The LogReport Annual Report 2003

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1. Introduction

Log files are often treated like a wasteful by-product of IT activity: they sit somewhere in a dark corner of a computer system and are only examined occasionally, usually in case of after-the-fact reactive problem solving. This is unfortunate. Log files contain the traces of computer activity, and by intelligently analyzing these traces one can learn a lot about the behavior of a system and its users.

Log file analysis is both an essential and tedious part of system administration. It is essential because it's the best way of profiling the usage of the service installed on the network. It's tedious because programs generate a lot of data and tools to report on this data are unavailable or incomplete and when such tools exist, they are specific to one product, which means that you can't compare your Qmail and Exim mail servers.

The Stichting LogReport Foundation, a non-profit foundation, founded August 2000, detected this flaw in system administration and chose to serve a dual purpose: developing and maintaining Lire, our Open Source reporting and analysis software, and serving as a nexus of documentation, ideas, and thought on the topic of log files and their potential applications.

2. Activities in 2003

2.1. Introduction

We report on the activities of the LogReport team during 2003, LogReport's third full year.

A more in-depth overview of what's presented in this document, specifically on Lire development, can be found in the Lire NEWS[1] file, as well as in the various Lire roadmap documents, as shipped with the Lire releases during the year[2]. (There's also a roadmap describing the development plans after August 2003[3].) A *very* detailed journal of changes in Lire is in the Lire ChangeLog[4] file. Some highlights can be found on the LogReport history page[5] too.

2.2. People

The main task of the LogReport team is maintenance and development on Lire, LogReport's Free Software tool for performing an integrated analysis of all ones Internet and Intranet Services. Lire does this by automatically generating useful reports from raw logfiles from various services. Next to this work, the team has taken care of administering the LogReport server, hibou.logreport.org. The following changes in the LogReport staff have occured during the year.

On February 28, 2003, Joost van Baal's paid contract with LogReport (for 8 hours a week) ended. On June 30, 2003, Wessel Dankers' paid contract with LogReport (16 hours a week) ended. Both Wessel and Joost however plan to continue doing work for the project, by donating volunteer contributions.

On May 31, 2003, the agreement between Francis Lacoste and the LogReport Foundation ended. Since August 19, 2003, Francis together with Wolfgang Sourdeau are paid for their work on Lire, under a new contract.

Next to these people, involved in the LogReport project by having access to the LogReport server, or being on the `<logreport@logreport.org>` alias, are: Josh Koenig, Wytze van der Raay, and Egon Willighagen.

At the July 3, 2003 LogReport board meeting, a new board got elected. Teus Hagen will no longer be a member of the board; Joost van Baal was elected as a new board member. Teus however will keep doing work for the project, as an advisor to the board. Wytze van der Raay and Jakob Schripsema will continue their positions in the board.

2.3. The LogReport server

The machine hibou.logreport.org hosts our website http://logreport.org/, provides the public LogReport Online Responder service, handles our email, and hosts the 4 public

mailinglists <commit@logreport.org>, <announcement@logreport.org>, <questions@logreport.org> and <development@logreport.org>. Furthermore, it hosts a CVS repository for version control of non-public documents and hibou's configuration data. The Lire code development is done using CVS on SourceForge.

Late 2002 the LogReport team noticed that hibou's bandwidth consumption was rising drastically. A search for additional low-cost or free bandwidth was started to limit the heavy bandwidth surcharges by LogReport's ISP. Since February 28, 2003, requests to http://logreport.org/pub/ get redirected to http://download.logreport.org/pub , which is currently pointing to 232pc232.sshunet.nl, a machine administered by Guus Sliepen[7] (who is also donating the bandwidth to us.) Thanks a lot Guus Sliepen!

On July 31 2003, hibou was moved from the VIA Networks facility in Eindhoven, to Amsterdam, The Netherlands: The NLnet Labs foundation[8] has offered LogReport a space in their machine room and free access over NLnet Labs' high-speed internet connection. LogReport of course gladly accepted this very generous offer. Thanks NLnet Labs people!

2.4. Lire Software Releases

Lire is available in .tar.gz source package format, as RPM package to facilitate installation on RPM-based systems like Red Hat Linux and Mandrake Linux, as Debian package for installation on Debian GNU/Linux, and as a FreeBSD port package.

Lire is free in both senses of the word: it is available gratis for download from the internet, and it is Free Software: it is licensed using the GNU General Public License[9]. This means, among other things, anybody is free to study how the program works, and adapt it to ones needs; anybody is free to redistribute copies; and anybody is free to make modifications to the code, and to publish these modifications. The copyright on the major part of the code is held by Stichting LogReport Foundation. See also the Lire Contributor Guidelines[10] for more information on licensing related issues.

