

Archiving Mailboxes at the Archives nationales (France): overview and perspectives



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1. Context





National Archives (France)

History: created during the French Revolution, on September 12th 1790

Missions: acquisition, arrangement, preserving, restoring, providing access, valorizing.

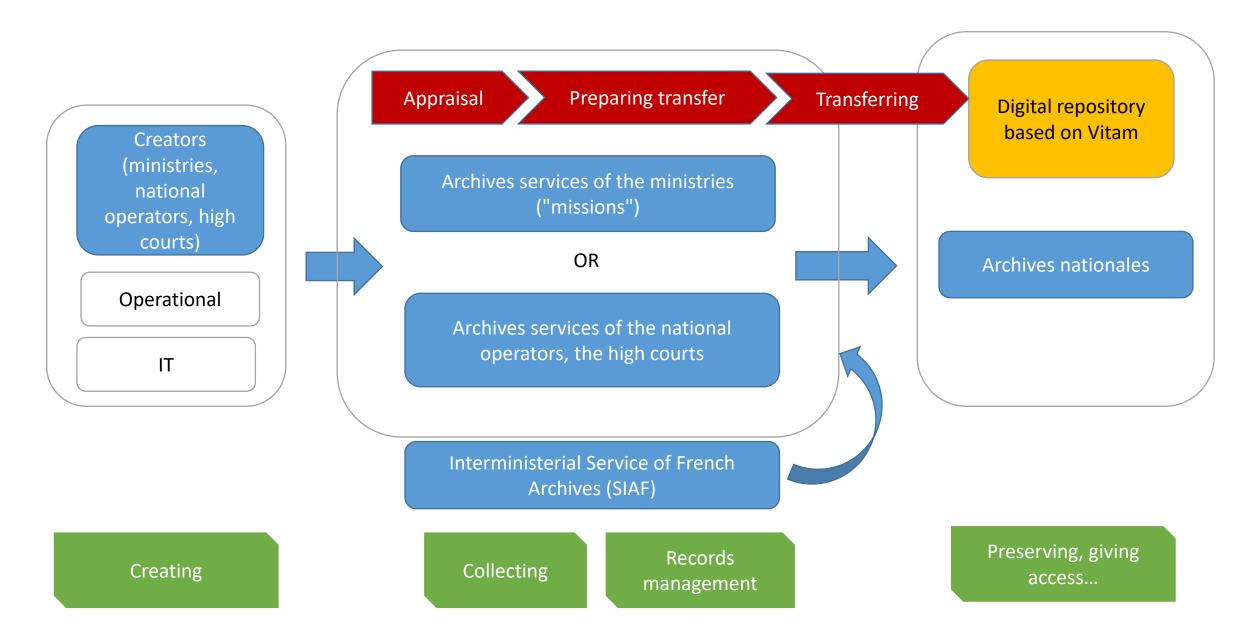




Scope: Historical public archives from the central administrations of State, archives of Paris notaries, private archives of national interest.



Organization of the archives network (national scale)



Digital archiving in French legal and normative context

Code du Patrimoine (2004, 2008):

- Defines archives as the documents, including data, whatever their date, their support, their form, etc., that are created or received by a person or an organization.
- Defines public archives.
- Sets up access status: records are open by default but restrictions may apply...

Open Archival Information System (OAIS)

NF Z 42-013 (2009, 2020): specifications - both organizational and technical - of a digital repository

Data Exchange Standard for Archiving – SEDA (2006, 2022): models the data exchanges (electronic and paper) between archival agencies and their partners, translated as messages in XML.



Technical context



Vitam: open-source software developed at its beginning with the sponsorship of 3 ministries (Culture, Defence, Foreign Affairs), now beyond (about 50 partners).

Goals: ensuring the ingestion, management and preservation of large amounts of digital records of administrative as well as archival value, while providing long-term access to these records.

The National Archives' digital repository is based on **Vitam (back-office)** and **interfaced with its own front-office** (in-house archives managing software).

In service since **November, 2018**.

Our digital repository is dedicated to born-digital archives. Digitized archives are excluded.



2. The National Archives' mailbox archiving strategy





Digital Archiving at the National Archives

Started in the early 80s, collecting **statistical** data which was preserved using a method called « **Constance** ».

The Constance method was based on the preservation of both **data** and its **representation information** (before OAIS!), as well as paper documentation (later digitized).

Data was stored on LTO tapes, representation information in inhouse databases.

In the 2000s, digital archiving at the National Archives went on to encompass a wide variety of digital records: images, audio, film, files from office applications...

The Constance method was used until the launch of the digital repository (2018).



Encoding data in 1979 at the Archives nationales

See https://www.archives-nationales.culture.gouv.fr/en/web/guest/archives-audiovisuelles-et-electroniques



Mailboxes in our archival holdings

The first mailboxes entered our archival holdings in 2017.

Reminder: appraisal, transfer preparation and ingestion are conducted by mission archivists, except for private archives.

Mailboxes are generally **from ministries' offices**. Their digital records are also transferred.

