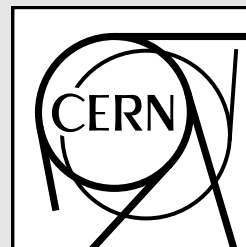


CERN COMPUTER NEWSLETTER



CERN - IT Division
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April – June 2002

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Editorial Information

Editorial Board

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The opinions expressed in this newsletter are those of the contributors and are not necessarily those of the CERN Management. The Editors reserve the right to edit or omit articles, or hold-over copy due to lack of space.

General Information

The CNL Web home page is at URL: <http://cern.ch/ref/cnl>

The policy is to have approximatively four CNL editions per year (Spring, before and after the Summer, and before the Christmas shutdown).

Issue number	Deadline
CERN-CNL-2002-003	Friday 6th September 2002

Information for contributors

The CNL is processed using XML technology and templates. Articles marked up in HTML are preferred, but plain text is also acceptable. A Web form to be used for article submission (contributions) is provided at the CNL “Home” page (<http://cern.ch/ref/cnl>), link “Article Submission form” (<http://cern.ch/ref/cnl/submit>).

Help in using this form is provided via the “Help” link (<http://cern.ch/ref/cnl/help/submit>) at the top bar.

Distribution

- An electronic mail is sent to the “CNL Announcement Distribution List” as soon as a new issue of the CNL is available on the Web (<http://cern.ch/ref/cnl/help/announcement>).
- A paper version is sent to the users who have subscribed to the “CNL Paper Version Registration” list (<http://cern.ch/ref/cnl/help/register>).

All *subscriptions to our distribution lists* can be made through the CNL “Help&Info” page at the URL <http://cern.ch/ref/cnl/help>.

You can also cancel your subscription in either case by filling in the appropriate form.

The compressed *PostScript file* containing the complete printable version of this CNL is available via the Web at the URL <http://cern.ch/ref/cnl-2002-002/main.ps.gz>. It is possible that, in order to optimize typesetting, the PostScript printable version differs slightly from the master HTML version. In any case the HTML version on the Web must be considered as the reference.

If you need Help

FRONT LINE Services

	Phone	Location	E-mail Address
Computing Help Desk	78888		Helpdesk@cern.ch
Opening hours: 8:30–17:30 (Monday–Friday)			
Satellite Help Desk	78888	52/1-004	Helpdesk@cern.ch
Opening hours: 8:00–12:00 (Monday–Friday)			
Administrative Applications (EDH, BHT, etc.)	79933	5/R-021	Ais.Support@cern.ch
Opening hours: 8.30–12:30 and 13:30–17:30			
Central Computer Operators (24/24 hours on call)	75011	513/R-049	Computer.Operations@cern.ch
General Network Operational Problems	74927		Network.Support@cern.ch

Contacts at CERN

The “Computing Help Desk” is the recommended call center for help on all CERN computing related issues. Following is a non-exhaustive list of individual people responsible or assigned to a given service. If you do not find a pointer to the service you need, then contact the “Computing Help Desk” for submitting your request. For all the services listed below please use the generic electronic mail address whenever possible. These mailboxes will be read even when the usual specialist is absent. It is helpful to use relevant keywords in the subject field of your message. Contact specialists directly only for very urgent cases or for very general consultations. Please note:

- In the *Web version* of this page the “Service Definition” can be a *link* to the Welcome page of this service: we invite you to read carefully all the information given in this page before submitting a question/problem.
- In addition you might find useful to search in the “Questions&Answers” database for possible answers to your query (<http://consult.cern.ch/qas>).
- Many generic e-mail addresses for support lines are just an automatic re-direction to the Computing Helpdesk (this is the case, for instance, for Mail.Support or Www.Support). Those addresses have been kept mainly for backward compatibility, and also to help the Helpdesk to escalate the query towards the right specialist whenever this is needed.

USER SERVICES

Service Definition	Name	E-mail Address
User Relations and Service Manager	L. Pregernig	Ludwig.Pregernig@cern.ch
Help Desk Managers	R. Woolnough	user.relations@cern.ch
	N. Crémel	user.relations@cern.ch
User Registration		user.registration@cern.ch
Computing BookShop	J. Megies	bookshop@cern.ch

CENTRAL SERVICES

Public Services (PLUS batch & interactive services and CSF/PCSF Simulation farms)

See the complete and up-to-date list of contacts at URL:

<http://cern.ch/it/pdp/is/main/experiments.html#PUBSERV>

Service Definition	Name	E-mail Address
SHIFT (Reconstruction & Analysis Clusters)	T. Smith	tim.smith@cern.ch
CORE Operations	M. Vergari	mario.vergari@cern.ch
Work Group Servers	T. Smith	tim.smith@cern.ch
Distributed File Services (incl. AFS)		afs.support@cern.ch
NAP and Parallel Applications	E. McIntosh	eric.mcintosh@cern.ch
Stager, tapes and TMS support		tape.support@cern.ch
Central Data Recording (CDR)		cdr.support@cern.ch
CASTOR HSM software		castor.support@cern.ch
HPSS Services		Hpss.Support@cern.ch
CERN-wide Print Service	J.L. Vosdey	printer.support@cern.ch

Support for Experiments

See the complete and up-to-date list of contacts at URL :

<http://cern.ch/it/pdp/is/main/experiments.html>

DESKTOP COMPUTING

Service Definition	Name	E-mail Address
NICE (Networked PCs)		nice.support@cern.ch
PC Desktop (Repairs and sales)	C. Ball	pc.admin@cern.ch
MACintosh Support	F. Ovet	mac.support@cern.ch
MACintosh Sales	W. Hug	waltraud.hug@cern.ch
X Terminals Support		xterminal.support@cern.ch
ASIS Support		asis.support@cern.ch

Operating System Support

Service Definition	E-mail Address
HP 700 s/w:	hp.support@cern.ch
SUN s/w:	sun.support@cern.ch
Solaris s/w:	solaris.support@cern.ch
RS/6000 s/w:	aix.support@cern.ch
Digital Unix s/w:	dunix.support@cern.ch
Linux:	linux.support@cern.ch

SCIENTIFIC APPLICATIONS & SOFTWARE ENGINEERING

Service Definition	Name	E-mail Address
CERN Program Library	L. Besson	heplib.support@cern.ch
PAW Support	O. Couet	paw.support@cern.ch
Anaphe and GEANT		heplib.support@cern.ch
Oracle Databases	N. Segura	oracle.support@cern.ch
Objectivity DB Service		objectivity.support@cern.ch
Software Development Tools		sdt.support@cern.ch
Adobe FrameMaker		docsys.support@cern.ch

PaRC Service (Engineering Cluster):

for each application see the “mailto’s” E-mail address as given by the URL:

http://cern.ch/it/ce/support_index.html

COMPUTING FOR ENGINEERING (*)

(*) *Activities are now in PS group, and the web site will migrate.*

All comments, problem reports, and suggestions can be reported via the “Feedback” Web form accessible from the “IT-CE Home page” (<http://cern.ch/it/ce>, link “Feedback” on the left).