In the year 2003, the following Lire versions have been released:

Table 1. Lire releases

release date	version (filename)
December 29, 2002	Updated Lire 1.2.1 RPMS for Red Hat 7.3, Red Hat 8.0 and Mandrake 9.0 (`lire-1.2.1-2.noarch.rpm`, `lire-html-1.2.1-2.noarch.rpm`, `lire-pdf-1.2.1-2.noarch.rpm`, `lire-1.2.1-2mdk.noarch.rpm`, `lire-html-1.2.1-2mdk.noarch.rpm`, `lire-pdf-1.2.1-2mdk.noarch.rpm`)

release date	version (filename)
April 3 and 24	Lire Debian package 1.2.1-1 and 1.2.1-2 (`lire_1.2.1-1_all.deb`, `lire_1.2.1-2_all.deb`)
May 18	Lire 1.3 source, RPMS for Red Hat Linux 7.3 and 8.0, and Mandrake Linux 9.0 (`lire-1.3.tar.gz`, `lire-full-1.3.tar.gz`, `lire-1.3-1.noarch.rpm`, `lire-html-1.3-1.noarch.rpm`, `lire-pdf-1.3-1.noarch.rpm`, `lire-1.3-1mdk.noarch.rpm`, `lire-html-1.3-1mdk.noarch.rpm`, `lire-pdf-1.3-1mdk.noarch.rpm`)
September 4	Lire Debian package 1.3.1-1 (`lire_1.3.1-1_all.deb`)
November 17	Lire 1.4 source, RPMs for Red Hat Linux 8.0 and 9.0, Debian packages for the stable and unstable Debian release. (`lire-1.4.tar.gz`, `lire-full-1.4.tar.gz`, `lire-1.4-1.noarch.rpm`, `lire-html-1.4-1.noarch.rpm`, `lire-pdf-1.4-1.noarch.rpm` `lire-doc_1.4-1_all.deb`, `lire-devel-doc_1.4-1_all.deb`)
December 15, 17 and 27	Lire Debian package improvements: versions 1.4-3, 1.4-4 and 1.4-5 released.

Since May 18, it is possible to install/upgrade Lire RPMS using apt-rpm[11] (mainly for Red Hat) or urpmi[12] for Mandrake.

Since 1.4-1, Wolfgang has taken over maintenance of the Lire Debian package from Joost. Lire will very likely get shipped with the Debian 'sarge' release, which will be released someday in spring 2004 (based upon information in this 21 Feb 2004 post[13]).

Since August 20, 2002, Lire is distributed with the FreeBSD ports collection (thanks to Edwin Groothuis' efforts.) See e.g. this URL[14].

We list the main improvements in the various releases, as posted on the LogReport Announcement list[15]. A more detailed overview is in the NEWS file, as distributed with Lire.

Within Lire, we use the term *service*. A service coincides with one well-defined log file format. So, a service generally coincides with one application: the *sendmail* service handles sendmail log files. However, a lot of webservers use W3C defined formats, and a lot of commercial firewalls use the WELF format. Therefore, *w3c_extended* and *welf* are services. Each service

has its *2dlf-convertor*, to convert the log file to the more generic Lire DLF format. We provide e.g. **sendmail2dlf** and **w3c_extended2dlf**. A *superservice* is a class of services which share the same DLF format, and which will generally give the same reports.

Lire 1.3

Lire 1.3 shipped with a major upgrade to the Lire internals. This resulted in a new and drastically improved DLF converter API: the new API supports multiple DLF schemas as well as log continuation. Furthermore, the configuration API was revised; it is now much easier to make extensions like DLF converter, analyzers, etc. configurable. The new improved lr_config(1) command makes use of this: it is now easier to configure periodical reports.

Documentation was improved. The new internal APIs which should be used by extension developers are documented in manpages. A tutorial on how to write new DLF converters and DLF schemas is added to the Developer's manual. An extensive suite of unit tests and regression tests was added to Lire, making it easier to make new Lire extensions.

New DLF converters were contributed by Lire's users:

tinydns

DNS DLF converter for tinydns, as shipped with djbdns[16]. Contributed by Christopher Boumenot.

s1ms

Email DLF converter for SunONE Messaging Server[17]. Contributed by Jean-Yves Monnier.

snort

Firewall DLF converter for the Snort Open Source Network Intrusion Detection System[18]. Contributed by Torsten Fellhauer.

fw1_lea

Firewall DLF converter for CheckPoint Firewall-1 NG 5.0[19], logging via OPSEC[20]'s LEA API. Contributed by Torsten Fellhauer.

