The Software Heritage Acquisition Process (SWHAP)

motivations and overview

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SWHAP Days

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Software Heritage

THE GREAT LIBRARY OF SOURCE CODE

Outline

Limitations of popular approaches, revisited

A - Since the ~~1970's~~ 1990's

.zip or .tar file on:

- ~~ftp server~~
- web page
- document archive (+ DOI)

B - Since the 2000's

Rely on *software forges*

- institutional or project ones
- free commercial ones: BitBucket, GitHub, GitLab, …

Assessing pros and cons of forges

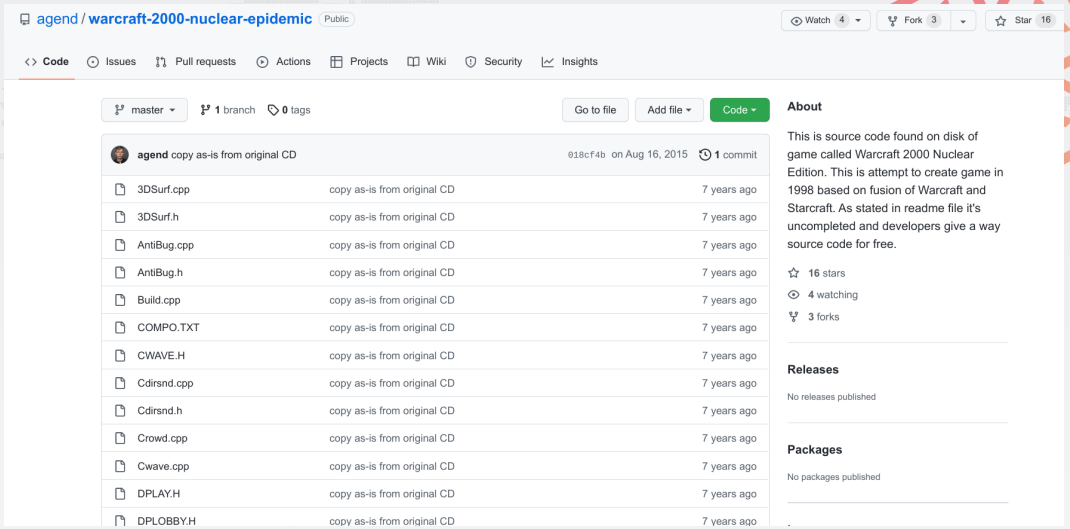
Pros

- better *user experience*
- *version control* is built-in

Cons

- no *preservation* guarantee
- can be easily *misused*

An example is worth a thousand words



agend / **warcraft-2000-nuclear-epidemic** Public

Watch 4 | Fork 3 | Star 16

Code | Issues | Pull requests | Actions | Projects | Wiki | Security | Insights

master | 1 branch | 0 tags | Go to file | Add file | Code

agend copy as-is from original CD — 018cf4b on Aug 16, 2015 — 1 commit

3DSurf.cpp	copy as-is from original CD	7 years ago
3DSurf.h	copy as-is from original CD	7 years ago
AntiBug.cpp	copy as-is from original CD	7 years ago
AntiBug.h	copy as-is from original CD	7 years ago
Build.cpp	copy as-is from original CD	7 years ago
COMPO.TXT	copy as-is from original CD	7 years ago
CWAVE.H	copy as-is from original CD	7 years ago
Cdirsnd.cpp	copy as-is from original CD	7 years ago
Cdirsnd.h	copy as-is from original CD	7 years ago
Crowd.cpp	copy as-is from original CD	7 years ago
Cwave.cpp	copy as-is from original CD	7 years ago
DPLAY.H	copy as-is from original CD	7 years ago
DPLOBBY.H	copy as-is from original CD	7 years ago

About

This is source code found on disk of game called Warcraft 2000 Nuclear Edition. This is attempt to create game in 1998 based on fusion of Warcraft and Starcraft. As stated in readme file it's uncompleted and developers give a way source code for free.

