

SIXTH FRAMEWORK PROGRAMME
PRIORITY 2
INFORMATION SOCIETY TECHNOLOGIES



**SIXTH FRAMEWORK
PROGRAMME**

FLOSSWORLD

**Free/Libre and Open Source Software: Worldwide
Impact Study**



Track 2 Study Report - Argentina

(Referred to as D22b in the work packages description in the proposal)

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Chapter 1

Executive Summary

This report shows the main results of the analysis performed, in the context of the FLOSSWorld project, of some quantitative aspects of libre (free, open source) software in Argentina. The sources of the analysis have been an exhaustive data retrieval of several facts related to libre software in that country (such as a list of Linux user groups, magazines focused on libre software, etc.) and a detailed, quantitative data mining of several sites hosting libre software development (forges).

Besides SourceForge (the largest forge in the world, for which the Argentinian participation has been estimated), this study has analysed one Argentinian forge. LugFi is the only local forge in Argentina that could be identified. It hosts more than 155 registered users and more than 44 registered projects.

Considering the worldwide development community, SourceForge is the most important component of the infrastructure used by Argentinian developers. More than 5439 registered SourceForge users and 849 registered projects were identified as Argentinian.

In the LugFi forge there are 15 projects from which we have gathered relevant data. The projects that have a larger number of source code lines are *arrakis*, *dapplet* and *powertrans*. It is possible to find 8 different programming languages in LugFi Forge, being “ANSI C” the most popular.

Generally speaking, mailing lists are not the main channel of communication used by Argentinian developers. In total, there are 6 mailing lists and all of them have been found in the LugFi forge.

Looking at the use of Source Code Management systems, some remarkable data shows up. Only a few of the projects which the forge is hosting use the Source Code Management tools provided, in this case CVS. From the 44 projects just 34 of them have created a CVS tree, and only 14 use this CVS for development regularly.

Regarding to libre software community, around fifty seven LUGs have been found (data provided by Argentinian partners) and most popular language is Spanish. Most of these LUGs distribute their contents locally.

The study of the authorship of the source code of the projects shows that most of the projects appear to be developed by individual authors. We did not find evident trace of code from enterprises, universities or organisations.

Chapter 2

Introduction

Within the context of the FLOSSWorld project, this report is devoted to the quantitative study of libre (free, open source) software development in Argentina. The information presented here is based on public data found in the repositories of libre software projects hosted in the analysed area, in SourceForge (the largest hosting site for libre software projects) and in a survey completed with the help of the partners in FLOSSWorld.

The data found in repositories (usually identified by the local partners in the project) has been downloaded, stored in a database, and later carefully mined and analysed (using a semi-automatic process that has been complemented by human validation). Most of the data used was obtained from source code, source code management systems and mailing list archives. In addition to repositories in the region, SourceForge has also been analysed, as the largest hosting site, worldwide, for libre software projects. The details of the methodology used are specified in a separate document, also produced by the FLOSSWorld project, the “Methodology report”.

In the following chapters, the main results produced by this methodology are shown. Before that, in this chapter, some details about the methodology itself are discussed.

2.1 Details of the considered region

Geographic area. Argentina¹ is a country in Southern South America. It ranks second in land area in South America after Brasil, and eighth in the world. The country is formally called the Argentine Republic (Spanish: República Argentina). For many legal purposes, Nación Argentina (Argentine Nation) is used. It has an estimated population of 38,747,000 people and its GDP is estimated in \$ 671.508 billion (\$17,062 per capita)

Languages. Spanish is the official language in Argentina.

Map. Figure 2.1 shows the location of Argentina in the world.



Figure 2.1: Argentina World Map

¹<http://en.wikipedia.org/wiki/Argentina>

Time zone. Argentina's time zone² is UTC -3:00. This information is very relevant for this study; Argentina has an unique time zone for the country. Hence using the timezone configured in mail clients and other similar information sources to identify Argentinian developers is a fairly good method.

Internet top level domain. Argentinian TLD³ (Domain Name System Top Level Domain, which is *.ar*) is an important data to recover information from Argentinian email addresses; if someone has an Argentinian TLD, we will suppose she is an Argentinian user or developer.

The FLOSSWorld project has two partners in Argentina: USUARIA⁴ and Fundación Via Libre⁵, who helped very much in the whole process. Local partners have provided information related to forges, LUGs and other important aspects of libre software in Argentina.

To study the libre software phenomenon in Argentina, we carried out a set of activities that consisted of:

1. A survey⁶ in collaboration with partners: Argentinian partners collaborated with us in order to obtain different data sources for the study⁷. Table 2.1 summarises the number of communities, developers, LUGs and media that have been identified by the local partners. For more information access Section 4 (Appendix A) where this data is shown in detail.

Communities	Developers	Lugs	Media	Platforms
7	126	57	0	1

Table 2.1: Data provided by Argentinian partners

2. SourceForge analysis⁸: SourceForge is a global forge where numerous developers work in FLOSS projects. It provides different tools to developers. The SourceForge platform gives support for these tools so that developers do not have to worry about their maintenance. These tools are version control systems, mailing lists and forums, web pages, bug tracking systems and others such as publicity systems on the main page. Data can be obtained from these data sources and can be processed by different tools.
3. Global mailing list: Global mailing lists refers to projects such as GNOME or Apache, where the public is not locally constrained. Lots of developers from many different countries use these global mailing lists; our aim in this report is to find out how many of these developers are Argentinians⁹.
4. Spider¹⁰: The spider is a tool that scans forges given the main page URL as input. It outputs information related to where the Subversion or CVS repositories, mailing lists archives can be found. If there is more than one, it will provide different URLs for each one.