Of course, these contributions are very much appreciated. Thank you, volunteers!

Lire 1.4

Next to many bugfixes, release 1.4 introduces a new report generation algorithm which improves performance a lot. DLF data is now stored in an SQLite[21] database and the report is generated directly from the database. Tests show performance increases of ~18%-55% depending on the superservice used.

Here is a table showing performance comparisons between running **lr_log2report** from Lire 1.3 and Lire 1.4 on various log files. This benchmark was run on a Debian GNU/Linux system running on an Intel Pentium III 600Mhz with 512Megs RAM.

Table 2. Lire 1.4 performance vs 1.3

Service	Lines in Log	Sys+User 1.3	Sys+User 1.4	1.4 Improvement %
cisco_ios	5,000	121.73s	73.00s	40.03%
cisco_ios	100,000	1463.47s	630.93s	56.89%
cisco_ios	240,338	3206.67s	1393.20s	56.55%
iis_ftp	5,000	31.27s	26.97s	13.75%
ipchains	5,000	71.21s	47.00s	34.00%
ipfilter	5,000	36.68s	33.02s	9.98%
iptables	5,000	67.72s	49.24s	27.29%
pix	5,000	86.34s	18.84s	78.18%
squid_access	5,000	97.12s	46.47s	52.15%
w3c_extended	5,000	145.86s	119.61s	18.00%
w3c_extended	100,000	2088.76s	1708.71s	18.20%
w3c_extended	541,385	11325.90s	9834.71s	13.17%
watchguard	5,000	68.51s	46.64s	31.92%
welf	5,000	53.04s	41.81s	21.17%
xferlog	5,000	76.92s	4.16s	94.59%

The Lire 1.4 release has undergone extensive testing on lots of platforms. We've been able to add FreeBSD, OpenBSD, NetBSD and Mac OS/X to our group of test platforms.

Lire 1.4.1 was mainly a bugfix release. The complete list of supported services in Lire 1.4.1 is:

Table 3. Lire 1.4.1 services

superservice	services	products
database	mysql, pgsql	The MySQL Database, by MySQL AB; The PostgreSQL Database, by the PostgreSQL Global Development Group
dialup	isdnlog	isdn4k-utils, part of isdn4linux, a set of Linux kernel modules

superservice	services	products
dns, dnszone	bind8, bind9, tinydns	BIND, the Berkeley Internet Name Domain by the Internet Software Consortium; tinydns as shipped with Daniel Bernsteins djbdns.
email	argomail, exim, nms, postfix, qmail, s1ms, sendmail	ArGoSoft Mail Server, exim Internet Mailer, Netscape Messaging Server, Wietse Venema's Postfix, D.J. Bernstein's qmail message transfer agent, SunONE Messaging Server, the Sendmail Consortium's Sendmail MTA.
firewall	cisco_ios, fw1_lea, ipchains, ipfilter, iptables, pix, snort, watchguard, welf	The Cisco IOS router, the Cisco PIX firewall, Linux ipchains, Linux iptables, Darren Reed's IP Filter, WatchGuard Firebox, all products supporting the WebTrends Enhanced Log Format like firewalls from Check Point, Check Point Firewall-1 5.0 using the LEA engine, Microsoft, Netscape and Sun Microsystems, the Snort IDS system.
ftp	iis_ftp, xferlog	Microsoft IIS FTP Server, all FTP servers supporting the xferlog log format, like ProFTPD and WU-FTPD.
msgstore	dbmail, nmsmmp, nmsstore	DBMAIL IMAP and POP server, Netscape Messaging Server Mail Multi Plexor, Netscape Messaging Server IMAP and POP engines.
print	cups_pagelog, lprng_account	The CUPS printing system, LPRng

superservice	services	products
proxy	ms_isa, squid_access, welf_proxy	Microsoft Internet Security and Acceleration Server, SQUID Web Proxy Cache, all Proxy servers supporting the WebTrends Enhanced Log Format
spamfilter	spamassassin	SpamAssassin email UCE spam filter
syslog	syslog	BSD syslog daemon, Solaris 8 syslog daemon, Netscape Messaging Server logging daemon, WebTrends syslog daemon, Kiwi Syslog, Sendmail Switch logging daemon
www	combined, common, modgzip, referer, w3c_extended	All web servers supporting the NSCA combined log format, like Apache; all web servers supporting the CERN Common Log Format, like Apache, IIS, Boa and PureFTPD