16 stars
4 watching
3 forks

Releases

No releases published

Packages

No packages published

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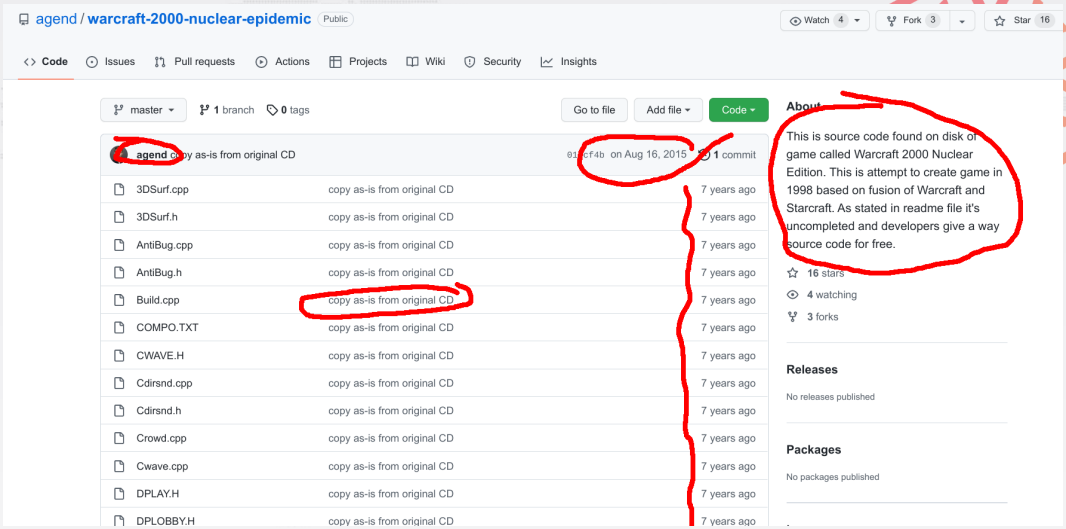

Back to the drawing board

Collect

- *find* source code and related materials
- *gather* in a physical and/or logical place for later processing

Curate

- *analyze, cleanup and structure* the materials
- identify *authors* of *versions* of source code, with its *dates*
- identify *owners*, obtain *authorizations*
- add quality *metadata*, in a *standard format*

Archive

save the curated materials to appropriate *archives*

Present

make the materials accessible to a *wide audience*

a key requirement: *traceability* all along the way

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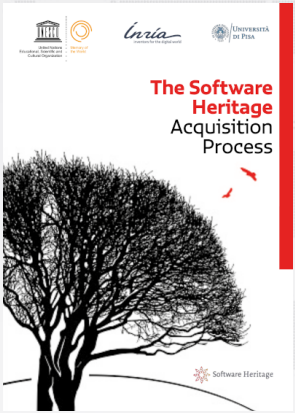

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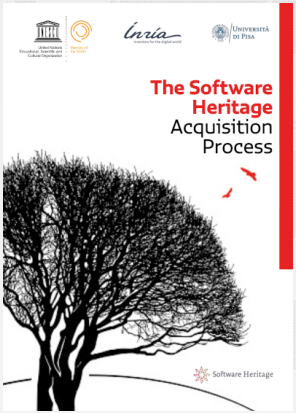

- Detailed process for Legacy Software
  - *curation*
    - reconstruction of the development history
    - collecting metadata
  - *archival*
    - in Software Heritage

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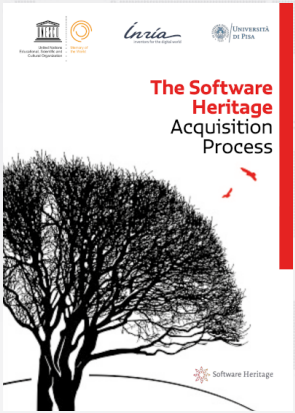