2.2 Summary of results

The Argentinian FLOSSWorld partners have identified a forge that could be considered as an Argentinian local forge. This forge has been spidered in order to identify the projects it contains. Table 2.3 lists a

²Methodology report - Chapter Methodology - Section Global forge's analysis

³Methodology report - Chapter Methodology - Section Global forge's analysis

⁴<http://www.usuaria.org.ar/>

⁵<http://www.vialibre.org.ar/>

⁶Methodology report - Chapter Methodology - Section Survey

⁷Methodology - Chapter Data Sources

⁸Methodology report - Chapter Methodology - Section Global forge's analysis

⁹Methodology Report - Chapter Tools - Section MailingListStats

¹⁰Methodology report - Chapter Tools - Section Forge Spider

relation of the number of projects and users registered in each of the forges. The world's most popular forge, SourceForge, has been added to the table as many Argentinian developers and Argentinian-driven projects have been found there. The number of registered users at SourceForge is actually the estimation of Argentinian developers identified as such in SourceForge¹¹. The 849 projects in SourceForge that are Argentinian-driven have a majority (i.e. more than 50%) of Argentinian developers in their teams.

Forge	Forge name
http://gforge.lug.fi.uba.ar/	LugFi

Table 2.2: Argentinian forges

Forge	Registered Users	Projects
SourceForge	5439	849
LugFi	155	44

Table 2.3: Registered users and projects in Argentinian forges (April 2007). SourceForge has been included for completeness (data June, 2006).

It is important to point out that not all registered users are active developers in the forges. Many of them could register and never join a development project, for instance. Projects, as well, may not make use of all development-related tools offered by the forges (and therefore, will not offer data in several kinds of repositories). This fact is shown in detail in the summary table 2.4, where the number of SCM (CVS/SVN) repositories, committers, commits, mailing lists, software releases and size of the software is given.

Forge	SCM repos	Committers	Commits	MailingLists	Releases	SLOC
LugFi	16/36	16	4,620	6	15/17	63,349
SourceForge	107	132	38,481	ND	ND	ND

Table 2.4: Information sources that could be extracted from Argentinian forges (April-May 2007).

The next section describes the set of difficulties arisen during the data retrieval process. These difficulties explain the *ND* (No-Data) value that appears in some cells of the table 2.4.

In the results shown in table 2.4 the field *SCM repositories* (Source Code Management repositories) presents the number of non empty repositories and the number of total repositories found (including both empty and non empty repositories¹²). Field *Releases* shows the number of software releases which could be analysed and the number of total software releases found. For SourceForge the results presented are the number of non empty SCM repositories.

Figure 2.2 shows the number of SCM repositories, mailing lists and software releases identified and analysed. Also, figure 2.3 and figure 2.4 show number of detected committers and commits respectively.

¹¹Methodology report - Chapter Methodology - Section Global forge's analysis

¹²Empty repository: There is a valid SMC account for this project, however no commit has ever been made

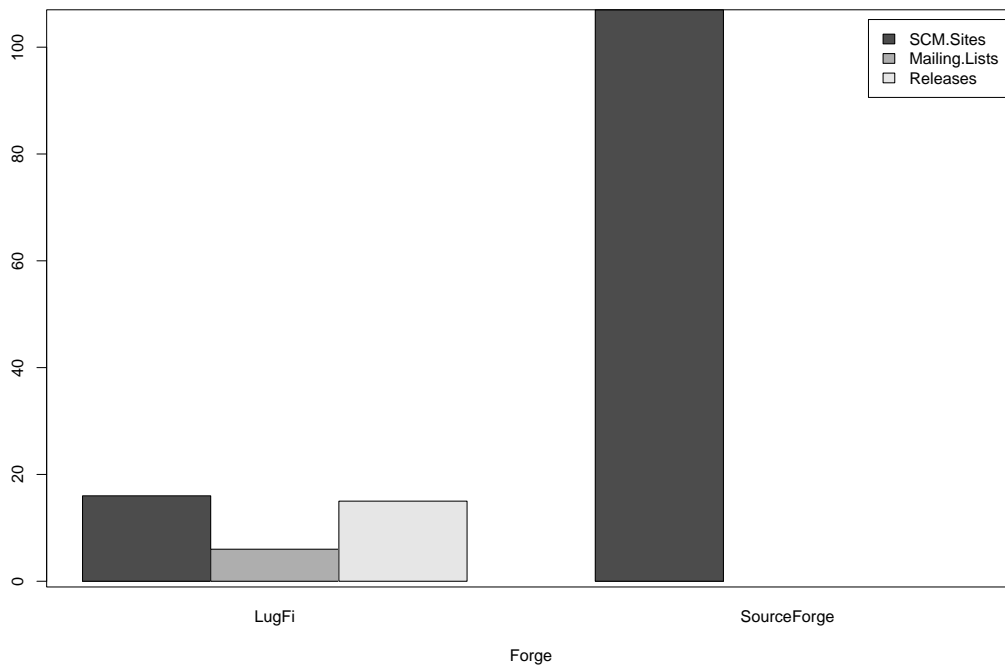


Figure 2.2: SCM repositories, mailing lists and software releases found in forges