The complete list of supported output formats for Lire 1.4.1 is:

- DocBook XML, HTML (in multiple and in one page), XHTML (in multiple pages and in one page), Lire XML

- Excel 95, RTF

- PDF

- Plain ASCII
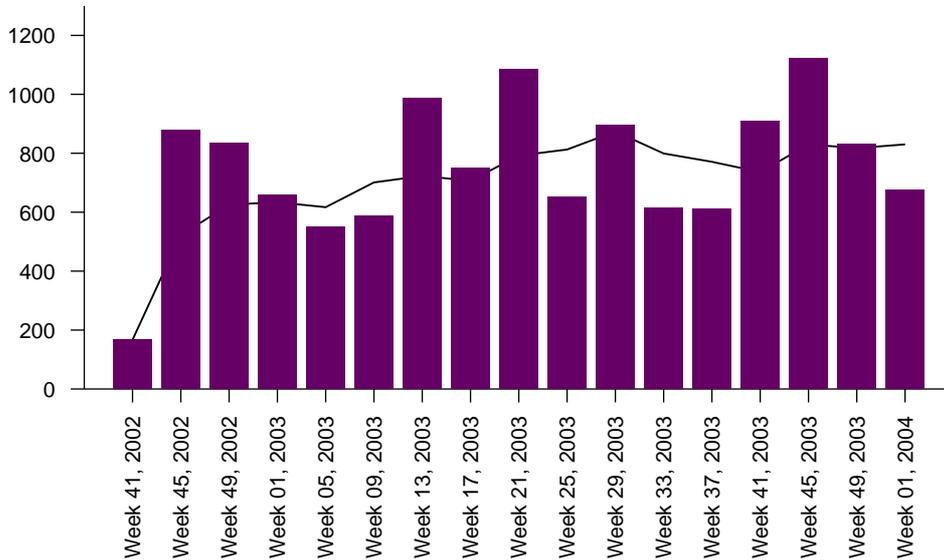
For DocBook XML, (X)HTML, RTF and PDF, images in PNG, JPG or EPS can be included.

2.5. Statistics

We show some statistics, giving some indications about the work done by the LogReport team, as well as about the effectiveness of this work.

2.5.1. Downloads and installs

We do have figures about the number of downloads from our webserver. They're depicted in the graphic.

Number of Lire tarball downloads from http://logreport.org/ in 4-week periods during 2003.

The number of tarball downloads has been growing during the year. Looking back at 2002, we're doing better also: in 2002, we've had 4-week periods with less than 500 downloads (which we hadn't in 2003), in 2002, the best period had less than 900 downloads (in 2003, we've had 2 periods with more than 1000 downloads).

RPM downloads
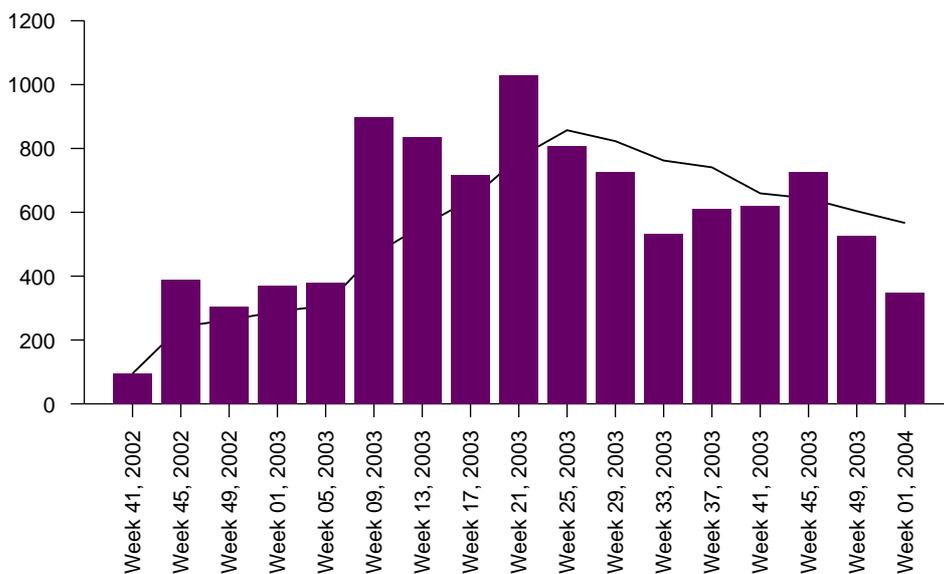
Number of Lire RPM package downloads from http://logreport.org/ in 4-week periods during 2003.