COMMUNICATIONS AND NETWORKS

A complete and up-to-date list of contacts is at the “Communications Systems Group” Help page at the URL: <http://cern.ch/it-div-cs/public/help/>

INTERNET SERVICES

Service Definition	E-mail Address
Web support	www.support@cern.ch
Mail support	mail.support@cern.ch

In addition to this generic address, the normal support lines are listed at the URL: <http://cern.ch/mailservices/Support/>

COMPUTER SECURITY

Service Definition	E-mail Address
Computer Security Information	computer.security@cern.ch
Security Alert Reports	cert@cern.ch

Other Newsletters

Administrative Information Services (<http://ais.cern.ch/newsletter>)

Editor/Distribution: AIS.newsletter@cern.ch

Some Useful Web Pages

TvScreen (Systems Status)	http://tvscreen.cern.ch
Network Connection Request Form	http://network.cern.ch/register
Remote/Mobile Computing	http://cern.ch/it-div-cs/public/services/mobile/welcome.html
User-Oriented Catalogue	http://cern.ch/consult
User-Oriented Service Directory (*)	http://cern.ch/services
FrameMaker Support	http://cern.ch/docsys/framemaker
Text Processing related documentation	http://cern.ch/it/asdoc/textproc.html
IT Home Page	http://cern.ch/it
User Services Home Page	http://cern.ch/it/support
NICE Home Page	http://nicewww.cern.ch/
PC Support Service Page	http://pcwww.cern.ch/
PC Farms Homepage	http://cern.ch/it/pdp/pc/
CASTOR Query Report	http://wwwinfo.cern.ch/htbin/pdp/castor/castor_report.pl
Software Development Tools	http://cern.ch/sdt
Computing Support for Engineering	http://cern.ch/it/ce
Joint Controls Project (LHC Experiments)	http://itcowww.cern.ch/ITC0/jcop/
Web Services	http://cern.ch/WebServices
Mail Services	http://cern.ch/mailservices/

(*) Useful service entry points at this page include the Computing Helpdesk, User Registration, Computing Bookshop, Mail, Netscape, Listbox, etc.

Seminars and Presentations

Designation	Usual Location	Organizer(s)	Tel.	E-mail Address
Computing Colloquia	Auditorium / bldg 500 see http://cern.ch/computing-colloquia	J. Shiers, IT	74928	Jamie.Shiers@cern.ch
Computing Seminars	IT Auditorium 31/3-005 see http://cern.ch/it/seminars	J. Blake, IT	74893	computing.seminar@cern.ch
Technical Presentations	IT Auditorium 31/3-005	S. Cannon, IT	75036	stanley.cannon@cern.ch

Computer Resources Allocation and Divisional Contacts

Computer Resources Allocation Committee (COCOTIME):

Chairman: H. Hoffmann/DG 60/5-006 75458 Hans.Falk.Hoffmann@cern.ch

Secretary: A. Morsch/EP 160/R-018 78617 Andreas.Morsch@cern.ch

Divisional Representatives for Computing

For questions about new registration and resource allocation please ask the contact person for your division.

Div.	Repres.	Div.	Repres.	Div.	Repres.	Div.	Repres.	Div.	Repres.
AS		AT	P. Heymans	IT		ETT	M. Draper	FI	C. Saitta
EST	Ch. Delamare	HR	M. Buttner	EP	A. Bjorkebo	PS	A. Riche	SL	M. Bornand
SPL	F. Costa	ST	E. Sanchez-Corral	TH	E. Gianolio	TIS	G.R. Stevenson		

NICE Divisional Representatives

See the URL <http://cern.ch/w2kmtf/Membership.htm>

Divisional Representatives for Networking

For questions about new installations, testing, local coordination, etc., please ask the contact person for your division (or, if you are an experimental physicist, the networking contact person within your experimental group).

The complete and up-to-date list of contacts is given in the “Communications Systems Group” Help page, at the URL:
<http://cern.ch/it-div-cs/public/help/>.

Editorial

In this Summer edition 2002 of the Computer Newsletter you can find, amongst other things:

- an article on Secure Shell (SSH), written by the CERN Computer Security Team; SSH should replace less secure commands, such as telnet, ftp, rlogin, etc.,
- the announcement of a new release of Castor software, for data storage,
- a very useful article on the Windows 2000 file system permissions model and file security on NICE,
- an introduction to the “Agile Method Movement” provided by the Software development Tools Service (SDT),
- two articles related to the IT Computing Helpdesk, with announcement of the “Move and Upgrade” of the main desk in building 513, and an explanation of the messages and ticket numbers sent to the users.

For those of you who will take some holidays soon I wish you (and your family) to have a nice time, and to all a happy summer. I hope you will enjoy reading this new edition of the CERN Computer NewsLetter.

Best regards,

Nicole Crémel,
CNL Editor, IT/User Services

Below is a message sent by a reader who reported a problem with a URL in the last CNL (CERN-CNL-2001-003), and our reply.

On Sun, 7 Apr 2002, Manuel Delfino Reznicek wrote:

Hi Nicole,

It is always a pleasure to browse the CNL and find interesting things.

In the recently released 2002-001 on page 13 middle of right hand column, there is a recipe to make a change that I personally find very useful. Unfortunately, the directory given is (now) incorrect (maybe the file was moved?). Since it was Sunday, I decided to search all of \\cern.ch\dfs\Applications for the file IEandOffice.vbs (took a while), and indeed found it in directory \\cern.ch\dfs\Applications\CERN\Nice2000 Useful\OFFIE (note the accidentally perverse directory name - 1. reverse order from vbs file name and 2. OFF and IE glued together look like OFFICE misspelled.)

I don't know whether you have an errata mechanism, but at least the FAQ used to help users should be corrected.

Cheers, Manuel.

*From Cnl.Editor@cern.ch Mon Jun 17 16:14:28 2002
Date: Mon, 8 Apr 2002 10:37:02 +0200 (CEST)
From: Cnl Editor <Cnl.Editor@cern.ch>
Subject: Re: Incorrect info in CNL-2002-001*

Dear Manuel,

Thank you very much for your feedback, which proves that the CNL is read in detail! Yes, we have "an errata mechanism", and I have now corrected this QA 833, as you can see at <http://consult.cern.ch/qa/0833> Thus users who will now do a search via "xfind" will benefit from your feedback, and will not spend the same time as you did. I have also corrected the Web version of the CNL for this page (see: <http://cern.ch/ref/CERN/CNL/2002/001/HelpdeskQA/>)

Regards, Nicole.

1. Announcements

This chapter contains announcements concrete in time and/or of informative nature from the division to the User Community.

1.1 Move and Upgrade of the Computing Helpdesk

Nicole Crémel and Roger Woolnough, IT / User Services

In an effort to make the IT Computing Helpdesk more efficient at answering questions directly, at the beginning of May we began a 4-week test period of a new Helpdesk configuration. The changes we made, and for the trial period only to the IT Computing Helpdesk in building 513, are:

1. Additional and more qualified staff have joined the team in a drive to ensure quality replies.
2. Closer links with the support group to pool knowledge reduces escalation to specialists to a minimum.

3. The office has been moved to a quieter environment where it only takes phone calls and emails (no "walk-ins").
4. We have modified the mail template used by our Problem Resolution System (arsystem@sunar01.cern.ch) to invite you to send us your feedback on the new arrangements.

When a "Possible Solution" is proposed you will see the following:

```
*****
* Request for feedback: if this query had been sent to or registered by *
* the IT Computing Helpdesk we appreciate your feedback on the new      *
* arrangement (see news published in cern.computing and cern.nice200).  *
* We also like to know if you are satisfied with the treatment of your   *
* problem. Please send a mail to: user.relations@cern.ch                *
*****
```

Please send us your feedback, it is important to us.

