

INTRODUCTION À LA FORENSIC

SOUTENANCE DE STAGE

Cherrier Martin

10 semaines

Tuteur : Eddy Godelle

Maitre de stage : Christophe Rosenberger

SOMMAIRE



Présentations

*DU LABORATOIRE
DE L'ÉQUIPE
DE LA FORENSIQUE*

Objectifs & Missions

DOCUMENTATIONS
TESTS
COMPRÉHENSION

Résultats du stage

Conclusion & Futurs

PRÉSENTATION DU LABORATOIRE



Laboratoire de recherche
PLUSIEURS TUTELLES, DIFFÉRENTS SITES



Divisé en équipes
SAFE, CODAG, AMACC, MAD, IMAGE ...



Différents sujets et projets
FORENSIC, BIOMÉTRIE, G'DIP, GMIC



PRÉSENTATION SAFE



Équipe de chercheurs



Différents sujets étudiés



Des projets variés



FORENSIQUE ?

SCIENCE DE RECOUVREMENT DE DONNÉES



Analyse(s) de supports
RÉCUPÉRATION, ISOLEMENT, AUTHENTICITÉ



5 Étapes nécessaires
IDENTIFICATION, PRÉSERVATION ...



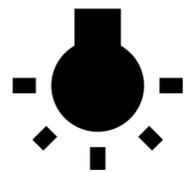
Objectifs judiciaires
MAIS AUSSI DE SAUVEGARDE ET DE PROTECTION



