	Display graphical dialog boxes from shell scripts		
2158	<u>zenity-common</u>	3.30.0-2	all	Display graphical dialog boxes from shell scripts (common files)		
2159	<u>zerofree</u>	1.1.1-1	amd64	zero free blocks from ext2, ext3 and ext4 file-systems		
2160	<u>zlib1g:amd64</u>	1:1.2.11.dfsg-1	amd64	compression library - runtime		
2161						
2162						
2163						
2164						
2165						
2166						
2167						
2168						
2169						
2170						
2171						
2172						
2173						
2174						
2175						
2176						
2177						
2178						
2179						
2180						
2181						

The presentation selects all the entries in column "D". In this example, the entries end at row 2160.

2155 R x 1 C

product_list.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help



Liberation Sa 10 A A A A fx x ✓ =countif(D6:D2160,f5)

SUM fx x ✓ =countif(D6:D2160,f5)

	B	C	D	E	F	G
1	red=Unknown/Install/Remove/Purge/Hold					
2	atus=N	Wait/Trig-pend				
3	rr?=(no					
4	Name		Architecture	Description	Arch	Arch_Version
5			Err:510	Err:510	Err:510	=countif(D6:D2160,f5)
6	account		amd64	2155 R x1 C d manipulate user account information	amd64	
7	acl		amd64	access control list - utilities	all	
8	adduse	3.118	all	add and remove users and groups		
9	adwaita		all	default icon theme of GNOME		
10	aislerio		amd64	GNOME solitaire card game collection		
11	alsa-uti		amd64	Utilities for configuring and using ALSA		
12	anacron		amd64	cron-like program that doesn't go by time		
13	ant		all	Java based build tool like make		
14	ant-cor		all	collection of tasks, types and other tools for Apache Ant		
15	ant-opt		all	Java based build tool like make - optional libraries		
16	apache		amd64	Apache HTTP Server (modules and other binary files)		
17	apg	2.2.3.dfsg.1-5	amd64	Automated Password Generator - Standalone version		
18	apparmor	2.13.2-10	amd64	user-space parser utility for AppArmor		
19	appstream	0.12.5-1	amd64	Software component metadata management		
20	apt	1.8.2.2	amd64	commandline package manager		
21	apt-config-icons	0.12.5-1	all	APT configuration snippet to enable icon downloads		
22	apt-listchanges		3.19	package change history notification tool		
23	apt-utils	1.8.2.2	amd64	package management related utility programs		
24	argyll	2.0.1+repack-1	amd64	Color Management System, calibrator and profiler		
25	argyll-ref	2.0.1+repack-1	all	Color Management System, calibrator and profiler (data files)		

LibreOffice Calc will enter the range of selection. The presentation enters "f5". "f5" is the item the presentation wants to count in the range.

2155 R x1 C d

product_list.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help



Liberation Sa 10 [Font settings icons]

COUNTIF fx [Error] [Green check] =COUNTIF(\$D\$6:\$D\$2160,F5)

	B		D	E	F	G
1	red=Unknown/Install/Remove/Purge/Hold					
2	atus=Not/Inst/Conf-files/Unpacked/halE	-conf/Half-inst/trig-aWal	iq-pend			
			Architecture	Description	Arch	Arch_Version
			Err:510	Err:510	Err:510	=COUNTIF(\$D\$6:\$D\$2160,F5)
			amd64	query and manipulate user account information	amd64	
			amd64	access control list - utilities	all	
			3.118	all		
			all	add and remove users and groups		
			amd64	default icon theme of GNOME		
			amd64	GNOME solitaire card game collection		
			amd64	Utilities for configuring and using ALSA		
			amd64	cron-like program that doesn't go by time		
			all	Java based build tool like make		
			all	collection of tasks, types and other tools for Apache Ant		
			all	Java based build tool like make - optional libraries		
			amd64	Apache HTTP Server (modules and other binary files)		
			amd64	Automated Password Generator - Standalone version		
17	apg	2.2.3.dfsg.1-5	amd64	user-space parser utility for AppArmor		
18	apparmor	2.13.2-10	amd64	Software component metadata management		
19	appstream	0.12.5-1	amd64	commandline package manager		
20	apt	1.8.2.2	amd64	APT configuration snippet to enable icon downloads		
21	apt-config-icons	0.12.5-1	all	package change history notification tool		
22	apt-listchanges		3.19	all		
23	apt-utils	1.8.2.2	amd64	package management related utility programs		
24	argyll	2.0.1+repack-1	amd64	Color Management System, calibrator and profiler		
25	argyll-ref	2.0.1+repack-1	all	Color Management System, calibrator and profiler (data files)		

The presentation add the "\$" to lock the range selection.

product_list.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Toolbar icons: Undo, Redo, Copy, Paste, Bold, Italic, Underline, Text Color, Fill Color, Background Color, Font Size, Paragraph, Table, Chart, etc.

Font: Liberation Sa, Size: 10

Formula bar: F4:G6, fx Σ = Arch

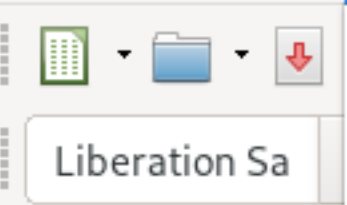
	C	D	E	F	G	H	I	J
1								
2								
3								
4	Version	Architecture	Description	Arch	Arch_Version			
5	Err:510	Err:510		Err:510				
6	0.6.45-2	amd64	query and manipulate user account information	amd64	1467			
7	2.2.53-4	amd64	access control list - utilities	all	688			
8	3.118	all	add and remove users and groups					
9	3.30.1-1	all	default icon theme of GNOME					
10	1:3.22.7-2	amd64	GNOME solitaire card game d					
11	1.1.8-2	amd64	Utilities for configuring and us					
12	2.3-28	amd64	cron-like program that doesn't					
13	1.10.5-2	all	Java based build tool like mak					
14	1.0~b3+svn177-10	all	collection of tasks, types and					
15	1.10.5-2	all	Java based build tool like mak					
16	2.4.38-3+deb10u4	amd64	Apache HTTP Server (module					
17	2.2.3.dfsg.1-5	amd64	Automated Password Generat					
18	2.13.2-10	amd64	user-space parser utility for A					
19	0.12.5-1	amd64	Software component metadata					
20	1.8.2.2	amd64	commandline package manag					
21	0.12.5-1	all	APT configuration snippet to e					
22	3.19	all	package change history notific					
23	1.8.2.2	amd64	package management related					
24	2.0.1+repack-1	amd64	Color Management System, calibrator and <u>profiler</u>					
25	2.0.1+repack-1	all	Color Management System, calibrator and <u>profiler</u> (data files)					

The presentation copies the formula to the next item.