In the digital repository: 40 PST files (representing 39 mailboxes) ingested.

Outside the digital repository, pending migration: 95 PST files, 7 mailboxes in Mbox.

=> Majority of PST files, as Outlook is widely used by the central administrations of State.



Mailbox archiving strategy

Goals:

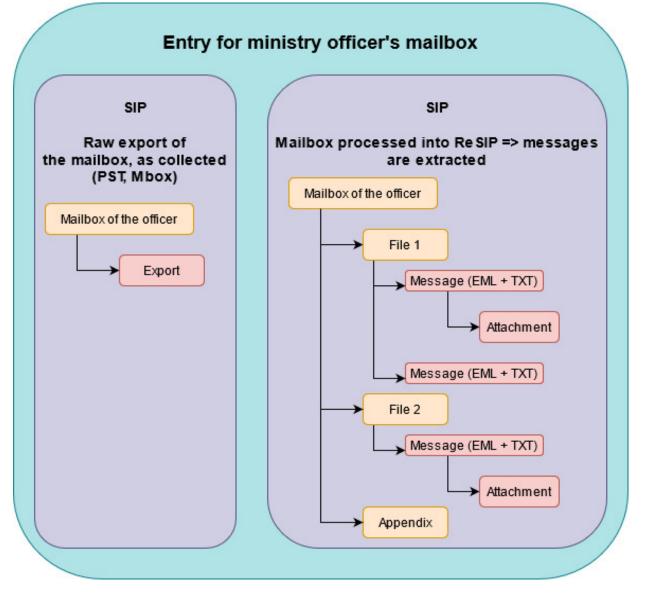
- 1) Ensuring preservation of the messages themselves, their arrangement, their metadata and their attachments in their original format
- 2) Making it possible to search and find messages in the digital repository
- 3) Enabling access to the messages of a mailbox in a tree structure
- 4) While leaving room for future options to represent mailboxes and their messages outside the digital repository.



Mailbox archiving strategy

... In pratice: 2 SIPs

- 1. The 1st contains the raw export (PST or Mbox) as received by the mission archivist
- 2. The 2nd contains:
 - The messages in EML format, rendered in their original tree structure
 - The body of each message in text format
 - A section of metadata extracted and mapped to SEDA entities
 - The extracted attachments linked to their messages.



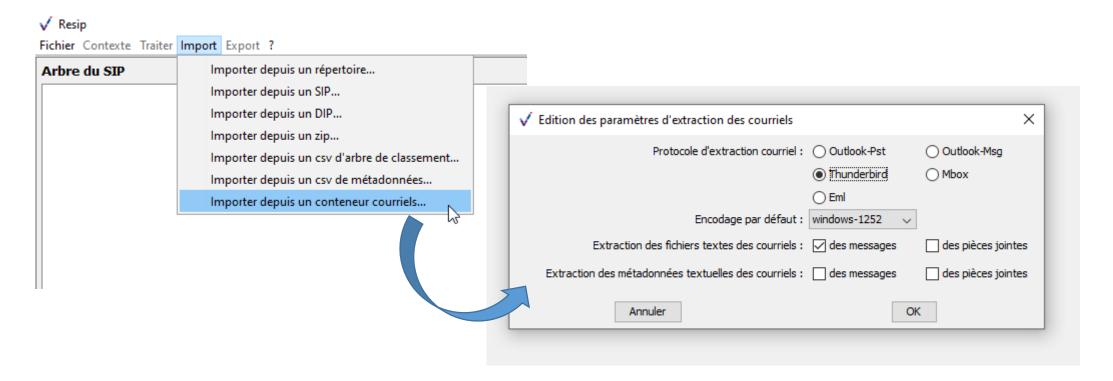


Resip

SIP preparation and mailbox extraction tool developed by the VITAM team.

