HELLENIC HOWTO

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Ayto to keimeno periexei plhrofories gia thn ru8mish toy Linux gia yposthrijh twn idiaiterothtwn twn Ellhnwn kai ths ellhnikhs glwssas. This document is part of Hellenic (el) LDP project: http://www.hellug.gr/gr/howto/howto/pub/html/

Contents

1 Eisagwgh

Ayto to keimeno exei syllegmenes plhrofories gia thn ru8mish toy leitoyrgikou systhmatos Linux gia thn yposthrijh ths ellhnikhs glwssas. Skopos DEN einai h apanthsh genikwn problhmatwn, alla monon aytwn poy sxetizontai me thn ellhnikh glwssa kai tis idiaiterothtes enos Ellhna xrhsth, symperilambanomenwn:

- ths yposthrijhs ellhnikwn se console mode kai Xwindows,
- ths xrhshs ellhnikwn se efarmoges,
- ths or8ografias,
- ths epikoinwnias me alloys Ellhnes xrhstes.

Gia mia grhgorh 2.1 () anatrejate sto antistoixo kefalaio.

Parakalw, na exete yp' ocin sas oti oi odhgies gia ta ellhnika mporei na mhn xreiazontai h na einai mhn isxuoyn me akribeia sthn periptwsh sas. Ayto px symbainei ej' aitias mikrodiaforwn metaju twn dianomwn (Debian, Suse, Redhat, OpenLinux klp), h epeidh me ton kairo oi luseis poy paroysiazontai edw enswmatwnontai stis dianomes.

1.1 Synthrhsh toy Hellenic-HOWTO

H synthrhsh aytou toy keimenoy ginetai apo ton Gewrgato Fwth <`gef@hellug.gr` > kai h pio teleytaia ekdosh 8a brisketai sto URL: `http://students.ceid.upatras.gr/\~{}gef/linux/docs/HOWTO/`

To keimeno ayto 8a mporeite na to breite epishs edw:

- `http://www.hellug.gr/gr/howto/howto/pub/html/Hellenic-HOWTO.html`
- `http://metalab.unc.edu/LDP/HOWTO/Hellenic-HOWTO.html`
- `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/HOWTO`

1.2 Morfopoihseis toy Hellenic-HOWTO

To HOWTO ayto yparxei stis ejhs morfopoihseis:

- `Hellenic-HOWTO.html` html me Ellhnika 928 (moiazoyn me ta windows-1253)
- `Hellenic-HOWTO.html` einai greeklish (xrhsimo prin sth8oun ta ellhnika)
- `Hellenic-HOWTO.sgml` Einai o phgaios kwdikas toy HOWTO, poy se syndiasmo me ta `sgml-tools` paragei ola ta ypoloipa.

1.3 Tropopoihseis

Gia opoiodhpote metatroph/sxoliasmo toy HOWTO, parakalw epikoinwneiste mazi moy sto `gef@hellug.gr` me subject: HELLENIC-HOWTO. Ean breite la8h h anakribeies sto keimeno, dhlwste to. Epishs analambanw thn or8ografia, tonismo kai syntaktiko elegxo gia ta keimena, xwris ayto na shmainei oti 8a einai ola panta teleia :-)

Istoriko allagwn:

- 0.00 Anakoinwsh enarjhs toy keimenoy sthn lista linux-greek-users (Ioulios 97)
- 0.01 Basikos skeletos toy HOWTO
- 0.1 Pros8hkh keimenoy ar8rwn, epikollhsh jenwn tmhmatwn.
- 0.2 Pros8hkes/Allages 2.4.3, 3.2.x, 6, 3.3.3
- 0.3 Genikes allages
- 0.4 Pros8hkes/Allages/Epalh8eysh 3.x
- 0.5 Allagh 2.5
- 0.6 Pros8hkes me bash to NLS FAQ
- 0.7 Organwsh se SGML kai anakoinwsh uparjhs sth lista.
- 0.8 To ”eyxaristies” egine ”spondes” kai alla polla :-)
- 0.9 Pros8hkh kefalaioy Netscape, Timezone, dior8wseis
- 0.9p1-4 Dokimes efarmogwn me ta ellhnika
- 0.9p5,6,7,8 Proetoimasia gia telikh ekdosh
- 0.9905*,06* prefinal versions

{ Ta tmhmata poy einai mesa se agkistra, einai proswrina, kai den 8a yparxoyn sthn ekdosh 1.0 } { akyro, 8a meinoyn } { Ta tmhmata poy exoyn (???) xreiazontai epalh8eysh h pros8hkes}

1.4 Spondes

Ta gnwsta credits :-)

Eyxaristw idiaitera ton 'Aggelo Xaritsh <ah@computer.org> (gnwstos gia tis ergasies toy gurw apo ta ellhnika twn UNIX sto HRI), gia tis ektetamenes pros8hkes kai ypodeijeis toy.

Polutimh, epishs, htan h boh8eia twn:

- Tasos Kapios <fadom@ccf.auth.gr> (Kefalaio gia National Language Support)
- Keramidas Giwrgos <keramida@hellug.gr> (Kefalaio gia Tex/LaTex kai alla polla)
- Kojaras Arhs <koxaras@ceid.upatras.gr> (Kefalaio gia Netscape)
- Panagiwths Brywnhs <vrypan@hellug.gr, http://members.xoom.com/Vrypan > (Kefalaio gia Grammatoseires, Ektypwseis kai alla)
- Swthrhs Tsimpwnhs <tsimbonis@forthnet.gr>,
- Antwnhs Kabarnos <akav@hellug.gr>,
- Papadhmhtrioy Spuros <spapadim@csd.uch.gr>.
- Giannhs Mhtsos <gmitsos@duth.gr>.

Gia th syggrafh toy keimenoy aytou xrhsimeysan san prwtes phges ta:

- `linux-danish-howto` (Thomas Petersen),
- `linux-italian-howto` (Marco Gaio Gaiarin)

1.5 Pneymatika dikaiwmata kai adeia xrhshs.

Oi aparaithtes dieykrinhseis...

Ta pneymatika dikaiwmata aytou toy HOWTO anhkoyn ston Gewrgato Fwth, alla epitrepetai h dianomh ypo toys akoloy8oys oroys:

Ektos kai an orizetai diaforetika, ta keimena "Linux HOWTO" einai katoxyrwmena apo toys antistoixoys syggrafeis toys. Ta "Linux HOWTO" mporoun na anaparagontai kai dianemontai ej' oloklhroy h merikws, me ka8e meso fysiko h hlektroniko, arkei ayth paragrafos gia ta pneymatika dikaiwmata, na diathreitai se ka8e antigrafo. Emporikh epanadianomh epitrepetai kai malista endeiknytai. Par' ola ayta o syggrafeas 8a h8ele na einai enhmerwmenos se tetoies periptwseis.

Oles oi metafraseis, paragomenes ergasies, h syn8eseis poy perilambanoyn opoiodhpote "Linux HOWTO" prepei na kaluptontai apo aythn thn adeia. Dhladh, den epitrepetai h paragwgh ylikou prokupton apo ayto kai h epibolh se ayto epipros8etwn periorismwn oson afora thn diadosh toy. Ejaireseis mporoun na ginoyn kata periptwsh. Gia perissoteres plhrofories epikoinwnhste me ton syntonisth twn Linux HOWTO.

En syntomia, epi8ymeitai h diadosh aytwn twn plhroforiwn diamesoy oson perissoterwn tropwn einai efikto. Par' ola ayta diathrountai ta pneymatika dikaiwmata twn keimenwn "Linux HOWTO", kai einai epi8ymhth h enhmerwsh gia opoiodhpote sxedio dianomhs aytwn.

Gia perissoteres plhrofories, epikoinwnhste me ton Greg Hankins, syntonisth twn Linux HOWTO sto email: gregh@metalab.unc.edu, h sto thlefwno +1 404 853 9989.

Eidika, gia thn ellhnikh ekdosh epikoinwnhste me ton Gewrgato Fwth, sto: gef@hellug.gr

1.6 Note to english users & Copyright

* This document explains how to setup hellenic (greek) support under Linux. This includes the environment for greek users, as well as details on the configuration of applications. The document is written in modern hellenic ISO-8859-7, but you may find a "greeklish" version as well. Hellenic HOWTO is maintained by Fotis Georgatos <`gef@hellug.gr`> *

2 Egkatastash

Quickstart gia Ellhnes xrhstes:

- Rijte mia matia oti yposthrizetai to hardware sas sto `Hardware-HOWTO`.
- Sthste mia apo tis dianomes 2.3 (), 2.4 (), 2.5 (), Debian, OpenLinux. Agoraste tis h antigracte tis (epitrepetai!) apo to Internet: `http://www.hellug.gr/gr/whatislinux/download.html`.
- Ry8miste to susthma sas na synergazetai me ton ektypwth, to pontiki, to modem, kai na shkwnei to grafiko periballon me ton window manager poy 8elete.
- Sthste ta ellhnika. Bl. epomeno ypokefalaio 2.1 ()
- Ry8miste tis efarmoges (4.24 (), Staroffice, shells kyriws) gia ta ellhnika.

2.1 Egkatastash ellhnikwn

Ta bhmata diaferoyn apo dianomh se dianomh, polu perissotero twra poy ta ellhnika enswmatwnontai siga siga, stis diafores dianomes (Noembrios 1999).

Ean den exete hdh ellhnika, loipon:

- **Greek-console** Sthste to 3.2.1 (), gia na exete ellhnika sthn konsola me aristero alt-shift. rpm -i `greek-console-1.1.0-3.i386.rpm`. Shmeiwste oti kanonika den 8a deite ellhnika sto prompt, alla mono mesa se editor, kai afou zhthsete chcp 928 gia to fortwma ellhnikwn fonts.
- **GRAFIS** Sthste tis grammatoseires 3.1.1 (), gia ta Xwindows: `xfntgr.rpm`
- **GRkbd** Sthste to 3.3.1 () (odhgos plhktrologioy), gia na mporeite na grafete ellhnika sta Xwindows. `GRkbd-1.2-1.i386.rpm`

- **XFGreekKBD** Ean to prohgoumeno (grkbd) gia kapoio logo den doylecei, katebaste ayto. Einai shmantika pio poluplokos o tropos leitoyrgias toy apo to grkbd, eseis apla sthste to me thn entolh rpm -i `XFGreekKBD-1.2-2.noarch.rpm`

2.2 Xrhsimes symboyles

- To periodiko `magaz` exei polla ar8ra poy einai ejeidikeymena panw se 8emata poy apasxoloun polu kosmo px **Tex/Latex, Samba, Staroffice, XISP, KDE, bash, Ellhnika, NLS** klp. To magaz exei plh8os apo erwthseis poy exoyn ginei sto parel8on, kai ligo polu oi erwthseis epanalambanontai.
- Afierwste arketo xrono diabazontas gia na enhmerw8eite gurw apo to problhma poy caxnete, MHN paraleicete na diabasete ta HOWTO kai FAQ (/usr/doc/faq) toy `LDPproject`.
- Prospa8hste opwsdhpote na kanete cajimo se palies erwthseis. Oi erwthseis panw se 8emata hdh apanthmena einai baretes. Yajte sxetika 8emata apo thn selida `http://lists.hellug.gr/archives`.
- Ean synanthsete problhmata, oi Ellhnes xrhstes 8a mporoun na boh8hsoyn mesa apo thn lista linux-greek-users, ta newsgroups h ta sxetika IRC channels. Epishs apo ekei 8a parete symboyles, gia to pws 8a ry8misete swsta to susthma sas.
- Ta die8nh newsgroups comp.os.linux* einai epishs xrhsima, px `news://comp.os.linux.misc`
- **Mhn stelnete proswpiko email se kapoion**, giati spania yparxei o xronos gia apanthsh. Anti8eta protimhste thn lista h to newsgroup, opoy h pi8anothta na parete apanthsh einai polu megaluterh. PX, sto diko moy mailbox, syxna ftanoyn grammata aytou toy tupoy:

  ```
  me lene Xxxxx spoudazo yyyyyyy kai arxisa na asxoloumai me to linux.
  Tha ithela na mou peis pou mporo na bro to programma.
  oti theleis na mou to steileis sto zzz@zzzzzzzzzz.zz
  ```

  Den apantw tetoia email, eidika otan to HOWTO kai to FAQ exoyn tis apanthseis, antistoixa prattoyn kai alloi. Deite kai ayto ean den peisthkate: `Tinamhnkanete.html`

2.3 Suse

- Mia katatmhsh toy diskoy me 1Gb einai logikh epilogh gia to Suse, ka8ws erxetai me polla paketa poy 8a 8elete na dokimasete (oxi oti den mporeite na to sthsete se 40Mb).
- Ekkinhste thn egkatastash apo th disketa h to 1o CD.
- Mesa apo to periballon egkatastashs epilejte poy 8a mpei to leitoyrgiko, me ti parametroys, kai poia programmata 8a balete.
- Afou akoloy8hsete tis odhgies poy exei sthn o8onh, 8a katalhjete sta telika stadia ry8misewn mesa apo to **Yast**, ayto einai to ergaleio me to opoio ginetai administration, ean den exete empeiria me UNIX.
- Ry8miste pontiki, karta diktuoy, ektypwth, scanner, modem mesa apo to yast.
- Molis jemperdecete kai me ayto, trejte to sax, ayto ry8mizei to grafiko periballon.
- Mia kalh idea einai paijete me to KDE (sthste to apo to yast ean den to exete hdh kanei), kai na synde8eite me to Internet me to kppp, ean exete dialup sundesh.
- To suse perilambanei to **applixware office suite**, poy mporei na antikatasthsei to office twn windows. Enallaktika yparxei to dwrean **staroffice**, poy 8a prepei na sthsete me ton kwdiko toy apo ton kombo ths stardivision, `http://www.stardivision.com`.

- Ta Netscape, nedit, x11amp einai se pollous xrhsima.
- Palaioteres ekdoseis toy Suse exoyn ston katalogo gia NLS "gr_GR" anti gia "el_GR" poy einai to or8otero. 3eperaste to problhma me thn entolh "ln -s el_GR gr_GR".

Mia prwth entupwsh apo to Suse eixe paroysiastei sto magaz, `http://magaz.hellug.gr/05/03\_suse.html`, me idiaitera eynoikh kritikh (einai h protimhsh toy grafontos, toylaxiston gia to 1998-99, giati einai 8bit clean kai yposthrizei kala to NLS). Agoraste to mazi me to egxeiridio kai den 8a xasete.

2.4 Redhat

Einai antistoixh me toy Suse se megalo ba8mo, edw den thn perigrafoyme analytika. Deite review enos palaioteroy distribution apo to magaz, `http://magaz.hellug.gr/01/06\_redhatinst.html` kai mia analytikh perigrafh gia to pws 8a to kanete na synergazetai me ta ellhnika `http://magaz.hellug.gr/13/03\_grredhat2.html`.

2.5 Slackware

As ypo8esoyme oti egka8istoume thn dianomh **Slackware**:

- Epibebaiwse oti to susthma soy exei xwro (Proteinetai 1 partition 512Mb)
- Promh8eusoy to apo kapoio FTP site (bl. 8.6.2 ()) h agorase to se CDROM (bl. 8.7 ()), kalutera to deutero. Proteinetai to Slackware 3.6, apo to Developer's Resource ths Infomagic h allh syllogh.
- Ftiaje thn Boot kai thn Root disketa {5 Lepta}
- 3ekina thn egkatastash. Ean eisai arxarios, kalon 8a einai na epilejeis Typical Installation. Ru8mise to Lilo gia na kaneis reboot. {30 Lepta}
- Epanekkinhse to susthma kai mpes sto Linux, gia prwth fora, san root (den 8elei password) {2 Lepta}
- Allaje to root password me thn entolh passwd

Pleon 8a exeis ena susthma poy doyleuei, alla prepei na kaneis akoma ta ejhs:

- Phgaine ston ypokatalogo /usr/src/linux, kai ftiaje pyrhna gia to mhxanhma soy. {10+20 Lepta}
- Egkatesthse ton neo pyrhna me to Lilo, kai epanekkinhse to susthma soy {5 Lepta}
- Treje to script XF86config, kai ftiaje to arxeio /etc/XF86config. Twra exeis Xwindows (dokimase X -probeonly, startx)
- Ean syndeesai me to Internet me dial-up, katebase kai egkatesthse to Netscape Communicator gia browser, mailer, news reader. H teleytaia ekdosh einai synh8ws edw: `ftp://ftp.ntua.gr/pub/www/Netscape/` Ru8mise ta ellhnika toy.
- XISP gia na syndeesai sto Internet eukola. Polu kalo kai einai kai Ellhna (Petros Mpouras).