Since the beginning of the trial we have already received dozens of replies, overwhelmingly positive regarding the new arrangements. We have therefore decided to continue the current configuration. This means:

- The main Computing Helpdesk will only handle telephone calls and e-mails. Opening hours have remained the same (8.30 to 17.30 - Monday-Friday).
- Some self-service documentation remains in 513 but users are encouraged to print documentation themselves from the Web, on their local printer.
- Users who bring PCs for repair, will find details posted next to the Computer Operator's window in building 513 of how to proceed. A telephone is also there for further questions.

- The satellite Helpdesk in building 52 remains open for visits from 9:00 until 13:00, Monday through Friday.

We are convinced that joining your input with our efforts (e.g., the addition of manpower, pooling of knowledge, introduction of quality assurance, targeted and timely user information) will result in a much improved Helpdesk service.

For further comments or suggestions, please send us an email:

User.Relations@cern.ch (IT User Services Group).

About the author(s):

Nicole Crémel and Roger Woolnough are members of the User Services group in IT, and are responsible for the supervision of operations of the Computing Helpdesk.

2. Physics Computing

Functional description of all the Central Public Services, specifically oriented to use by the Research sector, either for interactive (central and CPU intensive) or batch processing. The main physics-computing services consist of providing computer farms, central data recording facilities and central data storage facilities.

2.1 Recommendation to Use SSH at CERN

Jan Iven, Denise Heagerty, CERN Computer Security Team

Abstract

CERN recommends the use of secure shell (SSH) to replace less secure commands, such as telnet, ftp and the BSD r-commands (rsh, rlogin, rexec, rcp). This article explains how ssh improves security, the importance of installing and using ssh locally to secure your complete connection, and provides links to installation instructions for UNIX and Windows. Full information is available at the URL <http://cern.ch/security/ssh>.

Why use SSH?

Attackers routinely use passwords from legitimate users connecting to or from a CERN machine. These passwords are usually obtained from watching ("sniffing") the network traffic of that user. The user's account can then be used to attack other machines, both inside and outside CERN. To prevent attackers from obtaining these passwords, encryption must be used.

Secure shell (SSH) is a network protocol and tool suite to transparently encrypt network traffic. It is designed to replace telnet, ftp and the BSD r-commands (rsh, rlogin, rexec, rcp), all of which transmit passwords as cleartext and are vulnerable to connection hijacking. It offers secure port forwarding and can therefore be used to encrypt other network traffic (e.g. X11) as well.

Advice on using SSH securely

Using ssh does not automatically solve all security problems, and it has to be used correctly in order to be useful:

- *ssh* is only secure when used end to end, i.e. directly from one trusted computer to a trusted server. You are advised to install and use ssh on your local system. (Note that using telnet or X11 to connect to a remote ssh client computer will still expose passwords in cleartext, as these applications do not encrypt.)
- Passwords must still be regularly changed: An already-stolen password will continue to work over ssh, and although the encryption mechanism is generally assumed to be secure, passwords may still be discovered. Password advice is at the URL <http://cern.ch/security/passwords/default.htm>.

Installing SSH at CERN

Documentation is provided in the "SSH at CERN" (<http://cern.ch/security/ssh>) web site for:

- Installing SSH on UNIX at CERN (http://cern.ch/security/ssh/install_UNIX.htm)
- Installing SSH on Windows at CERN (http://cern.ch/security/ssh/install_Windows.htm)

Using SSH to encrypt other applications

- To encrypt X11 applications with ssh, see the web page Starting Remote X Applications at CERN (<http://cern.ch/security/X11/default.htm>)

References

- The OpenSSH (<http://www.openssh.com/>) web page contains source, binaries, a FAQ and pointers to other implementations, including MS-Windows.
- The CERN FAQ (http://cern.ch/security/ssh/ssh_faq.html) on ssh
- An external Tutorial (<http://www.tac.nyc.ny.us/kim/ssh/>), written by Kimmo Suominen
- Man pages: ssh, sshd, scp, sftp, sftp-server, slogin, ssh-add, ssh-agent, ssh-askpass, ssh-keygen, ssh-keyscan, x11-ssh-askpass (also on most UNIX systems by typing man command)
- A series of SSH Internet drafts (<http://www.ietf.org/html.charters/secsh-charter.html>) describe the protocol (<http://www.ietf.org/internet-drafts/draft-ietf-secsh-userauth-15.txt>) and architecture (<http://www.ietf.org/internet-drafts/draft-ietf-secsh-architecture-12.txt>).

Contact

Comments and questions should be sent at Computer.Security@cern.ch

About the author(s):

Jan Iven is a member of the CERN Computer Security Team, specialised in Linux and SSH. Denise Heagerty is the CERN Computer Security Officer.

2.2 News on Linux RedHat 7.2.1

Jarek Polok, Jan Iven, IT/ADC and Tim Smith, IT/FIO

CERN RedHat 7.2.1 Certified

Jarek Polok and Jan Iven (Linux.Support@cern.ch)

CERN RedHat 7.2.1 (a customised version of RedHat 7.2) has been certified on May 15th. It contains a fair number of improvements over the last certified version (6.1.1), including a 2.4 kernel, OpenAFS-1.2.3, GNOME and KDE desktops and lots of updated packages (please note that Objectivity is not available for 7.2.1, and most likely will never be).

At the URL <http://cern.ch/linux/redhat7/> there are more details, both for installation instructions and an overview of the certification process.

A big Thankyou goes to all the parties involved in this certification round.

Central Interactive and Batch Services on CERN RedHat7.2.1

Tim Smith

On June 18th the first LXPLUS and LXBATCH nodes running CERN RedHat7.2.1 were made available. These nodes have the standard LXPLUS environment built on top of the CERN certified RedHat7.2.1. The operational integration

and testing of individual elements has been done, and the nodes have been opened up for full functionality testing by the users. This environment is therefore a release candidate for the production LXPLUS service, which should be refined based on user feedback during 2 weeks. On July 2nd a larger set of nodes will be installed with the resultant production CERN RedHat7.2.1 LXPLUS setup. These nodes are in addition to the standard CERN RedHat6.1.1 LXPLUS nodes which will be supported for some considerable time yet, and which remain the default pointed to by lxplus.cern.ch. The nodes can be accessed via the alias `lxplus7`, e.g. `ssh lxplus7`.

The nodes already support a series of enhancements which will be propagated to the older service over time, such as LSF version 4.2 in a simple integrated cluster setup.

Additionally in the certified CERN RedHat7.2.1 many insecure protocols have been disabled for login (for example `rsh` or `telnet`), so access is currently only through `ssh` as well as `X` sessions.

About the author(s):

Tim Smith (IT/FIO) is the leader of the "Batch and Interactive Services" section.

Jarek Polok and Jan Iven (both IT/ADC/LE) are members of the Linux support team.

2.3 Castor Release V 1.4.1

Tony Osborne (for the Castor Team), IT/DS

We are pleased to announce the next release Castor, V 1.4.1, on June 13 in ASIS and will contact all experiments soon after that date to upgrade their servers (stagers). The stager upgrade itself will be a minor one compared to the current version and we would very much appreciate the collaboration of all experiments to accept this upgrade soon after June 13 and in any event before June 22.

The specific enhancements of this release will be:

- Support for writing more than 10k files on tapes (with a new tape label AUL).
- Improved security.
- An internal monitoring framework.
- Preparation for the eventual removal of the Tape Management System. Experiments should note however that developments in this Castor version have allowed us to relax the time-scale for the removal of TMS which had been the end of 2002. Nevertheless we continue to ask that experiments move away from TMS by the end of 2003.
- Preparation for a facility that will permit the re-

packing of CASTOR tapes (e.g. removing 'holes' due to deleted files). This will also be useful for condensing tapes written on the current STK 9940 drives to the higher density of the new 9940 drives that we hope to obtain for production towards the end of the year. The improved density and transfer speed will permit a substantial savings on media costs in the future.