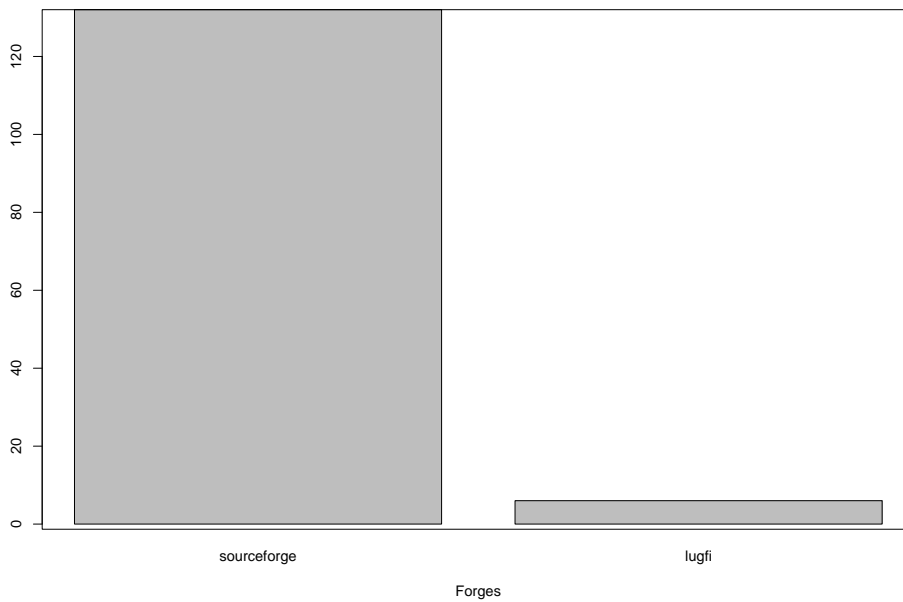


Figure 2.3: Committers per forge

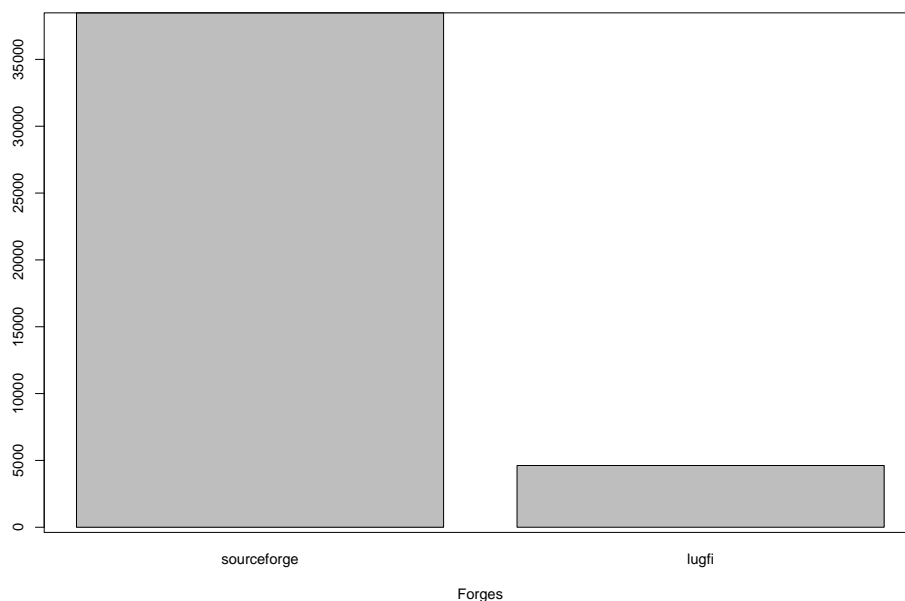


Figure 2.4: Commits per forge

2.3 Problems and constraints found

The data retrieval process presented two main problems:

1. Links to version control systems: Argentinian partners provided some links to projects, but in some cases this was not enough to find links to the matching software repositories¹³. Thus we spent some time looking for specific links we needed. After introducing some extra procedures, the spidering tool was able to find extra information.
2. Empty software repositories: Some projects which did have a CVS or SVN repository, did not store any sources code in them. In this cases, some manual research and tests helped to clarify that repositories where actually empty.

2.4 Methodology details

This section presents a brief description of the different tools used in the data retrieval process. Two forges have been analyzed, SourceForge and gforge.lug.fi.uba.ar (LugFi with 17 projects). This is why data comes from several different sources. Analysis was carried out on February of 2007 and the following tools were used:

1. CVSanaly¹⁴: In the case of Argentina, CVSanaly was used to retrieve data from LugFi and SourceForge repositories.
2. MailingListStats¹⁵: It was run on LugFi mailing lists without problems.

¹³CVS or SVN

¹⁴Methodology report reference - Chapter Tools - Section CVSanaly

¹⁵Methodology report reference - Chapter Tools - Section Mailing List Stats

3. Pyternity¹⁶: It was run on the last software release of each project in LugFi.
4. SLOCCCount¹⁷: It was run on the last software release of each project in LugFi.
5. Spider¹⁸: It was run on LugFi URL and it detected a list of URLs which referenced to Mailing List's URLs, repositories URLs and projects releases.

¹⁶Methodology report reference - Chapter Tools - Section PyTernity

¹⁷Methodology report reference - Chapter Tools - Section SLOCCCount

¹⁸Methodology report reference - Chapter Tools - Section SLOCCCount

Chapter 3

Results

Argentinian partners collaborated with us providing different sources of useful data for the report¹. For more information access the appendixes, where this data is detached.

There is a summary in table 3.1.

Region	Communities	Developers	Lugs	Projects	Platforms
Argentina	7	126	57	2	1

Table 3.1: Data collected by Argentinian partners

Where *Communities* means group of users interested in libre software, *LUGs* are Official Linux User Groups (with a physical address) and *Platforms* are web sites which provide any kind of support to the libre software world, such as forges. Also, in figure 3.1 there is a comparison of the information obtained from all the countries studied in FLOSSWorld.

¹Methodology report - Chapter Data Sources - Section Primary Data Sources

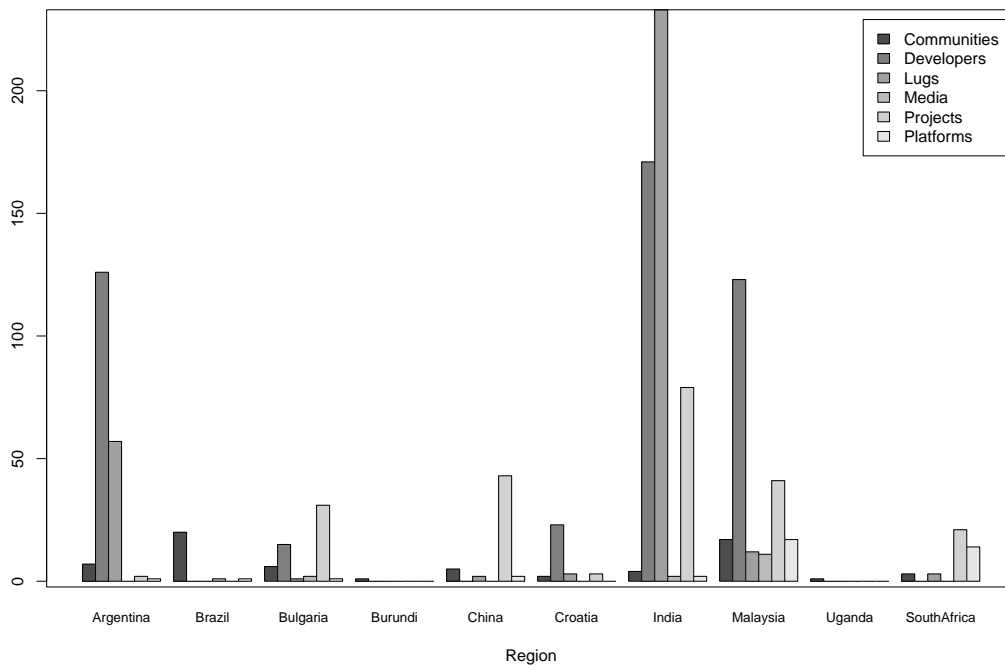


Figure 3.1: General information obtained from surveys (comparison among countries)