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  - *curation*
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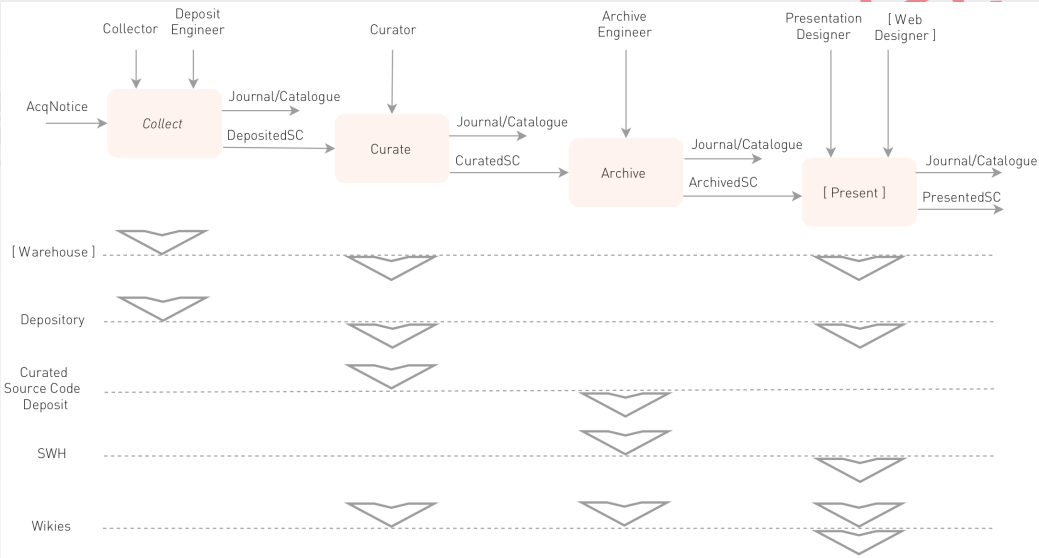
- Traceability of all process phases
  - using modern version control tools