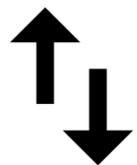
PRÉSENTATION G'DIP



Interface Web Modulable
DIFFÉRENTS FILTRES, GRAPHIQUES

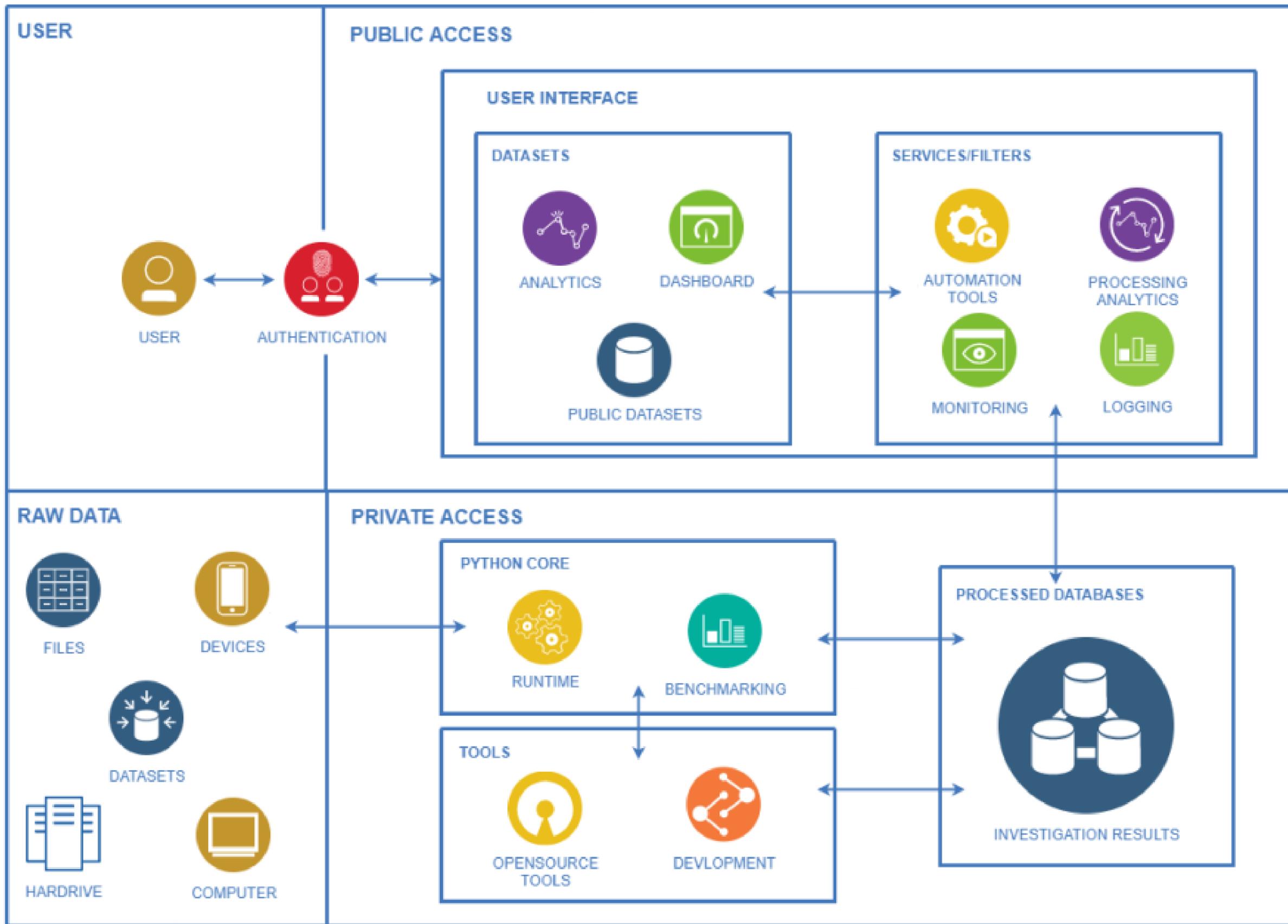


Introduction à la forensic
INTERFACE POUR DÉBUTANTS



Différentes utilisations
PROFESSIONNELS, PARTICULIERS,







171 / 5500

1 Filtre actif



- text
- image
- application
- autre

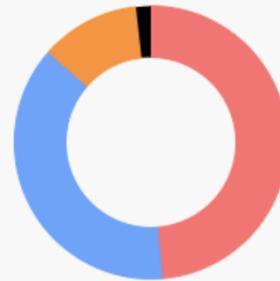
File

1



Image

Classes

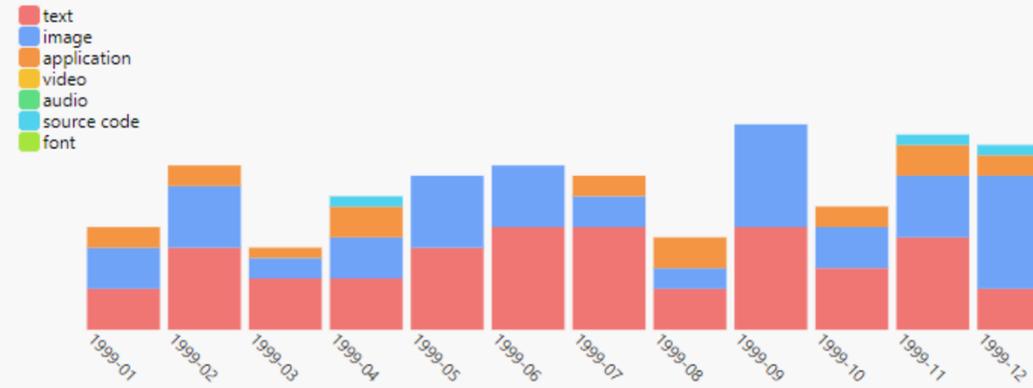


demo **Name**
 4.16 **Go**
 23 **Folders**
 5500 **Files**
 16 **Filtres disponibles**

- demo dossier: 22 fichier: 0
- + 2000 dossier: 10 fichier: 0
- 1990 dossier: 2 fichier: 0
 - + 1996-1999 dossier: 0 fichier: 15
 - + 1991-1995 dossier: 0 fichier: 1
- + documents dossier: 1 fichier: 35
- + total dossier: 0 fichier: 16
- + images dossier: 3 fichier: 13
- + compt dossier: 0 fichier: 25