Table 3.2 shows the relation between LUGs and their mediatic expansion:

National	Regional	Local	Unknown
N/A	1	28	18

Table 3.2: Argentinian LUGs data

Partners (and the spider²) have helped to get some crucial information about forges of Argentina.

LugFi³ is the only one forge found in Argentina. It has around 44 projects and 155 registered users. Although some of them do not have CVS/SVN repository or project releases. In the figure 3.2 we can find the difference between the Argentinian projects in SourceForge and the local forge LugFi.

²Methodology Report - Chapter Tools - Section Forge Spider

³<http://gforge.lug.fi.uba.ar/>

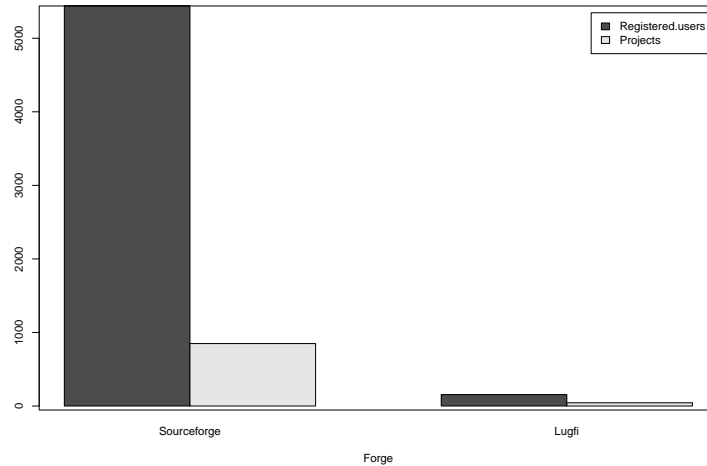


Figure 3.2: Information of users and projects

3.1 SCM information

This kind of information was retrieved using the spider⁴ and CVSanaly⁵ to make the process as automated as possible.

44 projects have been found from which 36 of them have the created an SMC. But only 14 (out of these 36) use it to develop software for the project. 18 developers are actively involved into this 14 projects. By active we mean making changes in the source code and sending commits to the cvs platform. All the commits done yet sum up to the total amount of 4620, done for all of the projects. In the next tables we can see some relationships of this parameters compared from different points of view.

In table 3.3 is possible to see a relation about the top 5 committers who collaborate in the project and how many commits they have.

Project	Committers	Commits
arrakis	gazer	1047
gemsd	dessaya	442
hooks	groucho	427
gfilter	lucas	329
arrakis	marga	316

Table 3.3: Relation Committers-Commits

⁴Methodology report reference - Chapter Tools - Section Forge Spider

⁵Methodology report reference - Chapter Tools - Section CVSanaly

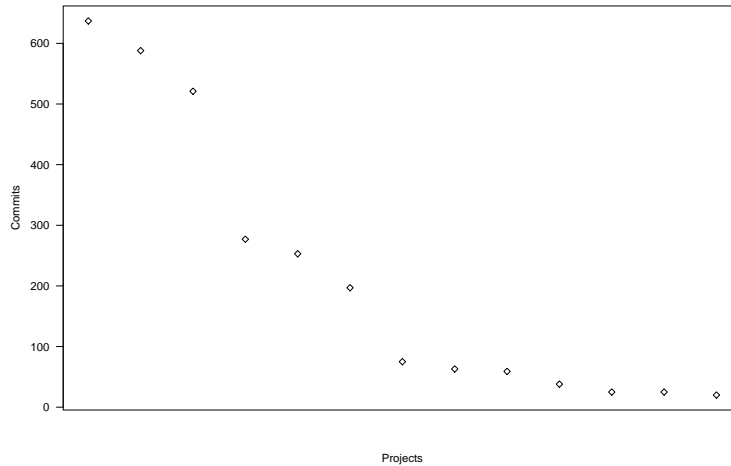


Figure 3.3: Distribution of commits per project in LugFi forge

Table 3.4 shows the top 10 relationship between projects and the number of committers that participate in them.

Project	Num Committers
gemsd	6
arrakis	5
hooks	5
gfilter	4
planifi	3
gxswitch	3
freetruco	3
dapplet	2
aizeleza	1
ixion	1

Table 3.4: Relation Project-NumCommitters

Finally, the table 3.5 shows the top projects with the most commits done and the number of committers each one has. It is noticeable that the project with more committers is no the project with more commits and that there is one project (aizeleza) that with only one commiter has more commits than others with more developers.

Project name	Number of committers	number of commits
arrakis	5	1842
hooks	5	637
gemsd	6	588
gfilter	4	521
dapplet	2	277
aizeleza	1	253
planifi	3	197

Table 3.5: Relationship project name, number of committers and number of commits done

This bar chart (figure 3.4) shows the difference between the use of SourceForge and LugFi by the Argentinian developers.