The number of RPM downloads has been rising a lot during 2003. When comparing these figures with 2002, the difference is even more convincing: in 2002, we've had 2 periods with less than 200 downloads (in 2003, we've had more than 300 downloads in every period), in 2002, we never had more than 400 downloads (in 2003, we've had over 800 downloads during 3 periods). We have about doubled the RPM download traffic in 2003, compared with 2002.

Based on the Debian Popularity Contest[22], the number of people who've installed a Lire Debian package grew from 330 in January 2003 to 600 in December 2003.

Please note that Lire is also available for download directly from Sourceforge. The Sourceforge-supplied statistics[23] show us the number of monthly downloads fluctuated during the year, with a total of about 1500 downloads for 2003.

2.5.2. Submits to the LogReport Online Responder

During the entire year, we've been running a so called Online Responder on `<log@<service>.logreport.org>`. People can send their log files via email or submit them via a web page, and get a report back.

During the year, the number of weekly users using the Responder has grown from about 25 to about 50. About 100 log files get submitted for analysis weekly.

2.5.3. CVS Commits to the Lire code

There were between 30 and 140 commits on the Concurrent Version System holding the Lire code done monthly during 2003, for a total of 1148. This number represents the number of changes to the Lire code. (Beware: the size and impact of one change can vary a lot! Therefore, these number are to be interpreted cum grano salis.)

2.5.4. Traffic on the LogReport mailing lists

During the year, the number of external people subscribed to the announcement mailing list grew from about 90 to about 200. (Early 2002, we had 24 announcement subscribers.) Subscribers on the development list grew from 35 to 45, while the number of subscribers on the questions list grew from 55 to 90. This is an overall growth of *more than 50%* for the 3 lists during 2003. We're very happy at this growing interest in LogReport and Lire!

About once every other day an external interested person posts to any of LogReport's mailing lists or group adresses.

We've tackled the spam problem we've been suffering from in early 2003. This made being subscribed to the lists unattractive in the late 2002 period. We now have a policy which exe-

cutes automatic distribution of posts only from subscribers. Posts from others are moderated manually.

Hosting these open lists has been very helpful at building an active and contributing user community: in the third year, the LogReport project consolidated its true Open Source character. See the next section for the details.

2.6. Cooperation with developers

Lots of people suggested improvements and reported bugs, using our mailinglists. Furthermore, code was contributed by external developers.

2.6.1. Contacts with external developers

We name a few of the people who have contacted us via our public mailing lists during the year, suggesting improvements and reporting bugs. These contacts give reason to believe these people do use Lire to do their work.

In 2003, we've been contacted by various developers and users. We'll give a list of the main contacts.

- Long time users Roberto Dalzilli and Edward Quick contacted us

- Tony Allen, from Psiframe, Inc.[24], San Francisco, USA

- Vitaly V. "Agri" Manushkin from desnol.ru, Russia

- Michael Grau from the Kansas, US administration

- Bob Kennington from the US government, Department of the Treasury

- Ing. Massimiliano Ciccarelli from Defence division of Italian Software and IT Service supplier Datamat S.p.A.

- Hubert Lubaczewski from the Eo Networks Sp. z o.o. Network Operations Center in Poland

- Mohamed Sami from ECS, Egyptian administration

- Andrea Ghirardini from Italian pilasecurity.com

- Jean-Marie Kubek from Université Paul Valery, Montpellier, France

- Torsten Fellhauer, from iXpoint Informationssysteme GmbH[25], Ettlingen, Germany

- Richard Crane, from Yale University / Haskins Laboratories, New Haven, CT, USA

- Alexandre Terplak, from VIA Net.works, France

- Stewart James, from Victoria University, Australia

- Michael Schwartzkopff, from MultiNET Services GmbH, Grasbrunn, Germany

- Christopher V. Browne, from US dialup ISP copper.net

- Wouter Verhelst, from Template, Belgium

- Joe Dewberry, from Vodafone US

Apart from these people, the LogReport developers have been contacted privately by lots of ISP's, network hardware manufacturers and players in the Financial and Industry markets. It's clear we have established quite a user base: lots of downloads *and* lots of feedback.