SWHAP in a nutshell: four phases workflow



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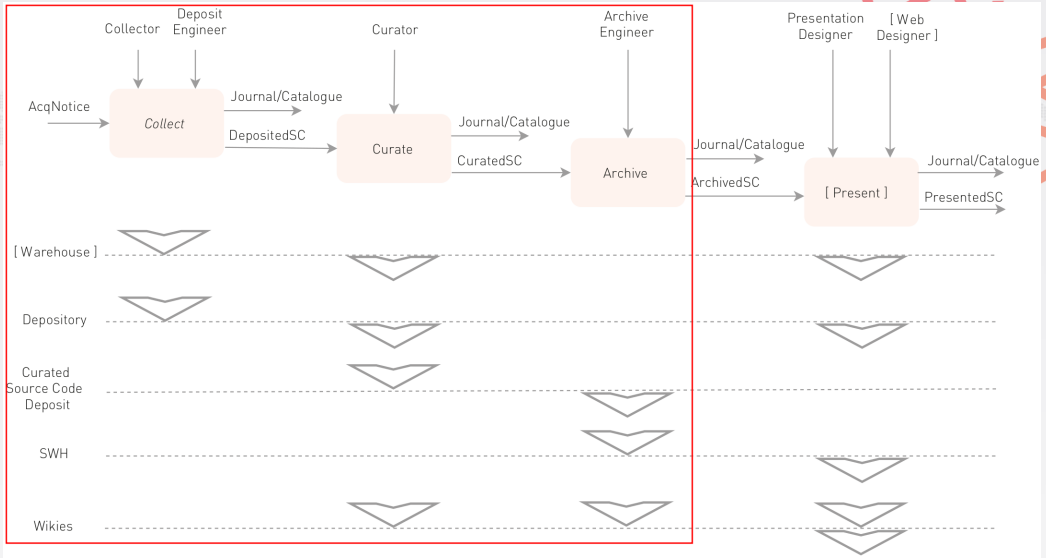
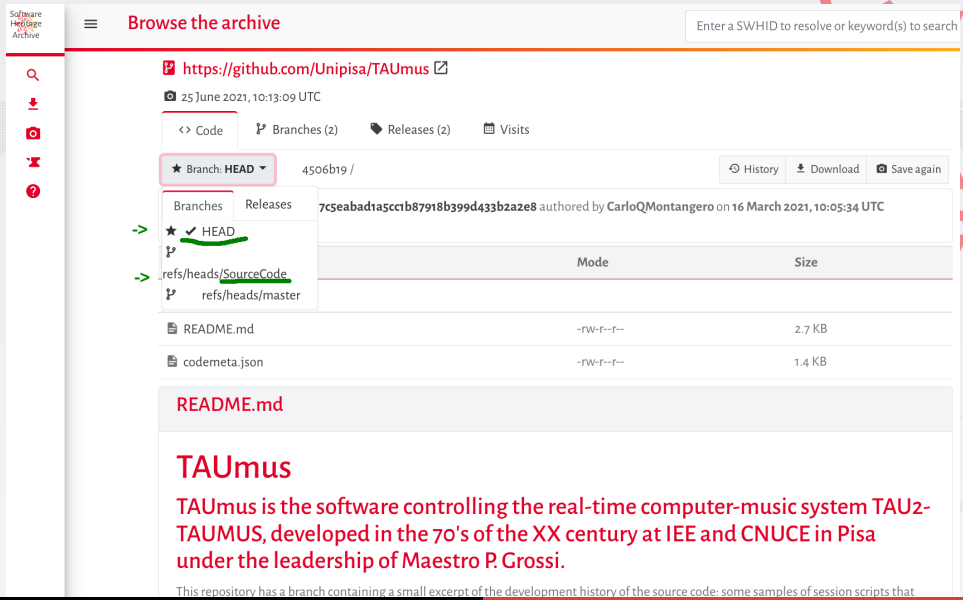
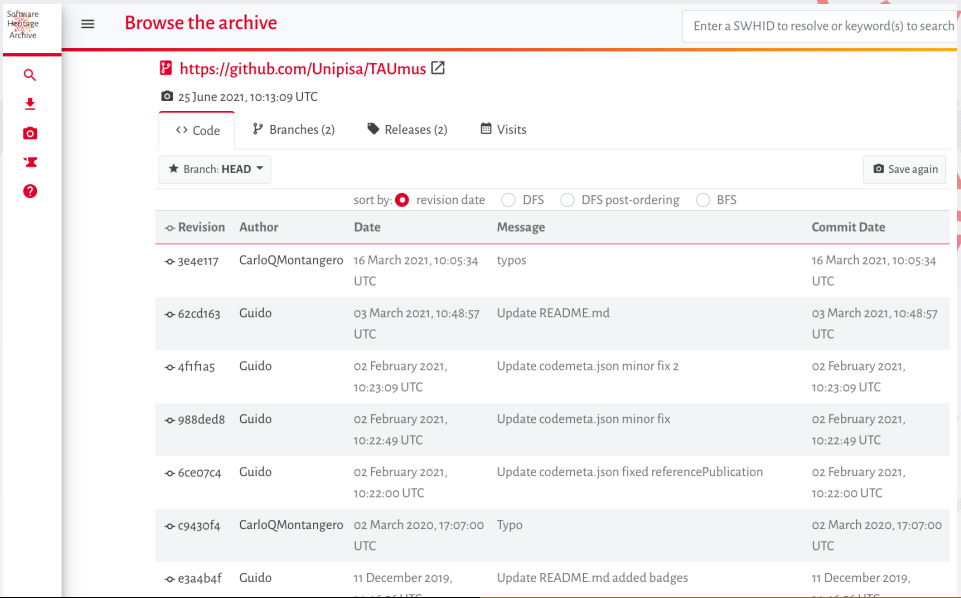