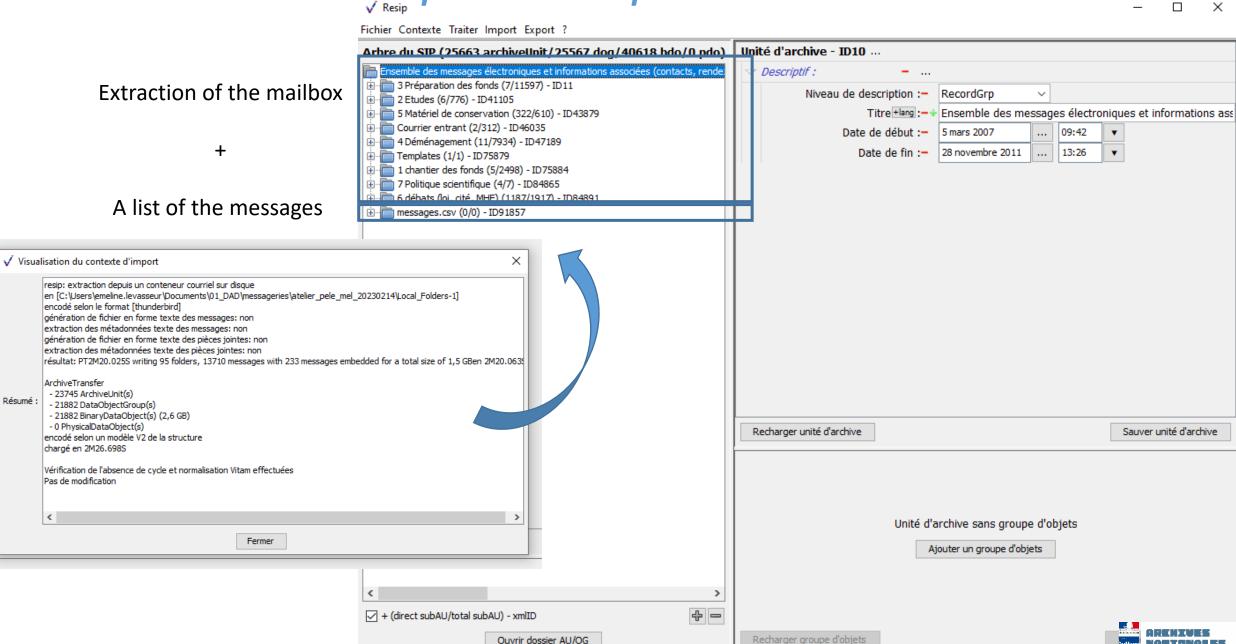
Available on GitHub: https://github.com/ProgrammeVitam/sedatools

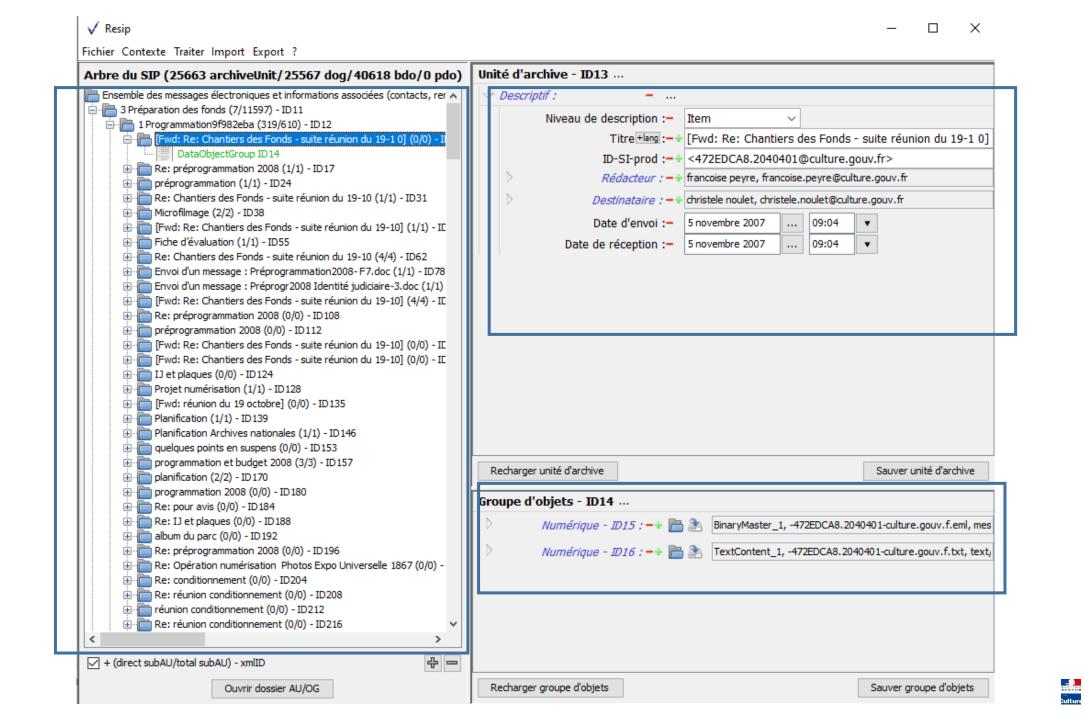
To import a mailbox:

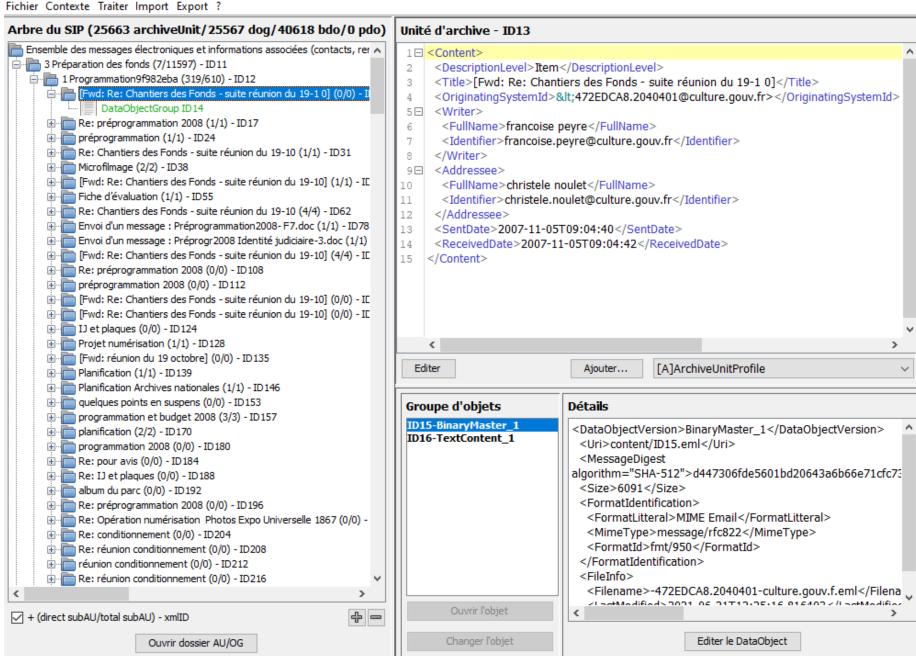




Resip: mailbox importation results



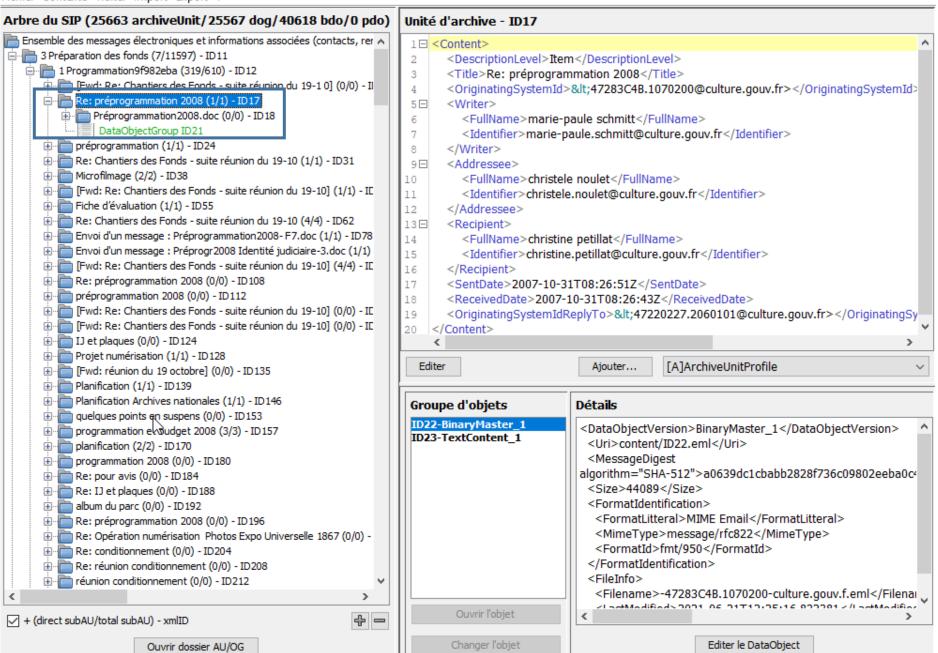




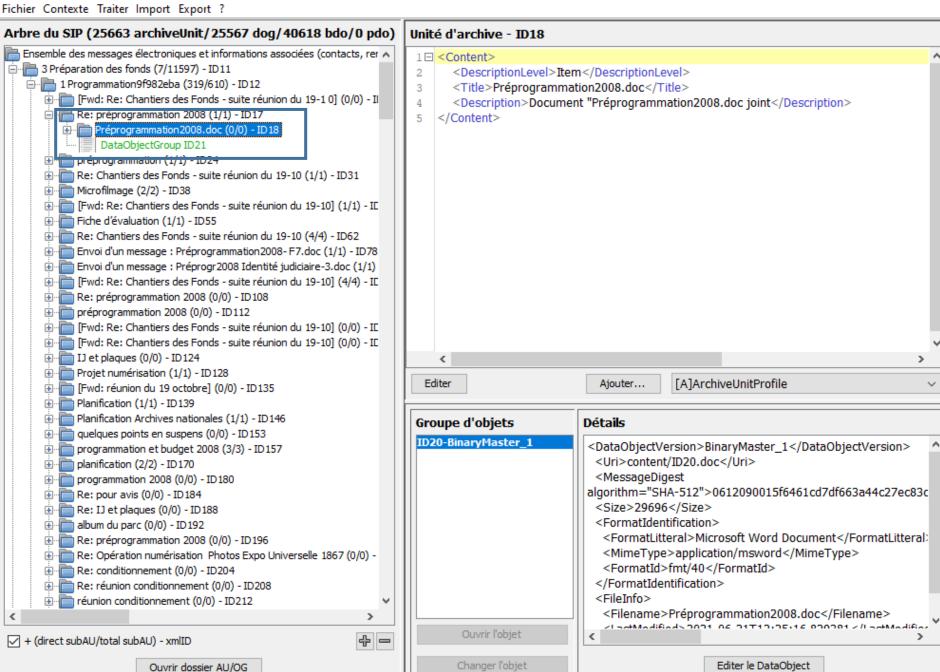




Fichier Contexte Traiter Import Export ?