2.6 Pros8etes ry8miseis

- Oi xrhmatistes as anatrejoyn sxetika me to euro (8a periexetai sto latin0=iso8859-15) sthn dieu8ynsh `ftp://ftp.freshmeat.net/pub/euro-patch/EURO-1.4.tgz`
- Egkatesthse ton ektypwth soy. H diadikasia diaferei apo periptwsh se periptwsh, alla sxedon panta xreiazetai to Ghostscript. Xrhsimo einai to a2ps.
- Egkatesthse paketa poy se endiaferoyn opws Word processors, sxediastika, klp. Pi8anotata 8a breis polu boliko gia epejergasia keimenoy to Nedit.
- Mhn jexaseis na rijeis mia matia sta alla FAQs kai HOWTOs (einai sta agglika)
- Osoi exoyn synh8isei ton Norton Commander apo to DOS, 8a epitaxunoyn polu thn ergasia toys me ton Midnight Commander.
- Osoi einai pragmatika polu synh8ismenoi sto DOS, mporoun na xrhsimopoihsoyn ton emulator DOSEMU toy Linux, me ton opoio 8a einai dynaton na trejoyn tis perissoteres efarmoges DOS, katw apo Linux. Genika den yparxei problhma me ta ellhnika toy DOS katw apo X h konsola alla isws xreiastei na kanete kapoies ry8miseis.
- Osoi 8eloyn efarmoges Windows yparxei gia aytous to Wabi apo thn Sun, poy trexei plh8wra efarmogwn symperilambanomenoy kai toy Office. To Wabi omws stoixizei 200$, gia ayto... dokimaste to Wine, Poy prosfata exei arxisei kai deixnei shmadia shmantikhs beltiwshs.
- Gia window manager proteinoyme to KDE: `http://www.kde.org/`

3 Ry8miseis Ellhnikwn

Oloi oi Eyrwpaioi xrhstes opoioydhpote leitoyrgikou systhmatos, exoyn duo problhmata: To prwto einai h emfanish twn eidikwn xarakthrwn (grammatwn) ths glwssas, kai to deutero einai na enhmerwsoyn ton ypologisth gia thn allagh toy plhktrologioy. Malista ta pragmata einai xeirotera, giati oi efarmoges den perimenoyn eidikous xarakthres kai syxna apaitoun eidikes ry8miseis h metablhtes periballontos.

Gia thn emfanish twn xarakthrwn xreiazetai na jeroyn oi efarmoges oti xrhsimopoieitai to set 737 h to 928 (=ISO-8859-7 h Latin-7). Epipros8eta 8a xreiastoun grammatoseires wste na fainontai kai na typwnontai swsta ta ellhnika.

Gia mia grhgorh egkatastash ellhnikwn deite to antistoixo kefalaio: 2.1 ()

3.1 Ellhnikes grammatoseires

Gia grammatoseires gia Tex, blepe 6.3 ()

3.1.1 GRAFIS

To egxeirhma **GRAFIS** exei skopo na syllejei oles tis ellhnikes grammatoseires gia X-Windows poy kykloforoun eleu8eres (PUBLIC DOMAIN) sto Diktyo, na tis omadopoihsei kata tupo h/kai xarakthristika, na dior8wsei tyxon la8h poy aytes exoyn, na dhmioyrghsei nees grammatoseires kai telos, na tis paradwsei sthn Ellhnikh koinothta ws public domain. Hdh to exei petuxei, deite `http://hq.hellug.gr/\~{}graphis/`

To GRAFIS perilambanei OLA ta prohgoumena paketa me kales ellhnikes grammatoseires poy exoyn kykloforhsei kata kairous:

- X11-Greek-Fonts (P. Christias, 1994),
- X11greek (P. Christias, 1996)
- greekXfonts-misc, (A. Haritsis, 1995)
- hrgrXfonts-75dpi, (Th. Prwtopapas & A. Haritsis @ HRI, 1995-6)
- hrgrXfonts-100dpi, (Th. Prwtopapas & A. Haritsis @ HRI, 1995-6)
- greekXfonts-BDF-1.1, (A. Haritsis, 1995-6)
- greekXfonts-Type-1.1, (A. Haritsis, 1995-6)
- XgreekFonts (Moraitakis Konstantinos, 1997)
- XFGreekFNTS (Panagiotis Vrionis, 1998?)
- elot7x14 + elot7x14B (A. Kavarnos, 1997)
- helv_R_O_10gr+helv_R_08gr+lutB_12_14gr (P. Bouras, 1998-9)

```
======================================================================
 Shmeiwseis apo Aggelo Xaritsi [ah@computer.org]:
 * ta Type1 (k.a.) 928 fonts moy exoyn to A tonoymeno se 2 theseis wste na
   einai symbata me windows texts. Epishs exoyn kai ta symbola poy leipoyn.
 * to kbd support gia ellhnika sto rxvt (poy exw kanei contribute) exei
   yposthriksh gia anw teleia kai ellhnika omoiwmatika kathws epishs
   kai grammata me tono/dialytika. Ola ayta prepei na perasoyn
   se X11 xkb-style (ala grISOXKb).

* X11greek:
Den iksera oti den bgainei h payla! An typwseis to PS bgainei
kanonika. Ara mallon einai bug toy X Type1 rasteriser.
BTW, exw kanei ki ena aplo filtro (grpsfilter) poy epitrepei printing
greek texts mesa apo Netscape. Des parakatw!
H lysh poy allazei ola ta ksena fonts se ellhnika den einai swsth.

To greekXfonts-full-1.1.tgz egine me skopo:
* na mazepsei ta pio kala greek fonts poy yphrxan sto diktyo
  Exei ta grtex/grtt kai polla alla: grfixed, couriergr, helveticagr.
  Akoma fonts kai se 737 encodings.
* na xrhsimopoihsei "swsta" (XLFD) kai omoiogenh font names
* na prosferei Type1 scalable fonts ypshlhs poiothtas (ta opoia
  prosferontai kai xwrista) - grinet
* na doyleyei trasnsparently me Netscape
======================================================================
```

3.1.2 Truetype

Teleytaia yparxei h dynatothta na xrhsimopoihsei kaneis kai **Truetype** grammatoseires, me ena true-type font engine kai metatropeis, idanika gia osoys exoyn sylloges apo grammatoseires gia Windows/Mac. Deite `http://www.freetype.org/` kai gia na sthsete true type grammatoseires sto magaz `http://magaz.hellug.gr/10/05\_TTFlinux.html`.

3.1.3 Kanena ergaleio gia na ftiajw fonts;

Ti fonts, bitmap (px. PCF/BDF) h Scalable (p.x. Type1, TTF) ;

Gia to prwto yparxoyn diafora (xmbdfed polu kalo, xfedor oxi kai toso) Gia to deutero tipota oysiastiko (dystyxws). Dystyxws oti yparxei se styl Fontographer kai Icarus einai se polu alpha stadio. To mono sobaro programma kai kata th gnwmh moy to kalutero einai to METAFONT alla 8elei diabasma.

Yparxei mia polu endiaferoysa selida sto diktyo: `http://members.iworld.net/bumchul/xfont.html` Sthn selida ayth 8a brei kaneis - ektos apo plhrofories gia to pws 8a balei kainouria fonts sto mhxanhma toy- ergaleia metatrophs: px to ttftobdf. Epishs yparxei to bdftopcf.

Endiaferoysa einai epishs kai h selida: `http://user.online.be/gd33771/download.html` me mia poikilia ttf fonts (px. gia na mporei kaneis na grafei got8ika se xterm)

3.2 Konsola (text mode)

Oi teleytaies dianomes prepei na exoyn ta ellhnika enswmatwmena. Trejte:

```
#setfont iso07.f16
#loadkeys gr
```

Ean den deite mynhmata la8oys, tote exete ellhnika sthn konsola hdh, allazoyn me aristero ALT-SHIFT.

YP' OYIN: STO SHELL (bash, tcsh) DEN EXEI ELLHNIKA, KANONIKA. DOKIMASTE SE ENAN EDITOR, PX JOE,VI.

3.2.1 Greek-console

Sthn konsola mporeite na xrhsimopoihsete to `greek-console` toy Giwrgoy Keramida. Yposthrizei kai 737 kai 928, enw exei kai eukolh egkatastash me rpm. Ta ellhnika fainontai me "chcp 737" kai "chcp 928" kai (ap)energopoiountai me (aristera) ALT-SHIFT. Epishs to deji ALT allazei stigmiaia to plhktrologio.

3.2.2 Pyrhnes 2.2 kai ellhnika

H nea genia pyrhnwn 2.2.x (kai ara kai oi 2.3.x), exoyn neo kwdika gia thn diaxeirish ths o8onhs se text mode (einai pleon me framebuffer) kai gia ayto yparxoyn problhmata sthn yposthrijh twn ellhnikwn sthn konsola (oxi sto grafiko periballon). O Swthrhs Tsimponhs brhke thn lush, na proste8ei sto /etc/profile to ejhs:

```
[ -t 1 ] && printf "\033(K"
```

, to opoio energopoiei ta ellhnika otan kapoios kanei interactive login.

3.2.3 Loipa programmata gia konsola

O Alejios Xoyxoulas exei gracei epishs to `greek-2.0.tar.gz` kai o Antwnhs Kabarnos (akav@hellug.gr) to `grpty`, poy doyleuei kai se solaris.

3.3 Grafiko periballon (Xwindows)

Oi epiloges poy exei kaneis gia na grafei ellhnika katw apo XWindows se Linux einai (peran toy na ta ftiajei monos toy, px me xmodmap opws leei sto HRI): to GRkbd (h genikoterh lush) , to grISOXKb (ean apotuxei to prohgoumeno) kai to kikbd (gia to KDE).

3.3.1 GRkbd

To paketo ayto apo to Giannh Tsakirh einai oysiastika mia shmaia poy allazei apo thn mia glwssa sthn allh, opws 8ymountai polloi apo ta windows-3.x. Einai h pio eukolh lush gia na exete ellhnika sto Linux sas kai 8a to breite sto metalab se source me to onoma `greek12.tgz` kai ston `Argea` se binary. To tgz arxeio poy 8a katebasete, periexei ena README, kai ena ektelesimo poy 8a balete ston katalogo /usr/local/bin. Mia shmaia poy allazei apo ellhnikh se agglikh kai anapoda se ka8e klik, h me pathma toy aristerou ALT-SHIFT, 8a emfanistei sthn o8onh otan to ektelesete. Diabaste to README.

3.3.2 KiKbd

To KiKbd einai apo toys Alexander Budnik kai Dhmhtrio Mpoura kai einai enas komcos tropos na exei kaneis ellhnika sto KDE (symperilambanetai). Doulece swsta me KDE=1.1.1 kai Qt=1.42 (alla oxi 1.44).

3.3.3 xgrk

Epishs, einai en gnwsh mas h uparjh aytou toy paketoy gia ellhnika: `http://www.softlab.ece.ntua.gr/\~{}sivann/xgrk/` toy Spuroy Iwannoy, poy einai katallhlo gia polla tupoy UNIX leitoyrgika systhmata.

3.3.4 grISOXKb

H prwth ekdosh toy grISOXKb (1997) einai proion synergasias twn Dhmhtrh Mpoura kai Lefterh Tsintzelh. To paketo grISOXKb einai ypersunolo twn palaioterwn GRKbd (oxi ayto toy Tsakirh - aplh synwnymia...) kai grXiso. H version ayth exei polla "kaloudia". Ta duo pio shmantika einai:

- oti den xreiazetai shared object binaries gia to X11R6.1 (XFree86 v3.2) kai X11R6.3 (XFree86 v3.3 kai v3.3.1), kai
- oti doyleuei kai me X11 clients poy yposthrizoyn glwsses ektos twn Agglikwn mesw toy compose toy input extension.

Perissotera sto README toy paketoy, kai sta arxeia docs/INSTALLATION.*: `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/grISOXKb-1.2.tar.gz`

```
=====================================================================
Apo [ah@computer.org]
Ta tonoymena (; + letter) de moy bgainoyn se shells (ok se xedit).
Den exw akomh brei giati.
To package einai ontws poly kalh prospatheia. Einai akoma ateles.
Leipoyn: tonoymena+dialytika, anw teleia, ellhnika omoiwmatika
(BTW, ola yposthrizontai sto rxvt compiled me greek support).
Epishs: ypothetei oti to keyboard einai ellhniko. Yparxoyn polla kbds
(opws ta UK, IT klp) poy exoyn polla symbols se theseis diaforetikes
apo to ellhniko (eg. @, ", \ klp). Exw hdh kanei patch sto grISOXKb
```

```
gia to UK keyboard kai kalo einai na mporei kaneis me COUNTRY-X
keyboard na mporei na kanei type ellhnika xwris na allazoyn oi theseis
allwn symbols.

Mazi me fix twn parapanw to XKB X11 greek support tha einai sxedon teleio.
Ksereis an kai poy exei documentation gia XKB kai compose files.
Kapoios prepei na to teleiwsei. Doyleyei kaneis twra se ayto ?
=====================================================================
```

3.4 Zwnh wras (Timezone)

H Ellada brisketai sthn Wriaia Zwnh Anatolikhs Eyrwphs (Eastern European Timezone,EET), poy einai isodunamo me thn wra Greenwich syn 2 wres (GMT+2), kata thn xeimerinh periodo. To kalokairi otan ginetai allagh wras, h swsth diafora einai +0300 (EET DST), opoy DST shmainei Daylight Saving Time. Prokeimenoy na ginetai aytomata h metatroph, kalutera epilejte Europe/Athens. To 1996 allaje h hmeromhnia allaghs apo kalokairinh se xeimerinh wra (apo Septembrh, twra ginetai Oktwbrh). Oi nees dianomes toy Linux meta to 1996 to exoyn yp' ocin toys ayto, oi palaioteres 8eloyn dior8wsh. Deite ta epomena ypokefalaia sxetika me to 8ema.

3.4.1 tzHellas

Dhmhtrhs Bouras: Me to paron 0a h0ela na anakoinwsw ena mini-paketo pou parexei ena dior0wmeno arxeio gia to Ellhniko timezone, meta tis allages pou perisy kai fetos (1996) anakoinw0hkan gia tis hmeromhnies allaghs ths "kalokairinhs" wras. Mazi me auto yparxei kai ena mikro programmataki pou diabazei tetoia arxeia kai typwnei tis plhrofories pou periexoun se an0rwpina-anagnwsimh morfh (pws leme "human-readable form" - h metafrash twn agglikwn orwn dinei kai pairnei, etsi gia na anatrixiazoun merikoi-merikoi :) :)).

To paketaki (molis 4365 bytes) 0a to breite (entos oligou) sto

ftp://argeas.hellug.gr/pub/unix/linux/GREEK/tzHellas-271097.tar.gz

Katebaste to kai diabaste to README gia perissotera. Bottom line: to timezone file "Hellas" pou periexei, parexei swstes hmeromhnies allaghs wras (symfwna me thn prosfath epishmh anakoinwsh) gia thn Ellada, mexri kai ton Oktwbrio tou 2001, h mexri na mas alla3oune pali tis hmeromhnies... :)

3.4.2 EET.zic

```
=====================================================================
An 8elei na orisei kaneis timezone environment variable, ayth einai h
svsth:
        setenv TZ 'EET-2EET DST-3,M3.5.0/3:00:00,M10.5.0/3:00:00'
vraio e? :-)

Pio kala bebaia einai na xrhsimopoioyme to svsto zoneinfo arxeio.
Oi teleytaies ekdoseis toy linux exoyn svsta orismeno
to EET (allakse to 1996).
Oi palaioteres allazoyn thn vra to Septembrio, anti toy Oktvbrioy.
Etsi ftiaxnoyme to parakatv arxeio EET.zic:

----- CUT: EET.zic -----
Rule    E-Eur   1986    max     -       Mar     lastSun 3:00s   1:00    " DST"
```

```
Rule    E-Eur   1986    1995    -       Sep     lastSun 3:00s   0       -
Rule    E-Eur   1996    max     -       Oct     lastSun 3:00s   0       -
Zone    EET             2:00    E-Eur           EET%s
----- CUT: END OF EET.zic -----

Meta:
        zic EET.zic
(ayto ftiaxnei to /usr/lib/zoneinfo/EET)
        /bin/rm -f /var/lib/zoneinfo/localtime
        ln -s /usr/lib/zoneinfo/localtime /var/lib/zoneinfo/EET
======================================================================
```

3.5 Ektypwseis

Se ayto to kefalaio 8a perigracoyme pws na ry8misete to susthma sas wste na mporeite na ektypwsete ellhnika. An den eiste ejoikiwmenoi me ta basika sxetika me ta lpd kai lpr kalo 8a htan na symboyleyteite to Printing-HOWTO poy dinei polutimes plhrofories.

3.5.1 Plain text se text ektypwth poy yposthrizei ellhnika.

Ean o ektypwths sas mporei na typwsei plain text kai yposthrizei ellhnika, den xreiazetai na kanete sxedon tipota. Apla steilte to keimeno gia ektupwsh me thn entolh lpr. Prosejte mono to 8ema toy set xarakthrwn: bl. kefalaio 10 (). Ean o ektypwths sas yposthrizei diaforetikh kwdikoselida apo ayth poy einai grammeno to keimeno, 8a prepei na to metatrecete, bl. 10.5 ().

3.5.2 Plain text se ektypwth poy den yposthrizei ellhnika.

An o ektypwths sas den yposthrizei ellhnika, 8a prepei na metatrecete to plain text keimeno se PostScript mesw toy a2ps (bl. 4.6 ()) kai na to typwsete mesw toy Ghostscript. Ean exete problhmata, cajte gia to a2psgr.