An example SWHAP outcome: TAUMus - curator and source code branch



An example SWHAP outcome: TAUMus - curation history



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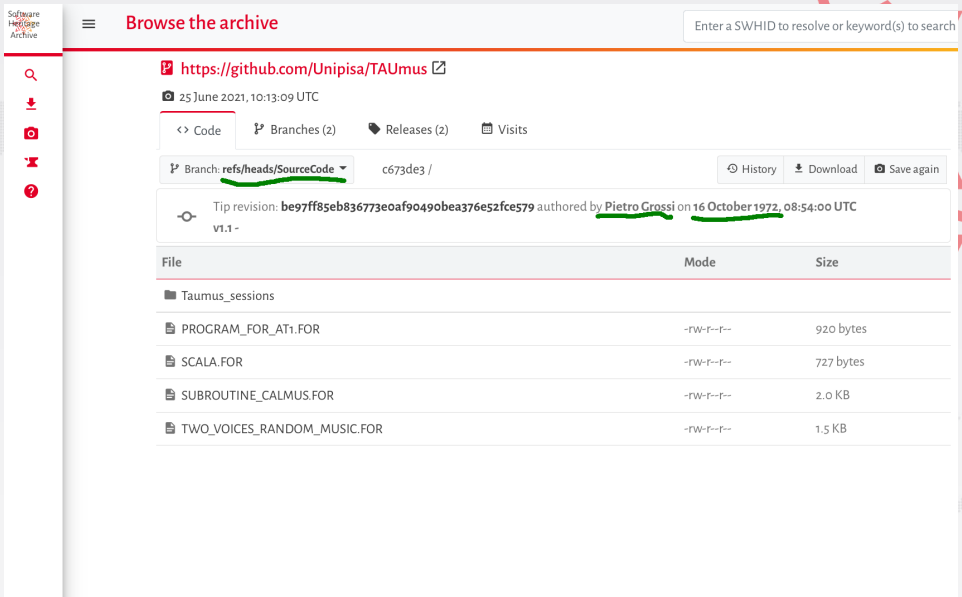