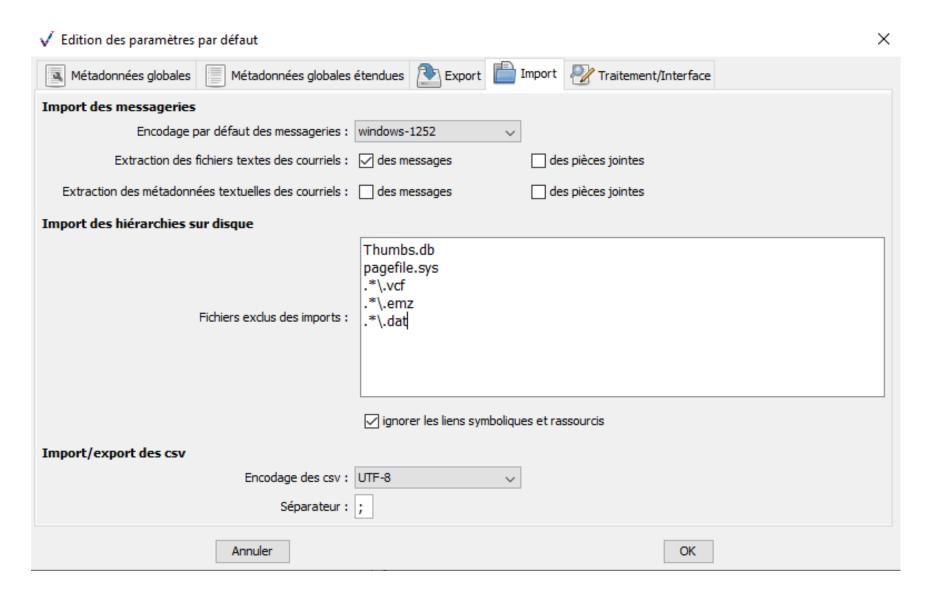


Resip: appraisal tools

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Par catégories de format	✓ Chercher	des doublons						\times		
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Chiffré	0	-	721				34 780	fmt/44	image/jpeg	
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	M	259	119	119	clotilde-leforestier.vcf	410	fmt/395	text/vcard		
	E	3	148	108	108	anne-lama.vcf	369	fmt/395	text/vcard	
			514	105	105	FRAN-signature-image	78 238	fmt/44	image/jpeg	
Attention, votre contexte de travail contient des fichiers vides ce qui n'est pas acce			878	105	105	caroline-bongard.vcf	396	fmt/395	text/vcard	
Veillez à les supprimer pour construire un SIP valide.			599	89	89	eleonore-alquier.vcf	288	fmt/395	text/vcard	
			70	78	78	caroline-bongard.vcf	601	fmt/395	text/vcard	
			471	78	78	caroline-bongard.vcf	544	fmt/395	text/vcard	
			400	76	76	anne-emilie-andres.vcf	235	fmt/395	text/vcard	
			843	70	70	caroline-bongard.vcf	379	fmt/395	text/vcard	
			923	65	65	FRAN-signature-image-f	45 232	fmt/44	image/jpeg	
			422	£1	61	noname	26 178	fmt/44	image/ipeg	~
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Consideration District										
Sans descendant : Unité d'archive	Objet numer	ique ou physique								