Folders

Années> Mois



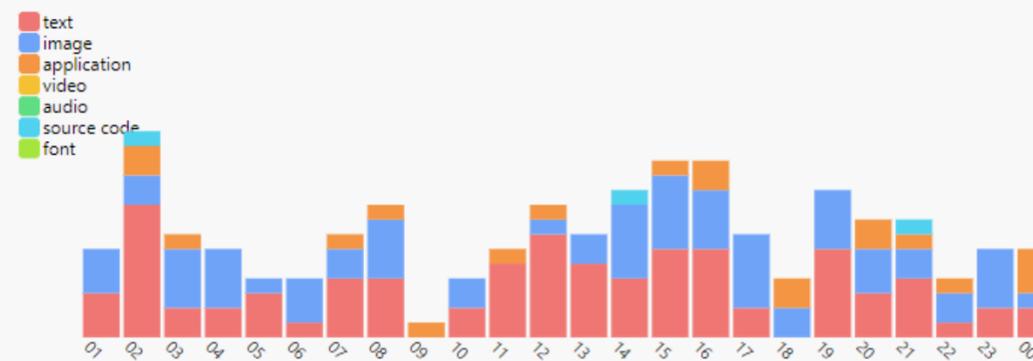
Historique :

0 Created at



First Date 1990-01-05
Last Date 2023-04-24
Class 6
Extension 45
Mimetype 33

Heure



OBJECTIFS



**Documentation
& Méthodologie**

1



**Tests de
l'interface**

2



**Compréhension
FRED**

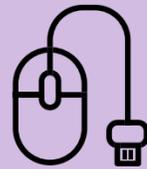
3

MES MISSIONS



Rédactions de documents

1



Tests & Retours