The presentation selects the items shown for graphing.

product_list.txt - LibreOffice Calc

- File
- Edit
- View
- Insert
- Format
- Styles
- Sheet
- Data
- Tools
- Canzeley
- Window
- Help

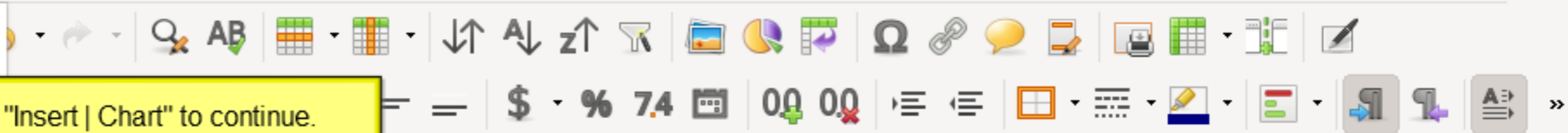


F4:G6

1
2 -conf/Half-inst/t
3 : uppercase=ba
4 Version
5
6 0.6.45-2
7 2.2.53-4
8
9 3.30.1-1
10 1:3.22.7-2
11 1.1.8-2
12 2.3-28
13 1.10.5-2
14 1.0~b3+svn177
15 1.10.5-2
16 2.4.38-3+deb10
17 2.2.3.dfsg.1-5
18 2.13.2-10
19 0.12.5-1
20 1.8.2.2
21 0.12.5-1
22
23 1.8.2.2
24 2.0.1+repack-1
25 2.0.1+repack-1

- Image...
- Media
- Chart...
- Object
- Shape
- Pivot Table...
- Function...
- Named Range or E
- Text Box
- Comment
- Floating Frame...
- Fontwork...
- Hyperlink...
- Special Character...
- Formatting Mark
- Date
- Time
- Field
- Headers and Footers...
- Form Control

The presentation selects "Insert | Chart" to continue.



		F	G	H	I	J
		Arch	Arch_Version			
	Err:510	amd64	1467			
		all	688			

product_list

product_list.txt - LibreOffice Calc

File Edit View Insert Format Tools Window Help

F4 fx Σ = Arch

1		
2	-conf/Half-inst/trig-aWait/Trig-pend	
3	: uppercase=bad)	
4	Version	
5		
6	0.6.45-2	
7	2.2.53-4	
8		
9	3.30.1-1	
10	1:3.22.7-2	
11	1.1.8-2	
12	2.3-28	
13	1.10.5-2	
14	1.0~b3+svn177-10	
15	1.10.5-2	
16	2.4.38-3+deb10u4	
17	2.2.3.dfsg.1-5	
18	2.13.2-10	
19	0.12.5-1	
20	1.8.2.2	
21	0.12.5-1	
22		
23	1.8.2.2	
24	2.0.1+repack-1	amd64 Color management System, Calibrator and profiler
25	2.0.1+repack-1	all Color Management System, calibrator and profiler (data files)
26	0.60.7~20110707-6	amd64
27	2018.04.16-0-1	all

Chart Wizard

Steps

- 1. Chart Type
- 2. Data Range
- 3. Data Series
- 4. Chart Elements

Choose a Chart Type

- Column
- Bar
- Pie
- Area
- Line
- XY (Scatter)
- Bubble
- Net
- Stock
- Column and Line

Normal

3D Look Realistic

Shape

- Bar
- Cylinder
- Cone
- Pyramid

Help < Back Next > Finish Cancel

The presentation likes the column chart for this data. The presentation selects "Next" to continue.

product_list.txt - LibreOffice Calc

File Edit View Insert Format Tools Window Help



F4 fx Σ = Arch

1			
2	-conf/Half-inst/trig-aWait/Trig-pend		
3	: uppercase=bad)		
4	Version		
5			
6	0.6.45-2		
7	2.2.53-4		
8			
9	3.30.1-1		
10	1:3.22.7-2		
11	1.1.8-2		
12	2.3-28		
13	1.10.5-2		
14	1.0~b3+svn177-10		
15	1.10.5-2		
16	2.4.38-3+deb10u4		
17	2.2.3.dfsg.1-5		
18	2.13.2-10		
19	0.12.5-1		
20	1.8.2.2		
21	0.12.5-1		
22			
23	1.8.2.2		
24	2.0.1+repack-1	amd64	Color management system, calibrator and profiler
25	2.0.1+repack-1	all	Color Management System, calibrator and profiler (data files)
26	0.60.7~20110707-6	amd64	GNU Aspell spell-checker
27	2018.04.16-0-1	all	English

Chart Wizard

Steps

1. Chart Type
2. Data Range
3. Data Series
- 4. Chart Elements**

Choose Titles, Legend, and Grid Settings

Title:

Subtitle:

X axis:

Y axis:

Z axis:

Display legend

- Left
- Right
- Top
- Bottom

Display Grids

X axis Y axis Z axis

Buttons: Help, < Back, Next >, Finish, Cancel

The presentation selects "Finish" to continue.