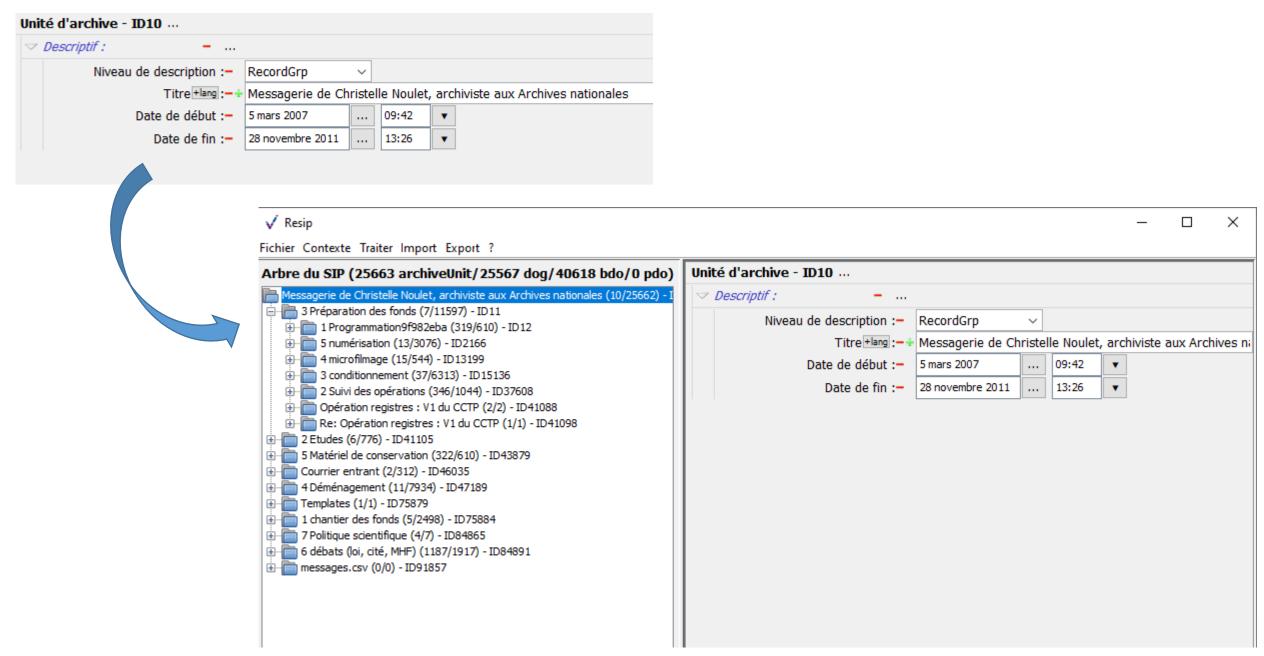


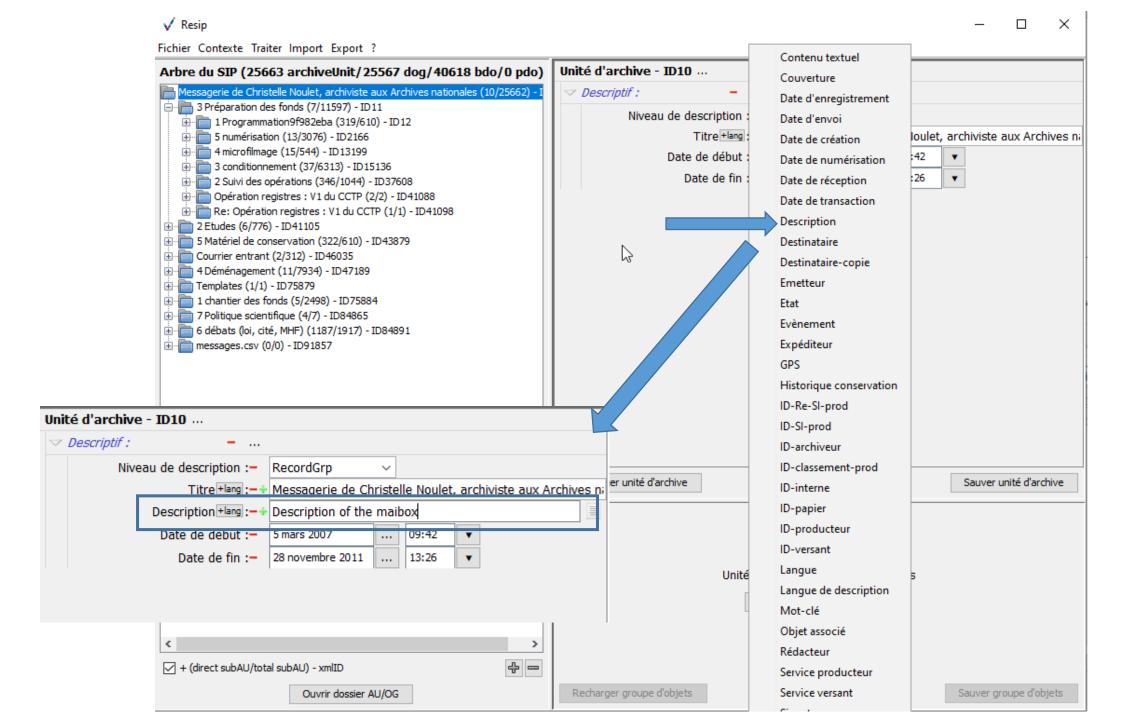
Resip: extraction settings





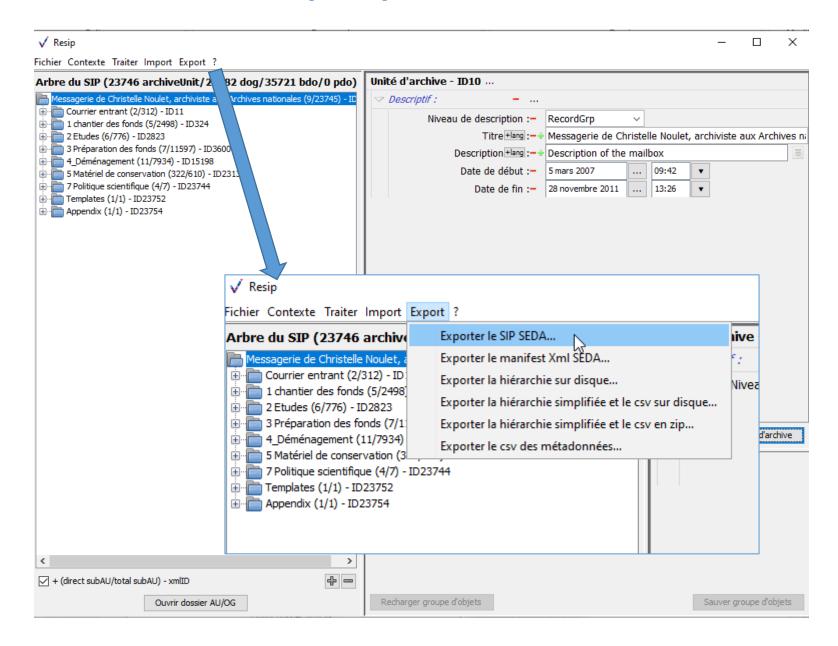
Resip: archival description and arrangement