2



Analyse de supports de données

3

Machine FRED

Forensic Recovery Evidence Device



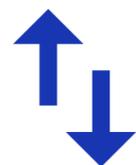
Baie 4D

*PORTS BLOQUEURS D'ÉCRITURE
ÉCRAN AFFICHANT DES INFORMATIONS*



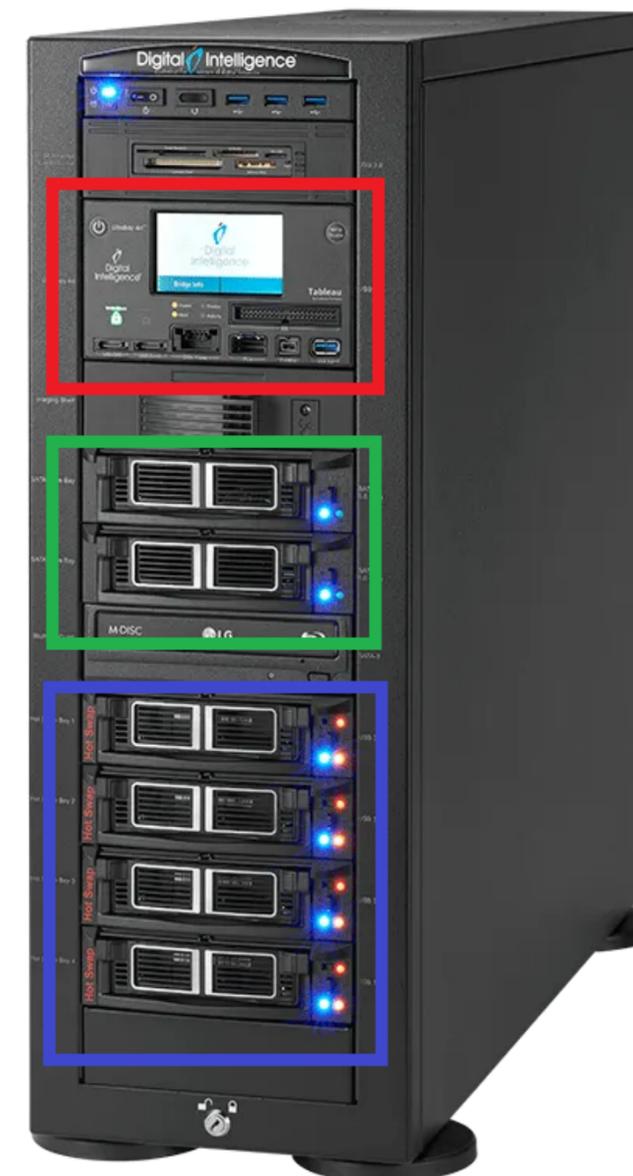
Stockage fixe

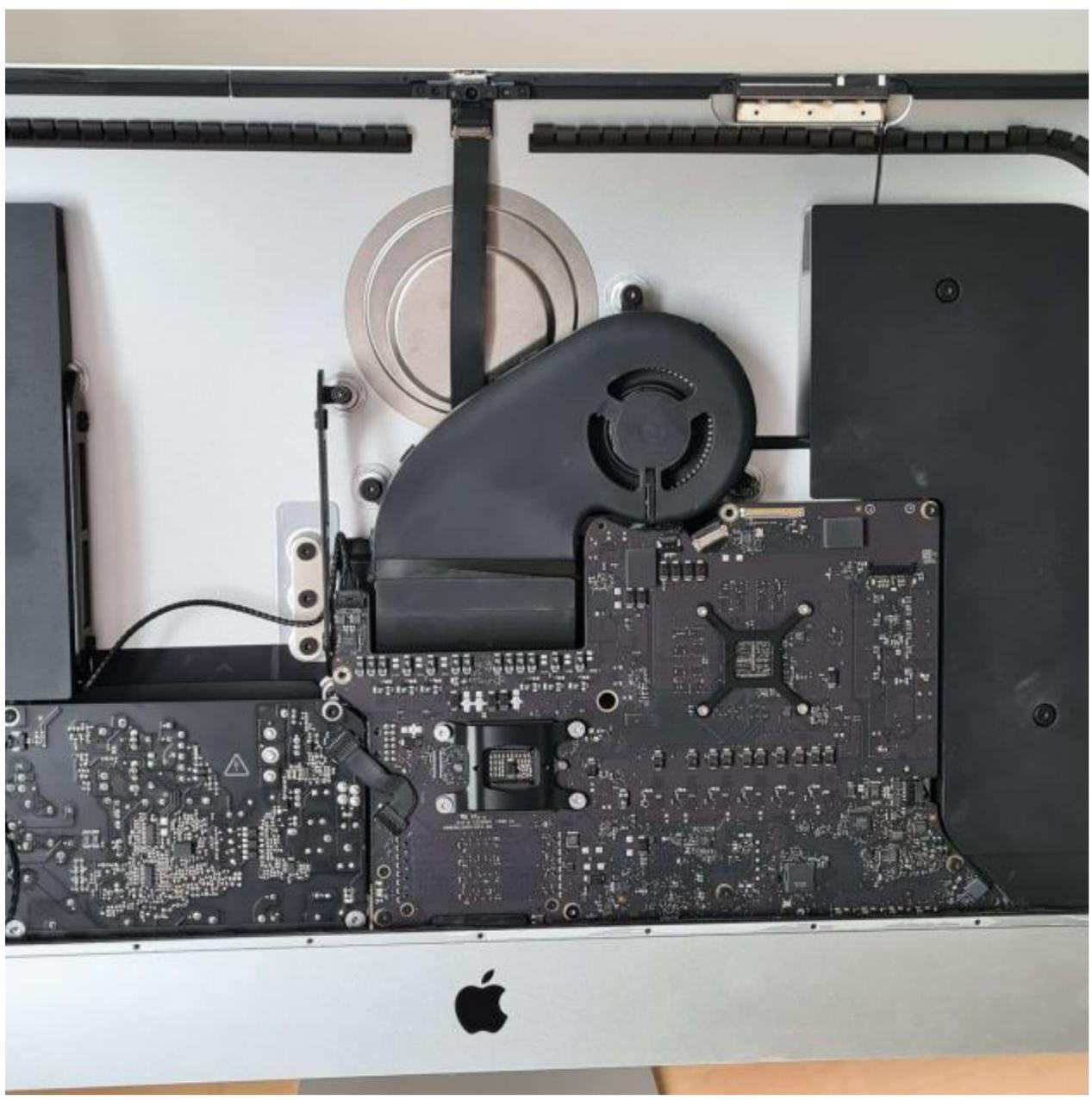
RACKS VIDES - AJOUT DE SUPPORTS



Partie amovible

AJOUTS D'OUTILS ET D'INTERFACES