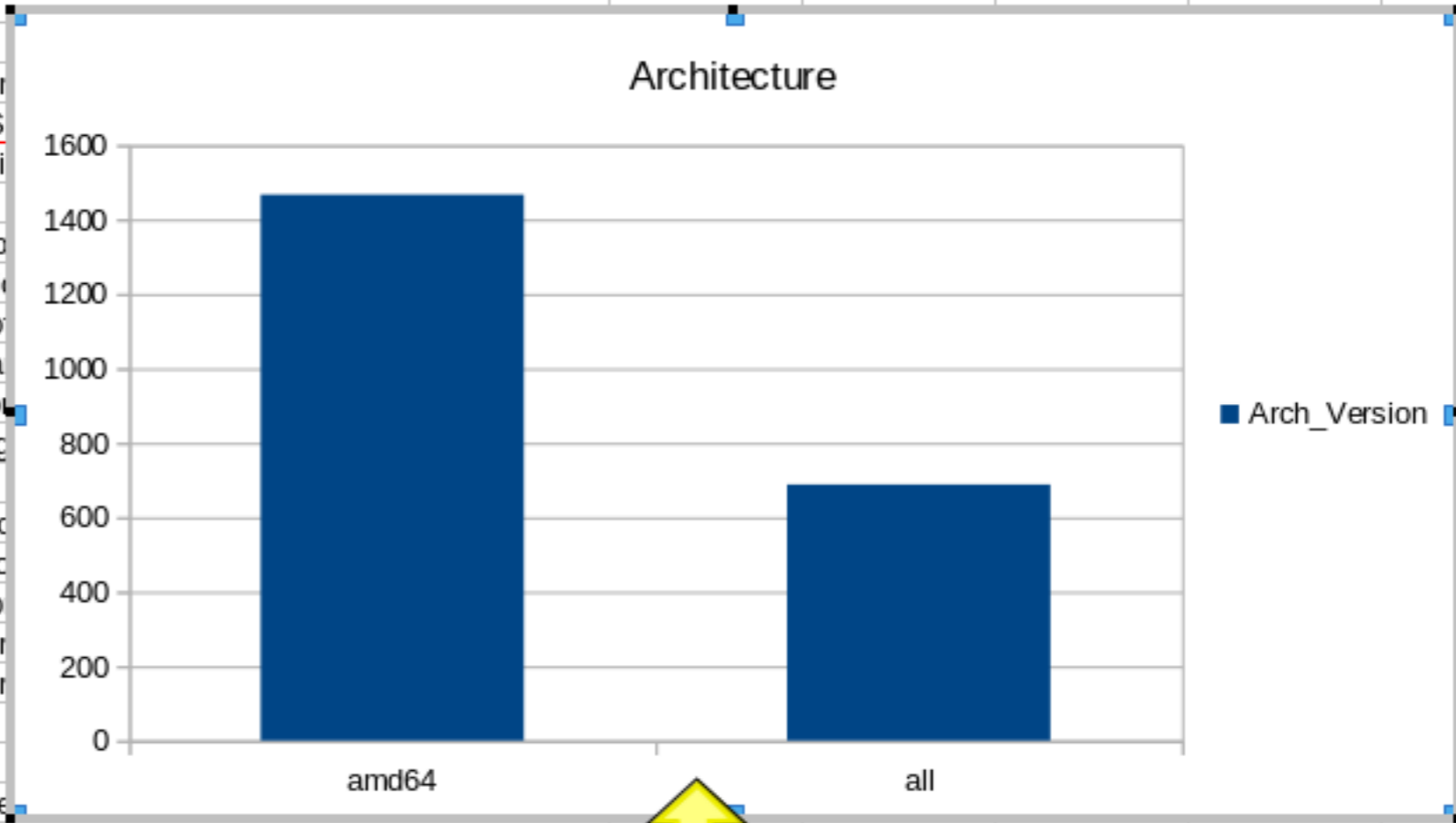
product_list.txt - LibreOffice Calc

File Edit View Insert Format Tools Window Help

[Chart Area] [Icons] All Axes

F4 [fx] [Σ] [=] Arch

	C	D	E	F	G	H	I	J
2	-conf/Half-inst/trig-aWait/Trig-pend							
3	: uppercase=bad)							
4	Version	Architecture	Description	Arch	Arch Version			
5		Err:510	Err:510	Err:510	amd64	1467		
6	0.6.45-2	amd64	query and manipulate user account information		all	688		
7	2.2.53-4	amd64	access control list - utilities					
8		3.118	all					
9	3.30.1-1	all	add and remove users and groups					
10	1:3.22.7-2	amd64	default icon theme of GNOME					
11	1.1.8-2	amd64	GNOME solitaire card game collection					
12	2.3-28	amd64	Utilities for configuring and using ALS					
13	2.3-28	amd64	cron-like program that doesn't go by ti					
14	1.10.5-2	all	Java based build tool like make					
15	1.0~b3+svn177-10	all	collection of tasks, types and other to					
16	1.10.5-2	all	Java based build tool like make - opti					
17	2.4.38-3+deb10u4	amd64	Apache HTTP Server (modules and o					
18	2.2.3.dfsg.1-5	amd64	Automated Password Generator - Sta					
19	2.13.2-10	amd64	user-space parser utility for AppArmo					
20	0.12.5-1	amd64	Software component metadata manag					
21	1.8.2.2	amd64	commandline package manager					
22	0.12.5-1	all	APT configuration snippet to enable ic					
23		3.19	all					
24	1.8.2.2	amd64	package change history notification to					
25	2.0.1+repack-1	amd64	package management related utility p					
26	2.0.1+repack-1	all	Color Management System, calibrator					
27	0.60.7~20110707-6	amd64	Color Management System, calibrator					
28	2018.04.16-0-1	amd64	GNU Aspell spell-checker					
29	2.30.0-7	all	English dictionary for GNU Aspell					
30		amd64	Assistive Technology Service Provide					



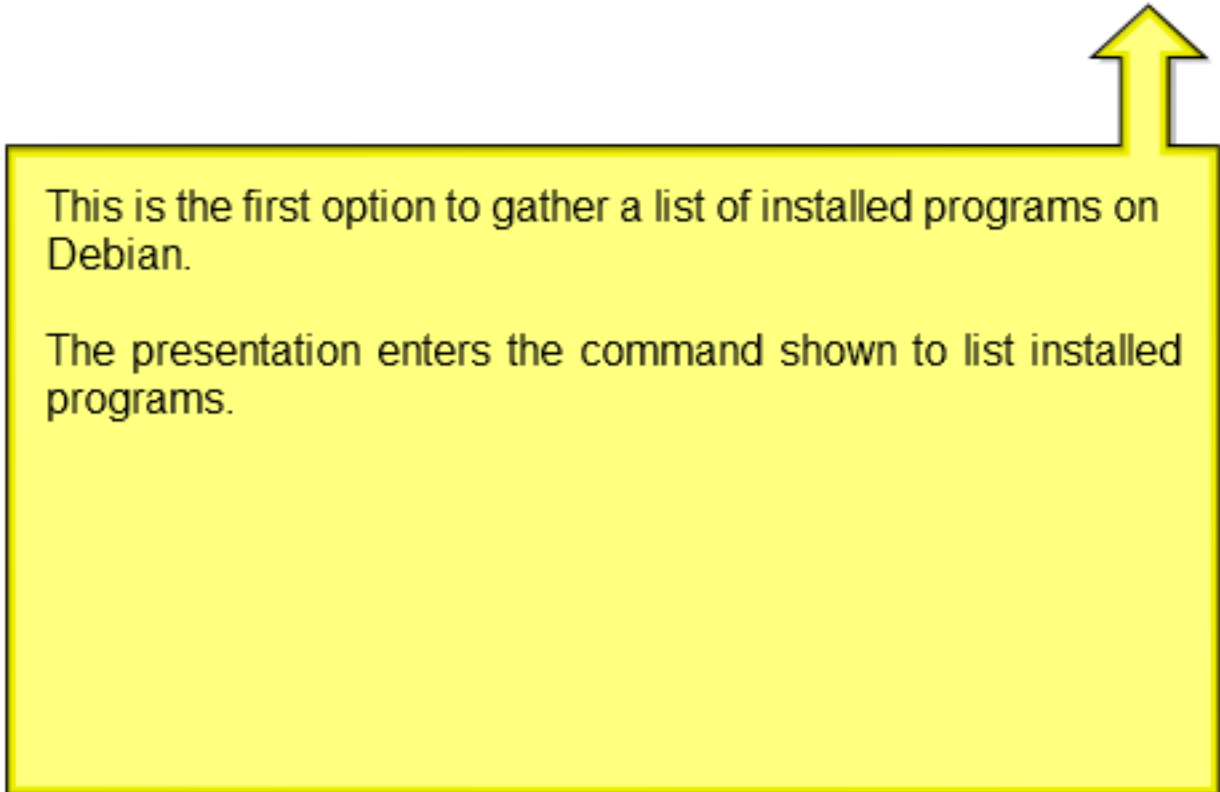
The presentation moves the chart on the spreadsheet.
 The spreadsheet is ready for upload.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