- Preparation for the automatic refill of tape pools.
- Bug fixes.

Details of the above and the bug fixes will be found in the V1.4.1 release notes on the Castor home page (<http://cern.ch/CASTOR/>).

The new client introduced with the ASIS release will co-work with the current stager.

The main CASTOR developments for the rest of 2002 are expected to concentrate on the following areas:

- Optimization of the hardware and software components of CASTOR in order to meet the requirements of the LHC Mock data challenges. This work, done

in collaboration with ADC group, pushes the limits of performance of CASTOR and ultimately benefits all users.

- Implementation of a 'fair-shares' allocation system for tape drives which will prevent single users and/or groups from 'hogging' all available tape drives.
- Improved statistics that should permit experiments to better understand the use of their CASTOR data in order to better organize their data in the CASTOR disk pools and to reduce tape mounts.
- Support for file sizes bigger than 2GB (64 bit support) in collaboration with IN2P3.
- Development of a 're-pack' facility to copy tapes to higher density media while removing files that have been logically deleted.
- Implementation of 'safe' copies of user tapes. Such copies would normally not be read but rather be a backup for important user files. For financial rea-

sons this will have to wait until the introduction of the higher density 9940 drives.

- Redesigning the CASTOR stager into modular functional units that will provide a more scalable solution. The current stager, much modified since the SHIFT era, is badly in need of a rewrite. The implementation phase is not expected to be completed this year.
- Improvements in the robustness of CASTOR by extending the internal monitoring system to be more proactive when problems are detected.
- Work will start on a GRID interface that accepts GLOBUS certificates and publishes MSS/HSM information to the GRID.

As with any running system, operational issues, notably the migration from older RISC/SCSI systems to more modern cost-effective and more performant hardware, have to be given high priority.

3. Desktop Computing

Description and news concerning the CERN desktop environment centrally provided on UNIX and NICE/PCs (Windows-95, -NT or -2000), and providing the "general-purpose computing" environment. It consists of the hardware, software strategy, and services for the basic applications, which one expects to be generally available on desktops. This environment presents the basic computing infrastructure of the laboratory.

3.1 File Security on NICE (Windows) Platforms

Ivan Deloose, IT/IS

Abstract

This article summarizes the Windows 2000 file system permissions model and explains what is important for the user when he needs to change permissions on the NICE servers.

The migration from the Novell file server infrastructure towards Windows 2000 during the year 2000 has marked an important change in the way the permissions are set on the file system. Both systems implement a parent to children inheritance model but the way effective rights are retrieved is completely different and can create quite some confusion for the user.

1. The Windows 2000 permissions inheritance model

When the user changes permissions on a given directory, all underlying objects are explicitly touched at that time. This means that all these underlying folders and files will receive these new rights at the time that permissions are set. The rights inherited from a parent folder are marked as grayed out in the underlying directories, but they are explicitly set. This is called "static inheritance". *Important consequences:*

- Changing permissions on a complete volume can be very long since the system has to change the rights on all underlying folders and files. This is one the reasons we designed the NICE Trustee Manager in order to push this CPU intensive activity away from the users' console towards a dedicated server.
- This inheritance model is subject to potential problems with the permissions between a parent and its children in a directory tree:
 - Imagine a program that sets the permissions on a big volume and stops in the middle of its activity. A part of the underlying folders will be set to the new rights and the remaining will not.
 - When a file is moved from one folder to another, it goes with its initial rights to the new folder. This means that this file can have different permissions from those that would be implied by his new parent folder. This can be very confusing especially when a file is moved between public and private folders.

- As all rights are explicitly applied to each folder or file, access to these objects should be faster than static inheritance.

2. What is important to know when you change permissions on Windows 2000 servers?

- Never use Windows NT4 to change permissions on the Windows 2000 servers. NT4 does not understand the Windows 2000 permissions model and destroys all inherited rights.
- The NICE Trustee Manager is a simplified version of the native Windows 2000 permissions interface. This is the only NICE recommended tool for users who are not experienced with the Windows 2000 file security model. The program is available from the Win-services web site at the URL <http://cern.ch/win/Services/TrusteeManager>.

This interface allows the user to change the basic permissions (read, modify and access control) in an asynchronous way. The requests are submitted to a database and executed by a task running on a dedicated server. This explains the fact that it can take several minutes before the changes are applied on the file system. The user can check the status of his request from the following URL:

<http://cern.ch/win/Services/TrusteeManager/content.asp>.

Documentation is available at the chapter "Managing Permissions: The Trustee Manager" in the document at the URL <http://cern.ch/win/docs/DFS>.

- The native Windows permissions interface should only be used by experienced users who fully understand the NTFS5 permissions model. Documentation is available at the URL <http://cern.ch/win/docs/Win2000Intro/#h-011>.
- Every user is responsible for his own home directory data. He should protect his files against public access. By default a new home directory is only accessible by the user himself and the domain administrators, except the "public" folder where everyone has read access. In case of problems with the security settings of a users' home directory, the following web page is available from the Winservices site to reset the

home directory permissions: <http://cern.ch/win/Services/ResetPermissions>

- Divisional space administrators are fully responsible for their data. IT can only provide the disk space with an initial security setup agreed between the two parties.
- It is important that the "Administrators" have full control on all folders and files, otherwise the backup and data migration services cannot be guaranteed anymore. Never deny access to "Administrators" or "Domain Admins".
- When a file is moved between two folders on the same physical disk (which is the case when you move a file

within your home directory), be aware that the file moves with its initial permissions. Example: When you move a file from your public towards one of your private folders in your home directory, the file will remain public. Therefore we recommended that you copy the file and delete the original one. In this case, the new file will take the permissions of his new parent folder which is private.

- The home directory itself (and not its sub-folders and files) is visible by everybody (so that the public sub-folder can be accessed). The contents of the files of the home directory and non-public sub-folders are however only accessible by the owner of the documents.

3.2 Messages from the Computing Helpdesk and Ticket Numbers

Nicole Crémel, IT / User Services

When you report a problem to the Computing Helpdesk, it will be entered into our Problem Report Management System, and you will receive an acknowledge message from arsystem@sunar01.cern.ch. This system helps support staff track your problem, but you can use it as well to follow the resolution process. Depending on the resolution workflow, you may receive additional messages.

It appears that these messages, and especially the first acknowledgement with the ticket number (CT0000nnnn), look over-complicated for what appears a simple tracking of problem records and occasionally they even cause confusion. Here are some clarifications:

1. Keep the ticket number at hand as a reference when following up the problem with the Helpdesk. As mentioned above, all problems submitted to the Computing Helpdesk, either via phone call or mail generate a numbered ticket in the system.
2. You can use this number to check the status of the problem via the URL:
<http://consult.cern.ch/problem/CTnnnn>
 For instance the following two URLs are equivalent
<http://consult.cern.ch/problem/CT000048140>
<http://consult.cern.ch/problem/CT48140>.

This gives access to the "Display Case Details Area" as provided by the CERN Remedy ARWeb Interface. The lines:

```
Domain ...
Category ...
Type ...
Item ...
```

will show you which service is looking at the query. You can see the "internal dialog" between service providers in the "Work Log" area, and, at the end of the page, under "Status History", the progress indication.