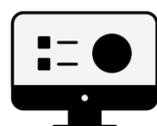
Autopsy

Logiciel d'analyse



Logiciel Open-Source

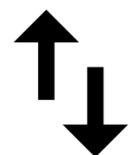
BASÉ SUR LA SUITE SLEUTH-KIT



Différents outils d'analyse

CARTE DE GÉOLOCALISATION

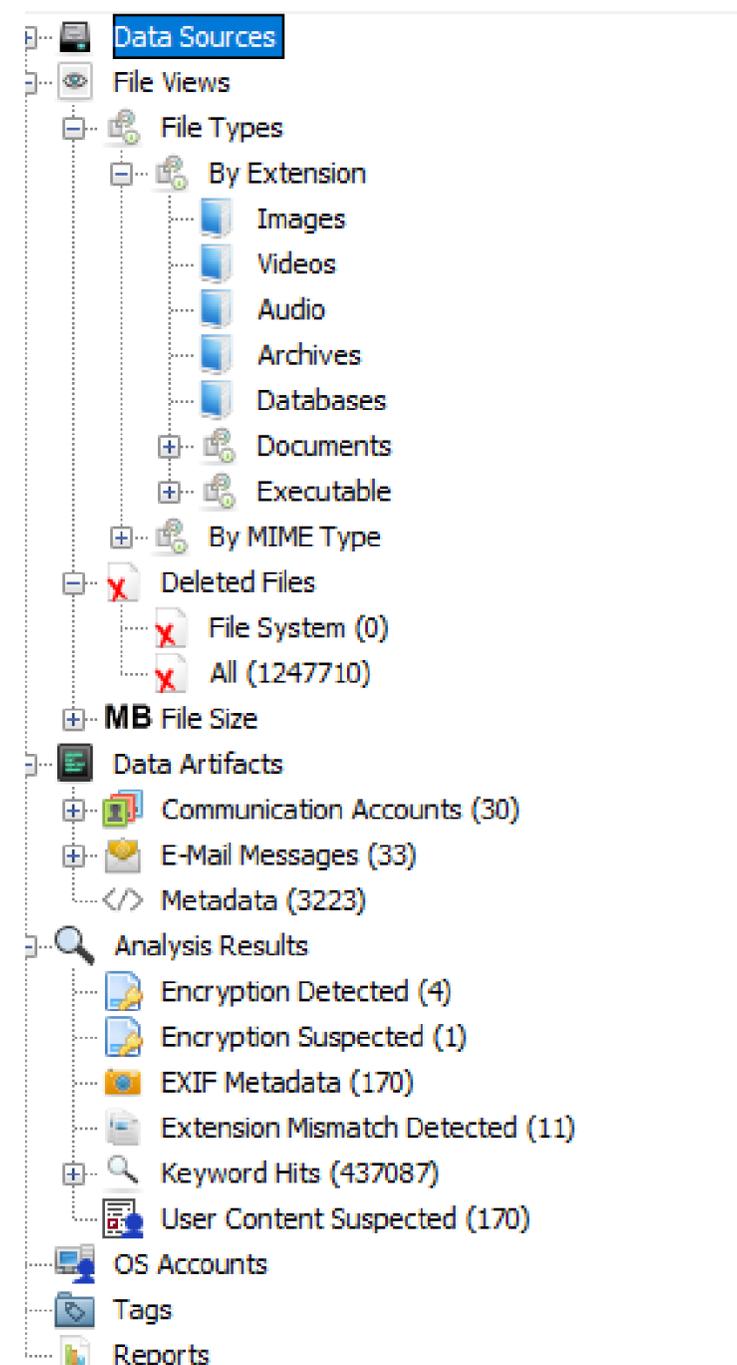
VISUALISATION DE MAILS



Modulable à volonté

MODULES PROGRAMMABLES

OU TÉLÉCHARGEABLES



Navigation and sidebar controls:

- Back/Forward arrows
- Settings gear icon
- Data Sources
- File Views
 - File Types
 - By Extension: Images, Videos, Audio, Archives, Databases, Documents, Executable
 - By MIME Type
 - Deleted Files
 - File System (0)
 - All (1247710)
- MB File Size
- Data Artifacts
- Communication Accounts (30)
- E-Mail Messages (33)
- Metadata (3223)
- Analysis Results
- OS Accounts
- Tags
- Reports

Listing All 10000 Results

Table Thumbnail Summary

Page: 1 of 125 Pages: < > Go to Page: Save Table as CSV

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)	Known	Location
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f1321320.exe	▼		0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	30166016	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0378992.edb			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	29106176	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f1467048.dll			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	23414784	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0773728.dll			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	22585856	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f1305392.dll	▼		0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	22456320	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0443248_SHELL32_DLL			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	21074944	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0608840_SHELL32_DLL			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	18583552	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0284784.dll			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	17379328	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0672488_Windows_UI_Xaml_dll			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	16872448	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f1064328_icudt46_dll	▼		0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	16297984	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0927360_NVD3DUM_DLL			1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	15315456	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
f0082464_Flash_ocx	▼		1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	15267328	Unallocated	Unallocated	unknown	/img_S1V5J9BS732228_SAMSL
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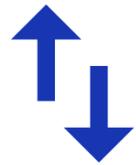
Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences

RÉSULTATS



Machine FRED

- Introduction à la forensique
- Découverte du fonctionnement



Tests & retours

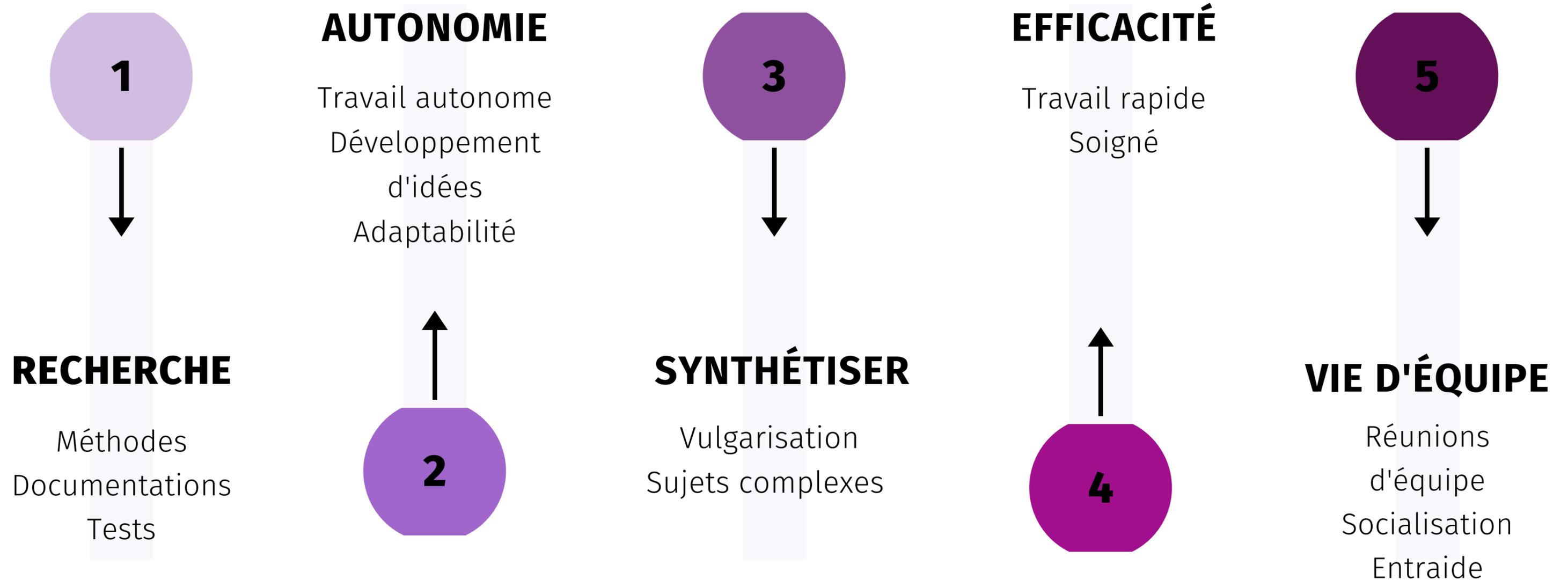
- Nombreux bugs découverts
- Ajouts sur l'interface