preuss@csci1110-debian:~\$ cd ~/

preuss@csci1110-debian:~\$ sudo apt list --installed >> product_list02.txt



This is the first option to gather a list of installed programs on Debian.

The presentation enters the command shown to list installed programs.

preuss@csci1110-debian: ~

File Edit View Search Terminal Help

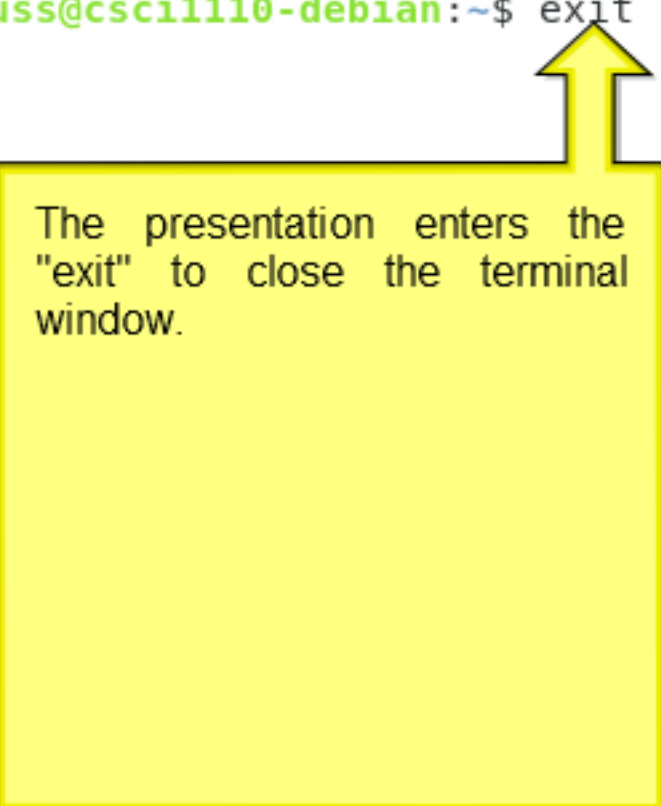
preuss@csci1110-debian:~\$ cd ~/

preuss@csci1110-debian:~\$ sudo apt list --installed >> product_list02.txt

[sudo] password for preuss:

WARNING: apt does not have a stable CLI interface. Use with caution in scripts.

preuss@csci1110-debian:~\$ exit

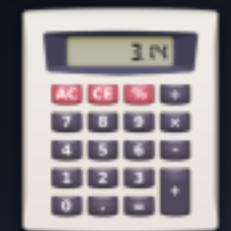


The presentation enters the "exit" to close the terminal window.

🔍 Type to search...



AisleRiot Solitai...



Calculator



Calendar



Cheese



Chess



Clocks



Documents



Evolution



Files



Firefox ESR



Hitori



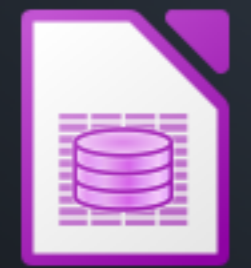
Iagno



Klotski



LibreOffice



LibreOffice Base



LibreOffice Calc



LibreOffice Draw



LibreOffice Imp...



LibreOffice Wri...



Lights Off

The presentation opens the GNOME menu and clicks on "LibreOffice Calc".



Untitled 1 - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

- New
- Open... ← The presentation selects "File | Open" to continue.
- Open Remote...
- Recent Documents
- Close
- Wizards
- Templates
- Reload
- Versions...
- Save
- Save Remote...
- Save As...
- Save a Copy...
- Save All
- Export...
- Export as PDF...
- Send ▸
- Preview in Web Browser
- Print Preview Shift+Ctrl+O
- Print... Ctrl+P
- Printer Settings...
- Digital Signatures ▸
- Properties...
- Exit LibreOffice Ctrl+Q

G H I J K L M N O

Default English (USA) I_ [Icon] Average: ; Sum: 0 100%

Cancel Open

- Recent
- Home
- Documents
- Downloads
- Music
- Pictures
- Videos
- Trash

preuss

Name	Size	Modified
Desktop		Yesterday
Documents		Yesterday
Downloads		Yesterday
Music		Yesterday
Pictures		Yesterday
product_list.txt	310.9 kB	13:25
product_list02.txt	138.2 kB	13:37
Public		Yesterday
Templa		Yesterday

The presentation clicks on the file containing the list of installed programs.

Version: Read-only

All files

File Edit View Insert Format Styles Sheet D

Liberation Sa 10

A1 fx Σ =

	A	B	C	D
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

Sheet1

Text Import - [product_list02.txt]

Import

Character set: Unicode (UTF-8)

Language: Default - English (USA)

From row: 1

Separator Options

Fixed width Separated by

Tab Comma Semicolon Space Other /

Merge delimiters Trim spaces String delimiter: "

Other Options

Format quoted

Fields

Column type:

	Standard
1	Listing...
2	accountsser
3	acl
4	adduser
5	adwaita-ico
6	aisleriot
7	alsa-utils
8	anacron
9	ant-contrib

Help OK Cancel

The presentation changes the "Separator Options" to "Separated by" as shown.

As shown, the presentation only selects "other" and put a slash "/" in the box as shown.