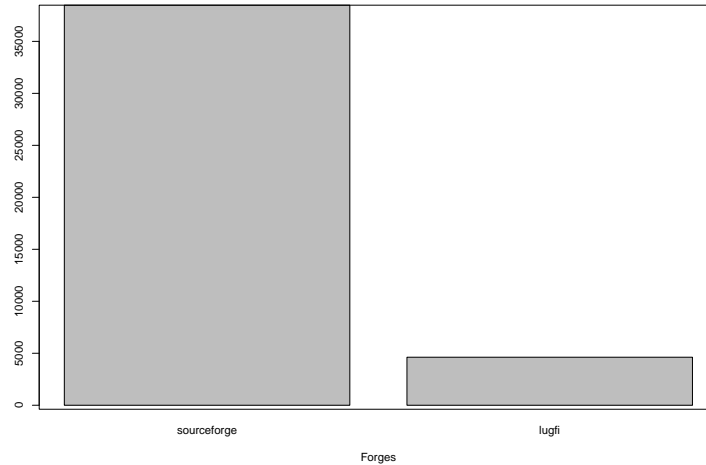


Figure 3.4: Information of commits done in the CVS

3.2 Source code information

The data for the analysis of the source code was obtained by downloading releases of software and then running SLOCCount⁶ on them. This whole process was automatic and carried out by our spider software⁷.

In the LugFi forge there are 15 projects in which SLOCCount has gathered relevant data. This data has been retrieved from the latest releases of each project. Other data, obtained using SLOCCount, is the average of developers per project and the effort of each one per year.

Table 3.6 shows the top 5 of projects with the highest developers/year effort. The figure 3.5 helps us to see the difference between this projects. More info about SLOCCount and the detailed results can be found in the appendixes section.

project name	line number	effort	schedule	avg num developers	cost of develop
arrakis	23,556	5.52 (66.21)	1.02 (12.30)	5.38	\$ 745,329
dapplet	10,538	2.37 (28.45)	0.74 (8.92)	3.19	\$ 320,286
powertrans	10,042	2.25 (27.05)	0.73 (8.75)	3.09	\$ 304,476
aizeleza	5,107	1.11 (13.30)	0.56 (6.68)	1.99	\$ 149,698
chamame	4,226	0.91 (10.90)	0.52 (6.20)	1.76	\$ 122,707

Table 3.6: Top projects with more code lines

⁶Methodology Report - Chapter Tools - Section SLOCCount

⁷Methodology Report - Chapter Tools - Forge Spider

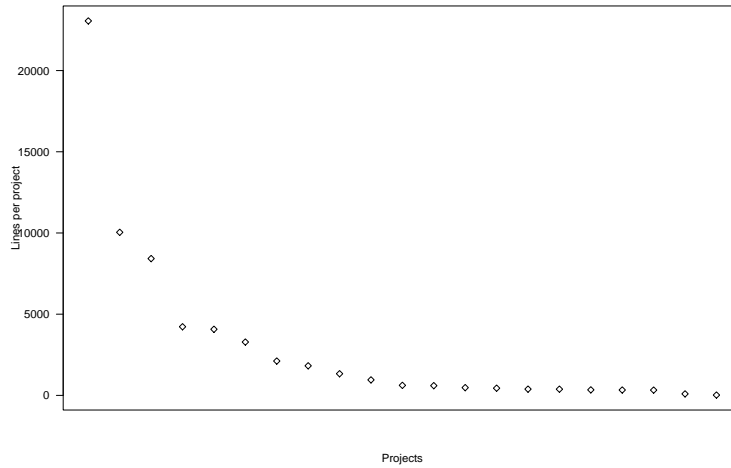


Figure 3.5: Information of lines in projects in LugFi

About the programming languages used to develop in LugFi forge, it is possible to find 8 different ones being “ANSI C” the most popular. the relation is shown in the table 3.7 an in the figure 3.6.

Programming language	N. of detected lines	Percentage
ansic	25957	43.5389
c++	13804	23.1541
sh	10245	17.1844
php	8382	14.0600
perl	419	0.7028
awk	386	0.6474
python	332	0.5569
sed	93	0.1560

Table 3.7: General Language results

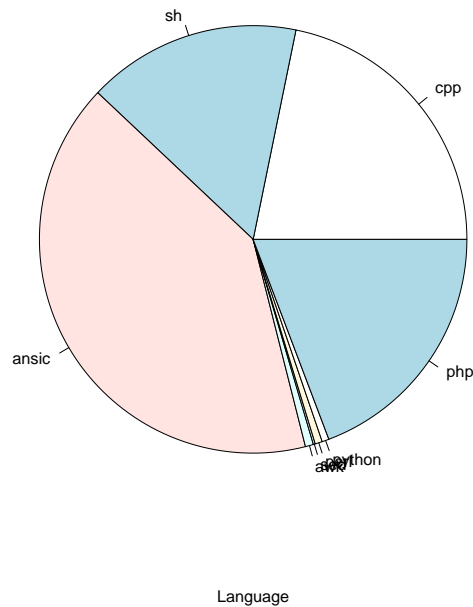


Figure 3.6: Information of languages used in the develop of projects

3.3 Mailing list information

This kind of information has been retrieved using the Spider tool, combined with MailingListStat⁸ to make the process as automatic as possible.

There is a total of 6 mailing lists (table 3.8), and all of them have been analyzed and found in the LugFi forge. But there are a lot of auto-generated emails (or generated by the mailing list daemon) and also empty lists (table 3.10).

Local Forge	N. Mailing Lists	N. Posters	N. Messages
http://gforge.lug.fi.uba.ar/	6	66	871

Table 3.8: LugFi forge data

Project	Mailing List	Posters	Messages
arrakis	arrakis-devel	51	763
freeprince	freeprince-devel	8	23
hooks	hooks-devel	7	85

Table 3.9: Top 3 of mailing lists (data at 27 February 2007)

⁸Methodology report reference - Chapter Tools - Section Mailing List Stats

Poster alias	Messages posted
noreply@gforge.lug.fi.uba.ar	388
miuler_listas@csdelectronic.com	44
luca@llucax.hn.org	33
garstr@isn.net	29
groucho@nys.com.ar	23
lugfi@marga.com.ar	20
adebarbara@fi.uba.ar	18
rmarkie@fi.uba.ar	15
miuler@gmail.com	14
damog@damog.net	7

Table 3.10: Top 10 of mailing list posters (data at 27 February 2007)

3.3.1 Authorship information

The information in this subsection has been retrieved using the Spider tool combined with PyTernity⁹.