2.6.2. Code contributions

The following code contributions have been made to Lire in 2003. On January 8, 2003, a convertor for the SunONE Messaging Server by Jean-Yves Monnier from Sun Professional Services was contributed. In March 2003, Torsten Fellhauer, of FW1-Loggrabber[26] fame, has contributed a Firewall DLF converter for the Snort Open Source Network Intrusion Detection System, as well as a Firewall DLF converter for CheckPoint Firewall-1 NG 5.0, logging via OPSEC's LEA API. In March 2003 Christopher Boumenot contributed a DNS DLF converter for tinydns, as shipped with djbdns[27]. All these contributions have been integrated and come with Lire, since Lire 1.3.

2.7. Publicity, demo

Mika Boström[28] has written a book[29] on home users' basic computer security, "Kotimikron Tietoturva", ISBN 951-762-813-7, published by Talentum (the book is available in Finnish only). It includes a cover CD with suitable tools and software, including the Lire 1.2.1 source release.

LogReport is mentioned on the LogAnalysis Generic Log Parsing Tools webpage[30].

In July, Wessel Dankers gave a Lire demo at Tunix[31], the people working on the Tunix Firewall product. Wessel worked together with Jan E. Kuba van Bijnen, installing Lire on a Tunix test box, and explaining Lire internals.

2.8. Looking back, looking ahead

2.8.1. Comparing 2002 and 2003

In 2002, we had on average about four people working on the LogReport project (Josh Koenig, Wessel Dankers, Joost van Baal, Francis Lacoste). In 2003, we had only two most of the time: Francis with either Wessel or Wolfgang. During approximately two months, nobody was work-

ing on paid development for LogReport. In 2002, we shipped four major Lire releases. In 2003, we shipped two.

Still the LogReport team has managed to keep the extended LogReport community vivid. The LogReport board is very grateful and would like to thank the 2003 LogReport team for this amazing achievement.

2.8.2. LogReport Future

In July 2003 Francis Lacoste wrote a proposal for implementing substantial improvements of the Lire software, culminating in a Lire 2.0 release which would be able to survive by true Free Software maintenance. The plan was submitted to Stichting NLnet to request funding, and the funding (EUR 38.000) was granted. Many thanks to Stichting NLnet for (once more) providing major financial support to the LogReport project!

Since August 19, Francis is contracted by LogReport, to complete Lire 2.0[32]. The work is done by both Francis and Wolfgang Sourdeau. The development contract will end 3 weeks after the public Lire 2.0 release, or on August 1, 2004, whichever comes first.

No activities from the LogReport Foundation are expected after the release of Lire 2.0. However, with the Lire 2.0 framework in place, and given the stable and growing Lire user base, we foresee a bright future for the Lire Free Software product. We look forward to see further community-contributed evolution, but also to see e.g. consultants offering tailor-made solutions based on the Lire 2.0 framework.

Notes

1. http://download.logreport.org/pub/current/NEWS

2. http://download.logreport.org/pub/archive/

3. http://logreport.org/lire/roadmap-2.0.php

4. http://download.logreport.org/pub/current/ChangeLog

5. http://logreport.org/oldnews.php

6. http://logreport.org/

7. http://sliepen.eu.org/

8. http://www.nlnetlabs.nl/

9. http://www.gnu.org/copyleft/gpl.html

10. http://logreport.org/dev/guidelines.php

11. http://apt4rpm.sourceforge.net/

12. http://www.linux-mandrake.com/cooker/urpmi.html

13. http://lists.debian.org/debian-devel-announce/2004/debian-devel-announce-200402/msg00009.html

14. http://www.freebsd.org/cgi/cvsweb.cgi/ports/sysutils/lire/

15. http://logreport.org/contact/lists/announcement/

16. http://cr.yp.to/djbdns.html

17. http://wwws.sun.com/software/products/messaging_srvr/home_messaging.html

18. http://www.snort.org/

19. http://www.checkpoint.com/products/protect/firewall-1.html

20. http://www.opsec.com/

21. http://www.cpan.org/modules/by-module/DBD

22. http://popcon.debian.org/

23. http://sourceforge.net/project/stats/index.php?group_id=5049

24. http://www.psiframe.com/

25. http://www.ixpoint.de/

26. http://fellhauer-web.de/projects/fw1-loggrabber.html

27. http://cr.yp.to/djbdns/tinydns.html

28. http://www.lut.fi/~bostik

29. http://kauppapaikka.talentum.com/display.asp?show=b&sku=813

30. http://www.loganalysis.org/sections/parsing/generic-log-parsers/index.html

31. http://www.tunix.nl/

32. http://logreport.org/lire/roadmap-2.0.php

3. Official Information

Stichting LogReport Foundation has been established on August 21, 2000 in Eindhoven, The Netherlands. The goal of the foundation is:

a. to develop, maintain and distribute tools and knowledge for processing log files of network/computer system applications and for generating reports based on such log files;

b. to stimulate the use of the tools and knowledge mentione above for the management of information systems;

c. to stimulate authors of network/computer system applications to incorporate provisions in these applications for generating useful standardised and automatically processable information in log files;

d. to contribute to the development and implementation of product-independent log file formats (standards);

e. to create a forum for system administrators and software developers in the area of the application and analysis of log file information; and

f. anything which is directly or partly related to the above, or can be beneficial to the above, in the widest sense.