3. You can reply to all mails received from arsystem@sunar01.cern.ch. Just make sure to mention the ticket number in the mail subject line (e.g. when using the "reply" feature of any mail client). The reply will then be automatically sent to the person who is looking after the problem.

If you would like to give us your feedback on a problem submitted to the helpdesk, for instance on the proposed solution, send an e-mail to the IT / User Services group at User.Relations@cern.ch, with the ticket number and your comment.

4. Internet Services and Network

Everything related to Internet in a large sense: i.e., network issues and performances, all technical Web issues, electronic mail, Internet news, home access to CERN facilities, video conferencing and multi-media, network security, etc.

4.1 Delete Virus Alert Messages

Denise Heagerty, CERN Computer Security Officer (*Computer.Security@cern.ch*)

Warnings of viruses are almost always hoaxes - please delete them, even if they come from someone you know. A recent example had the subject: VIRUS ALERT - name: jdbgmgr.exe- PLEASE FORWARD The information in this email is false. The file jdbgmgr.exe is not a virus. It is standard windows file used by the Java	debugger. You must never forward email of this kind - just delete it. The CERN computer security team will inform you if there is ever a real alert. You can check if an email is hoax from the link in the virus section of of the Computer Security home page http://cern.ch/security .
--	---

4.2 The End of DECNet Mail Relay

Michel Christaller, IT / IS

With a view to reducing costs, we have stopped the maintenance of the last DECNet mail relay at the end of March 2002. The server will however be kept up and running until a failure occurs. In practise this means that DECNet mail delivery	may stop any time after the maintenance contract has been cancelled. Please take note of this, and change your email address out of DECNet mail if this is still the case.
---	---

5. Scientific Applications and Software Engineering

This includes descriptions of: scientific applications and libraries from CERNLIB and Anaphe, mainly used by the Physicists; engineering applications like the ones on PaRC or those associated to online controls; software development environment.

5.1 Latest News from Software Development Tools Service

Eric Poinsignon, IT/PS (Sdt.Support@cern.ch)

Abstract

SDT latest news about Together, Sniff, STP and NFS.

You can find complete information on what we have and how to use it at the URL:

<http://sdt.cern.ch/>.

You can contact us at e-mail address Sdt.Support@cern.ch

Latest news

- Together (<http://sdt.cern.ch/Together/>) 6.0:
Despite some rumours, *TogetherSoft* sent a renewal for the academic license of Together 6 for one more year. Installation and tests are on the way. Version 6 is not yet in production but it will be before the end of June. (The current license of Together 5.5 will expire on 30 June 2002). Together users who are on a hurry can already ask us for the new license.
- Sniff (<http://sdt.cern.ch/Sniff/>) 4.0.1: has been installed but *not put in production* because the migration process is complicated. Volunteers have to contact us so that we will describe on the web a complete process to follow. A first draft of the migra-

tion process is already accessible at the URL <http://sdt.cern.ch/Sniff/Problems.html>. The documentation of Sniff 4.0.1 is available at the end of the Doc page. The default version stays in 3.2 for the moment.

- Software Through Picture (<http://sdt.cern.ch/Stp/>) (STP): will be stopped and taken out of production this summer. STP has not been maintained for almost 2 years. STP users have to extract everything they need from the database. The new tools replacing this one are Rose (<http://sdt.cern.ch/Rose/>) (Rational) and Together (<http://sdt.cern.ch/Together/>) (TogetherSoft).
- NFS service : on the SDT server “pttools” is planned to be stopped this summer. NFS mount points have to be replaced by another solution e.g. AFS links. Users with machines that are not using AFS should contact us for discussion.

About the author(s):

Eric Poinsignon is looking after the SDT Service run by IT/PS.

5.2 Introduction to Agile Method Movement

Eric Poinsignon, IT/PS

Abstract

A very short introduction to Agile methods, including RUP (available at CERN).

Introduction:

A development with performance and quality needs an iterative and incremental project management. The Unified Method Language (UML) shows the strong link between modelisation form and prototype development. This way of *project management* and *software process* is based on the *Agile method movement*.

The four main principles of the Agile methods:

1. Communication better than contract on specifications
2. Competence and extreme tool usage
3. Working functionalities better than too much documentation
4. Change acceptance

In fact, the main difference between classic and Agile methods are that the paradigm is *predictability for classic* and *adaptability for Agile*.

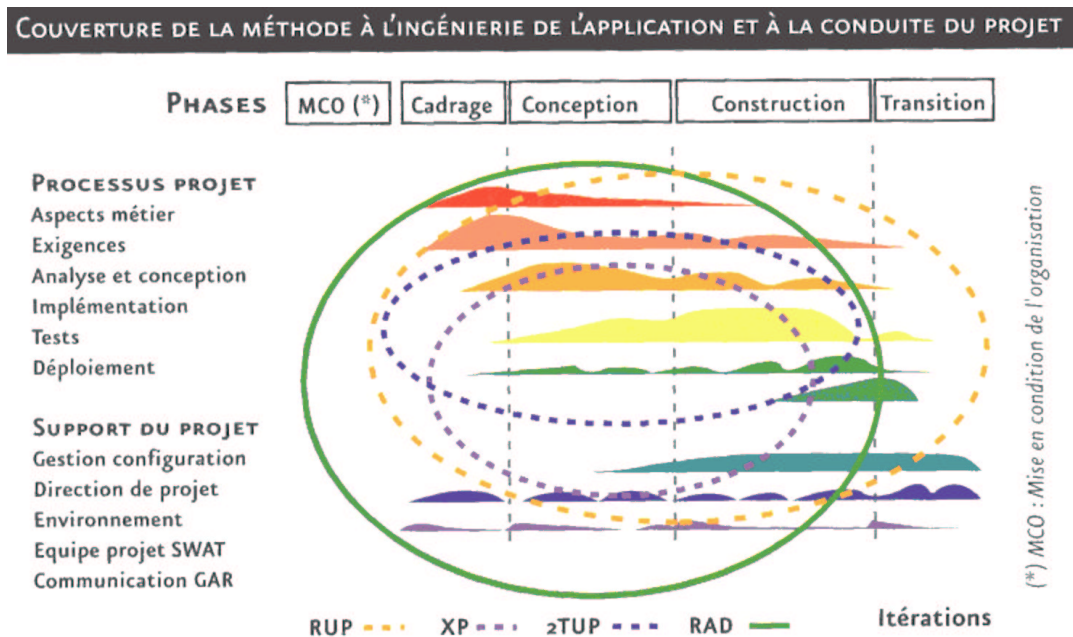


Figure 5.1: Over view of the cover areas of some agile methods (shown at the bottom). The development phases are on the horizontal axis, the project management actions on the vertical axis.

List of the Agile methods:

Around ten different methods are listed here. Hopefully, there are relatively similar. Most of the values and techniques are shared.

- Adaptive Software Development (ASD)
- Feature Driven Development (FDD)
- Crystal Clear
- Dynamic Software Development Method (DSDM)
- Rapid Application Development (RAD) from James Martin (the very first Agile method)
- Scrum
- Xtreme Programming (XP)
- Rational Unify Process (RUP), available at CERN

“Proposition pour l'Unification des Methodes Agiles” (PUMA) tries to unify them. One can see for each method the different cover areas in Figure 5.1 (from *Le Monde Informatique*).

On the way to Agile methods:

The optimal method depends on the project. It would be a subset of those methods plus the right specific one in function of the context. Such an innovation would have the effect to touch the IT profession. So it's often the full organisation that must change. To reach this, the organisation must evolve to a certain dynamism.