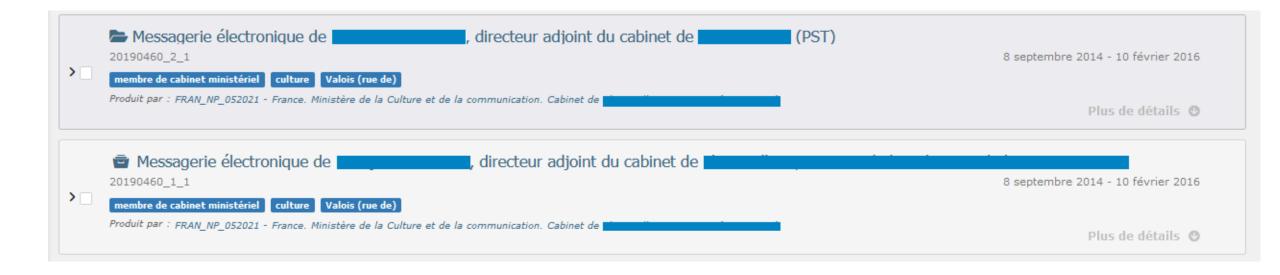
Resip: exportation



When processing is done...
Exportation!

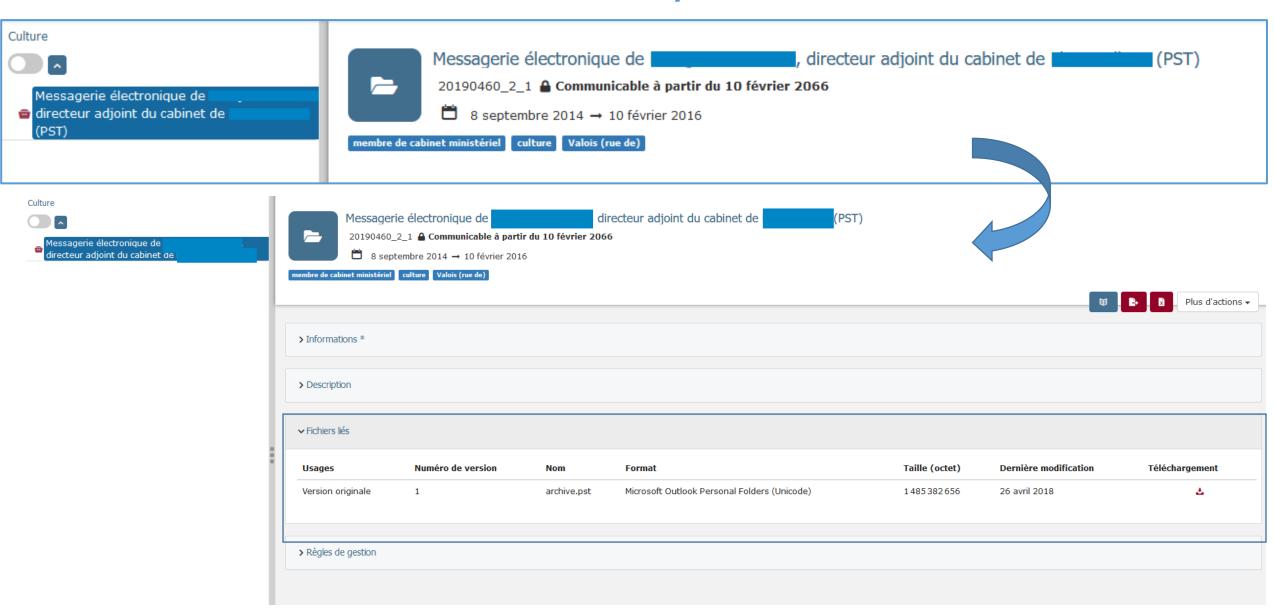


Two AIPs for a single mailbox: View in the digital repository (search results)





Raw PST export AIP





ReSIP-processed AIP





Messagerie électronique de , directeur adjoint du cabinet de

- ▼

 Boîte de réception
- ▼ Parlement

TR: PLF 2015 - Réponses aux OP III-3.4/IX-9.3/V-5.13/X-11.1,2et3

Messagerie électronique de

Boîte de re ption ▼

Parlement

▶ 🖿 TR: Calendrie

▼ > TR: PLF 201

▶

 Photojournalisme

[liste.afp]