3.1 Board

The board of Stichting LogReport Foundation consists of three members:

Teus Hagen	chairman (until July 3, 2003)
Joost van Baal	chairman (from July 3, 2003)
Jakob Schripsema	secretary
Wytze van der Raay	treasurer

The composition of the board changed in its meeting of July 3, 2003: Teus Hagen resigned as chairman and board member, and Joost van Baal, who attended previous board meetings as liaison with LogReport operations, was elected in his place. Teus Hagen is retained as advisor to the board.

Three board meetings were held in 2003:

date	*place*
February 27, 2003	Arnhem
July 3, 2003	Arnhem
October 9, 2003	Oss

3.2 Employees

The foundation has employed two part-time staff members during the first part of the year 2003:

Joost van Baal   November 2000 - February 2003   software developer
Wessel Dankers   October 2001 - June 2003   webmaster / software developer

In addition, a number of freelancers abroad have also performed paid remote development work for the foundation:

Francis Lacoste   Canada   June 2001 - now
Wolfgang Sourdeau   Canada   September 2003 - now

Finally, a number of volunteers have performed or are performing various tasks for the foundation.

3.3 Administration

The responsibility for day-to-day administration, handling of payments and other similar activities rests with Joost van Baal. The bookkeeping function has been taken care of by Wytze van der Raay, treasurer of the foundation. The salary administration and related work (interfacing to UWV GAK, ARBO service etc) has been contracted out to De Wert Accountants in Eindhoven. The latter contract has been ended since the foundation does not directly employ staff anymore since July 1, 2003.

3.4 Fiscal year

The fiscal year of Stichting LogReport Foundation coincides with the calender year. Thus the (fourth) fiscal year of the foundation ran from January 1, 2003 until December 31, 2003.

3.5 Fiscal position

Based on its current activities, the foundation is not taxable for Dutch corporate tax ("vennootschapsbelasting") or value-added tax ("BTW").

On November 28, 2000, Stichting LogReport Foundation has been recognised by the Dutch fiscal authories as an organisation working for the general benefit ("algemeen nut beogende instelling") as meant in article 24, paragraph 4 of the Dutch Inheritance Act 1956.

4. Financial Statements

4.1 Balance Sheet per December, 31 2003 (after result allocation)

	2003		**2002**	
	€	€	€	€
Fixed assets				
Material fixed assets				
Computer equipment		428.39		590.15
Current assets				
Accounts receivable				
Interest to be received		0.00		567.00
Costs paid in advance		0.00		643.74
Cash		31,213.64		33,320.09
		31,642.03		35,120.98
Own capital		31,455.83		24,724.75
Short-term liabilities				
Accounts payable	116.48		5,927.99	
Taxes and social charges	(1.68)		789.36	
Other liabilities	71.40		3,678.88	
		186.20		10,396.23
		31,642.03		35,120.98

4.2 Profit and Loss Account 2003

	2003		2002	
	€	€	€	€
Other income				
Donations received		43,000.00		92,054.32
Other expense				
Payroll expenses	9,760.98		45,500.09	
Depreciation of material fixed assets	161.76		1,263.48	
Other operational expenses	26,472.02		68,797.75	
		36,394.76		115,561.32
		6,605.24		(23,507.00)
Interest earned	125,84		1,037.96	
Interest paid	0.00		(0.85)	
		125,84		1,037.11
Gross result from regular operations before tax		6,371.08		(22,469.89)
Tax		0.00		0.00
Net result		6,371.08		(22,469.89)

4.3 General explanations

4.3.1 Basis for valuation and result determination

Assets and liabilities
Unless stated otherwise, assets and liabilities have been stated at their nominal values.

Material fixed assets
Material fixed assets have been stated at historical cost price, reduced with depreciation calculated linearly based on the estimated total useful life of the corresponding fixed asset.

4.3.2 Result determination

General
The following holds with respect to items included in the operational result: profits are only included if and for the part they have been realized in the reporting period, and losses and risks have been taken into account inasmuch they originate before the end of the reporting period.