3.5.3 Typwnontas ellhniko PostScript keimeno.

Akomh kai ean den dia8etete ektypwth poy na yposthrizei PostScript, to Linux sas epitrepei na typwnete tetoia keimena mesw toy Ghostscript. To ghostcript einai ena programma poy metatrepei PostScript arxeia se morfh poy mporoun na katalaboyn alles syskeyes (ektypwtes diaforwn eidwn, X Windows, fax k.l.). Apo ayto to shmeio kai pera, "ektupwsh mesa apo to ghostscript" 8a shmainei metatroph enos PostScript arxeioy sto format toy ektypwth sas kai meta ektupwsh me kapoia entolh ths morfhs lpr file.

Ti 8a xreiasteite gia na typwsete ellhnika apo to ghostview:

- Promh8eyteite to ghostview (einai tzampa) kai na to egkatasthsete.
- Na exete egkatesthmenes ellhnikes PostScript (type1) grammatoseires, kapoy sto susthma sas. Me ayto ennow oti oi grammatoseires aytes mporoun na briskontai se opoiodhpote directory (p.x. kapoy sto X11R6 tree, gia xrhsh mesa apo ta X Windows).
- Na tropopoihsete to arxeio Fontmap.

Dokimaste oti doyleuei swsta px me thn entolh: {???}

gs -sDEVICE=deskjet -dNOPAUSE -sOutpoutFile=/dev/lp1 tiger.ps

Tropopoiwntas to Fontmap To Fontmap einai to arxeio poy dinei sto ghostscript pou 8a brei to arxeio ka8e grammatoseiras. Sto susthma moy brisketai sto

```
/usr/share/ghostscript/3.33/Fontmap
```

. An den jerete pou exei egkatasta8ei to diko sas, dwste

```
find / -name "Fontmap"
```

gia na to breite.

To Fontmap apoteleitai apo eggrafes ths morfhs

```
/Charter-Roman                  (bchr.pfa)      ;
```

H grammh ayth gia paradeigma deixnei oti h grammatoseira Courier-Roman brisketai sto arxeio bchr.pfa.

To mono poy xreiazetai na kanoyme einai na pros8esoyme tis ellhnikes grammatoseires. Ta onomata poy 8a dwsete stis grammatoseires sas mporoun na einai opoiadhpote (p.x. PanosArialBold) alla kalo einai na exoyn mia logikh (p.x. to PanosArialBold na mhn antistoixei se mia courier italic grammatoseira !!!). An oi grammatoseires synodeuontai apo kapoio arxeio poy na tis perigrafei (p.x. fonts.scale) kalo 8a htan na xrhsimopoihsete onomata poy na einai antistoixa me ayta poy dinontai ekei. Mporeite akomh na dwsete

```
strings filename.pfb | more
```

kai na koitajete gia kapoia grammh ths morfhs

```
/FontName /GreekArialBold def
```

Prosoxh! Ta onomata twn arxeiwn otan den perilambanoyn to directory 8ewrountai pws briskontai sto directory poy to ghostscript fylaei paromoia arxeia. An oi grammatoseires sas briskontai kapoy allou na balete oloklhro to onoma. Gia paradeigma,

```
/GreekArialPlain (/usr/X11/lib/X11/fonts/Type1GR/grkarip.pfb) ;
```

An stelnete arxeia pros ektupwsh apo diafores efarmoges (p.x. Netscape) einai polu pi8ano aytes na xrhsimopoioun kapoies default grammatoseires. Gia paradeigma, to Netscape 8a steilei opoiodhpote arxeio, anejarthta apo thn glwssa poy einai grammeno, na typw8ei me tis grammatoseires Times kai Courier. Ayto 8a exei san apotelesma na typwnontai ta ellhnika keimena se akatanohth morfh (gia na to poyme eygenika). H lush einai na pros8esete sto **telos** toy Fontmap eggrafes poy 8a antika8istoyn tis grammatoseires aytes me tis ellhnikes. Gia paradeigma oi teleytaies grammes toy dikou moy Fontmap einai:

```
/Times-Roman                    /GreekTimesPlain ;
/Times-Italic                   /GreekTimesItalic ;
/Times-Bold                     /GreekTimesBold ;
/Times-BoldItalic               /GreekBoldItalic ;
/Courier                        /GreekCourierPlain      ;
/Courier-Italic                 /GreekCourierItalic ;
/Courier-Bold                   /GreekCourierBold ;
/Courier-BoldItalic             /GreekCourierBoldItalic ;
```

H lush ayth den einai to idaniko alla toylaxiston doyleuei.

Fontmap, pros8etes luseis O 'Aggelos Xaritshs moy esteile tis dikes toy ry8miseis gia to problhma sxetika me to Fontmap, ka8ws kai ena programmataki, to grpsfilter (deite parakatw), me to opoio 8a mporesete na jeperasete to problhma me to netscape xwris na peirajete to fontmap.

```
Ta Fontmap aliases poy proteinw (kanei use ta Type1 fonts moy):
Pros to telos toy Fontmap:
===================cut==here=======================================
% ----------------------------------------------------------
% Elot greek fonts by Angelo Haritsis <ah@computer.org>
% ----------------------------------------------------------
/GreekArialPlain               (grkarip.pfb)   ;
/GreekArialBold                (grkarib.pfb)   ;
/GreekArialItalic              (grkarii.pfb)   ;
/GreekArialBoldItalic          (grkaribi.pfb)  ;
/Greek-Arial-Plain             /GreekArialPlain ;
/Greek-Arial-Bold              /GreekArialBold ;
/Greek-Arial-Italic            /GreekArialItalic ;
/Greek-Arial-Bold-Italic       /GreekArialBoldItalic ;
/Greek-Arial-BoldItalic        /GreekArialBoldItalic ;

/GreekTimesPlain               (grktimp.pfb)   ;
/GreekTimesBold                (grktimb.pfb)   ;
/GreekTimesItalic              (grktimi.pfb)   ;
/GreekTimesBoldItalic          (grktimbi.pfb)  ;
/Greek-Times-Plain             /GreekTimesPlain ;
/Greek-Times-Roman             /GreekTimesPlain ;
/Greek-Times-Bold              /GreekTimesBold ;
/Greek-Times-Italic            /GreekTimesItalic ;
/Greek-Times-Bold-Italic       /GreekTimesBoldItalic ;
/Greek-Times-BoldItalic        /GreekTimesBoldItalic ;

/GreekCourierPlain             (grkcurp.pfb)   ;
/GreekCourierBold              (grkcurb.pfb)   ;
/GreekCourierItalic            (grkcuri.pfb)   ;
/GreekCourierBoldItalic        (grkcurbi.pfb)  ;
/GreekCourier                  /GreekCourierPlain ;
/Greek-Courier                 /GreekCourierPlain ;
/Greek-Courier-Plain           /GreekCourierPlain ;
/Greek-Courier-Bold            /GreekCourierBold ;
/Greek-Courier-Italic          /GreekCourierItalic ;
/Greek-Courier-Bold-Italic     /GreekCourierBoldItalic ;
/Greek-Courier-BoldItalic      /GreekCourierBoldItalic ;

% Polytoniko Greek fonts
/GreekPolyTimesPlain           (grkpolp.pfb)   ;
/GreekPolyTimesItalic          (grkpoli.pfb)   ;
/Greek-Poly-Times-Plain        /GreekPolyTimesPlain ;
/Greek-Poly-Times-Italic       /GreekPolyTimesItalic ;
===================cut==here=======================================
```

grpsfilter

```
Na kai to aplo filtro grpsfilter:
-----------------------------grpsfilter-----------------------
#!/bin/sh
# Filter to print greek from Netscape (may be used in printcap)
# (c) 1997 Angelo Haritsis <ah@computer.org>
# NB: You need my postscript greek fonts and proper Fontmap!
#
exec sed -e 's/\/Times\(.* findfont\)/\/Greek-Times\1/g' \
    -e 's/\Courier\(.* findfont\)/\Greek-Courier\1/g' \
    -e 's/\/Times-Oblique\(.* findfont\)/Greek-Times-Italic\1/g' \
    -e 's/\/Times-BoldOblique\(.* findfont\)/Greek-Times-BoldItalic\1/g'
-----------------------------grpsfilter-----------------------

An ftiakseis enan printer `grps' sto printcap poy pernaei ola ta
Postscript mesa apo to grpsfilter, tote exeis ellhnikh ektypwsh
xwris na "xalaseis" to FontMap.

Profanws to filter doyleyei kai sto cmd line. Apo Netscape print to
a file: test.ps kai meta:
  grpsfilter <test.ps | ghostview -
```

3.6 Pws kanw mount ena windows partition;

Proupo8esh gia ayto einai na exete kanei compile ton pyrhna me NLS, 737 kai iso-8859-7. An 8elete na energopoiountai ta ellhnika onomata twn arxeiwn Windows aytomata se ka8e ekkinhsh toy systhmatos, prepei na antikatasthsete sto arxeio fstab sth grammh opoy ginetai mount ths katatmhshs me to vfat th lejh default me thn ru8mish iocharset=iso8859-7. Bazei kaneis parametroys sto /etc/fstab gia windows partition me ellhnika filenames, px:

```
/dev/hda1       /Win95  vfat    rw,user,codepage=737,iocharset=iso8859-7        0       0
```

h pernate tis parametroys katey8eian sthn entolh mount, px:

```
mount -tvfat -onoexec,iocharset=iso8859-7 /dev/hda1 /Win95
```

3.7 Pws na gracw ena CD sto Linux;

Xrhsimopoihste to `xcdroast`, prosejte omws to format poy 8a dialejete. To paradosiako protypo ISO9660 den mporei na perilabei ola xarakthristika poy exei ena UNIX filesystem opws ayto toy Linux, to ext2. Ant' aytou ta UNIX exoyn to Rockridge, poy yposthrizei directories megaloy ba8oys, mikra-megala grammata, onomata me periergoys xarakthres (kai oi ellhnikoi einai tetoioi gia ta CD), symbolic links, file permissions klp. To Romeo/Joliet poy einai gia windows, den einai toso kalo oso to Rockridge (px den grafei swsta onomata poy arxizoyn me teleia), gia ayto xrhsimopoieiste sthn anagkh thn xakia "Rockridge+Joliet", doyleuei acoga sto diabasma toy CD se polla leitoyrgika systhmata.

Ean anarwtieste giati den doyleuei h egkatastash toy Linux poy brhkate se kapoio CD, einai polu pi8anos logos oti den einai Rockridge.

4 Efarmoges

Genika, oi efarmoges prepei na metaglwttizontai me NLS -otan yparxei- kai ws "8-bin-clean" giati ta ellhnika xrhsimopoioun kai ta 8 bits.

Epeidh h glwssa einai ta ellhnika, 8etoyme: **export LANG=el** (bash/sh) h **setenv LANG el** (csh/tcsh). Kalon 8a einai na oristei h metablhth periballontos LC_CTYPE se iso_8859_7. Ayth h ru8mish prepei na mpei sto /etc/profile kai sto /etc/csh.cshrc gia ru8mish se epipedo systhmatos h sto /bashrc kai /cshrc gia xrhstes me bash/sh kai csh/tcsh kelyfh antistoixa.

Epishs to /.Xdefaults h /.Xresources 8a prepei na periexei:

```
*basicLocale:   C
*timeFormat:    C
*numeric:       C
*displayLang:   iso_8859_7
*inputLang:     iso_8859_7
```

4.1 bash

Gia bash v.1.13+, pros8este to parakatw sto /etc/inputrc h sto /.inputrc, gia na exete ellhnika sto kelyfos (grammh entolwn):

```
set meta-flag on
set convert-meta off
set output-meta on
```

To idio isxuei kai gia sh.

4.2 csh/tcsh

```
    export LANG=el_GR
    export LC_CTYPE=iso-8859-7
    stty cs8 -istrip -parenb (???)

=====================================================================
     tcsh :
        Put the following in your /etc/csh.cshrc or .tcshrc file

          setenv LC_CTYPE iso_8859_7
          stty pass8

     Note: If this doesn't work your copy of tcsh was probably not compiled
     with NLS support or possibly it's version 6.03 or lower.

ftp://tesla.ee.cornell.edu/pub/tcsh.
DEN DOYLEYEI (tcsh 6.06.00 13-5-95, options 8b, nls, dl ,al, sm)(???)
=====================================================================
```

4.3 ls

Gia na deite ta arxeia me ellhnika onomata, ekteleste thn entolh ws "ls -N". Gia eykolia kante thn alias sto /.profile h balte thn parametro -N sto $LS_OPTIONS ean den einai hdh:

```
export LS_OPTIONS="$LS_OPTIONS -N"
```

4.4 more

O Manwlhs Loyrakhs, <lourakis@csd.uch.gr> "peiraje" to "more" gia na deixnei 928 ellhnika, moreH: `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/moreH.tar.gz`

4.5 less

Yparxoyn diaforoi tropoi gia na doylecei to less, o ka8e enas me diaforetiko ba8mo dyskolias:

- **less -r** (raw mode, mhn perimenete polu omorfa apotelesmata)
- **set LESSCHARSET="koi8-r"** (H pio eukolh lush)
- **set LESSCHARDEF="8bcccbcc18b95.b128."**
- Me **yposthrijh NLS**, bl. 5.4 () (H pio "sobarh" lush)
- Na peirajei to **charset.c** (Gia dynatous lutes):

```
----- CUT HERE - patch.in -----

*** charset.c.orig      Thu Aug  7 11:24:42 1997
--- charset.c   Thu Aug  7 11:25:02 1997
***************
*** 49,54 ****
--- 49,55 ----
        { "dos",        "8bcccbcc12bc5b95.b."           },
        { "koi8-r",     "8bcccbcc18b95.b128."           },
        { "next",       "8bcccbcc18b95.bb125.bb"        },
+       { "8859-7",     "8bcccbcc18b95.b128." }, /* By Antonis Kavarnos */
        { NULL }
  };
```

kai meta: **setenv LESSCHARSET "8859-7"**

4.6 a2ps

Yparxei mia eidikh metaglwttish toy a2ps v4.0 (ascii to postscript), poy yposthrizei ellhnika, grammenh apo ton Manwlh Loyrakh <lourakis@csd.uch.gr> kai ton Giannh Moyzakh <mouzakis@csd.uch.gr>. Brisketai edw `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/a2ps\_v4.0-greek.tar.gz` { To standard a2ps tha exei syntoma swsth yposthriksh gia ellhnika. }

4.7 genscript

Enallaktika toy a2ps yparxei to **GNU enscript**, poy 8ewreitai kalutero kai perilambanei epishma yposthrijh gia ellhnika apo thn ekdosh 1.6.0 kai meta. Gia perissoteres phrofories deite: `http://www.csd.uch.gr/\~{}lourakis/genscript/`

4.8 vi

O vi opws ton trexete apo tis gnwstes dianomes 8a prepei na doylecei me ta ellhnika, xwris tropopoihsh, ean oxi, yparxei o viH (ellhnikos vi, 8a ton breite ston Argea) kai o vim.

```
======================================================================
Shmeiwteon oti o vim meta thn ekdosh 4.x exei yposthriksh toy
langmap flag (prepei na ginei compile me ayto to flag - standard builds
den to exoyn synithws). To feature ayto, contributed apo ton
Angelo Haritsis <ah@computer.org>, einai meros toy standard vim
distribution kai oxi aplws ena palio patch.
Apo to documentation toy vim (:help langmap):
 langmap(lma):
     This option allows support for keyboards that have a mode for a
     special language.  The idea is that when you are typing text in
Insert mode your keyboard is switched in the special language mode, you
get different key codes for the special characters.  When in command
mode the 'langmap' option takes care of translating these special
characters to the original meaning of the key.  This means you don't
have to change the keyboard mode to be able to execute normal mode commands.
Exei kai to katallhlo setting gia ellhnika sto documentation.
Nomizw oti einai xrhsimo gia vi users...

++ Isws ena linux .rpm (properly built) tha htan xrhsimo.
======================================================================
```

4.9 joe

O joe yposthrizei ellhnika ean energopoihsoyme 8bit support, eite trexontas joe -asis, eite bazontas thn parametro -asis sto usr/(local/)/lib/joerc.

4.10 emacs

O Emacs 19+ exei diko toy tropo na diaxeirizetai to plhktrologio. Gi' ayto kai den doyleuei opoiadhpote ellhnikh yposthrijh ftiaxtei gia thn konsola *kai* mesa ston Emacs.

H lush einai to paketo greek-mode.el, poy exei ftiajei o Sarantos Kapidakhs <`sarantos@csd.uch.edu`>. Gia perissoteres plhrofories, to idio to paketo mas parapempei sthn dieu8ynsh: `http://www.ics.forth.gr/\~{}sarantos/EMACS+GREEK` opoy yparxoyn odhgies egkatastashs. To idio to paketo mporei kaneis na to brei eukola kai stis selides toy Hellenic Resources Institute (HRI) sto tmhma poy anaferetai se Ellhnika gia UNIX.

```
======================================================================
     emacs :
```

```
   In version 19.26 or later of GNU emacs you can simply  set the
   environment variable LC_CTYPE to iso_8859_7 like you do for tcsh
   and elm. If you use an older version put the following in your
   /usr/lib/emacs/site-lisp/default.el file:

     (standard-display-european t)

     (set-input-mode (car (current-input-mode))
             (nth 1 (current-input-mode))
             0)

  Dead key functionality should work under GNU emacs provided you use
  GNU emacs v19.30 or higher and XFree86 v3.1.2 or higher, so don't
  start researching available elisp packages implementing "electric
  keys" or anything like that. If you want to implement European
  keyboard conventions in emacs without upgrading the best choice is
  probably the remap package available from the AUC FTP server (see
  section ``References and FTP sites''.)
=====================================================================
```

4.11 xemacs

Gia na xrhsimopoihsei kaneis xemacs mazi me to kikbd (endexomenws genika), prepei na orisei duo grammes sto .xemacs-options:

```
(global-set-key 'Dacute_accent '"")
(global-set-key 'Ddiaeresis '"")
```

4.12 pine

To pine to mono poy xreiazetai einai na oristoun san "alternative editor" o joe h o viH. Yposthrizei mono 928, arkei sto setup, configure na balei kapoios character-set= ISO-8859-7 kai den 8elei tipota allo (o pico 8a dexetai 8bit input).