At CERN, one can find a full knowledge base on software process named *Rational Unify Process (RUP)*. I suggest everybody involved in software development (development, project management, quality insurance, software architect, testing, configuration management or software

design) have a look at this web knowledge base RUP (<http://sdt.cern.ch/RUP/>). One will also find links to interesting sites in the associated documentation page (<http://sdt.cern.ch/RUP/Doc.html>).

Contact at CERN:

RUP is supported by the Software development Tools Service (SDT). Web page: <http://sdt.cern.ch/RUP/>.

Our Email address is sdt.support@cern.ch.

About the author(s):

Eric Poinsignon is looking after the SDT Service run by IT/PS.

6. The Learning Zone

All kinds of “educational” computing issues, not necessarily directly CERN-related, such as computing news from the Press and tutorials on various subjects.

6.1 Questions and Answers from the Computing Helpdesk

Collected by the User Assistance Team in the User Services Group in IT Division

Nicole Crémel (Editor), IT/User Services

Abstract

A collection of Questions & Answers that have been treated by the Computing Helpdesk managed by the User Services group.

N.B. The number in parentheses refers to its relative numbering in the “Question-Answer” database.

See the URL <http://cern.ch/consult/qa/NNNN>, where NNNN is the problem identifier (number).

Windows Support

Question [987] – Excel chart

I'm trying to establish an Excel chart where I have:

- *descriptions in cells A (downwards), representing years*
- *data in cells from B onwards*

My problem is that, when I invoke the chart wizard after highlighting the whole sheet, data is somehow plotted correctly, but the descriptions of cells A are also plotted, getting named "Series1", "Series2", etc. by Excel. How can I avoid the latter?

Answer

This happens when cell A1 also contains information, which causes Excel to think it also has to produce chart lines on the A column (it doesn't know that the user only means it as a 'header' or 'description' column, as it saw numerical data - the years - in it, further down).

Delete the content of cell A1 (you can also just shift all cells downward one row, so that what was in A1 is now in A2). The chart will now work correctly, representing the cell A 'years' data numerically as years and not as 'Series' anymore.

Note: One doesn't have to leave cell A1 blank on every Excel sheet, but it would be good general practice to do so.

Question [996] – Phonebook: OLEAUT32.DLL is out of date

When I'm trying to open the NICE 2000 phonebook, I am prompted with an error message:

The file OLEAUT32.DLL is out of date. This program requires a newer version.

Answer

You are running an old version of this DLL. The more recent one you had earlier was most certainly downgraded by installing some non-standard external software.

Either uninstall this software again and reboot, or re-register this DLL by executing (from the command line prompt):

```
regsrv32.exe "C:\WINNT\system32\oleaut32.dll"
```

Question [3021] – Find computer name out of an IP address

How can I find out the name of a server or workstation when I only know its IP address?

Answer

In Windows, get a DOS prompt and type: `ping -a 'IP-address'` (without the quotes)

To obtain a DOS prompt in NICE2000 or NT, type `cmd` on the `'start - run'` prompt. In NICE 95/NT, one can use `'start - applications - 12 DOS prompt'`.

The equivalent unix command is `nslookup 'IP-address'` (without quotes)

The above methods only work if the host is reachable.

Another method for CERN sites, via the web, is with a search from the <http://network.cern.ch/register> web page: select the operation (link) “View the registered information about a device”, and provide the IP address (TCP/IP).

Question [3040] – Excel refuses text beginning with / (forward slash)

When I try entering text into an Excel cell that begins with the "/" (forward slash) character, typing is refused. The online help doesn't seem to have any article available concerning this special character.

Answer

This behaviour only happens when you *click* a cell and enter text. To enable text editing directly in an Excel cell, either *double-click* it or hit F2 before entering the leading "/" character.

Note: The “edit directly in cell” check box must be enabled to do this (which it is by default). If it isn't, click Options on the Tools menu, click the Edit tab, and then select the “Edit directly in cell” check box.

Question [3041] – Print PDF with Adobe Acrobat reader - acro32.exe has generated errors

When I try to print a PDF file with Adobe Acrobat reader 4.05 I get the following error :

acro32.exe has generated errors and will be closed by Windows.

The errors persist, even after:

- re-installing printers;
- re-installing Adobe Acrobat reader 4.05;
- restarting the computer.

Answer

Check for a process called AcroTray.exe in the Task Manager. Kill it and retry printing.

Question [3051] – Windows Installer - network resource unavailable 'ISScript.Msi'

When I try to install third party software on my notebook I get the following error message:

Windows Installer - The feature you are trying to use is on a network resource that is unavailable --- installation package 'ISScript.Msi'.

The folder it is looking in is:

"C:\DOCUME 1\userid\LOCALS 1\Temp\{EB152B13-61AC-11D4-8F43-00B0D02CFCC8}\{F1EC876A-BFBA-4171-A138-C654BB13C6BB}\"

Answer

Please note: third party software installations are normally not supported by the NICE team. But here are some hints:

This error indicates that the msi package has been built using InstallShield for Windows Installer and it was unable to successfully install one of its key components using the ISScript.msi file.

You can probably solve this problem by downloading a new version of the file called ISScript.msi (from the InstallShield site or from the site of your software).

Download it and double click on it. Once you have done this, try running your application installer again.

Question [3074] – Windows 2000 server licence and installation

I would like to know how to apply for a Windows 2000 server licence and what the cost is.

Answer

Such an installation must be done by the user, there is no NICE support for it. The installation CD has been copied onto DFS. CERN has no global licence for Windows 2000 server: You have to buy as many licences as servers.

For that you are asked to contact Mrs. Marlene Prigent (tel 72064).

Unix Support

Question [3047] – Restricted login access to LXBATCH

Since yesterday (Apr 2002) I could execute commands like: "rsh lxbatch521 ls /pool/lsf/..." from my usual lxplus account. This stopped working yesterday afternoon.

Answer

The fact that general users are not able to login to batch nodes is the desired behaviour. We have had access restrictions in place for some time on the batch clusters, but there were always ways to get around the restrictions (for example telnet was blocked but not rsh!). Since yesterday a new and much more effective method was put in place which really blocks all interactive access (login) to Lxbatch. This is necessary since interactive access is abused to get around the load-balancing.

Following news has been published in the `cern.computing` newsgroup on Apr 30 2002. If you still have questions on this issue, send a mail to `LSF.Support@cern.ch`.

Scope: Logins to LXBATCH using any means such as telnet, rsh, ssh

Abstract: The login restriction mechanism on LXBATCH has been upgraded to patch the holes through which it was still possible to gain interactive sessions on these batch nodes.

Effective: 2002/04/30

Details: For the past three years there have been login restrictions enforced on batch clusters such as LXBATCH. This is necessary in order to reserve the nodes for pure batch work, and leave them accessible only through the LSF commands. Unfortunately the mechanism used was known not to be bullet proof and determined people were still able to get in. We have therefore changed to a more standard Linux mechanism which is effective against all connection protocols such as telnet, rsh and ssh. So henceforth the LXBATCH cluster should really only be accessible through the LSF commands, and the LSF system can correctly share the resources without exceptions. If you have applications which were relying on these loop-holes then please contact us to discuss the approved mechanisms to achieve your goals.

Question [2418] – Linux PC does not boot - file system with errors

My Linux PC refuses to boot and gives many error messages:

```
/dev/hda7 contains a file system with errors
...
unexpected inconsistency, run fsck MANUALLY
...
give root password for maintenance
or ctrl-D for regular start...
```

I do not have the root password, and ctrl-D brings me after a while to the same position as above.