Documentation & méthodologie

- Procédures rédigées
- Recherches et documentations disponibles

CE QUE LE STAGE M'A APPORTÉ



CONCLUSION



Expérience

- Différentes tâches
- Monde scientifique



Échanges

- Avec des chercheurs
- Avec des membres de l'ENSI



Projet(s) futur(s)

- Monde de la recherche
- École d'ingénieur

**Merci à
tous**

All

Table Thumbnail Summary

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Save Table as CSV

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)	Known	Location
f0472096.dll	▼		0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	30815744	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f1321320.exe	▼		0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	30166016	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f0378992.edb			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	29106176	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f1467048.dll			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	23414784	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f0773728.dll			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	22585856	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f1305392.dll	▼		0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	22456320	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f0443248_SHELL32_DLL			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	21074944	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f0608840_SHELL32_DLL			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	18583552	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
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f0927360_NVD3DUM_DLL			1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	15315456	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f0082464_Flash_ocx	▼		1	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	15267328	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
f1926368_wmp_dll			0	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	13933568	Unallocated	Unallocated	unknown	/img_S1V5J9B5732228_SAMSL
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Table Thumbnail Summary

Page: 1 of 1 Pages: < > Go to Page:

Save Table as CSV

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f1725760.mbox				; >;	webmaster@python.org;	Banned file: auto__mail.python.bat in mail from you	2004-11-27 04:41:44 CET	BANNED FILENAME ALERTYour message to: xxxx
f1725568.mbox				MAILER-DAEMON@zinfandel.lacita.com;	linuxuser-admin@www.linux.org.uk;	Returned mail: Too many hops 19 (17 max): from <linuxus...	2001-04-06 19:23:06 CEST	This is a MIME-encapsulated message--JAB03225
f0931888.mbox				MAILER-DAEMON@zinfandel.lacita.com;	linuxuser-admin@www.linux.org.uk;	Returned mail: Too many hops 19 (17 max): from <linuxus...	2001-04-06 19:23:06 CEST	This is a MIME-encapsulated message--JAB03225
f0931832.mbox				; >;	webmaster@python.org;	Banned file: auto__mail.python.bat in mail from you	2004-11-27 04:41:44 CET	BANNED FILENAME ALERTYour message to: xxxx
f1701272.mbox				; >;	webmaster@python.org;	Banned file: auto__mail.python.bat in mail from you	2004-11-27 04:41:44 CET	BANNED FILENAME ALERTYour message to: xxxx
f1701224.mbox				MAILER-DAEMON@zinfandel.lacita.com;	linuxuser-admin@www.linux.org.uk;	Returned mail: Too many hops 19 (17 max): from <linuxus...	2001-04-06 19:23:06 CEST	This is a MIME-encapsulated message--JAB03225
f1943256.mbox				adminlinux@e110pc04;	root@e110pc04;	*** SECURITY information for hplarent ***	2010-06-25 09:51:55 CEST	hplarent : juin 25 09:51:55 : adminlinux :
f1943256.mbox				adminlinux@e110pc04;	root@e110pc04;	*** SECURITY information for hplarent ***	2010-06-25 09:54:51 CEST	hplarent : juin 25 09:54:51 : adminlinux :
f1943256.mbox				root@e110pc04;	root@e110pc04;	Cron <root@e105pc11> start -q anacron :	2011-12-07 07:30:01 CET	start: Job is already running: anacron
f1943256.mbox				root@e110pc04;	root@e110pc04;	Cron <root@e105pc11> start -q anacron :	2011-12-16 07:30:01 CET	start: Job is already running: anacron
f1943256.mbox				root@e110pc04;	root@e110pc04;	Cron <root@e105pc11> start -q anacron :	2012-01-09 07:30:01 CET	start: Job is already running: anacron
f1943256.mbox				root@e110pc04;	root@e110pc04;	Cron <root@e105pc11> start -q anacron :	2012-01-13 07:30:01 CET	
f1480456.txt						So you want to use the new Gnus		Actually, since you are reading this, chances are
f1480456.txt						Starting up		If you are having problems with Gnus not finding
f1480456.txt								
f1480456.txt								There's a whole bunch of other methods for readi
f1480456.txt						Where are all the groups, then?		If this is the first time you have used a newsread
f1480456.txt						I want to read my mail!		Yes, Virginia, you can read mail with Gnus.First yc
f1480456.txt						Foreign newsgroups		These are groups that do not come from `gnus-se