4.13 elm

http://www.cs.columbia.edu/ akonstan/en/greek/elm-greek.txt

elm: Set the following environment variables

```
LANG=C
LC_CTYPE=iso_8859_7
```

Some versions of elm require that you put the following definitions in your /.elm/elmrc/ file:

```
charset = iso-8859-7
displaycharset = iso-8859-7
textencoding = 8bit
```

Kai to palio-kalo elm yposthrizei ellhnika, me ton katallhlo editor. Epishs yparxei mia nekranasthmenh ekdosh poy yposthrizei kai alla kaloydia, to elm-me: ftp://ftp.ozone.fmi.fi/KEH

{ -Me elm 2.4PL5, DEN DOYLEYE- OXI PANTA TOYLAXISTON (???) }

4.14 metamail

To configure the metamail package for ISO 8859-7 input/output, set the MM_CHARSET environment variable with "setenv MM_CHARSET ISO-8859-7". Also, set the MM_AUXCHARSETS variable with "setenv MM_AUXCHARSETS iso-8859-7" (???)

4.15 telnet

To telnet 8a prepei na doyleuei xwris problhma. Ean oxi, balte ayth thn grammh sto arxeio /.telnetrc:

```
set binary true
```

4.16 rlogin

Ean exete problhmata me to rlogin, dokimaste: "rlogin -8" h "rlogin -L".

4.17 xterm

Trejte to ejhs: (h opoiadhpote ellhnikh grammatoseira)

```
xterm -f sc-elot16
```

h akoma kalutera phgainoyme sto arxeio /.Xresources, kai pros8etoyme kapoy (px sto telos) thn grammh ayth me to font poy 8eloyme, px xterm*font: -misc-fixed-medium-r-semicondensed–0-0-75-75-c-0-iso8859-7

4.18 rxvt

To `rxvt` gia na mporesei na gracei kai na deijei swsta ta ellhnika xreiazetai duo pragmata

1. Ellhnikes Grammatoseires sta X11, bl. 3.1 ()
2. Kapoies parametroys sth grammh entolwn, gia na gyrisei se 8-bit mode kai na mhn agnoei to bit poy jexwrizei ta ellhnika apo ta agglika. Oi magikes parametroi poy kanoyn to `rxvt` sas ellhnikotato einai:

   ```
   % rxvt -8 -meta 8thbit -font GREEKFONT ...
   ```

   kai mporeite safws na tis xrhsimopoihsete **mazi** me o,ti parametroys xrhsimopoieite kanonika sto `rxvt` sas.

```
=====================================================================
To rxvt (xterm clone that uses less memory and runs slightly faster)
exei standard support gia full ellhniko keyboard (928 kai 437) poy exw balei
edw kai poly kairo.  Download the latest source kai compile me
#define GREEK_SUPPORT
sto feature.h

To rxvt yposthrizei ellhnika se efarmoges poy doyleyoyn mesa sto
rxvt terminal. Yposthrizei full set ellhnikwn (including:
```

```
tono-dialytika, anw teleia, ellhnika omoiwmatika).
Epitrepei kaneis na kanei type taytoxrona se 928 kai 437 se 2 katallhla
diaforetika rxvt windows.
Read file README.greek gia leptomereies.

H swsth lysh gia X11 bebaia einai ena complete XKB package poy tha
yposthrizei to plhres set ellhnikwn. Mexri tote to rxvt einai akoma
xrhsimo (epishs gia 737 taytoxrona me 928 keyboard).

++ Isws ena linux .rpm (properly built) tha htan xrhsimo.
====================================================================
```

4.19 minicom

To minicom einai ena programma epikoinwniwn gia modem, poy 8ymizei entona Telix. H ellhnikh ekdosh yposthrizei 737, xrhsimo gia na mpainei kaneis se BBS poy doyleuoyn katw apo DOS (sxedon oles oi ellhnikes einai tetoies): `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/minicom-1.75-elf.tar.gz` Perissoteres plhrofories: <`roryt@hellug.gr`>

```
{
Fantazomai minicom mesa se rxvt me 737 font kai encoding tha doylepsei
kanonika xwris tropopoihsh tou idioy toy programmatos (arkei na einai
8-bit clean).
}
```

4.20 samba

To Samba stis teleytaies ekdoseis (>=1.9.17 ?) den xreiazetai tipota gia na blepoyme ellhnika onomata arxeiwn. Sthn 1.9.18p, dokimasthke ayto me epityxia, trejte to /usr/doc/packages/samba/examples/validchars gia na deite oti yposthrizontai ean exete amfibolies.

Ean prepei pros8esete ta ellhnika, 8a pate sto [global] toy /etc/smb.conf, na pros8esete thn grammh "valid chars = 0xa0 0xa1 0xa2 ... klp"

4.21 ispell

O Giannhs Kabaklhs <`kavaklis@hellug.gr`> exei tropopoihsei to ispell, gia na yposthrizei 928 ellhnika. Epishs exei ena lejiko sto paketo ayto. To FTP site einai: `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/ispellH.tar.gz` Enallaktika toy ispell yparxei to aspell.

```
====================================================================
ftp://ftp.cs.ucla.edu/pub/ispell/languages/ (???)

     ispell - Spell checking in Danish:
        First make sure you install version 3.1 instead of version 4.0
        of ispell.  The latter is obsolete and multiply brain-damaged.
        You can download the sources for ispell at the GNU archive at
        prep.ai.mit.edu, and you can get a Danish dictionary via FTP
        from ftp.iesd.auc.dk in /pub/packages/dkispell/. Follow the
        compilation instructions and you should have no trouble (One
```

```
        caveat: When defining the variables necessary for compilation
        you should slightly confusingly tell ispell that Linux is a Sys
        V type OS by defining the variable USG.)
        When you have installed the Danish dictionary for ispell you
        can check the spelling of a Danish language file by executing
        the command:

        ispell -d danish -T latin1 -w "??????" <your_danish_text_file>

        (Note for non-Danish readers: You can find dictionaries for most
        Western languages by reading the file Where included with the
        sources for ispell.)
======================================================================
```

4.22 Midnight Commander

H emfanish ellhnikwn onomatwn kai periexomenwn arxeiwn sto mc energopoieitai apo to menou Options -> Display bits -> Full 8 bits output. Gia na gracei kaneis ellhnika ston epejergasth keimenoy kai ta pedia dialogoy toy mc, prepei na energopoihsei sto idio menou thn epilogh Full 8 bits input. [N.Christou@S.andB.gr]

4.23 Staroffice

Gia office suite proteinoyme to `StarOffice5.1`.

Gia ton ejellhnismo toy diabaste to eidiko keimeno `StarOffice-and-Greek`.

4.24 Netscape

Ta Netscape 3.x & 4.x exoyn eggenh (merikh) yposthrijh ellhnikwn. Prwta apo ola, prepei na exoyme kanei swsto Configuration twn X windows wste na "blepoyn" ellhnikes grammatoseires. An ayto exei ginei tote prepei na kanoyme ta ejhs 3 bhmata gia na apeikonizontai ta ellhnika PANTOY sto netscape.

- Na dhlwsoyme swsto encoding/fonts
- Na peirajoyme ta resources toy Netscape
- Na "ftiajoyme" aliases gia ellhnikes grammatoseires iso8859-1 (nai, iso8859-1) kai Windows-1253 wste na blepoyme ta ellhnika stis formes (to netscape mperdeuetai kai apekonizei tis formes mono me iso8859-1 grammatoseires). Oi grammatoseires windows-1253 xreiazontai giati merikoi anegkefaloi web masters bazoyn eskemmena h apo agnoia sta .html toys: charset=windows-1253

Arxizoyme :

- Exontas anoixto to netscape, apo to menou view->encoding dialegoyme to "Greek (ISO-8859-7)" kai pali apo to idio menou to "Set Default Encoding". Meta apo to Edit->Preferences, Appearence->Fonts epilegoyme sto pedio "For the encoding" to "Greek (ISO-8859-7)" kai sta 2 lists pio katw ta agaphmena mas ellhnika fonts (ta helvetica kalutera!). Kanoyme click sto OK.
- Sto directory toy netscape yparxei ena arxeio Netscape.ad. Einai ta Resources. An ypo8esoyme oti to netscape exei egkatasta8ei swsta px sto /usr/local/netscape, tote ekteloume san "root" ta parakatw poy leitoyrgoun swsta toylaxiston sto netscape 4.03. (Proypo8esh na exoyme ta fonts -greek-helvetica).

```
cd /usr/X11/lib/X11/app-defaults
\rm -f Netscape
grep -v 'fontList:' /usr/local/netscape/Netscape.ad >/tmp/Netscape
echo "*fontList: \
     -greek-helvetica-medium-r-normal-*-*-120-*-*-*-*-iso8859-7" \
     >>/tmp/Netscape
grep -v '^*defaultCharset:' /tmp/Netscape >Netscape
echo '*defaultCharset:       iso-8859-7' >>Netscape
chmod 644 Netscape
\rm -f /tmp/Netscape
```

- San root, sto directory poy exoyme ta agaphmena mas ellhnika fonts dhmioyrgoume ta aliases ws ejhs:

```
cd /usr/X11/lib/X11/fonts/greek
mkfontdir
awk '{printf "%s %s\n", $2, $2}' fonts.dir |sed -e \
 's/iso8859-7/iso8859-1/' >>fonts.alias
awk '{printf "%s %s\n", $2, $2}' fonts.dir |sed -e \
 's/iso8859-7/windows-1253/' >>fonts.alias
```

- 3ekinoume ta X kai dialegoyme sto edit->preferences->Appearance->fonts ellhnika fonts gia to charset 'windows-1253' kai 'iso8859-1'. (nai ellhnika fonts gia to western charset iso8859-1!!!!).

Plhrofories 8a breite epishs sto: `http://www.ntua.gr/help.html`

4.24.1 Netscape widgets

lazaros sotiriadis:

```
A epishs gia na vlepete ellinika se ola ta widgets prepei na dosete ti sosti gramatoseira sto
Netscape.ad i se arxeio pou tha kanete xrdb -merge i sto .Xdefaults tis exhs 4 seires :

*fontList: -*-couriergr-medium-r-*-*-*-120-*-*-*-*-iso8859-*
*XmTextField.fontList: -*-couriergr-medium-r-*-*-*-120-*-*-*-*-iso8859-*
*XmText.fontList: -*-couriergr-medium-r-*-*-*-120-*-*-*-*-iso8859-*
*XmList*fontList: -*-couriergr-medium-r-*-*-*-120-*-*-*-*-iso8859-*

Etsi tha blepete ellinika se Ola ta widgets se oles tis selides asxetos
an exoun sto source tous charset=windows-1253 kai akoma tha vlepete
ellinika sta bookmarks kai tha grafete fisika se ola ta widgets (p.x http://...)
```

4.24.2 Netscape fonts

```
Shmeiwteon  to greekXfonts-full-1.1.tgz prosferei 3 dynatothtes
gia ellhnika se Netcsape:
 * grinet (Type1),
 * grtex/grtt,
 * helveticagr/couriergr.
Ta Type1 einai to kalytero option (logw oti einai scalable) alla
dystyxws se XFree86 de fainontai toso kala logw kakoy Type1 rasteriser twn XFree.
```

```
Se alla unix/X exw anafores oti fainontai poly kalytera.

Polla sites exoyn dymanic font information gia ta keimena opote to Netscape
aytomatws tha dialseksei to katallhlo font. Ayth h praktikh synistatai
se webmasters ellhnikwn keimenwn.
```

5 National Language Support

To National Language Support (syntomografia NLS) einai mia dynatothta poy exoyn ta pio polla UNIX, wste na enhmerwnontai oi efarmoges gia tis glwssikes ry8miseis toy xrhsth kai na paroysiazoyn ta mynhmata toys sthn antistoixh glwssa.

To NLS xrhsimopoieitai apo polla GNU tools, eidika ayta poy trexoyn se periballon grammhs entolwn (Command Line Interface - CLI, dhladh to gnwsto prompt), kai yposthrizetai prosfata kai sto grafiko periballon (px KDE). H enhmerwsh twn efarmogwn ginetai mesa apo metablhtes periballontos, me entoles toy tupoy LANG="el_GR". Apo Noembrh 1998 ta ellhnika 8a ry8mizontai ws el_GR (me bash ta antistoixa ISO protypa), kai elpizoyme oti h allagh ayth 8a perasei suntoma stis dianomes.

Ergasia gurw apo to NLS exei kanei kai o Simos 3enitellhs, deite to `Greek-nls-HOWTO` kai ayto to ar8ro sto periodiko magaz: `http://magaz.hellug.gr/09/04\_nls.html`.

PROSOXH: To paron kefalaio eixe graftei apo ton Taso Kapio, se mia epoxh poy to NLS den yphrxe panta sthmeno sto linux, kai to protypo htan arketa asta8es (px, mporei na breite na leei gia gr_GR, anti el_GR).

5.1 Proetoimasia

PRWTA blepe poses kai poies einai oi biblio8hkes ths C poy yparxoyn sto susthma soy. p.x.

```
ttyp3:~#ldconfig -v | grep libc.so
libc.so.4 => libc.so.4.7.2
libc.so.6 => libc-2.0.4.so
libc.so.5 => libc.so.5.4.33
```

Yparxoyn 5 kathgories libc kai den einai symbates metaju toys, oson afora ta locale panta. (Ayth thn stigmh oi pio polloi exoyn tis ekdoseis 4 kai 5)

1. libc 4 ??? (a.out)
2. libc 5.0.9-5.3.12
3. libc 5.4.x
4. glibc 1.x ??? (san libc 5 gia merikes arxitektonikes Linux)
5. glibc 2.x.x (libc 6)

5.2 Egkatastash Ellhnikwn Locale

Xreiazeste tis topikes ry8miseis (localedata), ton compiler localedef kai to diagnwstiko ergaleio locale.

- Yparxoyn treis ekdoseis twn topikwn ry8misewn (Diaferoyn elaxista)
    1. H pio palia apoteleitai apo ta

```
ftp://dkuug.dk/i18n/WG15-collection/locales/gr_GR             (2679 bytes)
ftp://dkuug.dk/i18n/WG15-collection/charmaps/ISO_8859-7:1987  (19768 bytes)
ftp://dkuug.dk/i18n/WG15-collection/locales/en_DK             (101080 bytes)
```

2. H allh, pio prosfath ftp://ftp.debian.org/debian/ ... /sources/admin/wg15-locale_2.orig.tar.gz (h se diafora CDROM me to debian) kai periexei ta

```
locales/gr_GR
locales/en_DK
charmaps/ISO_8859-7,1987
```

   (Prepei na doyleuei mono gia libc 5.4.x)

3. H pio kainourgia ekdosh brisketai eite sto paketo phgaioy kwdika ths glibc 2.0.5 eite san jexwristo paketo san glibc-localedata-2.0.5 Yparxei sto debian (ftp.debian.org),sto redhat (ftp.redhat.com) kai se mirrors ths gnu kai periexei ta gr_GR,en_DK,ISO-8859-7

- Ta localedef kai locale yparxoyn sta paketa me ton phgaio kwdika twn libc 5 kai glibc 2. Epishs kykloforoun se binary morfh apo to debian kai redhat kai san tar.gz apo thn gnu kai h ekdosh toys prepei na einai idia me thn libc poy exete (locale-5.x.y gia thn libc 5.x.y kai to glibc-localedata-2.x.y gia thn glibc-2.x.y)

Prwta phgainete ston ypokatalogo opoy briskete gr_GR kai trexete thn entolh

```
>sed -e 's/am_pm "";""/am_pm   "<P*><M*>";"<M*><M*>"/' gr_GR > el_GR
```

(Gia dynatothta ellhnikou PM kai MM kai h allagh onomatos gia symbatothta me ta X) Kai gia elegxo

```
> tail -n 5 el_GR | grep am_pm
am_pm  "<P*><M*>";"<M*><M*>"
t_fmt_ampm ""
END LC_TIME
```

Twra san root dhmioyrghste toys ejhs ypokatalogoys

```
# mkdir -m 755 -p /usr/share/locale/el_GR/LC_MESSAGES
# mkdir -m 755 -p /usr/share/i18n/charmaps
# mkdir -m 755 -p /usr/share/i18n/locales
# ln -sf /usr/share/i18n/charmaps /usr/share/i18n/charmap
```