Answer

Try to go in single user mode and to run `fsck` of the filesystems with problems (`/dev/hda7`).

N.B. to go to single user mode select `linux single` at the LILO prompt.

If this does not help you should contact the administrator of the machine with the root password, (you should get his name from the network/register database).

Question [3044] – Time policy for /tmp file system

How long can I expect files in /tmp to stay, e.g. on Dxplus or Lxplus?

Answer

/tmp is for temporary files only. There are several tools that repeatedly monitor the /tmp file system and delete old files: e.g., on Dxplus, at 4:20 every night, files not accessed for the past 2 days are deleted from a simple "find" command. On all systems (including Lxplus) there is also a program called "purge2" running, which is not so strict (it allows 5 days for a file). For more details you should explain precisely what are your needs.

Question [3032] – Request for maxidisk (e.g. ATLAS collaboration)

We need quite a lot of space on Unix to run our software (ATLAS collaboration). Is it possible to get some kind of "maxidisk"? Can such a maxidisk be used (and shared) by several users?

Answer

Please note first that there are three major sources of disk space on Unix central servers:

1. local temporary space (e.g. /tmp) on your machine. This is probably the best for most types of access.
2. global space (at CERN it is /afs/cern.ch using AFS) which has a caching mechanism and a central server. This is ideal for moderately small amounts of data and source code. It is backed up nightly, and has the convenience and risk and extra cost associated with these features.
3. data mass storage (i.e. SHIFT/Castor at CERN).

AFS space is managed per account (with a maximum 500 MB) or project directory which may be personal or experiment wide.

If you think the solution for you is AFS space, it is possible to create a 500 MB maxidisk, e.g. /afs/cern.ch/atlas/maxidisk/d141. Such a request must be addressed to your experiment mailing list (e.g. atlas-support@cern.ch), or to a computer administrator for ATLAS (group ZP, look at: <http://consult.cern.ch/xwho/people/form/admins>).

Access to this space is governed by the usual AFS rules, and it is possible to configure it (e.g. give read or write access to several users) with the usual command "fs setacl" ("fs listacl" will display current access and ACLs setting).

Question [3018] – Problem with .Xauthority and/or AFS (ssh connection)

Trying to connect to Lxplus with ssh I get the following error message:

```
/usr/bin/X11/xauth: timeout in locking authority file
/afs/cern.ch/user/d/dirac@fr/.Xauthority
fs: You don't have the required access rights on
'/afs/cern.ch/user/d/dirac@fr'
Warning: cannot calculate quota - there might be AFS problems
```

Answer

This problem happens when connecting with ssh from one AFS account to another and when the Kerberos ticket and AFS token are not getting forwarded. A solution is to force it and use the command `ssh -k` or issue a `klog` command after login on the machine.

This is a known problem of the current SSH installation (April 2002) but the system managers are working on a solution such that it is not necessary to force this -k option.

Mail Support**Question [156] – Read mail from outside CERN**

When I travel for work, how can I read my mails? (i.e. access my CERN mailbox from outside).

Answer

To access your CERN mailbox from outside, and you have various possibilities:

You can try to use the CERN Webmail interface (at <http://mailwww.cern.ch/webmail> - Based on the Internet Messaging Program (IMP) - with your CERN Mail username and password. However, please note:

- you should test your settings for:
 - timeouts:** if the network is too slow, you may experience failure

cookies: should be allowed

SSL: should be active

security levels: : some pre-configured values (basically affecting cookies) in some browsers might cause problems.

- The following note is what you can read in the webmail web page:

NOTE: This interface is only available for a trial period and is not officially supported by the CERN mail service. If you have any problems using this interface please do NOT contact the official support lines here at CERN. You may however send a message to or subscribe to the `webmail-discuss@cern.ch` list if you have any questions.

An alternative solution is to configure your mail client (e.g. Netscape, Outlook, etc.) to access the CERN Mail Server, as follows:

```
Mail server user name: userlogin
Outgoing mail (SMTP) server: maildev.cern.ch
Incoming mail server (IMAP): userlogin.mailbox.cern.ch
Mail server type: IMAP
IMAP mail directory or root directory: mail/
Authentication only needed for incoming mail servers.
```

Finally, a last possibility for Unix users with an AFS account is via telnet (Ucomtelnet lxplus.cern.ch) and by using pine with your AFS username and password.

However, please note that, apart from support linked to the usage of the CERN Mail server, there is no official support provided by the CERN mail services for the procedures described above. Hence we cannot help if they do not work.

Question [3046] – Problem with Outlook file \\cern.ch\dfs\...\00000001.pst

I cannot read anymore my mail using Outlook on my PC. I get the error message:

```
Unable to expand the folder. The set of folders could not be opened.
Errors have been detected in the file
\\cern.ch\dfs\users\m\mpimenta\outlook\... - 00000001.pst
Quit all mail-enabled applications and then use the Inbox Repair Tool.
```

Where can I find this "Inbox Repair Tool"?

Answer

The Inbox Repair Tool (also referred to as `Scanpst.exe`) is designed to scan and repair inconsistencies found in a .pst or .ost file.

You will get all details on how to use it in the "Windows 2000 @ CERN" User Guide, or, on the Web, at the URL <http://cern.ch/winservices/docs/Outlook/>, in the section "The Inbox Repair Tool with Internet Only Option (IMO)", at: <http://cern.ch/winservices/docs/Outlook/#h-012>

Question [2483] – Mail error 452 in pine

I can not send any more mails using "pine" on Unix. When I send a mail, I get the error message:

```
Mail not sent. Sending error: 452
```

Answer

Error "452" in pine is "Insufficient disk space; try again later", which happens when the machine where you are working does not have enough mail spool space (i.e. the `/var` file system is full and the `sendmail` program had no space left to store the message).

- If the machine is a central Unix server, based on AFS (e.g. Lxplus) it can mean that the `afsmail` or mail server spool is full. Type `hostname` to find out which node has the problem and contact the mail support team (`Mail.Support@cern.ch`).
- Still on a central machine the problem should disappear if you "quit" pine and disconnect, then reconnect to a different node (where most likely the spool space will be fine).

- On a non-central machine contact the system administrator.

Web Support

Question [1768] – Publish AFS files via the web

How can I publish my afs-files on the web without having a server of my own?

Answer

1. Create an AFS web site using the WebRegister site.
2. Go to your AFS home directory (`cd $HOME`)
3. Type the command `webaccess`, which will create the directory `/www` with the adequate AFS ACLs.

From then on, all HTML files (`.html`) in the `~/www` directory and its subdirectories will be visible on the web, via the URL `http://cern.ch/loginname`.

Example: A file `mydoc.html` will be visible via the URL: `http://cern.ch/loginname/mydoc.html` with `loginname` being your AFS login.

Please note:

1. This will only work if your account is already registered with the central web servers. To test if it is, go to the Webregister page and search your website.
2. If you want to offer a directory listing of your files see [qa/3057](#).

Question [190] – Enable web directory listing (index) on NICE website

How can I offer a directory listing to people trying to access via the web the files I have stored at my NICE website?

Answer

We should first clarify what one should understand by a “NICE website”. This is considered a website “Mapped to a directory on NICE” in step 4 of the Webservices registration mechanism, at `http://cern.ch/webregister`.

Let us assume that your website is `http://cern.ch/~loginid`; this is typically mapped to your `J:\WWW` directory. Also note that “Welcome page” documents at given directories must be named `default.htm`. Thus the above URL will try to show `J:\WWW\default.htm`.