This is a two step process to separate data.

The presentation selects "OK" to continue.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

[Toolbar icons: Undo, Redo, Copy, Paste, Bold, Italic, Underline, Text Color, Background Color, Fill Color, Font Size, Paragraph, Table, etc.]

B1:B1048576 fx Σ =

	A	B	C	D	E	F	G	H
1	Listing...							
2	<u>accounts</u> service	stable,now 0.6.45-2 amd64 [installed,automatic]						
3	<u>acl</u>	stable,now 2.2.53-4 amd64 [installed,automatic]						
4	<u>adduser</u>	stable,now 3.118 all [installed]						
5	<u>adwaita-icon-theme</u>	stable,now 3.30.1-1 all [installed,automatic]						
6	<u>aisleriot</u>	stable,now 1:3.22.7-2 amd64 [installed,automatic]						
7	<u>alsa-utils</u>	stable,now 1.1.8-2 amd64 [installed,automatic]						
8	<u>anacron</u>	stable,now 2.3-28 amd64 [installed,automatic]						
9	<u>ant-contrib</u>	stable,now 1.0~b3+svn177-10 all [installed,automatic]						
10	<u>ant-optional</u>	stable,now 1.10.5-2 all [installed,automatic]						
11	<u>ant</u>	stable,now 1.10.5-2 all [installed,automatic]						
12	<u>apache2-bin</u>	stable,stable,now 2.4.38-3+deb10u4 amd64 [installed,automatic]						
13	<u>apg</u>	stable,now 2.2.3.dfsg.1-5 amd64 [installed,automatic]						
14	<u>apparmor</u>	stable,now 2.13.2-10 amd64 [installed,automatic]						
15	<u>appstream</u>	stable,now 0.12.5-1 amd64 [installed,automatic]						
16	<u>apt-config-icons</u>	stable,now 0.12.5-1 all [installed,automatic]						
17	<u>apt-listchanges</u>	stable,now 3.19 all [installed]						
18	<u>apt-utils</u>	stable,stable,now 1.8.2.2 amd64 [installed]						
19	<u>apt</u>	stable,stable,now 1.8.2.2 amd64 [installed]						
20	<u>argyll-ref</u>	stable,now 2.0.1+repack-1 all [installed,automatic]						
21	<u>argyll</u>	stable,now 2.0.1+repack-1 amd64 [installed,automatic]						
22	<u>aspell-en</u>	stable,now 2018.04.16-0-1 all [installed,automatic]						
23	<u>aspell</u>	stable,now 0.60.7~20110707-6 amd64 [installed,automatic]						
24	<u>at-spi2-core</u>	stable,now 2.30.0-7 amd64 [installed,automatic]						
25	<u>avahi-daemon</u>	stable,now 0.7-4+b1 amd64 [installed,automatic]						

The presentation view the first step in data separation is correct.

The presentation selects column "B" as shown.

product_list02

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet **Data** Tools Canzeley Window Help

Sort...
Sort Ascending
Sort Descending
 AutoFilter
More Filters
Define Range...
Select Range...
Refresh Range
Pivot Table
Calculate
Validity...
Subtotals...
Form...
Streams...
XML Source...
Multiple Operations...
Text to Columns...
Consolidate...
Group and Outline
Statistics

	A	C	D	E	F	G	H
1	Listing...						
2	accounts-service	stable,now 0.6.4					
3	acl	stable,now 2.2.5					
4	adduser	stable,now 3.118					
5	adwaita-icon-theme	stable,now 3.30.					
6	aisleriot	stable,now 1:3.2					
7	alsa-utils	stable,now 1.1.8					
8	anacron	stable,now 2.3-2					
9	ant-contrib	stable,now 1.0~1					
10	ant-optional	stable,now 1.10.					
11	ant	stable,now 1.10.					
12	apache2-bin	stable,stable,now					
13	apg	stable,now 2.2.3					
14	apparmor	stable,now 2.13.					
15	appstream	stable,now 0.12.					
16	apt-config-icons	stable,now 0.12.					
17	apt-listchanges	stable,now 3.19					
18	apt-utils	stable,stable,now					
19	apt	stable,stable,now					
20	argyll-ref	stable,now 2.0.1					
21	argyll	stable,now 2.0.1					
22	aspell-en	stable,now 2018					
23	aspell	stable,now 0.60.					
24	at-spi2-core	stable,now 2.30.					
25	avahi-daemon	stable,now 0.7-4+b1 amd64 [installed,automatic]					

Sheet 1 of 1 | 1048576 rows, 1 columns selected | Default | Average: ; Sum: 0 | 100%

The presentation selects "Data | Text to Columns" as shown.

File Edit View Insert Format Styles Sheet

Liberation Sa 10

B1:B1048576

1	Listing...	
2	accounts-service	stable,now 0.6.
3	acl	stable,now 2.2.
4	adduser	stable,now 3.11
5	adwaita-icon-theme	stable,now 3.30
6	aisleriot	stable,now 1:3.
7	alsa-utils	stable,now 1.1.
8	anacron	stable,now 2.3-
9	ant-contrib	stable,now 1.0-
10	ant-optional	stable,now 1.10
11	ant	stable,now 1.10
12	apache2-bin	stable,stable,nc
13	apg	stable,now 2.2.
14	apparmor	stable,now 2.13
15	appstream	stable,now 0.12
16	apt-config-icons	stable,now 0.12
17	apt-listchanges	stable,now 3.19
18	apt-utils	stable,stable,nc
19	apt	stable,stable,nc
20	argyll-ref	stable,now 2.0.
21	argyll	stable,now 2.0.
22	aspell-en	stable,now 201
23	aspell	stable,now 0.60
24	at-spi2-core	stable,now 2.30
25	avahi-daemon	stable,now 0.7-

product_list02

Sheet 1 of 1 | 1048576 rows, 1 columns select

Text to Columns

Import

Character set: Unicode (UTF-16)

Language: Default - English (USA)

From row: 1

Separator Options

Fixed width Separated by

Tab Comma Semicolon Space Other

Merge delimiters Trim spaces

String delimiter: "

Other Options

Format quoted cells Skip empty cells

Fields

Column type: Standard

1	stable,now	amd64
2	stable,now	amd64
3	stable,now	all
4	stable,now	all
5	stable,now	amd64
6	stable,now	amd64
7	stable,now	amd64
8	stable,now	all
9	stable,now	all

Help OK Cancel

The presentation changes the "Separator Options" to "Separated by" as shown.

As shown, the presentation only selects "Space".