Egkatasthste sta swsta merh ta el_GR, en_DK, ISO-8859-7 (h ISO_8859-7:1987 h ISO_8859-7,1987)

```
# cd (ekei poy einai ta localedata)
# cp e?_??  /usr/share/i18n/locales
# cd ../charmaps
# cp ISO[-_]8859-7* /usr/share/i18n/charmaps
# cd /usr/share/i18n/charmaps
# ln -s ISO_8859-7,1987 ISO-8859-7
```

Metaglwttiste, an den ta exete hdh se binary morfh, ta locale kai localedef. Ayto ginetai peripoy etsi:

```
 > cd ~/src
 > gzip -dc libc-x.y.z.tar.gz | tar xvf -
 > cd libc-x.y.z
 > ./configure
 > make clean; make depend
 > cd locale
 > make programs
 > su -f root -c 'install -m 755 locale localedef /usr/bin'
```

Kai twra eiste etoimoi gia thn metaglwttish twn topikwn ry8misewn. San root:

```
# cd /usr/share
```

Se periptwsh poy exete mia libc

```
# localedef -ci locale/el_GR -f i18n/charmap/ISO-8859-7 el_GR
```

Se periptwsh poy exete duo p.x. libc-5.4.33 kai libc-2.0.4

```
# localedef-2.04   -ci el_GR -f ISO-8859-7 el_GR
# localedef-5.4.33 -ci el_GR -f ISO-8859-7 el
# chmod -cR a+r locale
```

Twra prepei na yparxoyn ayta katw apo to /usr/share/locale/el_GR (kai to el)

```
# ls locale/el_GR
LC_COLLATE    LC_CTYPE      LC_MESSAGES/  LC_MONETARY   LC_NUMERIC     LC_TIME
```

Mia dokimh. Gia kelyfos tupoy csh p.x. tcsh:

```
> setenv LANG el_GR
```

Gia kelyfos tupoy sh p.x. bash, ksh:

```
> LANG=el_GR ; export LANG
```

Dokimaste:

```
> locale
LANG=el_GR
LC_CTYPE="el_GR"
LC_NUMERIC="el_GR"
LC_TIME="el_GR"
LC_COLLATE="el_GR"
LC_MONETARY="el_GR"
LC_MESSAGES="el_GR"
LC_ALL=
> locale -c LC_TIME | head
LC_TIME
Kyr;Dey;Tri;Tet;Pem;Par;Sab
Kyriakh;Deytera;Trith;Tetarth;Pempth;Paraskeyh;Sabbato
Ian;Feb;Mar;Apr;Mai;Ioun;Ioul;Aug;Sep;Okt;Noe;Dek
```

```
Ianoyarios;Febroyarios;Martios;Aprilios;Maios;Iounios;Ioulios;Augoystos;Septembrios;Oktwbrios;Noembrios;Dekembrios
PM;MM
%a %d %b %Y %T %Z
%d/%m/%Y
%T
```

(H diamorfwsh allazei apo libc se libc)

Twra mporeite na dokimaste merikes efarmoges (arkei na exoyn ginei compile me mia symbath libc)

```
> unsetenv LESSCHARSET h unset LESSCHARSET
> less kapoio-keimeno-me-ellhnika
> cal
   Augoystos 1997
Ky De Tr Te Pe Pa Sa
                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 26 27 28 29 30
31
```

Kai sto Netscape 4 (me libc 5.4.x x > 4) anoijte to Mail & Discussions kai 8a deite sto Date toys mhnes sthn mesh px 31/08/1997 kai tis hmeres sta ellhnika. Telos :-)

5.2.1 Egkatastash Ellhnikwn mhnymatwn diaforwn efarmogwn

Edw yparxoyn dyo anejarthta paketa to gencat kai to gettext

a)To **gencat** erxetai mazi me ton phgaio kwdika ths ka8e libc (katw apo to nls/) h se binary p.x. gencat-x.y.z kai einai ejarthmeno apo aythn opws kai to localedef. Metaglwttizei arxeia tupoy International language text (.m) se katalogoys.

b)To **gettext**, einai anejarthto apo thn libc, kai yparxei synh8ws se mirrors ths gnu p.x.ftp.kernel.org/pub/mirrors/gnu/gettext-0.10.tar.gz kai sta debian,redhat. (Gia na breite mia prosfath ekdosh pate sto http://las.ml.org cajte gia gettext) To xrhsimopoioun sxedon ola ta paketa ths GNU {file,sh,text,net}-utils kai polla alla paketa p.x. (WindowMaker). Gia plhrofories deite to ftp.kernel.org/pub/mirrors/gnu/ABOUT-NLS, steilte mhnyma sthn ellhnikh omada sto el@li.org h gia na boh8hste mpeite sthn lista el-request@li.org me thn lejh "subscribe" sto swma toy mhnumatos.

Ayth thn stigmh, apo o,ti gnwrizw, plhrws ellhnika mhnumata exei mono to tcsh 6.07.02 (me patches toy debian) kai xrhsimopoiei, dystyxws, to gencat.

5.3 Egkatastash toy tcsh

Katebaste to **tcsh >= 6.07.02**. Breite to gencat (phgaios kwdikas libc,se binary apo redhat,debian) Protou metaglwttiste to tcsh. h

- Epejergasteite to config_f.h kai allajte to #undef NLS_CATALOGS se #define NLS_CATALOGS Allajte apo ola ta ellhnika arxeia nls/greek/* ta \",\',\n se ",',\n antistoixa. Allajte sto nls/Makefile to GENCAT=gencat se GENCAT=gencat -new -lang ANSIC h
- Katebaste to patch gia thn ekdosh 6.07.02 apo to debian (ftp.debian.org/debian/hamm/hamm/source/shells/)

Metaglwttiste, egkatasthste, dokimaste to tcsh

```
>make
>make catalogs
>su -f root -c 'make install'
>su -f root -c 'install -m 644 tcsh.greek.cat /usr/share/locale/el_GR/tcsh'
>/bin/tcsh
>setenv LANG el_GR
>unsetenv NOREBIND (gia na afhnei grafete sta ellhnika)
>fkjg
fkjg: H entolh de bre8hke.
```

An den sas bgalei ellhniko mhnyma tote

- Elegjte to /usr/share/locale/el_GR/tcsh kai to /bin/tcsh

```
>ls -l /usr/share/locale/el_GR/tcsh
-rw-r--r--   1 root     root        47443 Ioun 12 21:27 /usr/share/locale/el_GR/tcsh
>file /usr/share/locale/el_GR/tcsh
/usr/share/locale/el_GR/tcsh: data
>ls -l /bin/tcsh
-rwxr-xr-x   1 root     root       270476 Sab Aug 10:23 /bin/tcsh
>date
Sab Aug   9 10:38 EET DST 1997
```

- Bebaiw8eite oti to gencat erxetai apo mia symbath libc

```
> gencat -V
localedef (GNU libc) 2.0.4
Copyright (C) 1995, 1996, 1997 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
Written by Ulrich Drepper.
> ldd /bin/tcsh
       libnsl.so.1 => /lib/libnsl.so.1 (0x40003000)
       libncurses.so.4 => /usr/lib/libncurses.so.4 (0x4000a000)
       libcrypt.so.1 => /lib/libcrypt.so.1 (0x4004a000)
       libc.so.6 => /lib/libc.so.6 (0x40078000)
       /lib/ld-linux.so.2 => /lib/ld-linux.so.2 (0x00000000)
```

An to mhnyma einai kapws etsi

```
fkjg: ^H ^e^n^t^o^l^h ^d^e ^b^r^e^8^h^k^e.
```

1. Elegjte ta permissions sthn /usr/share/locale/el_GR

```
> ls -l /usr/share/locale/el_GR
total 96
drwxr-xr-x   3 root     root         1024 Ioun 25 20:40 ./
drwxr-xr-x  68 root     root         2048 Aug   6 10:41 ../
-rw-r--r--   1 root     root        29156 Ioun 25 20:36 LC_COLLATE
```

```
-rw-r--r--   1 root     root        10428 Ioun 25 20:36 LC_CTYPE
drwxr-xr-x   2 root     root         1024 Ioun 25 20:34 LC_MESSAGES/
-rw-r--r--   1 root     root           95 Ioun 25 20:36 LC_MONETARY
-rw-r--r--   1 root     root           27 Ioun 25 20:36 LC_NUMERIC
-rw-r--r--   1 root     root          536 Ioun 25 20:36 LC_TIME
-rw-r--r--   1 root     root        47443 Ioun 12 21:27 tcsh
```

2. 3anakanete compile tis topikes ry8miseis me to localedef

3. Elegjte thn ekdosh toy localedef kai ths libc wste na einai idies

```
> localedef -V
localedef (GNU libc) 2.0.4
Copyright (C) 1995, 1996, 1997 Free Software Foundation, Inc.
This is free software; see the source for copying conditions.  There is NO
warranty; not even for MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE.
Written by Ulrich Drepper.
> ldd /bin/tcsh
       libnsl.so.1 => /lib/libnsl.so.1 (0x40003000)
       libncurses.so.4 => /usr/lib/libncurses.so.4 (0x4000a000)
       libcrypt.so.1 => /lib/libcrypt.so.1 (0x4004a000)
       libc.so.6 => /lib/libc.so.6 (0x40078000)
       /lib/ld-linux.so.2 => /lib/ld-linux.so.2 (0x00000000)
```

4. Katebaste mia pio prosfath ekdosh twn topikwn ry8misewn

5. Anaba8miste thn libc

5.4 Ry8miseis diaforwn efarmogwn

Oi pio polles efarmoges to mono poy xreiazontai einai to LANG se el_GR.

- X genika:

  a)Pros8este sto /usr/X11R6/lib/X11/locale/locale.alias to el_GR.ISO-8859-7 el_GR.ISO8859-7

  b) Gia ellhnikous titloys kai onomata eikonidiwn *titleEncoding: ISO8859-7 *iconNameEncoding: ISO8859-7

- LESS: MHN DHLWNETE TO LESSCHARSET. Me swsta locale, thn swsth libc, kai to LANG se el_GR deixnei ta ellhnika kanonika.

  Efarmoges me mhnumata gettext (/usr/share/locale/el_GR/LC_MESSAGES/*.mo): To LANGUAGE se el_GR.

- TCL/TK: Gia na sas afhnei na grafete ellhnika allajte sto /usr/X11R6/lib/X11/locale/compose.dir apo iso8859-1/Compose C se #iso8859-1/Compose C

- XTERM: Parte thn ekdosh toy xterm apo thn Xfree86 3.3 (diaferei apo thn ekdosh twn X11R6.3) kai metaglwttiste me -DI18N.

- SH-UTILS,FILE-UTILS,TEXT-UTILS: Merika programmata toys 8eloyn glibc 2 gia deijoyn ellhnikes hmeromhnies.

- SYSLOGD:???????

- Dikes sas efarmoges: Gia na mporeite na bazete mexri kai ellhnikes parametroys.

```
#include <locale.h>
.....
setlocale(LC_ALL,"");
.....
>dokimh --ola
```

Alles efarmoges kaneis;

5.5 Problhmata

Polla ;-).

5.5.1 Problhmata me thn C Library (libc)

H METAGLWTTISMENH MORFH APO TA LOCALEDEF KAI GENCAT SYNH8WS ALLAZEI APO LIBC SE LIBC KAI ENA PROGRAMMA METAGLWTTISMENO ME TOYS HEADERS MIAS LIBC MPOREI NA MHN MPOREI NA DIABASEI THS TOPIKES RY8MISEIS FTIAGMENES APO ALLH BIBLIO8HKH.

5.5.2 Problhmata me ta X

Locale not supported from X library.(h kati paromoio) Elegjte ta dikaiwmata stoys ypokatalogoys

```
# chmod -cR a+r /usr/share/locale /usr/X11R6/lib/locale
```

Elegjte ta Xresources kai cajte gia tipota upopto

```
>xrdb -query
```

Blepe problhmata me thn biblio8hkh ths C.

5.5.3 Problhmata poy dhmioyrgountai otan ola einai swsta ;-)

O daimonas syslogd apo8hkeuei ta dedomena sta 7-bit kai polles efarmoges 8a toy stelnoyn tis hmeromhnies sta ellhnika p.x.to PAM me apotelesma merikes fores na mhn mporeis deis ton mhna.

Merika programmata 8a perimenoyn gia apanthsh se erwthsh ”yes/no” anti gia ”y” h ”n”ta ”n” kai ”o” antistoixa.

Sthn konsola kalo einai na exete mia grammatoseira iso-8859-7(ELOT-928). Eidika me ellhniko tcsh.

5.6 Epipleon plhrofories

- Linux Locales Mini HOWTO: `ftp://metalab.unc.edu/pub/Linux/doc/HOWTO/mini/locales`
- NLS repository: `http://www.iro.umontreal.ca/contrib/po/`
- NLS utilities for Linux: `ftp://metalab.unc.edu/pub/Linux/utils/nls`
- Public domain locale and charmap sources: `ftp://dkuug.dk/i18n`

Yparxoyn ta man pages: locale.5 locale.7 setlocale.2

6 Tex/LaTex

To TeX/LateX einai ena susthma stoixeio8esias (typesetting), poy briskotan se eyreia xrhsh sthn dekaetia 75-85. Einai kai shmera xrhsimo gia thn syggrafh episthmonikou keimenoy, ka8ws yposthrizei polu kala tis ma8hmatikes parastaseis (petajte to word gia panta), ta (polytonika) ellhnika kai lunei polla idiory8ma typografika problhmata.

Ta sxetika me to TeX/LateX, yparxoyn pleon se ena jexwristo HOWTO: `GreekTeXFAQ`. Deite gia ta sxetika kai to kefalaio 6.3 ().

To TeX einai ena programma poy eftiaje arxika o ka8hghths Donald E. Knuth toy Stanford University, gia to gracimo keimenwn me polla ma8hmatika. Arxika to TeX den yposthrize ellhnika, para mono ta liga ellhnika sumbola poy xrhsimopoioun oi ma8hmatikoi polles fores gia na dhlwsoyn metablhtes se ejiswseis opws:

```
$ y = \alpha\,x^2 $
```

opoy to TeX antika8ista to `\alpha` me to ellhniko "a".

Ayto omws den einai kai toso boliko, giati to TeX xeirizetai kapws diaforetika ta ellhnika se math-mode (to eidiko mode toy TeX sto opoio grafetai ka8e ejiswsh) kai diaforetika se horizontal-mode poy grafetai to aplo keimeno. Kai safws kaneis den 8a h8ele na prepei na grafei tragika pragmata opws:

```
{$\Epsilon$}$\lambda${$\lambda$}$\'\alpha${$\delta$}$\alpha$.
```

mono kai mono gia na gracei "Ellada".

Mia prwth lush hr8e me to project BABEL toy TeX-Users-Group, h opoia perigrafetai parakatw.

6.1 To project BABEL

To project BABEL mporei na bre8ei se ola ta Comprehensive-TeX-Archive-Network (CTAN) mirrors. Einai sto directory `.../tex-archive/babel/` kai h ellhnikh yposthrijh toy BABEL yparxei sto `.../tex-archive/babel/greek/*` .

To project BABEL exei ftiax8ei kyriws apo jenoys, omws, poy den grafoyn se "pragmatika ellhnika", alla se greeklish. Etsi, gia paradeigma h lejh "Ellada" grafetai san:

```
\GR{}Ella'da\EN{}
```

Poy einai safws mia beltiwsh apo to apaisio `$...$` kolpo.

Me ta katallhla filtra to BABEL mporei na ftiax8ei etsi wste na yposthrizei pragmatika ellhnika, kai telika na grafei kaneis:

```
Ellada
```

kai to filtro na to metatrepei sto prohgoumeno paradeigma, wste to BABEL na doylecei swsta!

6.2 Prospa8eies ejellhnismou toy Tex/LaTex

Sto ITY (Institouto Texnologias Ypologistwn), yparxei ena project me to onoma GRTeX. Blepe "Diplwmatikh ergasia GRTeX, Stefanos Magganarhs, Iounios 1989, Patra, Tmhma Mhx. H/Y kai Plhr."

Epishs, o G. Sphliwths exei kanei diplwmatikh ergasia sto Pan/mio A8hnas gia Ellhnika sto TeX/LaTeX.

6.3 Sundesmoi gia Tex/LaTex

- http://magaz.hellug.gr/04/05_babel.html 1o ar8ro sto magaz gia ellhniko TeX/LateX
- http://magaz.hellug.gr/08/07_GreekTeXFAQ.html 2o ar8ro sto magaz gia TeX (Odhgies egkatastashs - FAQ)
- ftp://ftp.tex.ac.uk:/pub/tex/fonts/greek/ Aytos einai o katalogos gia ellhnika sto CTAN
- ftp://obelix.ee.duth.gr/pub/TeX Kalh syllogh gia TeX kai ellhnika
- http://obelix.ee.duth.gr/eft/ Sullogos Ellhnwn filwn toy TeX
- http://obelix.ee.duth.gr/eft/Greekinf/ Diafora ergaleia gia LateX
- http://ctan.unsw.edu.au/tex-archive/help/greek/greek.faq faq gia ellhniko LateX, alla palio (4/94)

Oi ejyphretes toy **CTAN** (Comprehensive TeX Archive Netowrk) einai:

- ftp.tex.ac.uk (128.232.1.87)
- ftp.dante.de (129.206.100.192)
- ftp.cdrom.com/pub/tex/ctan
- ftp.ee.up.ac.za

7 Hlektronikh tekmhriwsh kai biblia

7.1 Linux Documentation Project

To Linux Documentation Project (LDP) einai mia prospa8eia na graftei olh h tekmhriwsh toy Linux hlektronika, kai na organw8ei eniaia. Ola ta HOWTO, FAQ, manual pages, Guides anhkoyn sto LDP, kai briskontai ston kombo toy metalab (http://metalab.unc.edu/LDP/). Na shmeiw8ei oti kai ayto to keimeno einai tmhma toy LDP kai brisketai: http://metalab.unc.edu/LDP/HOWTO.