PyTernity distinguishes 6 different categories regarding to authorship of files. The following table shows these categories and as expected, there are more individual authors than groups or enterprises. In this case (table 3.11) only 2 categories show off because we could only identify individual authors and unknown developers in these open source projects.

Type of author	Number of authors
Individual authors	327
Unknown	49

Table 3.11: authority information about Argentinian projects

3.4 SourceForge

SourceForge¹⁰ is the biggest forge in the world. And of course there are Argentinian projects allowed in it.

We gathered some data about Argentinian projects in SourceForge (table 3.12). We identified as Argentinian a total of 5439 projects allowed in SourceForge. But only 107 of them had an SCM system. These projects have been identified as Argentinian because a fairly big percentage of their developers are from Argentina. Among the projects that used a SCM system, we found around 38481 commits. While *diegoglagash* is the developer with more commits summing up to a total of 5990. There is an average of 359.63 commits/project.

Regarding to developers, around 22 of them are working in more than one project in SourceForge and the Argentinian project with more developers in this forge is *eiffel* since 22 developers are working on it.

⁹Methodology report reference - Chapter Tools - Section PyTernity

¹⁰<http://sourceforge.net>

Project	Committer	Commits
mvpos	diegoglagash	5990
pokerweb	mscarra	2117
porloschicos	diegofernandez	1507
routix	martincad	1383
ase	dacap	1368

Table 3.12: Top 5 of SourceForge Project-Committer-Commits

Chapter 4

Appendixes

4.1 General Information

Communities

Community name	Size	Web site	Comments
GrULiC	huge < 1000	http://www.grulic.org.ar/	
Asociacion Civil Software Libre en Argentina		http://www.solar.org.ar	
USLA- Usuarios Software Libre en Argentina		http://www.usla.org.ar	
Grupo de usuarios Buenos Aires Central	huge <1000	http://gulbac.usla.org.ar/	
Grupo de usuarios de GNU/Linux de Rosario	huge < 1000	http://www.lugro.org.ar/	
unIRC	large < 100	https://www.unirc.com.ar/	Security, encryption, networks. Unix and Linux systems.

Table 4.1: Communities provided by partners

LUGs

Table 4.2: LUGs

LUG Name	Web site	Members
UNLUX - Grupo de Usuarios GNU Linux Universidad Nacional de Lujan	http://www.unlux.unlu.edu.ar	n/a
LANUX - Grupo de Usuarios GNU Linux de Lanus	http://www.lanux.org.ar/	large < 100
ClubOS 2	http://ar.groups.yahoo.com/group/clubos2	large < 100
QuilmesLUG - Grupo de Usuarios de GNU-Linux de Quilmes	http://quilmeslug.usla.org.ar	large < 100

Continued on next page

Table 4.2: LUGs

LUG Name	Web site	Members
GnuLujJu - Gnu Linux User Group Junin	http://lugj.linux.org.ar	large < 100
GULBAC - Grupo de Usuarios GNU-Linux Buenos Aires Central	http://www.gulbac.com.ar/	large < 100
LUGCASARES - GNU-Linux User Group Carlos Casares	http://www.lugcasares.org.ar/	medium < 50
LUGUM - Grupo de Usuarios de Software Libre de la Universidad Nacional de La Matanza	http://tutmosis.nuthost.com/~lugum/	large < 100
PLUG - Platenses Linux User Group	http://www.plug.org.ar/	large < 100
Shutdown - GNU-Linux User Group Mar del Plata	http://www.shutdown.org.ar/	large < 100
SLUGoz - Software Libre User Group de Zona Oeste	http://www.slugoz.usla.org.ar/	medium < 50
GULFRRE - Grupo de Usuarios de Linux de Resistencia, Chaco.	http://www.freelists.org/archives/gulfrre/	medium < 50
GULCO - Grupo de Usuarios de GNU-Linux de Corrientes	http://www.gulco.linux.org.ar/	medium < 50
SapucayX - Grupo de Programadores Linux de Corrientes	http://www.sapucayx.com.ar/	medium < 50
LUGMen - LUGMen usa GNU-Linux en Mendoza	http://www.lugmen.org.ar/	medium < 50
GULBAR - Grupo de Usuarios de Linux de Bariloche	http://www.gulbar.org.ar/	medium < 50
GUSLAV - Grupo de Usuarios de Software Libre del Alto Valle	http://www.guslav.org.ar/	small < 15
U.L.A - Usuarios Linux de Allen	http://www.ula.linux.org.ar/	small < 15
ODISEA SL – Organizacion Dedicada a Integrar a Santiago del Estero Al Software Libre	http://www.odiseasl.com.ar/	medium < 50
BALUG - Buenos Aires Linux User Group	http://www.balug.org.ar	large < 100
UBLUG - Grupo de Usuarios de GNU-Linux de la Universidad de Belgrano	http://ublug.linux.org.ar/	large < 100
CaFeLUG - Grupo de Usuarios de Software Libre de Capital Federal	http://www.cafelug.org.ar/	large < 100
LNXTeam	http://www.lnxteam.com.ar/	medium < 50
LUGFi - Grupo de Usuarios de GNU-Linux de la Facultad de Ingenieria de la Universidad de Buenos Aires	http://www.lugfi.org.ar/	large < 100
LugTrelew - grupo de usuarios gnu-linux Trelew-Chubut	http://www.lugtrelew.com.ar/	medium < 50
Capibara - Grupo de Usuarios de Linux de Concordia	http://linux.concordia.com.ar/	medium < 50
LUGParana - Linux USer Group Parana	http://www.lugparana.com.ar/	large < 100
PuntoCerebro	http://www.puntocerebro.linux.org.ar/	medium < 50
RiGLUG - Usuarios de Software Libre de Rio Grande	http://www.riglug.com.ar/	medium < 50