Hex Text Application Source File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences

Result: 4 of 6

Result < >

E-Mail Messages

From: root@e110pc04;

2011-12-16 07:30:01 CET

To: root@e110pc04;

CC:

Subject: Cron <root@e105pc11> start -q anacron || :

Headers Text HTML RTF Attachments (0) Accounts

Original Text

start: Job is already running: anacron



00

f

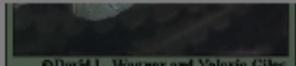
x



py06ppbv9
586



abhg3y94i
736



©David L. Wagner and Valerie Giles
Northern Apple Sphinx

x42mtfcil6
461



jvsjtr
750



54xf0c9dd
557



u4oxjt
761



170f6cl
2959



chhuplh
566

1

x



rn0r78
676



g3rstdt9z
572



u3n
g



id : 625
 created_at_date : 1993-04-09 11:42
 created_at_time : 1970-01-01 16:51
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 mimetype : image/jpeg
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 size : 59957
 class : image



mmd2
607



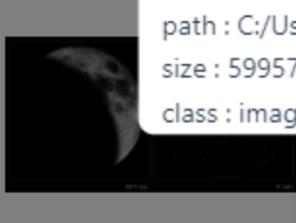
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711



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hnbhd7g
620



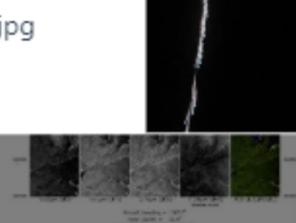
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878



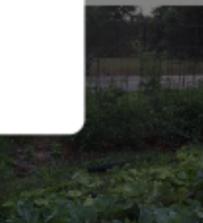
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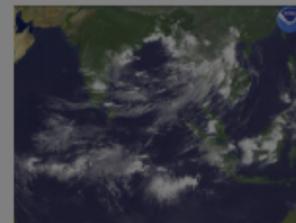
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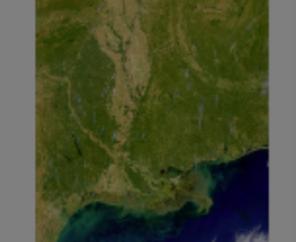
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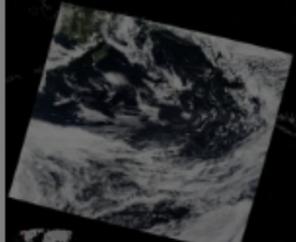
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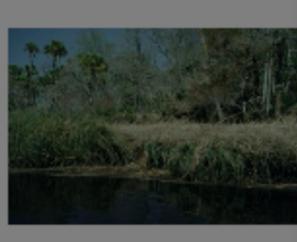
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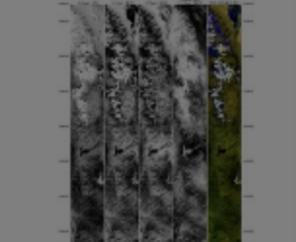
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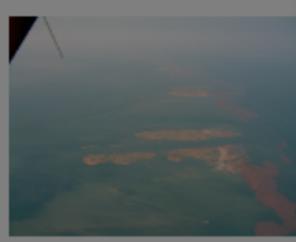
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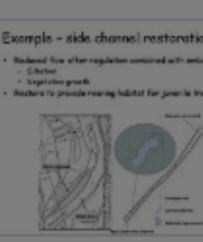
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rwo2ud8z4
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Historique :

- 0 Created at
- 1 Outdoor
- 2 Indoor
- 3 Outdoor