The presentation selects "OK"

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Liberation Sa 10 [Font icons]

F2 fx Σ =

	A	B	C	D	E	F	G	H	I	J	K	L
1	Listing...					Arch	Arch_Version					
2	<u>accounts-service</u>	stable,now	0.6.45-2	amd64	[installed,automatic]							
3	<u>acl</u>	stable,now	2.2.53-4	amd64	[installed,automatic]							
4	<u>adduser</u>	stable,now	3.118	all	[installed]							
5	<u>adwaita-icon-theme</u>	stable,now	3.30.1-1	all	[installed,automatic]							
6	<u>aisleriot</u>	stable,now										
7	<u>alsa-utils</u>	stable,now										
8	<u>anacron</u>	stable,now										
9	<u>ant-contrib</u>	stable,now										
10	<u>ant-optional</u>	stable,now										
11	<u>ant</u>	stable,now										
12	<u>apache2-bin</u>	stable,stable,now										
13	<u>apg</u>	stable,now										
14	<u>apparmor</u>	stable,now										
15	<u>appstream</u>	stable,now										
16	<u>apt-config-icons</u>	stable,now										
17	<u>apt-listchanges</u>	stable,now										
18	<u>apt-utils</u>	stable,stable,now										
19	<u>apt</u>	stable,stable,now										
20	<u>argyll-ref</u>	stable,now	2.0.1+repack	all	[installed,automatic]							
21	<u>argyll</u>	stable,now	2.0.1+repack	amd64	[installed,automatic]							
22	<u>aspell-en</u>	stable,now	2018.04.16-0	all	[installed,automatic]							
23	<u>aspell</u>	stable,now	0.60.7~20110	amd64	[installed,automatic]							
24	<u>at-spi2-core</u>	stable,now	2.30.0-7	amd64	[installed,automatic]							
25	<u>avahi-daemon</u>	stable,now	0.7-4+b1	amd64	[installed,automatic]							

product_list02

Sheet 1 of 1 | Default | English (USA) | I_ | Average ; Sum: 0 | 100%

The presentation enters the word "Arch" in column "F" and the word "Arch_Version" in column "G".

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Liberation Sa 10 [Font icons]

G2 fx Σ =

	A	B	C	D	E	F	G	H	I	J	K	L
1	Listing...					Arch	Arch Version					
2			45-2	amd64	[installed,automatic]	amd64						
3				amd64	[installed,automatic]	all						
4			18	all	[installed]							
5			0.1-1	all	[installed,automatic]							
6			22.7-2	amd64	[installed,automatic]							
7			8-2									
8			28									
9			b3+svn1									
10			0.5-2									
11			0.5-2									
12			38-3+deb									
13			3.dfsg.1									
14			3.2-10									
15			2.5-1									
16			2.5-1									
17			3.19									
18			2.2									
19			2.2									
20	argyll-ref	stable,now	2.0.1+repack	amd64	[installed,automatic]							
21	argyll	stable,now	2.0.1+repack	amd64	[installed,automatic]							
22	aspell-en	stable,now	2018.04.16-0	all	[installed,automatic]							
23	aspell	stable,now	0.60.7~20110	amd64	[installed,automatic]							
24	at-spi2-core	stable,now	2.30.0-7	amd64	[installed,automatic]							
25	avahi-daemon	stable,now	0.7-4+b1	amd64	[installed,automatic]							

The presentation is counting the number of architecture listings.

This list has only two architecture types. The presentation copies both types to column "F" as shown.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Liberation Sa 10 [Font icons]

COUNTIF [fx] [OK] [Cancel] =countif(

COUNTIF(Range, Criteria): The range of cells to be evaluated by the criteria given.

	E	F	G	H	I	J	K	L
1	Listing...	Arch	Arch_Version					
2	accounts-service	amd64	=countif(
3	acl	amd64						
4	adduser	all						
5	adwaita-icon-theme	amd64						
6	aisleriot	amd64						
7	alsa-utils	amd64						
8	anacron	amd64						
9	ant-contrib	all						
10	ant-optional	all						
11	ant	all						
12	apache2-bin	amd64						
13	apg	amd64						
14	apparmor	amd64						
15	appstream	amd64						
16	apt-config-icons	all						
17	apt-listchanges	all						
18	apt-utils	amd64						
19	apt	amd64						
20	argyll-ref	all						
21	argyll	amd64						
22	aspell-en	all						
23	aspell	amd64						
24	at-spi2-core	amd64						
25	avahi-daemon	amd64						

The presentation enters the beginning of the formula as shown. In the example, the presentation selects "D6" and while holding down the left button selects all the entries in column "D".

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

[Toolbar icons]

COUNTIF [fx] [x] [check] =countif(D2:D2156)

	E	F	G	H	I	J	K	L
2141	xserver-xorg-video-nouveau	stable,now	1:1.0.10-1	amd64	[installed,automatic]			
2142	xserver-xorg-video-qxl	stable,now	0.1.5-2+b1	amd64	[installed,automatic]			
2143	xserver-xorg-video-radeon	stable,now	1:19.0.1-1	amd64	[installed,automatic]			
2144	xserver-xorg-video-vesa	stable,now	1:2.4.0-1	amd64	[installed,automatic]			
2145	xserver-xorg-video-vmware	stable,now	1:13.3.0-2	amd64	[installed,automatic]			
2146	xserver-xorg	stable,now	1:7.7+19	amd64	[installed,automatic]			
2147	xterm	stable,now	344-1	amd64	[installed,automatic]			
2148	xwayland	stable,stable,now	2:1.20.4-1+d	amd64	[installed,automatic]			
2149	xxd	stable,now	2:8.1.0875-5	amd64	[installed]			
2150	xz-utils	stable,now	5.2.4-1	amd64	[installed,automatic]			
2151	yelp-xsl	stable,now	3.31.90-1	all	[installed,automatic]			
2152	yelp	stable,now	3.31.90-1	amd64	[installed,automatic]			
2153	zenity-common	stable,now	3.30.0-2	all	[installed,automatic]			
2154	zenity	stable,now	3.30.0-2	amd64	[installed,automatic]			
2155	zerofree	stable,now	1.1.1-1	amd64	[installed,automatic]			
2156	zlib1g	stable,now	1:1.2.11.dfsg	amd64	[installed]			
2157								
2158								
2159								
2160								
2161								
2162								
2163								
2164								
2165								

2155 R x 1 C

English (USA) | I_ | Average ; Sum: 0 | 100%

The presentation selects all the entries in column "D". In this example, the entries end at row 2156.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

fx =countif(D2:D2156,f2)