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Table 4.2: LUGs

LUG Name	Web site	Members
GrULiC - Grupo de Usuarios de Software Libre de Cordoba	http://www.grulic.org.ar/	large < 100
SFLUG - San Francisco Linux User Group	http://sanfrancisco.usla.org.ar/	medium < 50
Gulfsa - GNU-Linux en Formosa	https://usla.org.ar/cgi-bin/mailman/listinfo/gulfsa	medium < 50
GNU-LUGNA - GNU-Linux User Group Neuquen Argentina	http://lugna.linux.org.ar/	medium < 50
LUGSaJu - Linux User Group San Juan	http://lugsaju.bitacorras.com/	medium < 50
LugCOS - Grupo de Usuarios de Software Libre del Centro Oeste Santafesino	http://www.lugcos.org.ar/	medium < 50
LUGLI - Grupo de Usuarios de Software Libre del Litoral	http://www.lugli.org.ar/	large < 100
LUGRO - Grupo de Usuarios de GNU-Linux de Rosario	http://www.lugro.org.ar/	large < 100
GUSILA - Grupo de Usuarios de Software Libre de San Juan	http://www.gusila.org.ar/	medium < 50
LUGSAM - Grupo de Usuarios de GNU-Linux de San Martin	http://www.lugsam.org.ar/	medium < 50
Lugdoon		n/a
srec-lug	http://groups.yahoo.com/group/srec-lug/	medium < 50
ilug-ktm	http://www.ilug-ktm.c-o.in	large < 100
glug-madurai-discuss	http://www.glug-madurai.org	n/a
Tvmalailug	http://groups.yahoo.com/group/tvmalailug/	medium < 50
LUGA	http://www.lugaforums.org/	n/a
polarplayersglug	http://groups.yahoo.com/group/polarplayersglug/	medium < 50
GRSP	http://groups.yahoo.com/group/vignan_02cse/	n/a
GNUtn	http://www.gnutn.com.ar	n/a
Python Argentina	http://www.python.com.ar/moin	n/a
Ruby Argentina	http://wiki.rubyargentina.com.ar/gruporubyargentina/show/HomePage	very small < 5
Baires Norte Lug	http://www.bairesnortelug.com.ar/	small < 15
BBLug - Grupo de usuarios de GNU/Linux de Bahia Blanca	n/a	
Biolinux- Grupo de Usuarios GNU/Linux en Ciencias de la Salud	http://biolinux.nodolujan.com.ar/	
Linux User Group San Pedro	http://www.sanpedrolinux.com.ar/splinux/	large < 100
LUG San Martin	http://lugsam.org.ar/	small < 15

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Table 4.2: LUGs

LUG Name	Web site	Members
lugEs	http://groups.google.com.ar/group/gules	small < 15
SFLUG	http://www.grupodata.com.ar	small < 15

4.2 Repositories information

LugFi forge

Table 4.3: LugFi Project-Committer-Commits

Project	Committer	Num Commits
arrakis	gazer	1047
gemsd	dessaya	442
hooks	groucho	427
gfilter	lucas	329
arrakis	marga	316
arrakis	adebarbara	309
aizeleza	gazer	253
dapplet	des	197
hooks	luca	187
arrakis	maxy	164
planifi	dessaya	155
gfilter	cancerbero	120
gemsd	emiliano	95
dapplet	adebarbara	80
gtkcairoplot	gazer	63
trap	gazer	59
freetruco	nahuelmarisi	43
gemsd	maxy	38
ixion	dessaya	38
gfilter	ecalot	38
gfilter	tomas	34
freetruco	ecalot	26
kleiny	maxy	25
cajitas	marga	25
planifi	gazer	24
planifi	marga	18
gxswitch	maxy	13
hooks	gazer	12
hooks	cvsadmin	8

Continued on next page

Table 4.3: LugFi Project-Committer-Commits

Project	Committer	Num Commits
arrakis	gustavo	6
gemsd	marga	6
fretruco	maxy	6
gxswitch	marga	4
gemsd	ecalot	4
hooks	uid20107	3
gxswitch	des	3
gemsd	sarah	3

LugFi forge

Table 4.4: Project name, number of committers and number of commits done

Project name	Number of committers	Number of commits
arrakis	5	1842
hooks	5	637
gemsd	6	588
gfilter	4	521
dapplet	2	277
aiseleza	1	253
planifi	3	197
fretruco	3	75
gtkcairoplot	1	63
trap	1	59
ixion	1	38
kleiny	1	25
cajitas	1	25
gxswitch	3	20

Sourceforge Argentina

Table 4.5: Sourceforge project-commiter-commits

Project	Committer	Commits
mvpos	diegoglagash	5990
pokerweb	msciarra	2117
Continued on next page		

Table 4.5: Sourceforge project-commiter-commits

Project	Committer	Commits
porloschicos	diegofernandez	1507
routix	martincad	1383
ase	dacap	1368
sartoris	nicodega	1104
palmtextsync	kthulhu76	1042
kriging	seu	1041
tallerii	nmarquessi	1011
sartoris	guch	985
rlsimulator	flavia	911
orbitald	dcoletti	839
opentranquera	gmeyer1604	738
xerp	jscruz	728
krn	ralsina	718
pokerweb	nachus	660
qgames	silvioq	643
dexterquad	gazerzoser	641
opentranquera	rdiegoc	484
rlsimulator	potamendi	428
tallerii	mauroo	417
morgoao	alejolp	394
preseditor	kthulhu76	391
pokerweb	menazzit	375
eiffelws	dmoisset	373
eiffelws	dmoisset	373
gsipx	sbosio	351
ffd	icemansite	343
htmllex	dacap	342
morgoao	eloso	319
imfish	aweil	289
aojava	gorlok	276
routix	mmggoo	270
qtetris	davidcapello	269
tallerii	rulitonga	260
krsn	ralsina	258
d4j	cgm8	250
lyrc	caligari77	242
pseudocms	pupeno	237
qtetris	dacap	236
fiacvi	pupeno	223
kmc	cronel	220
stockyfact	kuato	211
tallerii	csharpsharp	209
gnuescuelas	karancho	208
tallerii	candres	204