Epimenete ellhnika omws kai protimate toys ka8reptismous (!) toy LDP:

- http://linux.forthnet.gr/LDP/, Contact: Sotiris Tsimbonis,tsimbonis@forthnet.gr, Updated: DAILY, Location: Katerini, Greece
- http://www.ichannel.gr/linux/LDP/, Contact: Dimitris Demiris, ddemiris@ichannel.gr, Updated: DAILY, Location: Volos, Greece

Olo to metalab (prwhn sunsite) yparxei kai sthn Ellada sto: http://sunsite.ics.forth.gr/

To tmhma gia linux einai: ftp://sunsite.ics.forth.gr/sunsite/linux

7.2 Periodika

To ellhniko on-line periodiko **magaz** einai prwths dialoghs: http://magaz.hellug.gr.

To **Linux Gazette** einai ena kalo on-line periodiko sthn agglikh glwssa kai brisketai sthn dieu8ynsh: http://www.ssc.com/lg/. Mirror toy yparxei kai edw: http://www.eexi.gr/mirrors/lg/lg_frontpage.html.

To mono entypo periodiko poy kykloforei sthn Ellada gia to Linux, einai to (amerikaniko) **Linux Journal**, poy mporei na to promh8eytei kaneis apo ta texnika bibliopwleia kai katasthmata H/Y, kyriws.

7.3 Biblia eidika gia Linux

Mark G. Sobell, A Practical Guide to Linux, Addison-Wesley Pub Co, ISBN: 0201895498 (*) Synistatai anepifulakta, deite apo to amazon.com to ejwfyllo toy: `http://www.amazon.com/exec/obidos/ASIN/0201895498/`.

M. Welsh, L. Kaufman, Running Linux, O'Reilly & Associates, ISBN: 1565921518 (*)

O. Kirch, Linux Network Administrator's Guide, O'Reilly & Associates, Inc. (*)

LDP, The Linux Bible 3rd Edition, Yggdrasil Computing, Inc.

7.4 Unix gia Arxarioys

B.Kernighan, R.Pike, The UNIX programming Environment, 1984, ISBN 0-13-937681-X Ejhghsh toy Unix gia arxarioys. Pyknogrammeno alla katanohto. Klassiko biblio panepisthmiakwn sxolwn. (*) (**GR)

H. Hahn, A Student's Guide to Unix, McGraw Hill, 1993, ISBN: 0-07-025511-3 Ena polu kalo eisagwgiko biblio gia to Unix. Se aplh glwssa o syggrafeas ejhgei ston arxario oti 8elei na jerei gia to Unix kai to Internet. DEN APAITEITAI PROEMPEIRIA (*)

M. Waite, D. Martin e S. Prata, The Waite Group's Unix System V Primer, Sams, 1992, ISBN: 0-672-30194-6 Ena ejaireto egxeridio gia Unix/SVR4. (**GR)

D. Libes, S. Ressler, Life with Unix - A Guide for Everyone, Prentice Hall, 1990, ISBN: 0-13-536657-7 Otidhpote 8a 8elate na ma8ete gia to Unix. Periexei dyseuretes plhrofories.

7.5 Unix gia Proxwrhmenoys

M. J. Bach, The design of the Unix operating system, Prentice-Hall International, 461 pp, ISBN: 0-13-201757-1 Sumfwna kai me ton titlo toy, perigrafei thn sxediash toy Unix se ba8os.

P. Abrahams, B. Larson, Unix for the Impatient, Addison Wesley, 1995, ISBN: 0-201-55703-7 Keimeno anaforas sto Unix, synoptiko alla kai plhres. Einai katallhlo gia na briskei kaneis grhgora kai me akribeia, apanthseis se problhmata. (*)

W.R. Stevens, Advanced Programming in the UNIX Environment, Addison Wesley, 1996, ISBN: 0-201-56317-7 To katallhlo biblio gia opoion 8elei na programmatisei sto Unix. (*)

W.R. Stevens, UNIX Network Programming, Addison Wesley, 1996, ISBN: 0-13-90012-X Ean skefteste na asxolh8eite me programmatismo se diktyo (px Internet, TCP/IP) hr8e h wra na agorasete ayto to biblio. (*)

7.6 Diaxeirish Systhmatos

E. Nemeth, G. Snyder, S. Seebass, Unix System Administration Handbook, Prentice-Hall, 1995, ISBN: 0-13-933441-6 Klassiko biblio, biblos toy diaxeiristh (*)

D. r, B. Hunter, B. Smith, Unix System V Release 4 Administration, Hayden, 1991, ISBN: 0-672-22810-6 Sxoliazetai ws to aparaithto biblio gia thn organwsh enos praktikou, apodotikou kai paragwgikou Unix.

AEleen Frisch, Essential System Administration 2nd Edition, O'Reilly & Associates, 1996, ISBN 15659212755 Ena ejairetiko biblio gia Diaxeirish Systhmatos me polles plhrofories eidika gia to Linux. (*)

7.7 Asfaleia Systhmatos sto Unix

S. Garfinkel, G. Spafford, Practical Unix Security and Internet, O'Reilly, 1996, ISBN: 0-937175-72-2 Ola ta aparaithta metra gia na kanete to susthma sas oso to dynaton asfalestero. (*)

7.8 Unix kai Internet

AA.VV., Building a Unix Internet Server, New Riders, ISBN: 1-56205-494-5 Periexei CD me ola ta xrhsima ergaleia, gia thn egkatastash enos Internet Server.

Que, Running perfect internet site with linux, U. Hoepli ed., 1995, ISBN 0789705141

7.9 Ellhnika biblia gia to UNIX

Osa biblia apo ta parapanw einai me (*), yparxoyn sthn Ellada, an kai ametafrasta. Osa biblia apo ta parapanw einai me (**GR), yparxoyn sthn Ellada metafrasmena. Kalutera bebaia rwthste sta bibliopwleia gia sigoyria (bl. 8.8 ())

8 To Linux sthn Ellada

Oi energoi Ellhnes xrhstes prepei na einai pleon panw apo xilioi (Okt. 98) kai exoyn sxhmatisei ena diktyo metaju toys, poy perilambanei komboys FTP, news hosts me omades syzhthsewn, IRC channels kai proswpikes selides sto Internet. Ta pio shmantika shmeia poy prepei kaneis na episkeftei einai ton kentriko ellhniko kombo `www.linux.gr` kai tis selides toy nomika anagnwrismenoy syllogoy Hellug, sthn dieu8ynsh `www.hellug.gr`. To -peripoy mhniaio- periodiko magaz einai endeiktiko twn epityxhmenwn ellhnikwn prospa8eiwn: `magaz.hellug.gr`.

8.1 Listes kai omades syzhthsewn (Newsgroups)

H taktikh epikoinwnia Ellhnwn gia to Linux ginetai apo thn **linux.greek.users**, arxika ftiagmenh me prwtoboylia toy Giannh Iwannoy, ston Argea (tote argeas.argos.hol.gr, nyn argeas.hellug.gr) kai twra trexei sto mhxanhma toy syllogoy, Epeidh thn lista thn diabazoyn polloi, poy pi8anon den exoyn ellhnika, einai kalh taktikh na xrhsimopoiountai greeklish:

```
ayta edv, as poume, einai greeklish.
```

Yparxei kai list-news gateway ths **linux.greek.users** sthn dieu8ynsh: `news://edessa.topo.auth.gr/local.linux.greek.users` To gateway xrhsimeuei gia na symmetexei kaneis kai na blepei ta 8emata xwris na xreiazetai na graftei. Rijte mia matia, kai epanel8ete otan exete apories. Yparxei kai META FAQ sthn dieu8ynsh `http://linux.forthnet.gr/\~{}stsimb/linux/meta-faq.html`.

Ektos apo thn **linux-greek-users**, yparxei kai h **linux-howto** (apokleistika gia osoys synthroun keimena toy linux sta ellhnika h analambanoyn na ektelesoyn kapoies ergasies) kai h **hellug** (sxetika me ton panellhnio sullogo).

H selida me thn lista twn listwn mas einai sto `http://lists.hellug.gr/`,

8.2 IRC

IRC channel, xrhsimo gia ameses erwthseis kai syzhthseis, einai to **#linux-gr**. H selida toy einai `http://www.co.umist.ac.uk/\~{}vp/irc/` Alh8eia einai oti to kanali einai syxna xwris polykosmia, se tetoia periptwsh protimhste thn linux-greek-users.

8.3 Fidonet

Sto Fidonet, yparxei h sxetikh omada syzhthshs "gr.unix", poy synh8ws exei kai postings sxetika me to Linux. Thn omada ayth, mporei na thn parakoloy8hsei kaneis, apo tis BBS ellhnikou Fidonet (bl. `http://www.fidonet.gr`) Prosoxh 8elei to oti merikes fores synantame 737 ellhnika h/kai flames.

Kai edw yparxei fido-news gateway: `news://news.fidonet.gr/fido.gr.unix` kai `news://edessa.topo.auth.gr/fido.gr.unix`

8.4 Omades Ellhnwn Xrhstwn toy Linux

O sullogos `HELLUG` einai de facto o panellhnios sullogos twn xrhstwn toy Linux. 3ekinhse sthn A8hna apo ton Kwsta Blassh me aytes tis selides sthn compulink: `http://www.compulink.gr/linux/`.

Mh epishma anagnwrismenes omades yparxoyn sthn 8essalonikh (TheLUG) kai thn Patra (PLUG). Oi omades einai anoixtes se nea melh kai endiaferomenoys gia to Linux.

Ean endiafereste gia thn dhmioyrgia enos LUG sthn perioxh sas, diabaste prwta ayto: `http://www.ntlug.org/archive/lug-howto/index.html`.

8.4.1 HELLUG

O sullogos Ellhnwn Xrhstwn kai Filwn Linux HELLUG einai enas mh kerdoskopikos, nomika anagnwrismenos sullogos apo ton Noembrio toy 1998. Osoi asxolountai me to Linux sthn Ellada, einai kalo na einai toylaxiston enhmerwmenoi gia thn uparjh toy. O sullogos en8arrunei opoiadhpote prospa8eia prow8hshs toy Linux, kai einai pro8ymos gia synergasia me etaireies h idiwtes gia thn prow8hsh toy Linux sthn Ellada kai thn enhmerwsh gurw apo ayto.

Gia perissoteres plhrofories deite: `http://www.hellug.gr`

8.4.2 PLUG

Sthn Patra, sto tmhma Mhxanikwn H/Y kai Plhroforikhs, edreuei to PLUG (Patras Linux Users Group). `http://students.ceid.upatras.gr/\~{}glavas/linux/`

8.4.3 TheLUG

Sthn 8essalonikh, yparxei to TheLUG, poy edreuei se ...taberna. Deite sto `http://hal.csd.auth.gr/thelug/`

8.5 Egw pws mporw na boh8hsw

Kat' arxh caxnontas kai diabazontas prwta kai meta rwtwntas, giati kaneis den exei kairo gia xasimo. Afou breite mia lush poy den einai gnwsth, parakaloume enhmerwste kai toys ypoloipoys.

Oi pleon shmantikes ergasies einai:

- Lexis, Lejiko orologias plhroforikhs (Aggloellhniko, gia omoiogeneia metafrasewn)
- Ellhnika HOWTOs, FAQs kai antistoixh tekmhriwsh
- Ejellhnismos toy periballontos kai twn mynhmatwn toy KDE, GNOME
- Yposthrijh ellhnikwn mesw NLS
- Ejellhnismos dianomwn, swsth yposthrijh ellhnikwn. To Suse brisketai hdh se kalo dromo.

Deite sto `http://server.hellug.gr/LUGistics/el/pub/PRJ\_main.php3` gia analytikoteres plhrofories. Ean pisteuete oti eiste se 8esh na syneisferete se kapoio apo ta parapanw, parakaloume kante to.

Einai polu shmantiko ean breite thn lush se kapoio problhma kai den anaferetai ston kwdika h sthn tekmhriwsh (px se ayto to keimeno), na anatrejete ston antistoixo syggrafea kai na ton enhmerwsete, h na gracete ena diko sas ar8ro gia to magaz h akoma kai HOWTO to opoio 8a prepei na mas steilete sto Hellug, gia na mpei mazi me ta alla ellhnika keimena.

Ean prokeitai gia allagh se kapoio programma (px 8bit patch), apey8yn8eite ston sxetiko programmatisth, h etoimaste mia compiled ekdosh gia ton ftp server toy Hellug. Prospa8eiste na kanete oson to dynaton pio oloklhrwmenh doyleia kai akoloy8eiste ta protypa kai me8odoys poy akoloy8oun oloi oi alloi.

8.6 Internet Sites

8.6.1 WWW

- `http://www.linux.gr`
- `http://www.hellug.gr`
- `http://magaz.hellug.gr`

8.6.2 FTP

Epishmo pleon **FTP site** gia oti afora Ellhnes kai Ellhnika sto Linux `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/`

Gia dianomes toy Linux deite:

- `FTP.LINUX.GR-/pub/`
- `NTUA-/pub/linux`
- `Forthnet-/pub/linux`
- `Compulink/pub/linux`

8.6.3 Komboi ths Allodaphs :-)

- `http://metalab.unc.edu/LDP/` Edw stegazetai to Linux Documentation Project, to kentriko shmeio tekmhriwshs toy Linux
- `http://www.linux.org/` Ayto einai to linux.org. 8ewrhtika 8a eprepe apo edw na phgainei kaneis grhgora opoydhpote, alla ayto den symbainei panta sthn prajh. Einai bebaia ena polu shmantiko site.
- `http://www.linux.eu.org/` To paneyrwpaiko diktyo kombwn.

- `http://www.li.org/` Edw brisketai to Linux International, melh toy einai (megales) etaireies plhroforikhs
- `http://www.linuxnow.com/` O kombos aytos einai kainourios kai arketa organwmenos. Periexei SOFTWARE, HOWTOs, FAQs, klp.
- `http://www.ssc.com/lj/` H selida toy Linux Journal, mhniaioy amerikanikou periodikou gia to Linux
- `http://www.ssc.com/lg/` H selida toy Linux Gazette, mhniaioy hlektronikou periodikou gia to Linux
- `http://www.linuxmall.com/` Aytos o kombos einai ena emporiko kentro afierwmeno sto Linux.
- `Yahoo.com-{$>$}computers-{$>$}operating\_systems-{$>$}Linux` H selida toy 8ematikou eyrethrioy toy Yahoo gia to Linux. Exei arketa pragmata.

8.7 Dianomes kai CD

To Linux epeidh einai ftiagmeno apo pollous kai xwris kentrikh organwsh, dia8etei polles "dianomes" (distributions), ka8e mia me ta dika ths xarakthristika kai oxi aparaithta kaluterh se ola apo tis ypoloipes:

- **Slackware** Palaiotera htan h pio synh8ismenh. H teleytaia ekdosh (5/99) einai h 3.6, deite `http://www.slackware.org`
- **Redhat** Exei grafiko periballon egkatastashs kai einai pio polu gia arxarioys. Epishs h egkatastash ekkineitai eukola apo DOS, grafontas apla REDHAT. Megalh eykolia einai to RPM poy epitrepei eukolh (ap)egkatastash efarmogwn. Blepe `http://www.redhat.com`
- **Debian** Legetai kai GNU/Linux kai idiaitero xarakthristiko einai oti einai ypo thn epiblech ths GNU. Deite: `http://www.debian.org`
- **Hellenic** Ellhnikh dianomh, apo thn Synaptic Ltd "Software Development & Trade". H dianomh ayth exei ejantlh8ei kai einai sxetika palia.
- **OpenLinux** Apo thn Caldera, arketa sonarh dianomh me megalh aphxhsh sthn Amerikh. Deite `http://www.calderasystems.com/products/openlinux`
- **Yggdrasil** To prwto plug-n-play Linux. Deite: `http://www.yggdrasil.com`
- **Suse** H pio megalh se pwlhseis sthn Eyrwph. Yparxei se germanikh, agglikh, italikh, gallikh distribution. Deite: `http://www.suse.de/e` Apo thn ekdosh 6.0 kai meta exei yposthrijh ellhnikwn enswmatwmenh, akoma kai egkatastash sta ellhnika.

Apo tis dianomes aytes prokuptoyn kai ta antistoixa CD:

- Walnut Creek (`http://www.cdrom.com`) Exei to Slackware.
- Redhat (`http://www.redhat.com`) Exei thn omwnymh dianomh. Teleytaia ekdosh h 6.0
- SuSe (`http://www.suse.com`) Exei thn omwnymh dianomh. Teleytaia agglikh ekdosh h 6.3 (Noembrioy 1999)
- Infomagic `http://www.infomagic.com` Exei ta parapanw, thn Debian KAI toys katalogoys toy metalab.unc.edu kai tsx-11.mit.edu. Legetai "Linux Developer's Resource" einai ligo apo ola kai exei 6 CD.