	A	B	C	D	E	F	G	H	I	J	K	L
1	Listing...					Arch	Arch_Version					
2	accounts		0.6.45-2	amd64	[installed,automatic]	amd64	=countif(D2:D2156,f2)					
3	acl		2.2.53-4	amd64	[installed,automatic]	all						
4	adduser		3.118	all	[installed]							
5	adwaita-ic		3.30.1-1	all	[installed,automatic]							
6	aisleriot		1:3.22.7-2	amd64	[installed,automatic]							
7	alsa-utils		1.1.8-2	amd64	[installed,automatic]							
8	anacron		2.3-28	amd64	[installed,automatic]							
9	ant-contri		1.0~b3+svn1	all	[installed,automatic]							
10	ant-option		1.10.5-2	all	[installed,automatic]							
11	ant		1.10.5-2	all	[installed,automatic]							
12	apache2-4		2.4.38-3+deb	amd64	[installed,automatic]							
13	apg		2.2.3.dfsg.1-	amd64	[installed,automatic]							
14	apparmor		2.13.2-10	amd64	[installed,automatic]							
15	appstream		0.12.5-1	amd64	[installed,automatic]							
16	apt-confic		0.12.5-1	all	[installed,automatic]							
17	apt-listchanges	stable,now	3.19	all	[installed]							
18	apt-utils	stable,stable,now	1.8.2.2	amd64	[installed]							
19	apt	stable,stable,now	1.8.2.2	amd64	[installed]							
20	argyll-ref	stable,now	2.0.1+repack	all	[installed,automatic]							
21	argyll	stable,now	2.0.1+repack	amd64	[installed,automatic]							
22	aspell-en	stable,now	2018.04.16-0	all	[installed,automatic]							
23	aspell	stable,now	0.60.7~20110	amd64	[installed,automatic]							
24	at-spi2-core	stable,now	2.30.0-7	amd64	[installed,automatic]							
25	avahi-daemon	stable,now	0.7.4+b1	amd64	[installed,automatic]							

LibreOffice Calc will enter the range of selection. The presentation enters "f5". "f5" is the item the presentation wants to count in the range.

2155 R x 1 C

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Toolbar icons: Undo, Redo, Find, Bold, Italic, Underline, Text Color, Background Color, Fill Color, Borders, etc.

COUNTIF fx [OK] [Cancel] [Check] =COUNTIF(\$D\$2:\$D\$2156,F2)

	A	B	C	D	E	F	G	H	I	J	K	L
1	Listing...					Arch	Arch_Version					
2	accounts-service	stable,now	0.6.45-2	amd64	[installed,automatic]	amd64	=COUNTIF(\$D\$2:\$D\$2156,F2)					
			2.2.53-4	amd64	[installed,automatic]	all						
			3.118	all	[installed]							
			8.30.1-1	all	[installed,automatic]							
			1:3.22.7-2	amd64	[installed,automatic]							
			1.1.8-2	amd64	[installed,automatic]							
			2.3-28	amd64	[installed,automatic]							
			1.0~b3+svn1	all	[installed,automatic]							
			1.10.5-2	all	[installed,automatic]							
			1.10.5-2	all	[installed,automatic]							
			2.4.38-3+deb	amd64	[installed,automatic]							
			2.2.3.dfsg.1	amd64	[installed,automatic]							
			2.13.2-10	amd64	[installed,automatic]							
			0.12.5-1	amd64	[installed,automatic]							
			0.12.5-1	all	[installed,automatic]							
17	apt-listchanges	stable,now	3.19	all	[installed]							
18	apt-utils	stable,stable,now	1.8.2.2	amd64	[installed]							
19	apt	stable,stable,now	1.8.2.2	amd64	[installed]							
20	argyll-ref	stable,now	2.0.1+repack	all	[installed,automatic]							
21	argyll	stable,now	2.0.1+repack	amd64	[installed,automatic]							
22	aspell-en	stable,now	2018.04.16-0	all	[installed,automatic]							
23	aspell	stable,now	0.60.7~20110	amd64	[installed,automatic]							
24	at-spi2-core	stable,now	2.30.0-7	amd64	[installed,automatic]							
25	avahi-daemon	stable,now	0.7-4+b1	amd64	[installed,automatic]							

The presentation add the "\$" to lock the range selection.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Liberation Sa 10 [Font icons]

F1:G3 fx Σ = Arch

	A	B	C	D	E	F	G	H	I	J	K	L
1	Listing...					Arch	Arch_Version					
2	accounts-service	stable,now	0.6.45-2	amd64	[installed,automatic]	amd64	1467					
3	acl	stable,now	2.2.53-4	amd64	[installed,automatic]	all	688					
4	adduser	stable,now	3.118	all	[installed]							
5	adwaita-icon-theme	stable,now	3.30.1-1	all	[installed,automatic]							
6	aisleriot	stable,now	1:3.22.7-2	amd64	[installed,automatic]							
7	alsa-utils	stable,now	1.1.9-2	amd64	[installed,automatic]							
8	anacron	stable,now										
9	ant-contrib	stable,now										
10	ant-optional	stable,now										
11	ant	stable,now										
12	apache2-bin	stable,stable,now										
13	app	stable,now										
14	apparmor	stable,now										
15	appstream	stable,now										
16	apt-config-icons	stable,now										
17	apt-listchanges	stable,now										
18	apt-utils	stable,stable,now										
19	apt	stable,stable,now										
20	argyll-ref	stable,now										
21	argyll	stable,now										
22	aspell-en	stable,now	2018.04.16-0	all	[installed,automatic]							
23	aspell	stable,now	0.60.7~20110	amd64	[installed,automatic]							
24	at-spi2-core	stable,now	2.30.0-7	amd64	[installed,automatic]							
25	avahi-daemon	stable,now	0.7-4+b1	amd64	[installed,automatic]							

The presentation copies the formula to the next item.

The presentation selects the items shown for graphing.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Styles Sheet Data Tools Canzeley Window Help

Image...
Media
Chart...
Object
Shape
Pivot Table...
Function...
Named Range of Cells
 Text Box
Comment
Floating Frame
Fontwork...
 Hyperlink...

The presentation selects "Insert | Chart" to continue.