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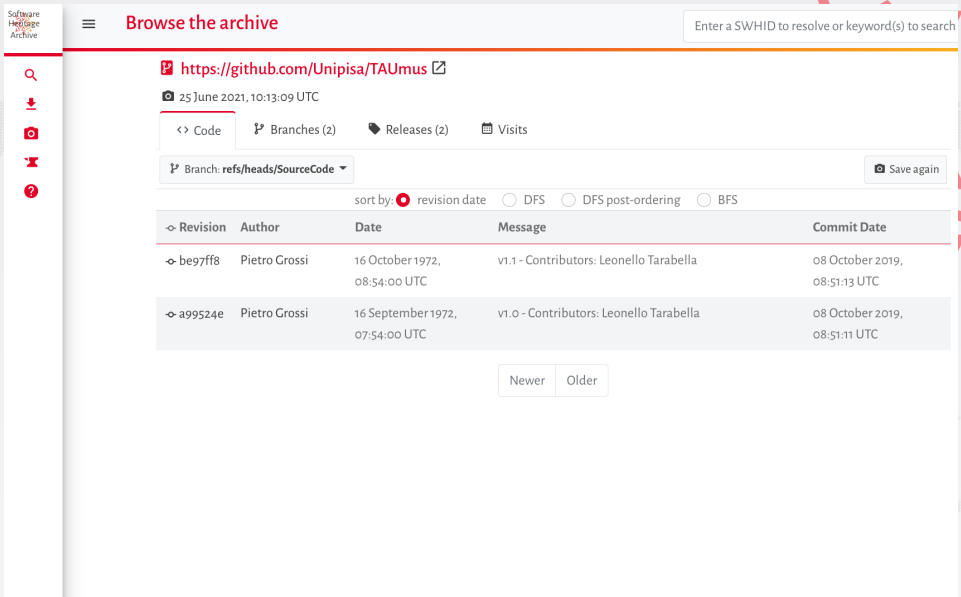
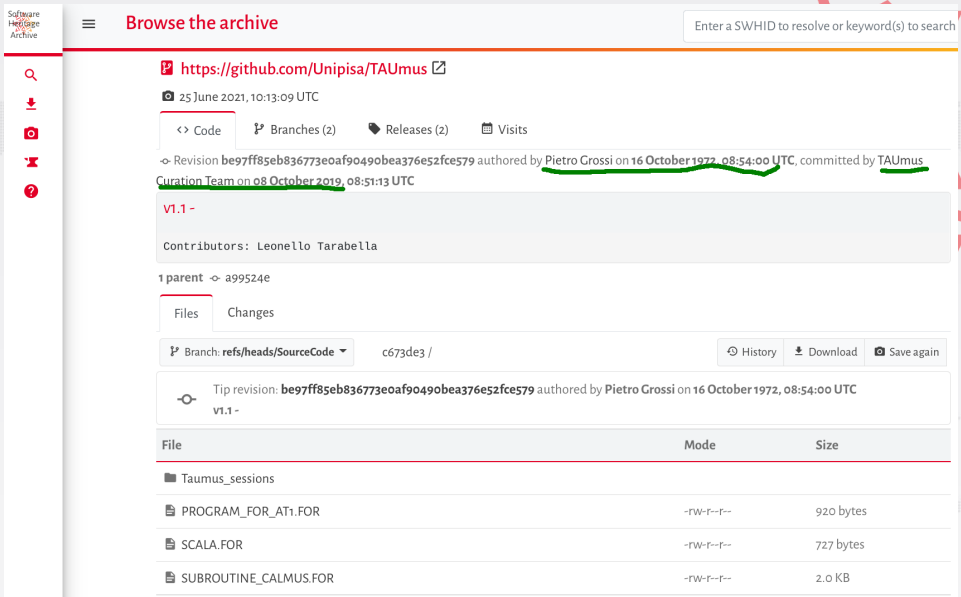
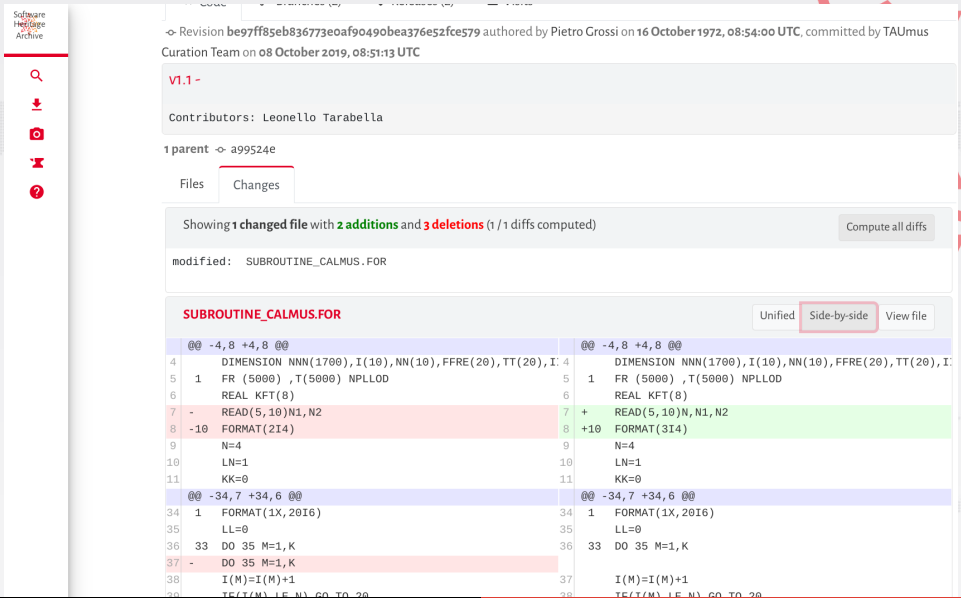


An example SWHAP outcome: TAUMus - separate author and curator



An example SWHAP outcome: TAUMus - view source code evolution



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Leverage modern forges and version control tools

- clear separation of software *authors* from *curators*
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let's see this in action!