If the “Welcome page” document does not exist **and** directory browsing is disabled (the default, a safe option when you don’t want to disclose all document names at your website), the browser will give an access error.

However if directory browsing is enabled, the browser will show a directory listing in absence of an adequate welcome page. This can be set up for every directory needed.

How to do it?

To enable directory browsing you have to create/edit the file `j:\WWW\nicewww.ini` containing the following lines:

```
[NiceWWW]
EnableDirectoryBrowsing = 1
```

You can also use the WebRegister Interface to change the “directory browsing” attribute.

Historical reference

Default Access Rights to NICE Home Directories was fully explained in a CNL article (not up-to-date).

Question [3057] – Enable web directory listing (index) on AFS (Unix)

How can I offer a directory listing to people trying to access via the web the files I have stored on AFS and that are accessible via the Web (e.g. `http://cern.ch/username`)?

Answer

This is possible when using the Apache server. You should simply create a file (in the directory you want to list files) with the name `.htaccess` and in this file write a line:

Options +Indexes

The Apache server is used at CERN, and you have quite a detail description of it for User Customization at the URL <http://consult.cern.ch/cnl/236/apache.html>

Question [3058] – Web access restriction

How is it possible to protect web pages and make some access restriction (e.g. via a password)?

Answer

This is possible using the Apache server. See all details in the CNL article “User Customization of Apache Web Servers”, section “How to protect your data” (restricting by hostname or by username and password).

Question [3059] – Web page redirection

I would like to map an old URL automatically into a new one. How is this done?

Answer

Using the Apache server you can do it with the `redirect` directive in the file `.htaccess`.

This is explained in the CNL article “User Customization of Apache Web Servers”.

Question [3024] – Internet Explorer’s headers and footers printout options

What are the Internet Explorer possibilities concerning the printout of headers and footers that I can specify in the ‘page setup’ tool?

I would like to see the URL of a web page printed, but I do not care about the time of the day nor the date when it was done. Where can I find a description of all these variables? I searched in the IE online help but failed...

Answer

Internet Explorer’s headers and footers printout options are described within its online help, but I must admit, they are well hidden. One can find them in the article:

```
"To change how a Web page looks when it prints "
  which one can reach via the online help index:
- web pages
- printing
- to print a web page
- "related topics"
```

This contains a full description of the functions of all printing variables.

Question [3035] – FTP from Internet Explorer - Page cannot be displayed

When I try to FTP from my Internet Explorer (V5) on Nice 2000 to LXPLUS, I immediately get the error message “The Page cannot be displayed”, even before any login prompt.

Answer

For some reason (although this is not the default behaviour) your FTP folder viewing must have been disabled.

- Start Internet Explorer;
 - Open “Tools->Internet Options” and select “Advanced”;
 - There you will find under the “Browsing” category a checkbox called “Enable folder view for FTP sites”;
 - Check it and everything should work fine.
-

About the author(s): *Editing and revising the “Question and Answers” database is a daily task of the members of the User Assistance Team in the User Services group.*

7. User Documentation

Everything related to "computer documentation": updates to computer documentation distributed by IT, offerings of the Computing Bookshop, etc.

7.1 News from the User Services Bookshop

Roger Woolnough and Jutta Megies, IT/User Services

By the time the CNL is issued we will be in possession of the new CDs for Red Hat 7.2.1 certified installation. Note this is a 2 CD set. We also have a single CD for the ASIS installation.

New arrivals since the last CNL include the long awaited "*Linux Administration Handbook*" by Nemeth, the rewrite of his comprehensive Unix guide. As companions to books

already in stock we have a CD for the popular "*Numerical recipes in C++*" as well as an "*HTML pocket reference guide*".

New editions of two books have arrived, firstly "*Java in a Nutshell*" and secondly "*Managing and Using Mysql*".

Comments on the books or suggestions for additions to the catalogue can be sent to Bookshop@cern.ch.

7.2 User Services Book Catalogue

Roger Woolnough and Jutta Megies, IT/User Services

Situated in Building 513 1-022 (tel. 74050) is the Computing Bookshop provided by the *IT / User Services* group, where CERN users can find computer books and CDs at discount prices. The service is open weekdays from 8.30 to 12.30 or contactable by e-mail to Bookshop@cern.ch. Books are purchased from some 15 publishing houses and the catalogue offers a selection of documentation aimed at the range

of computing utilities available at CERN. The service welcomes suggestions from the user community for new acquisitions. Purchasing may be done internally via EDH or TID or alternatively cash payments via the CERN Bank.

The list, with all the relevant information, is compiled regularly at the URL <http://cern.ch/consult/books>.

8. Just For Fun ...

Some jokes to end this CNL, and make more fun ... for those who did not read them already, somewhere else!

8.1 Une histoire du support technique...

Found on the Internet

Après avoir eu des problèmes avec son ordinateur, un pauvre utilisateur appelle au téléphone l'équipe de support technique de son entreprise, espérant obtenir un peu d'aide.

Techn.: Support technique, bonjour! Comment puis-je vous aider?

Client: Il y a de la fumée qui sort de l'alimentation de mon ordinateur.

Techn.: Il va sans doute vous falloir une nouvelle alimentation!

Client: Non, non, certainement pas! Je dois seulement changer les fichiers de configuration.

Techn.: Monsieur, s'il y a de la fumée qui sort de l'alimentation, c'est que l'alimentation est grillée. Il va vraiment falloir la remplacer!

Client: Pas question! Quelqu'un m'a dit qu'il suffisait de changer la configuration du système au démarrage pour régler ce problème. Vous n'avez qu'à me dire quelle est la bonne commande à exécuter...

Après dix minutes, malgré tous les efforts du technicien pour expliquer le problème et sa solution, le client s'entête à prétendre avoir raison et exiger qu'on lui indique la commande qui va régler ça. Le client ayant toujours raison, il ne reste plus au technicien qu'une seule façon d'agir...

Techn.: Cher monsieur, je suis désolé: vous avez raison. Nous n'avons pas l'habitude de communiquer cette information à nos clients, mais il y a effectivement une commande DOS non documentée qui règlera votre problème.

Client: Je vous avais bien dit!

Techn.: Ajoutez simplement la ligne

DEVICE=\DOS\NOSMOKE.SYS

à la fin de votre fichier CONFIG.SYS, redémarrez l'ordinateur et tout devrait rentrer dans l'ordre. Rappelez-moi si vous avez le moindre problème.

Une dizaine de minutes plus tard, le client rappelle le technicien.

Client: Ça n'a pas marché. L'alimentation fait encore de la fumée...

Techn.: Ah. Dites-moi, quelle version de DOS utilisez-vous?

Client: MS-DOS 6.22

Techn.: Voilà le problème! Cette version de DOS n'inclut pas NOSMOKE. Il vous faudra appeler Microsoft et leur demander de vous envoyer une mise-à-jour. Tenez-moi au courant du résultat de votre appel.

Environ une heure plus tard, le même client rappelle.

Client: J'ai besoin d'une nouvelle alimentation...

Techn.: Pas de problème, je vous l'envoie aujourd'hui même, mais dites-moi: comment êtes-vous arrivé à cette conclusion?

Client: Eh bien, j'ai appelé Microsoft et j'ai répété à leur technicien ce que vous m'aviez dit. Après une longue discussion, il m'a demandé la marque et le modèle de mon alimentation...

Techn.: Et qu'est-ce qu'il vous a dit?

Client: Il a dit que mon alimentation n'était pas compatible avec NOSMOKE...