	F	G	H	I	J	K	L
	Arch	Arch_Version					
automatic]	amd64	1467					
automatic]	all	688					
automatic]							
automatic]							
automatic]							
automatic]							
automatic]							
automatic]							
automatic]							
automatic]							
	fsg.1- amd64	[installed,automatic]					
	10 amd64	[installed,automatic]					
	1 amd64	[installed,automatic]					
	1 all	[installed,automatic]					
	3.19 all	[installed]					
	amd64	[installed]					
	amd64	[installed]					
	epack amd64	[installed,automatic]					
	epack amd64	[installed,automatic]					
	4.16-0 all	[installed,automatic]					
	-2011 amd64	[installed,automatic]					
	7 amd64	[installed,automatic]					
	amd64	[installed,automatic]					
	stable,now	0.7-4+b1	amd64	[installed,automatic]			

File Edit View Insert Format Tools Window Help

fx Σ = Arch

Chart Wizard

Steps

1. Chart Type
2. Data Range
3. Data Series
4. Chart Elements

Choose a Chart Type

- Column
- Bar
- Pie
- Area
- Line
- XY (Scatter)
- Bubble
- Net
- Stock
- Column and Line

Normal

3D Look Realistic

Shape

- Bar
- Cylinder
- Cone
- Pyramid

Help < Back Next > Finish Cancel

The presentation likes the bar chart for this data. The presentation selects "Next" to continue.

File Edit View Insert Format Tools Window Help

fx Σ = Arch

Chart Wizard

Steps

1. Chart Type
2. Data Range
3. Data Series
4. Chart Elements

Choose a Data Range

Data range: \$product_list02.\$F\$1:\$G\$3

Data series in rows
 Data series in columns
 First row as label
 First column as label

Help < Back Next > Finish Cancel

1	Listing...				
2	accountservic				
3	acl				
4	adduser				
5	adwaita-icon-th				
6	aisleriot				
7	alsa-utils				
8	anacron				
9	ant-contrib				
10	ant-optional				
11	ant				
12	apache2-bin				
13	apg				
14	apparmor				
15	appstream				
16	apt-config-icon				
17	apt-listchanges				
18	apt-utils				
19	apt				
20	argyll-ref				
21	argyll				
22	aspell-en				
23	aspell				
24	at-spi2-core	stable,now	2.30.0-7	amd64	[installed,automatic]
25	avahi-daemon	stable,now	0.7-4+b1	amd64	[installed,automatic]
26	baobab	stable,now			
27	base-files	stable,now			

The presentation selects "Next" to continue.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Tools Window Help

Chart Wizard

Steps

- 1. Chart Type
- 2. Data Range
- 3. Data Series
- 4. Chart Elements

Customize Data Ranges for Individual Data Series

Data series: Arch_Version

Data ranges:

Border Color	
Fill Color	
Name	\$product_list02.\$G\$1
Y-Values	\$product_list02.\$G\$2:\$G\$3

Range for Border Color

Categories

\$product_list02.\$F\$2:\$F\$3

Add Remove

Help < Back Next > Finish Cancel

The presentation selects "Next" to continue.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Tools Window Help

fx Σ = Arch

1 Listing...
 2 accountservic
 3 acl
 4 adduser
 5 adwaita-icon-th
 6 aisleriot
 7 alsa-utils
 8 anacron
 9 ant-contrib
 10 ant-optional
 11 ant
 12 apache2-bin
 13 apg
 14 apparmor
 15 appstream
 16 apt-config-icon
 17 apt-listchanges
 18 apt-utils
 19 apt
 20 argyll-ref
 21 argyll
 22 aspell-en
 23 aspell
 24 at-spi2-core
 25 avahi-daemon
 26 baobab
 27 base-files

all
amd64

0 200 4

product_list02

Chart Wizard

Steps

1. Chart Type
2. Data Range
3. Data Series
4. Chart Elements

Choose Titles, Legend, and Grid Settings

Title: Arch

Subtitle: [Empty]

X axis: [Empty]

Y axis: [Empty]

Z axis: [Empty]

Display legend

Left

Right

Top

Bottom

Display Grids

X axis Y axis Z axis

Help < Back Next > Finish Cancel

The presentation selects "Finish" to continue.

product_list02.txt - LibreOffice Calc

File Edit View Insert Format Tools Window Help

Chart Area [Icons]

F1 fx Σ = Arch

	A	B	C	D	E	F	G	H	I	J	K	L
1	Listing...					Arch	Arch Version					
2	accounts-service	stable,now	0.6.45-2	amd64	[installed,automatic]	amd64	1467					
3	acl	stable,now	2.2.53-4	amd64	[installed,automatic]	all	688					
4	adduser	stable,now	3.118	all	[installed]							
5	adwaita-icon-theme	stable,now	3.30.1-1	all	[installed,automatic]							
6	aisleriot	stable,now	1:3.22.7-2	amd64	[installed,automatic]							
7	alsa-utils	stable,now	1.1.8-2	amd64	[installed,automatic]							
8	anacron	stable,now	2.3-28	amd64	[installed,automatic]							
9	ant-contrib	stable,now	1.0~b3+svn1	all	[installed,automatic]							
10	ant-optional	stable,now	1.10.5-2	all	[installed,automatic]							
11	ant	stable,now	1.10.5-2	all	[installed,automatic]							
12	apache2-bin	stable,stable,now	2.4.38-3+deb	amd64	[installed,automatic]							
13	apg	stable,now	2.2.3.dfsg.1-	amd64	[installed,automatic]							
14	apparmor	stable,now	2.13.2-10	amd64	[installed,automatic]							
15	appstream	stable,now	0.12.5-1	amd64	[installed,automatic]							
16	apt-config-icons	stable,now	0.12.5-1	all	[installed,automatic]							
17	apt-listchanges	stable,now	3.19	all	[installed]							
18	apt-utils	stable,stable,now	1.8.2.2	amd64	[installed]							
19	apt	stable,stable,now	1.8.2.2	amd64	[installed]							
20	argyll-ref	stable,now	2.0.1+repack	all	[installed,automatic]							
21	argyll	stable,now	2.0.1+repack	amd64	[installed,automatic]							
22	aspell-en	stable,now	2018.04.16-0	all	[installed,automatic]							
23	aspell	stable,now	0.60.7~20110	amd64	[installed,automatic]							
24	at-spi2-core	stable,now	2.30.0-7	amd64	[installed,automatic]							
25	avahi-daemon	stable,now	0.7-4+b1	amd64	[installed,automatic]							
26	baobab	stable,now	3.30.0-2	amd64	[installed,automatic]							
27	base-files	stable,now	10.3+deb10u	amd64	[installed]							

Arch

all

amd64

0 200 400 600 800 1000 1200 1400 1600

Arch_Version

The presentation moves the chart on the spreadsheet.
The spreadsheet is ready for upload.