8.8 Bibliopwleia kai dianomeis twn CD

To Linux se CD to briskei kaneis sta ejhs katasthmata:

A8HNA:

- STEP, Akth Moytsopouloy 36, TK18536, Peiraias, 4181239, Exei to Suse Linux (`http://www.step.gr`)
- Papaswthrioy A.E., Stoyrnarh 3, TK10682, A8HNA, 3809821, 3848254 (`http://www.papasotiriou.gr`)
- Papaswthrioy A.E., Kolokwtrwnh 10, Emp. Kentro Kerasies Khfisias, 6231854
- Ekdoseis Kleidari8mos, Stoyrnarh 37, TK10682, A8HNA, 3829629, 3841021, 3300104 (`http://www.klidarithmos.gr`)
- Vertigo EPE, Mpotash 6, TK10682, A8HNA, 3824536, 3806801 (+FAX)

8ESSALONIKH:

- Informatics Services Application, Dwdekanhsoy 61, TK55131, Kalamaria, 031-424512, (`http://www.suse.gr`)
- Malliarhs Paideia, Aristoteloys 9 (`http://www.malliaris.gr`)
- Papaswthrioy A.E., E8n. Amunhs 40, 243660

PATRA:

- Papaswthrioy A.E., Maizwnos 58, TK 26221, 061-624918, 061-624917

H parapanw lista endexomenws den einai plhrhs. Ean gnwrizete kapoia stoixeia poy moy einai agnwsta h anakribh, parakalw enhmerwste me.

9 FAQ

9.1 Pws jekinhse to Linux;

To Linux einai oysiastika mono o pyrhnas toy Leitoyrgikou systhmatos, kai jekinhse to 1990 apo enan finlando foithth ton Linus Torvalds, san omadikh peiramatikh idea ston tote kainourio 386. Ta ypoloipa ta gnwrizete...

9.2 Ti logoys exw gia na egkatasthsw to Linux;

Ean 8elete ena ajiopisto leitoyrgiko susthma, me kalh apodosh, xwris kollhmata kai plh8wra efarmogwn kai den fobaste ena kainourio periballon ergasias, tote to Linux einai gia esas. Mporeite px me ?.000drx na to agorasete se 6 CD, mazi me tis polles efarmoges toy, h na dwsete kati parapanw gia na parete mia eukolh sto sthsimo dianomh mazi me egxeiridio xrhshs.

To Linux einai ena ka8ara 32bit Leitoyrgiko Susthma, me polyepejergastikes (multitasking) dynatothtes. Sthn prajh ayto shmainei, oti mporeite na trexete polles efarmoges taytoxrona, xwris kindyno na "kremasei" o ypologisths. To Linux exei:

- kaluterh ajiopoihsh toy systhmatos apo to DOS, Win 3.x

- kalutero multitasking apo ta Windows 95,
- kaluterh apodosh apo ta Windows NT,
- polles efarmoges se sugkrish me to OS/2.

To Linux ws gnhsio Unix, exei eggenws ylopoihmeno to TCP/IP, to prwtokollo toy Internet. Einai katallhlo gia diktyakes efarmoges, kai mporei na doylecei me ajiopistia ws dromologhths h proxy. Exei POSIX compliance kai yposthrizei TCP/IP & SPX/IPX, SNMP & RIP, NCP, SMB. Ws server einai polu dynato se oles aytes tis periptwseis: file server, printer server, web server, ftp server, news server, mail (pop) server. Mporei na antikatasthsei ena susthma me Windows NT h Novell Netware DIAFANA gia toys clients. To Linux einai synyfasmeno me to GNU project ths Free Software Foundation (FSF). To GNU ekfrazei mia filosofia synergasias, opoy kapoios poy grafei ena programma to dia8etei se oloys aney amoibhs. Apotelesma aytou einai h eleu8erh antigrafh toy, kai oti einai dwrean. Sthn periptwsh twn CD, plhrwnei kaneis mono to kostos toys.

9.3 Pws mporw na ma8w ta basika gia to Linux;

Polu ektenhs analysh, ka8ws kai kala epilegmeno didaktiko yliko, sta agglika, yparxei edw: `http://basiclinux.hypermart.net/basic/index.html\#lessons`.

9.4 Symbatothta;

Kat' arxhn to Linux diabazei ola ta fileystems twn allwn leitoyrgikwn (FAT, VFAT, FAT32, NTFS, HPFS, HFS, ISO9660, Rock-Ridge, Joliet, UFS klp).

- To DOSEMU 8a sas epitrecei na trejete efarmoges toy DOS poy trexoyn se eikonikes mhxanes ypo ton elegxo toy pyrhna (vm86). Doyleuei polu ajiopista kai diati8etai dwrean opws to Linux.
- To WABI 8a sas epitrecei na trejete 16bit efarmoges twn WIN3.11, alla stoixizei 199$
- To WINE kanei thn idia doyleia dwrean, alla oxi toso kala. Teleytaia (1999) deixnei sobara shmadia wrimanshs.
- To Executor mporei na trejei efarmoges gia Macintosh.

Oi pio polloi endiaferontai gia na mporoun na diabazoyn arxeia doc poy proerxontai apo Office kai yparxei gia aytous to StarOffice 5.1, poy diabazei mexri kai Word 97 keimena. Ean apo8hkeuate ta dedomena sas xrhsimopoiwntas anoixta protypa (txt, dbf, html, rtf), 8a breite toylaxiston ena ergaleio gia na doylecete me ayta, ean oxi...

9.5 Ti SOFTWARE yposthrizetai;

Praktika ta panta, arkei na milame gia anoikta kai diadedomena protypa kai prwtokolla: sxedon pote den eiste o prwtos poy exei ena sygkekrimeno problhma kai kapoios allos to exei lusei gia esas.

To metalab einai to kat' ejoxhn shmeio gia na brei kaneis programmata gurw apo to antikeimeno poy ton endiaferei, deite http://metalab.unc.edu/pub/Linux/

To Linux Software Map (LSM) exei olo to yparxon logismiko. Mporeite na kanete kai anazhthsh me lejeis kleidia. `http://www.boutell.com/lsm/`

Epishs polu dhmofileis einai kai oi selides toy Bill Latura: `http://www.xnet.com/\~{}blatura/linapps.shtml`

9.6 Ti einai to compile toy pyrhna;

Sto Linux ton pyrhna mporei kaneis na ton ftiajei o idios, me mia diadikasia poy legetai compile. An kai einai dynaton na doylecei kapoios me enan etoimo, einai kalh idea na ftiajei enan pyrhna prosarmosmeno sto susthma toy, idiaitera ean 8elei ejeidikeymenes dynatothtes. H diadikasia synistatai idiaitera se aytous poy 8eloyn na mplejoyn me ta endotera toy leitoyrgikou systhmatos.

Oi entoles poy xreiazontai gia ena typiko compile einai (ta # einai sxolia):

```
cd /usr/src/linux
make config      # h make menuconfig h make xconfig, exei kai help.
make dep
make clean
make zImage  # meta apo ayto, yparxei o pyrhnas sto /usr/src/linux/arch/i386/boot/zImage
make modules # Ta modules ftiaxnontai prin arxisei h diadikasia egkatastashs
make modules_install # Egkatastash twn modules sto /lib
make install # prosoxh na yparxoyn oi swstes ry8miseis sto /etc/lilo.conf
```

H teleytaia entolh einai ayth poy 8a sthsei ton pyrhna (synh8ws sto /vmlinuz), syndeontas ton me ton boot loader LILO. Ena reboot, 8a balei ton neo pyrhna se xrhsh... (molis brhkate ton monadiko logo poy kanei kaneis reboot me linux).

9.7 Ti einai ayto to SIG11;

To SIG11 einai oysiastika ena sfalma prostasias (Protection Fault). Einai arketa pi8ano na symbei thn wra poy ftiaxnoyme pyrhna kai h aitia einai oti to susthma ekeinh thn wra zorizetai - DIABASTE: Polla SIG11 shmainoyn kako yliko h problhmata symbatothtas me thn mnhmh,ton epejergasth, thn mhtrikh. Gia perissoteres plhrofories, deite: `http://www.bitwizard.nl/sig11/`

9.8 Yparxoyn alla eleu8era Unix;

Sto xwro toy Unix exoyme ta ejhs eleu8erhs xrhshs leitoyrgika:

- Linux
- GNU Hurd
- FreeBSD
- NetBSD
- OpenBSD

Apo ola ayta mono to FreeBSD exei praktikh ajia, einai idiaitera gnwsto gia thn sta8erothta toy kai thn apodosh toy se systhmata ejyphretwn me entonh xrhsh (px ftp.cdrom.com). Einai par' ola ayta pio dusxrhsto apo to Linux, kai den exei tetoia plh8wra logismikou. Teleytaia, trexei ta pio polla programmata toy Linux me ejomoiwsh. Ean 8elete na peiramatisteite me tupoy BSD UNIX, ajizei na asxolh8eite mazi toy.

9.9 Basikh orologia

i18n

I{– 18 letters –}n = Internationalization

e13n

Europeanization

l10n

Localization

ANSI

American National Standards Institute, the US member of ISO

ASCII

American Standard Code of Information Interchange

CP

Code Page

CP850

Code Page 850, the most widely used MS DOS code page

CR

Carriage Return

CTAN server

Comprehensive TeX Archive Network, the world's largest repository for TeX related material. It consists of three sites mirrowing each other: ftp.shsu.edu, ftp.tex.ac.uk, ftp.dante.de. The current configuration, including known mirrows, can be obtained by fingering ctan_us@ftp.shsu.edu

DEC

Digital Equipment Corp.

DIN

Deutsche Industrie Norm (German Industry Norm)

DOS

Disk Operating System

EBCDIC

Extended Binary Coded Decimal Interchange Code —a proprietary IBM character set used on mainframes

ECMA

European Computer Manufacturer's Association

emacs

Editing Macros, a family of popular text editors

Esperanto

A synthetic, universal language developed by Dr. Zamenhof in 1887.

FSF

Free Software Foundation

FTP

File Transmission Protocol

GNU

GNU's not Unix, an FSF project

GPL

General Public License

IBM

International Business Machines Corp.

IP

Internet Protocol

ISO

International Standards Organization

KOI8

???—a popular encoding for Cyrillic on UNIX workstations

LaTeX

A macro package for TeX

MCS

DEC's Multilingual Character Set—the ISO 8859–1 draft standard

MIME

Multi-Purpose Internet Mail Extension

OS

Operating System

POSIX

Portable Operating System Interface (an IEEE UNIX standard)

PS

PostScript, Adobe's printer language

RFC

Request for Comment, an Internet standard

sed

stream editor, a UNIX file manipulation utility

TCP

Transmission Control Protocol

TeX

Donald Knuth's typesetting program

URL

a WWW Uniform Resource Locator

US-ASCII

the US national variant of ISO 646, see ASCII

VMS

Virtual Memory System—DEC's proprietary OS

WWW

World Wide Web

X11

X Window System

10 Pinakes xarakthrwn, character sets

O H/Y gia na parasthsei ta glwssika sumbola xrhsimopoiei 1byte=8bit, dhladh exoyme 2ˆ8=256 diaforetika grammata. O kwdikas ASCII (American Standard Code for Information Interchange) orizei aysthra mono ta prwta 128 sumbola (7bit). Ta alla misa sumbola xrhsimopoioountai gia apeikonish eidikwn symbolwn allwn glwsswn alla kai grafikwn symbolwn. Anti8eta, me alles eyrwpaikes glwsses ta ellhnika einai ej' oloklhroy sta 8bit. O profanhs logos einai ta polla diaforetika sumbola poy exei h ellhnikh glwssa se sxesh me tis ypoloipes.

Pros8etes plhrofories gia ta ellhnika sto Diadiktyo, mporeite na breite sto RFC 1947, "Greek Character Encoding for Electronic Mail Messages". Deite sxetika `http://andrew2.andrew.cmu.edu/rfc/rfc1947.html`

10.1 Typopoihseis twn ellhnikwn

Ta ellhnika yparxoyn se polles diaforetikes typopoihseis. Oi pio synh8ismenes apo aytes, einai ta 737 kai ta 928. Amfotera einai gia monotonika ellhnika. Ta men 737 xrhsimopoiountai apo to DOS, ta de 928 apo ola ta UNIX kai Windows (me mikres parallages). To Linux exei san kuria kwdikoselida ta 928. To oti exoyme gia Ellhnika duo kai pleon protypa, fysika, einai megalo problhma, poy jepernietai me eidikous metatropeis, gia allagh apo to ena set sto allo.

Apo thn `tekmhriwshthsOraclegiatoLinux` kai ta `egxeiridiatoyserver`, mporei kaneis na brei ta diadedomena ellhnika protypa poy xrhsimopoiountai se baseis dedomenwn (ara kai sta pio shmantika systhmata H/Y) kai toys typopoihmenoys (ma pali;) kwdikous toys:

- EL8ISO8859P7, Dhl. to ISO8859-7 gia to UNIX & Internet. Einai gnwsto kai ws 928 & Latin7.
- EL8MSWIN1253, Ta Windows ellhnika
- EL8PC737, Ta DOS ellhnika
- EL8MACGREEK, O Macintosh xrhsimopoiei ELOT-823 (IBM 851).
- EL8MACGREEKS
- EL8PC437S
- EEC8EUROPA3
- EL8EBCDIC875, IBM mainframes greek character set
- EL8DEC, Ayta einai logika ta DEC, VAX/VMS ellhnika. (kaneis palios???)

Epishs, to OS/2 xrhsimopoiei thn kwdikoselida 869 kai 851 gia ta ellhnika.

10.2 737

Ta 737 einai epishs gnwsta kai ws 437G (=437Greek), giati proekycan apo tropopoihsh twn amerikanikwn 437. Ta 737 prwtoemfanisthkan stis ellhnikes EPROM twn MDA kai Hercules kartwn grafikwn twn prwtwn PC, opoy briskontan dhladh sto HARDWARE. Xrhsimopoih8hkan kata koron sto DOS, kai gia ayto ola ta arxeia poy proerxontai apo ekei anamenetai na einai 737. Epeidh ta 737 8ewrountai pleon kataloipo toy DOS, einai kalutera na metatrecete ta arxeia poy einai 737 se 928, bl. 10.5 (). Sto Linux, h kwdikoselida 737 yposthrizetai plhrws mono sthn konsola (text-mode), alla yparxoyn kai merikes grammatoseires gia X-Windows.

10.2.1 Tropopoihsh pyrhna gia yposthrijh 737

Exoyn anafer8ei periptwseis, opoy to ”d” (DELTA mikro) den plhktrologeitai se kapoioys pyrhnes kai ayto symbainei giati sympiptei me to 128+ESC (128+27=155=asc(”d”)). Phgainete sto /usr/src/linux/drivers/char/console.c, kapoy leei:

```
              && (c != 127 || disp_ctrl)
              && (c != 128+27);
allajte se
              && (c != 127 || disp_ctrl)
              /*      && (c != 128+27)*/;
```

kai kanete compile ena neo pyrhna.

10.2.2 737 se X-windows

Ta 737 yposthrizontai se merikes apo tis fixed grammatoseires poy einai sto paketo Grafis: 3.1.1 ().

```
[ah@computer.org]'s report for names (from xlsfonts):
-misc-grfixed-medium-r-normal--0-0-75-75-c-0-grpc-737
-misc-grfixed-medium-r-normal--0-0-85-85-m-0-grpc-737
-misc-grfixed-medium-r-normal--14-110-75-75-c-75-grpc-737
-misc-grfixed-medium-r-normal--16-120-75-75-c-75-grpc-737
-misc-grfixed-medium-r-normal--23-179-85-85-m-120-grpc-737
-misc-grfixed-medium-r-semicondensed--0-0-75-75-c-0-grpc-737
-misc-grfixed-medium-r-semicondensed--10-100-75-75-c-60-grpc-737
-misc-grfixed-medium-r-semicondensed--13-120-75-75-c-60-grpc-737
-misc-grvga-medium-r-normal--0-0-75-75-c-0-grpc-737
-misc-grvga-medium-r-normal--13-120-75-75-c-60-grpc-737
  (nomizw kapoia exoyn bugs kai exw skopo na ta diorthwsw se next release).
```

10.3 928

Ta ellhnika 928 einai h pio sugxronh kai diadedomenh typopoihsh kai ka8ierw8hke arxika apo ton ELOT. Argotera eginan apodekta kai apo ton ISO ws ISO-Latin-8859-7, h apla Latin7, akoma kai h UNICODE yposthrijh ellhnikwn basizetai se ayta. Ta 928 xrhsimopoiountai se oles tis efarmoges twn UNIX, sto Internet kai apoteloun to shmerino protypo kai gia to Linux. To protypo 928 yposthrizetai, kai sthn konsola (text-mode), kai se grafiko periballon (X-Windows).