4.4 Amplification of the Balance Sheet 2003

4.4.1 Material fixed assets

The material fixed assets can be specified as follows:

	Inventory	Computer-equipment	Total
	€	€	€
January 1, 2003			
Procurement costs	0.00	3,476.89	3,476.89
Cumulative depreciation	0.00	(2,886.74)	(2,886.74)
Book value	0.00	590.15	590.15
Changes			
Desinvestments	0.00	0.00	0.00
Investments	0.00	0.00	0.00
Depreciation	0.00	(161.76)	(161.76)
Depreciation desinvestments	0.00	0.00	0.00
		(161.76)	(161.76)
December 31, 2003			
Procurement costs	0.00	3,476.89	3,476.89
Cumulative depreciation	0.00	(3,048.50)	(3,048.50)
Book value	0.00	428.39	428.39
Depreciation percentage	20%	33-50%	

4.4.2 Cash

Cash is kept on a business giro account and an associated savings account ("Kapitaalrekening") at Postbank N.V.

	2003	2002
	€	€
Postbank giro account	31,213.64	849.58
Postbank Kapitaalrekening	0.00	32,470.51
	31,213.64	33,320.09

4.4.3 Own capital

Reserve fund

The course is as follows:

	2003	**2002**
	€	€
Value per January 1	24,724.75	47,194.64
Plus: net result	6,731.08	(22,469.89)
Value per December 31	31,455.83	24,724.75

4.4.4 Short-term liabilities

Taxes and social charges

	2003	**2002**
	€	€
Salary tax	0.00	1,248.00
Social charges bedrijfsvereniging	(1.68)	(458.64)
	(1.68)	789.36

Other liabilities

	2003	**2002**
	€	€
Salary administration expenses	71.40	125.00
Holiday allowances	0.00	1,932.46
Savings salary	0.00	131.31
Net salary	0.00	1,490.11
	71.40	3,678.88

4.4.5 Liabilities not shown in the balance sheet

The foundation has engaged in a fixed price contract for development of Lire 2.0 software with Francis Lacoste in Montréal, Québec, Canada; the remaining costs of this contract for 2004 are € 30,400.00.

4.5 Amplification of the Profit and Loss Account 2003

4.5.1 Income

Income over 2003 consists of two donations from Stichting NLnet, a donation of € 5,000.00 at the start of the year for LogReport operations, and a donation of € 38,000.00 in September 2003 for the Lire 2.0 development project.

4.5.2 Payroll expenses

	2003	**2002**
	€	€
Staff salaries	8,510.60	40,326.67
Social charges	1,250.38	5,173.42
	9,760.98	45,500,09
Staff salaries		
Salaries	7,866.00	37,229.71
Salary tax on savings salary	15.32	118.08
Holiday allowances	629.28	2,978.88
	8,510.60	40,326.67
Social charges		
Social charges	1,076.69	5,045.62
ARBO service	173.69	127.80
	1,250.38	5,173.42

4.5.3 Other operational expenses

	2003	**2002**
	€	€
Other staff expenses	22,388.10	61,654.70
Office expenses	3,139.65	4,186.35
General expenses	944,27	2,956.70
	26,472.02	68,797.75
Other staff expenses		
Travel expenses staff	0.00	1,679.26
Travel expenses volunteers	25.10	55.44
Cost of freelancers	22,363.00	59,920.00
	22,388.10	61,654.70

	2003	**2002**
	€	€
Office expenses		
Office materials	0.00	5.75
Printing expenses	0.00	124.95
Internet expenses	3,139.65	3,900.65
Computer expenses	0.00	155.00
	3,139.65	4,186.35
General expenses		
Professional books	0.00	218.95
Subscriptions & contributions	28.39	253.01
Conferences/courses	0.00	910.00
Accountancy fees	452.15	505.80
Travel expenses board	297.88	502.88
Other board expenses	72.20	373.02
Bank expenses	94.23	193.00
Calculation differences	(0.58)	0.04
	944,27	2,956.70

4.5.4 Interest earned

	2003	**2002**
	€	€
Credit interest Postbank giro account	0.00	30.87
Credit interest Postbank Kapitaalrekening	125,84	1,007.09
	125,84	1,037.96

4.5.5 Interest paid

	2003	**2002**
	€	€
Debet interest Postbank giro account	0.00	0.85
	0.00	0.85

4.6 Allocation of net result 2003

In anticipation of a board decision to be taken, the net result over 2003 ad € 6,731.08 has been added to the reserve fund.