

# AIL Project

## How to Improve and Support Your Threat Intelligence Process



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# Background

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- Over the past five years, we have developed the AIL project<sup>1</sup> to fulfill our needs at CIRCL in intelligence gathering and analysis.
- As AIL gained popularity, an increasing number of users began integrating it into their **threat intelligence processes and workflows**.
- In this presentation, we outline some of the processes where AIL can serve as a valuable tool, **facilitating and enhancing the work of intelligence analysts**.

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<sup>1</sup><https://www.ail-project.org/>

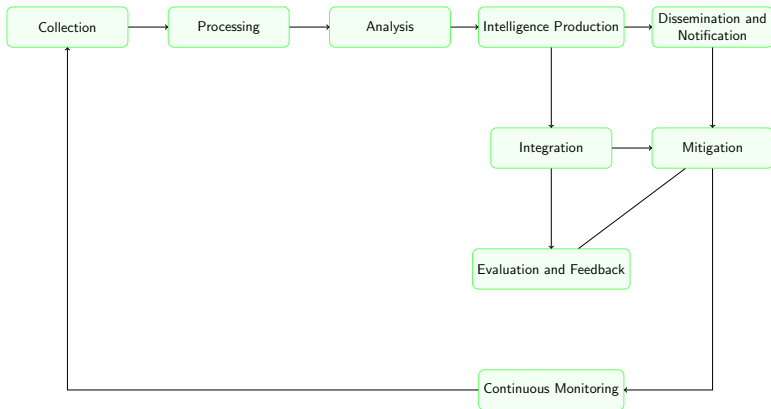
## AIL overview

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- The AIL Project is an open-source framework comprising various modules designed for the **collection, crawling, digging, and analysis of unstructured data**.
- AIL features an extensible Python-based framework for the **analysis of unstructured information**, collected either through an advanced Crawler manager or from various feeders, including social networks and custom feeders.
- AIL also provides support for actively **crawling Tor** hidden services, as well as crawling protected websites and forums by utilizing pre-recorded session cookies.

# Threat Intelligence Process at CIRCL

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## Collection - automate collection

- Collecting data from various chat sources can be a **tedious task for analysts**.
- AIL offers a set of feeders (e.g., Telegram, Discord, etc.) that can be used to subscribe to chat channels.
- All the **collected messages are then processed and analyzed** within the AIL's *processing* and *analysis* stages.

telegram :

Chat Instance	Network	Address	Nb Chats
00098785-7e70-5d12-a120-c5cdc1252b2b			4

Show 10 entries Search:

Icon	Name	ID	First Seen	Last Seen	NB Chats
	DARKNET DISCUSSION	<a href="#">1492939275</a>	2023-10-06	2023-11-06	0
	H4Fun Bins	<a href="#">1427620096</a>	2023-03-01	2023-11-06	0
	DDosia Project	<a href="#">1228309110</a>	2023-10-19	2023-11-06	5

Showing 1 to 4 of 4 entries

Previous **1** Next

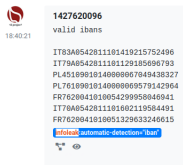
*Processing* - extracting selector/patterns

- Detecting specific search patterns in a large dataset, such as a significant ransomware leak, can be challenging for analysts.
- AIL includes a **rich set of existing search patterns** (e.g. IBAN) along with default Yara rules, and you have the ability to create custom ones.

[illegible]

# Analysis - automatic detection from collection

- Processing automatically collected information can be a challenging task.
- AIL processes all the collected items for any **hunting rules** and **utilizes MISP taxonomies to tag the matching information.**

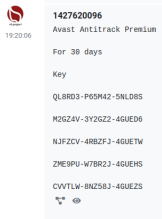


1427620096  
valid ibans

18:40:21

IT83A054281101419215752496  
IT79A054281101129185096793  
PL45189810140000067049438327  
PL76189810140000069579142964  
FR7620041010054299950040941  
IT70A054281101002119584491  
FR7620041010051329633246615

[infoleak automatic-detection="iban"](#)



1427620096  
Avast Antitrack Premium

19:20:06

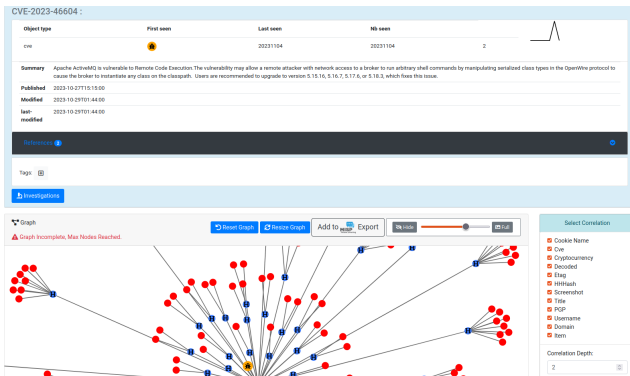
For 38 days

Key

QL8RD3-P65M42-5NLD8S  
M2GZ4V-3Y2GZ2-4GUE06  
NJFZCV-4RBZFJ-4GUETW  
ZME8PU-W7BR2J-4GUEHS  
CVVTLW-8NZ58J-4GUEZS

# Analysis - evaluating vulnerability severity/risk

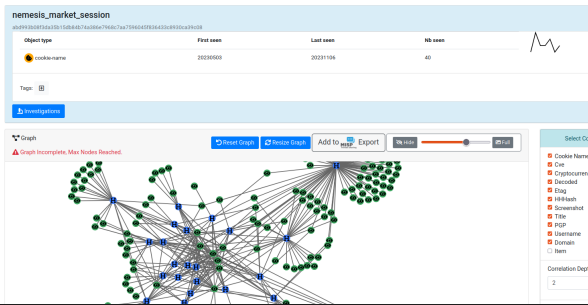
- What is the visibility, usage, mentions, or risk of a vulnerability observed in forums, channels, pastes, or websites?
- AIL can assist you in determining the severity/risk level or in **reviewing the usage of a vulnerability** (e.g., the number of PoCs).





## Dissemination - distributing analysis

- AIL exports data using the **MISP standard format** and offers complete integration with MISP to facilitate the dissemination of data.
- All the context within AIL uses the **MISP taxonomies and galaxy**.
- The insights provided by AIL are often used as complementary information for threat intelligence reports and landscapes.



## Conclusion

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- While AIL can be a valuable tool for **organisations dealing with data leaks and information breaches**, it's important to remember that it is primarily designed for information leak analysis and not for the entire threat intelligence process.
- Organizations should use **AIL in conjunction with other threat intelligence solutions** and processes to establish a comprehensive threat intelligence strategy.
- AIL is an open-source project, and if you discover modules that could assist in your processes, please let us know or contribute directly.

## Links

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- AIL project <https://github.com/ail-project> (**all components including feeders and crawler infrastructure**)
- AIL framework  
<https://github.com/ail-project/ail-framework> (**analysis framework**)
- Training materials and slide deck  
<https://github.com/ail-project/ail-training>