10.3.1 Windows-1253

H kuria apoklish twn Windows ellhnikwn (Windows-1253) apo thn typopoihsh ELOT 928, einai o xarakthras "A", (A tonoumeno) toy 928 o opoios sta Windows antistoixei sto Paragraph mark. Apo ta Windows-1253 leipoyn epishs h anw teleia, kai ta ellhnika omoiwmatika << kai >>. Epeidh moiraia 8a prepei na apodextoume ton periorismo ayto poy mas 8etoyn ta MS-Windows, kai epeidh arketoi xrhstes xrhsimopoioun wintel platforma ergasias, kalo 8a einai na apofeugetai to < A tonoumeno > kata thn apostolh e-mails, postings, klp. Enallaktika mporeite na xrhsimopoieite to 'A (' = SHIFT+") Paromoia problhmata yparxoyn kai me ta 'E kai 'O. Gia eykolia sas, ayta einai ola ta tonoumena kata 928: AEHIOUW.

10.4 Unicode

Ta UNICODE (ISO 10646) einai 16bit (dhl. 65536 syndiasmoi) kai perilambanoyn polles glwsses, mazi me ta nea ellhnika, poy exoyn offset #370 kai ta arxaia ellhnika me offset #1F00. Yposthrizontai apo ta nea mexri ta arxaia (polytonika) ellhnika kai Grammikh B! To Linux yposthrizei eswterika ta UNICODE, alla akoma h xrhsh toys den einai diadedomenh, giati ejartatai kai apo thn yio8ethsh toys apo tis efarmoges. Gia perissotera deite: `http://linuxdoc.org/HOWTO/Unicode-HOWTO.html`

```
====================================================================
Vasilis Vasaitis <vas@hal.csd.auth.gr>:
 An kai den exw asxolh8ei ektenws me to antikeimeno, mporw na syneisferw
kapoia gnwsh poy exw epi toy 8ematos. Loipon, exoyme kai leme:

  Kapoia stigmh, se anupopto xrono, eixa katebasei ena Unicode fixed font
gia ta X windows. Epeidh duskola sbhnw ayta poy katebazw, to brhka na
ka8etai akoma sto disko moy. H grammatoseira ayth den periexei to plhres
Unicode, afou ayto apoteleitai apo perissoteroys apo 38000 xarakthres, apo
toys opoioys oi perissoteroi einai Kinezika/Iapwnika/Koreatika, poy etsi ki
alliws sto 6x13 toy fixed den mpainoyn. Omws me peripoy 2800 xarakthres (h
ekdosh poy exw egw toylaxiston) kaluptei plhrws thn latinikh, ellhnikh,
kyrillikh, armenikh, gewrgianh kai ebraikh grafh, syn kapoia texnika kai
ma8hmatika sumbola. H grammatoseira ayth mporei na xrhsimopoih8ei ws protypo
apo opoiondhpote endiaferetai na sxediasei grammatoseires me pollous
xarakthres· sxetika me pio praktikes efarmoges, deite parakatw. H selida toy
tupoy poy thn eftiaje, an einai akoma h idia, einai:

  http://www.cl.cam.ac.uk/~mgk25/

        Yposthrijh sthn konsola:

  H konsola yposthrizei Unicode edw kai kati aiwnes, mesw bebaia toy UTF8
(gia osoys den jeroyn, to UTF8 einai mia anaparastash toy UniCode me
metablhto mege8os, to opoio gia gia toys 128 prwtoys xarakthres exei thn
idia morfh me to ASCII). To 8ema einai oti etsi ki alliws h yposthrijh ths
VGA gia xarakthres poy emfanizontai sygxronws einai polu periorismenh (256,
512 xwris to anabosbhma).

        Yposthrijh sta X:

  H grammatoseira poy anaferw parapanw doyleuei mia xara, kai h teleytaia
```

```
fora poy th dokimasa htan prin polu kairo. Epishs, tyxainei na exw enan X
server me enswmatwmenh yposthrijh TrueType fonts (den fortwnw font server),
kai blepw oti kai ta TrueType doyleuoyn mia xara. Gia osoys den jeroyn, ta
XFree86 4.0 8a erxontai me enswmatwmenh yposthrijh TrueType. H Microsoft
(den exw apo allh etaireia) xrhsimopoiei stis grammatoseires ths to Windows
Glyph List 4 (WGL4), to opoio einai yposunolo toy ISO 10646-1 (ligo polu
ayto poy exei h grammatoseira poy periegraca arxika).

        Efarmoges:

  Edw katarreoyn ola. Ayth th stigmh yparxoyn kana dyo programmata poy
kanoyn metatroph apo/pros UTF8, to yudit kai to Netscape poy mazeuoyn apo
edw ki apo ekei gia na broyn arketa sumbola toy Unicode, kai apo ekei kai
pera to xaos. Pantws kalon 8a einai na arxisei prospa8eia gia ta fonts, kai
fantazomai oti oi efarmoges 8a koitajoyn na akoloy8hsoyn.

---------------

Report apo Panagioti Vrioni:

Gnwrizw oti o Giannis Gyftomitros <yang@hellug.gr> exei hdh arxisei
na asxoleitai me thn dunatothta dhmiourgias Unicode grammatoseirwn
pou na periexoun kai ta ellhhnika (Project Grafis, bl. GRArial k.l.),
isws na exei proxwrhsei kai parapera...

Apo thn ekdosh 6.0, o XFS pou periexetai sto Red Hat exei patch wste
na mporei na emfanisei Trye Type Fonts. Bl. sxetiko "White Paper" stho
"support" ths http://www.redhat.com/ . An balete Unicode TTFonts
(px. ths M$) auta paizoun, me thn ennoia oti fainontai dia8esima
ta fonts me xilia-duo diaforetika encodings. Den kserw omws an paizoun
kai san unicode grammatoseira, px. gia na dei kapoios ena keimeno
me ellhnika, agglika kai kinezika tautoxrona sto Netscape.

======================================================================
```

10.4.1 Unicode Links

Yparxei mia fixed grammatoseira gia Xwindows, deite sxetika: `http://www.cl.cam.ac.uk/\~{}mgk25/ucs-fonts.html`

Yparxei kai enas text editor gia Unicode, me to onoma Yudit, `ftp://metalab.unc.edu/pub/Linux/apps/editors/X/yudit-1.1.tar.gz`

To protypo UTF-8 einai pleon standard sto Internet, deite to sxetiko RFC: `http://andrew2.andrew.cmu.edu/rfc/rfc2279.html`

Perissotera gia ta nea ellhnika sta Unicode edw: `http://charts.unicode.org/Unicode.charts/normal/U0370.html`

10.5 Metatropeis ellhnikwn

10.5.1 gr2gr

O Aggelos Xaritshs <ah@computer.org> exei gracei ton metatropea ayton: `ftp://ftp.hri.org/pub/greek/programs/gr2gr.prl` Trexei me perl (5 h 4). Synepws doyleuei se opoio leitoyrgiko susthma exei egkatasta8ei perl (unix, dos, win32, os2, mac, vms ...).

Yposthrizei polla diaforetika ellhnika, opws:

- 928: ELOT 928
- 437: IBM 437 (*default* input)
- lat: latin greek form, aka greeklish (*default* output)
- 437b: IBM 437b
- win: Windows
- mac: Macintosh
- 851: 851
- 869: 869
- quad: quadtek
- sym: standard Symbol font codes (English garbled)
- wgr: WinGreek (Windows shareware prg) encoding
- troff: troff symbol font escape sequences, no diacritics (dialytika)
- kdtex: Dryllerakis TeX (only conversions _to_ kdtex work)
- ibytex: ibygrk TeX (only conversions _to_ ibygrk work)

10.5.2 grfilter

Sto Institouto Texnologias Ypologistwn yparxei to grfilter: `ftp://ftp.cti.gr/pub/src/grfilter.tar`

10.5.3 greek2lat

Sto directory `ftp://corfu.forthnet.gr/pub/greek2lat` yparxei enas metatropeas apo 928 se greeklish, katallhlos kai gia WEB sites.

10.5.4 trans120.tar.gz

O Kwstas Kwsths, < `kosta@kostis.net` > exei gracei epishs ayton ton metatropea, poy yposthrizei kai polla ellhnika, alla kai alles glwsses: `http://www.kostis.net/freeware/trans120.tar.gz`

10.5.5 gkconv

Yparxei kai ena programma toy Giwrgoy Sphliwth, metatrepei 437, Win95, X win. H dieu8ynsh toy agnoeitai.

10.5.6 recode

Ayto einai ena programmataki genikhs xrhshs apo to GNU project, to opoio yposthrizei metatropeis gia polles diaforetikes glwsses (kai ellhnika). Isws 8a eprepe ola ta ypoloipa programmata kapoia stigmh na enswmatw8oun se ayto. Deite sthn dieu8ynsh `http://www.delorie.com/gnu/docs/recode/recode\_toc.html`

10.6 Tupoi arxeiwn kai metatroph toys

.txt, .doc

Analoga me thn periptwsh, blepe 10.5 ()

.dbf

Synh8ws einai 737, 8eloyn prosoxh sthn metatroph, afhste to gia kana guru.

.diz,

Synh8ws einai 737, blepe 10.5 ()

.html,

Prepei na einai 928, kai fainontai kanonika.

.mov, .avi

An exei ypotitloys sta ellhnika, 8a einai OK :-)

.exe, .com

petajte ta

10.7 Ti yparxei akoma sto Internet sxetika me ellhnika;

Xrhsimoi sundesmoi:

- Ellhniko Fortune: `http://kronos.eng.auth.gr/\~{}arvan/fortunes/`
- Virgo help on greek: `http://www.virgo.gr/baza/greek.html`
- Hellenic Resources Institute (HRI): `http://www.hri.org`
- Font pinakes sto HRI: `http://www.hri.org/fonts/unix/pinakec.html`
- fonts@argeas: `ftp://argeas.hellug.gr/pub/unix/linux/GREEK/fonts/`
- fonts@HRI: `ftp://ftp.hri.org/pub/greek/fonts/x-win/`
- Selida toy Panagiwth Brywnh gia grammatoseires: `http://users.hol.gr/\~{}vrypan/cactus/grfonts-1.html`
- Unix Greek Language Software (old): `http://www.cs.columbia.edu/\~{}akonstan/en/greek/software.html`
- Unicode Organization: `http://www.unicode.org`
- I18N FAQ: `http://www.vlsivie.tuwien.ac.at/mike/i18n.html`
- ISO fonts: `ftp://ftp.vlsivie.tuwien.ac.at/pub/8bit/ISO-fonts`

- International fonts: `ftp://ftp.vlsivie.tuwien.ac.at/pub/8bit/i18n-fonts`
- Using 8 bit characters: `ftp://ftp.ulg.ac.be/pub/docs/iso8859/`
- ISO-8859 sets: `http://wwwwbs.cs.tu-berlin.de/\~{}czyborra/charsets/`
- Much charactersets info (kermit?): `ftp://kermit.columbia.edu/kermit/charsets/`
- `http://www.ora.com/homepages/comp.fonts/`

Yaxte na breite oti xreiazeste me ayto to search engine: `http://www.google.org`

11 TODO

To kefalaio ayto periexei diafores atajinomhtes plhrofories eite giati den einai epibebaiwmenes eite giati den einai akoma safes pws 8a topo8eth8oun sthn domh toy basikou HOWTO. Ean mporeite, analabete ena sygkekrimeno 8ema, breite thn lush toy, katagracete thn kai steilte thn.

11.1 sgmlutils

To sgml2html htan ok. A na po oti ekana mia allagh sthn consola gia ta ellhnika (to paketo me to chcp enos apo thn patra) kai ka8e fora pou trexo thn perl mou bgazei: perl: warning: Setting locale failed. perl: warning: Please check that your locale settings: LC_ALL = (unset), LC_CTYPE = "iso_8859_7", LANG = (unset) are supported and installed on your system. perl: warning: Falling back to the standard locale ("C"). ——— Prepei na dwseis sgml2txt –charset=latin. Panayotis.

11.2 groff

Deite sxetika to ar8ro apo ton Giwrgo Keramida sto magaz: `http://magaz.hellug.gr/09/03\_groff.html`

```
=====================================================================
[...]
H alln lusn (pio hackeradikn) eivai va kaveis to GROFF sou (to basiko
ergaleio pou xrnsimopoieitai apo to sgml2txt) va katalabaivei OLOUS
tous 8-bit characters, pairvovtas to SHAR pou stelvw parakatw kai
kavovtas oti leei to README tou.
Giorgos.

--- cut here : shell archive follows ---
#!/bin/sh
[...]
exit 0
=====================================================================

The GNU replacement for nroff, groff, has an option to generate ISO
8859-1 coded output, instead of plain ASCII.  Thus, you can preview
nroff documents with correctly displayed accented characters.  Invoke
groff with the "groff -Tlatin1" option to achieve this.

Groff is free software. It is available from URL
```

```
<htmlurl url="ftp://prep.ai.mit.edu/pub/gnu" name="ftp://prep.ai.mit.edu/pub/gnu">
and many other GNU archives around the world.
```

11.3 KDE

O Panagiwths Brywnhs <vrypan@hellug.gr> exei jekinhsei thn metaglwttish toy KDE, enos grafikou periballontos gia Linux/Unix. Deite sxetika: http://users.hol.gr/\~{}vrypan/cactus/kde.html, H ergasia ayth einai polu shmantikh ka8ws ola deixnoyn oti to KDE 8a epikrathsei gia ena megalo xroniko diasthma, syndiazontas eykolies poy parexontai se alla grafika periballonta, opws to drag'n'drop, polla xrhsima utilities me koina xarakthristika (copy-paste), eykolia xeirismou klp.

11.4 vim,viH

```
Den doyleyoyn oloi oi vi 8-bit, oyte deixnoyn ta ellhnika svsta:
Yparxei enas (toylaxisto) vi clone poy legetai vim (vi improved)

        http://www.math.fu-berlin.de/~guckes/vim/
        ftp://ftp.oce.nl/pub/misc/vim

Aytos ektos apo alla kaloydia, einai 8-bit clean kai exei kai ena
language feature, to opoio energopoieitai dior8vnontas to arxeio
        src/feature.h

Ekei poy leei:
        #if 0
        # define HAVE_LANGMAP
        #endif
to kanoyme bebaia
        #if 1
        # define HAVE_LANGMAP
        #endif

Meta bazoyme sto ~/.vimrc to parakatv:
----- .vimrc CUT -----
version 4.6
set langmap=AAAAA?CEEEEIIII?NOOOOO?OUaaaaa?ceeeeiiii?nooooo?ou;ABGDEZHUIKLMNJOPRWSTYFXCVabgdezhuiklmnjoprwstyfxcv
----- END OF .vimrc CUT-----
kai meta oi entoles poy dinoyme sto vi mporei na einai kai me ellhnika grammata.
(kserete ti spasimo einai na exeis to plhktrologio gyrismeno sta ellhnika
kai na mhn dexetai entoles).
```

11.5 nn

(???) == Add the line ———— set data-bits 8 ———— to your /.nn/init (or the global configuration file) in order for nn to be able to process 8 bit characters ==

11.6 tin

(???)

11.7 mtools

```
        Deixnoyn, ypoti8etai, ellhnikoys xarakthres an baloyme to
parakatv sto ~/.mtoolsrc h sto /etc/mtools.conf:

        country="30,737,/dosfs/c/win/command/country.sys"

Mallon 8a yparxei mperdema me ta ellhnika (737 h 928?)
Den to exv dokimasei.
```

11.8 jove

```
to new JOVE 4.16 if compiled with CTYPE enabled ( -DUSE_CTYPE
-UNO_SETLOCALE) kanei mia xara ellhnika. Prepei omvs na exeis
swsto 8859-7 locale ellhnikvn sto systhma
Mexri kai svsto Upper kai lower casing kanei ! dokimaste to
[From: Angelos Karageorgiou <angelos@incredible.com>]
```

11.9 pcal

```
{
Ftiaxnei Postscript calendars se 7 diaforetikes glwsses. To
internationalisation toy pcal egine apo ton A.Haritsis
 <<htmlurl url="mailto:ah@computer.org" name="ah@computer.org">>
kai erxetai me sxedon plhres ellhniko eortologio (me kinhtes kai
akintes eortes aytomata topothetoymenes).
Ta hmerologia poy paragontai einai highly customisable (mporei kaneis
eykola na balei proswpikes hmeromhnies).
Yparxei kai ena WWW front-end sto:
http://www-asds.doc.ic.ac.uk/cgi-bin/grcal
Ta latest sources toy pcal einai sto:
http://uptown.turnpike.net/~rogers/
}
```

11.10 kermit

(???) ==
kermit : This is as close as I can get, but not completely satisfying yet: Put the following in your /.kermrc file

```
set terminal bytesize 8
set command bytesize 8
set file bytesize 8
set language danish
set file character-set latin1-iso
```

```
set transfer character-set latin1-iso
set terminal character-set latin1-iso
```

I think there are more variables to set, but they are hiding. You would have to modify these settings if the remote system is DOS or OS/2 based. ==

11.11 SHMEIWSEIS

```
{tty -s}
------------
       "language"_"country"."character_encoding"
        el_GR.8859-7

It looks as if "language" is the two-letter code for the language from
ISO 639, and "country" is the two-letter code for the country from ISO
3166, but I don't know of any standard specifying "character_encoding".
------------
```

Opoios eftase ws edw sigoyra 8a paei polu mprosta...