[liste.afp]

▶ ■ Presse et audiovisuel - Barkardian artista

national de la photo

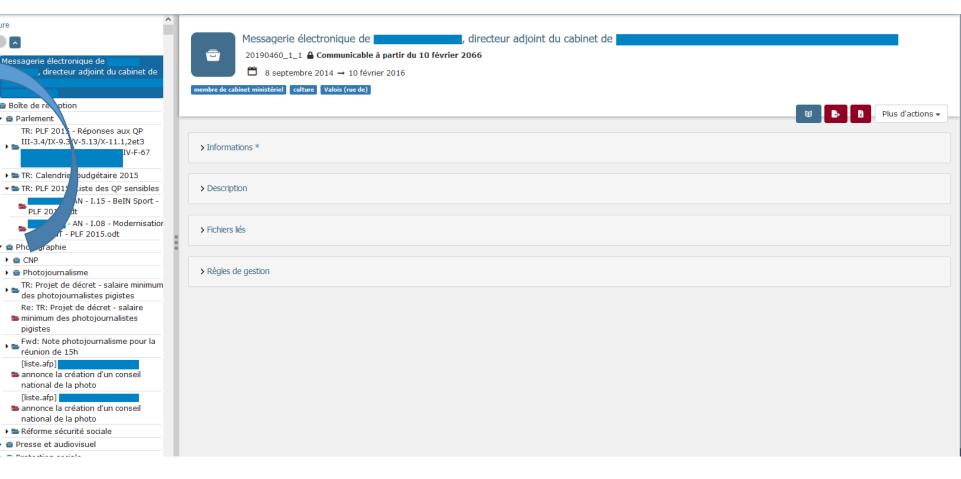
national de la photo

▶ Réforme sécurité sociale

- ▶ ► TR: Calendrier budgétaire 2015
- ▼ TR: PLF 2015 -Liste des OP sensibles
 - AN I.15 BeIN Sport -PLF 2015.odt
 - AN I.08 Modernisatior de la TNT - PLF 2015.odt
- ▼ 🝙 Photographie
- ▶
 CNP
- Photojournalisme
- TR: Projet de décret salaire minimum des photojournalistes pigistes
 - Re: TR: Projet de décret salaire
- minimum des photojournalistes pigistes
- Fwd: Note photojournalisme pour la réunion de 15h
 - [liste.afp]
- annonce la création d'un conseil national de la photo
- [liste.afp]
- annonce la création d'un conseil national de la photo
- ▶ Réforme sécurité sociale
- Presse et audiovisuel
- ▶

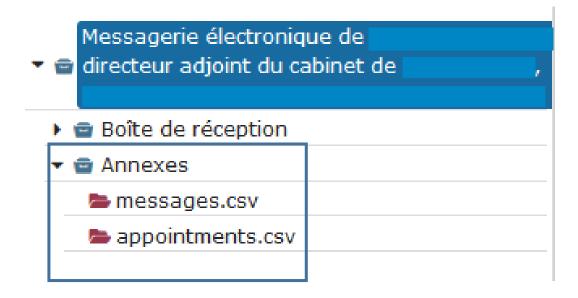
 Protection sociale
- Bookers

ReSIP-processed AIP





ReSIP-processed AIP





3. Further considerations and prospects





Limitations

- Much of the process relies on the mission archivists, who handle the exportation process from the client.
- Strategy relies on Resip... Importation errors occur often.
- Require being careful for big mailboxes => several exports => several SIPs.
- Tree structure rendering is not always suitable.



Experiments

- First request for access on a mailbox! But...
 - Restrictions on access => need for a specific authorization => investigation to accept or refuse (2 months delay)
 - Haven't been ingested yet
 - Import didn't work in ReSIP
 - Impossibility to plan processing and ingest
- 1 mailbox but 4 PST (9 Gb) but how many messages?
 - Ratom => SQLite file
 - 95 000 messages, 45 000 attachments
 - Half the mailbox is likely to answer
 - Impossibility to check precisely the relevance of the results and the presence of sensitive information
 - Epadd+ (with Emailchemy trial license)
 - More or less same results (but some messages were not imported)
 - Access to the attachments
 - But same conclusion as Ratom



Reflections

- For this request, we couldn't go further in pratice but it raised some questions for possible « regular cases ».
- What is the most effective way to perform sensitivity checking and relevance checking?
 - On the whole mailbox? How must it be rendered?
 - On a finding aid as a csv file?
 - Directly through the digital repository?
- How to actually give researchers access to the mailbox? The entire mailbox? A collection of messages? In what form and what format?
- When the archive service refuses access, the researcher can appeal against the decision to the CADA (Commission for administrative records access). Difficulty to process mailboxes has already been taken into account to reject the request.



Conclusion

- Lot of questions, but no answers yet regarding access...
- Our strategy = precaution
- Leaves space to consider potential future answers while preserving mailboxes and their messages
- Can evolve...!
- But we need a lot of time to experiment with tools



Thank you for your attention! Time for Q & A session