Continued on next page

Table 4.5: Sourceforge project-commiter-commits

Project	Committer	Commits
mvpos	aneisen	203
libmigdb	set	193
akire	jgiunta	188
cnircd	kyotou	185
umo	netquake	185
nachocalendar	imerani	182
centropub	ldipenti	175
idomypage	pupeno	171
seabattle	kthulhu76	165
tusedb	parq	159
phxmlclasses	lrargerich	157
notty	ralsina	155
ksamstat	pupeno	141
repune	johnconnor	126
linceeyes	dbenders	125
browsero	ero72	119
mp3class	rtoma	117
tcng	almesber	116
kriging	efranqueiro	113
ias	netquake	109
bartleblog	ralsina	108
webonadmin	anacletoa	105
rmvfs	ochnap2	98
eiffelws	trixx	96
eiffelws	trixx	96
antfly	hrancati	92
kcyber	ranto	86
memotech	infamous	84
eiffelws	anthony	81
eiffelws	anthony	81
openmine	feuerfrei	80
hornero	anacletoa	80
vodu	elcionakashima	79
wxtempl	kthulhu76	78
linuxwias	mmdupont	70
linuxwias	mmdupont	70
linuxwias	mmdupont	70
linceeyes	swain	67
synapsim	mmadorno	65
glassbricks	mindscout	64
phpinforma	federika	63
king	ldipenti	62
opentranquera	namorrortu	61
ahttplib	aweil	60

Continued on next page

Table 4.5: Sourceforge project-commiter-commits

Project	Committer	Commits
virtdesk	marcelouy	59
kronojunior	kronopio	58
kriging	dlavallevarez	55
morgoao	morgolock	55
kriging	arro	55
muubot	llucax	55
dangerflow	arielbt	52
opentranquera	mauricioariel	51
muubot	lugmen	50
maic	gresco	49
muubot	harpomaxx	48
dinhuff	personaje	43
atrs	gryzor	42
transwi	ecalot	40
fplus	netquake	40
mailmonitor	felixls	32
barcodes	eidan	32
slisp	hectorl	32
ranquel	javier	32
slisp	hectorl	32
p4j	cgm8	32
lyrc	fedekapo	30
uqbar	ralsina	30
blog52	bernie2k	30
rodrigowebsearc	rodrigofalco	29
dangerflow	dsilvestre	29
linceeyes	jburrone	28
phpdocutron	lrargerich	28
phpdocutron	lrargerich	28
reo	netquake	26
gastos	sbenitezb	24
morgoao	neb_ao	23
phpexplorer	mottalli	22
googolplex	swain	21
freehm	debian_tux	21
eiffelws	anonymous	19
eiffelws	anonymous	19
asaplate	pupeno	18
antfly	atomic2004	18
eiffelws	elachuni	17
eiffelws	elachuni	17
gud	csrocha	16
ffd	eldante2004	15
pysnort	irvarez	15

Continued on next page

Table 4.5: Sourceforge project-commiter-commits

Project	Committer	Commits
pyirclib	irvazquez	13
lyrc	gipsh	13
ffd	el_druida	12
synapsim	precision	11
icf	carlosjac	8
tonermeter	petak	8
senku	jkrieger	8
gud	atcach	6
morgoao	cdt_ao	6
p2k	xrm0	6
vbuploader	nicogranelli	5
ezfast	dardo22	5
libsys	pablushka	5
gwps	sixtillo	5
bugometer	segfaultncored	4
kcyber	juanfc	4
dfvws	pcolazurdo	4
imfish	imasu	4
opentranquera	favioid	3
antfly	newtcaffeine	3
morgoao	ltourrilhes	3
biocm	csrocha	3
gud	edomat	3
freeupdater	pablodanielrey	3
phine	antraxsoldier	2
phpinforma	vita76	2
phpdocutron	daf111	1
phpinforma	ficticio	1
libsys	ajaf	1
porloschicos	flavia	1
phpdocutron	daf111	1
ffd	zql	1
gnuescuelas	vmartinez	1

4.3 Source code information

LugFi Forge

Table 4.6: Basic COCOMO model applied to LugFi software distributions

Project name	SLOC	EPM(EPY)	Est. Years	Est Dev.	Est. Cost
arrakis	23,556	5.52 (66.21)	1.02 (12.30)	5.38	\$ 745,329
dapplet	10,538	2.37 (28.45)	0.74 (8.92)	3.19	\$ 320,286
powertrans	10,042	2.25 (27.05)	0.73 (8.75)	3.09	\$ 304,476
aizeleza	5,107	1.11 (13.30)	0.56 (6.68)	1.99	\$ 149,698
chamame	4,226	0.91 (10.90)	0.52 (6.20)	1.76	\$ 122,707
phpprecios	4,071	0.87 (10.48)	0.51 (6.11)	1.72	\$ 117,985
phpklasificados	1,333	0.27 (3.25)	0.33 (3.91)	0.83	\$ 36,535
trap	955	0.19 (2.29)	0.29 (3.42)	0.67	\$ 25,742
ixion	818	0.16 (1.94)	0.27 (3.22)	0.60	\$ 21,879
weiland	619	0.12 (1.45)	0.24 (2.88)	0.50	\$ 16,327
distrad	599	0.12 (1.40)	0.24 (2.84)	0.49	\$ 15,774
gemsd	444	0.09 (1.02)	0.21 (2.52)	0.41	\$ 11,518
miramifoto	383	0.07 (0.88)	0.20 (2.38)	0.37	\$ 9,863
cajitas	332	0.06 (0.75)	0.19 (2.25)	0.34	\$ 8,489
planifi	326	0.06 (0.74)	0.19 (2.23)	0.33	\$ 8,328

4.4 Mailing list information

LugFi forge

Poster alias	Messages posted
noreply@gforge.lug.fi.uba.ar	388
miuler_listas@csdelectronic.com	44
luca@llucax.hn.org	33
garstr@isn.net	29
groucho@nys.com.ar	23
lugfi@marga.com.ar	20
adebarbara@fi.uba.ar	18
rmarkie@fi.uba.ar	15
miuler@gmail.com	14
damog@damog.net	7
lugfi@poirot.com.ar	6
dante@renda.com.ar	5
klaus.storz@ono.com	4
allan.curtis@ihug.co.nz	4
Others	80
Total Posters	63

Table 4.7: Total representative posters found at argentina