



Mapping of Sources to Extracted Content

Argus:

- Network Flow
- Socket Address (s/d)
- IP (s/d)
- Port (s/d)

Banner:

- Socket Address (contains banner)
- IP
- Port

DNS Record

- IP (s/d/requested ip) (requester/server/requested ip)
- Domain Name (requested uri)
- DNS Record

HTTPR

- IP (s/server)
- Port (server)
- Domain Name (of server)
- URI (requested uri/referrer uri)
- HTTP Session

Situ

- Network Flow
- Socket Address (s/d)
- IP (s/d)
- Port (s/d)

Sno

- Indicator
- Network Flow
- Socket Address (s/d)
- IP (s/d)
- Port (s/d)

Bugtraq

- Vulnerability (ExploitTarget)
- Course_Of_Action
- Product (affected software)

Caida

- Whois (organization)
- AS (organizations' as)
- AddressRange

CIF1d4

- Malware
- IP

CIF Emerging Threat

- Malware
- IP

CIF Zeus Tracker

- Malware
- IP

CleanMX Virus

- Malware
- Socket Address
- IP
- Port
- Whois (nameservers)
- URI (server ns pointer by whois; should be referenced; stix preprocessing takes care of that)
- AddressRange

CPE

- Product

CVE

- Vulnerability

FSecure

- Malware
- Course_Of_Action
- Indicator

GeoIP

- AddressRange

Hone

- Hostname
- Product
- Socket Address
- IP
- Port
- Network Flow
- User Account

Login Event

- Hostname
- User Account
- IP
- Hostname

Metasploit

- Exploit
- Vulnerability

NVD

- Vulnerability
- Product

Package List

- Hostname
- Product

Service List

- Port
- Process

Sophos

- Malware (is pointing to event observables)
- Port
- IP
- Socket Address
- Domain Name
- File
- Process
- Windows Registry Key
- Event

Extracted Content in Relational Database

“User Account”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “User Account”

“Hostname”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Hostname”

“Product”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Product”

“File”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “File”

“Windows Registry Key”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Windows Registry Key”

“Network Flow”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Network Flow”

“DNS Record”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “DNS Record”

“Indicator”:

- vertexType: “Indicator”
- table: “Indicator”

“Event”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Event”

“Socket Address”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Socket Address”

“Domain Name”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Domain Name”

“Vulnerability”:

- vertexType: “Vulnerability”
- table: “Vulnerability”

“Exploit”:

- vertexType: “Exploit”
- table: “Exploit”

“IP”:

- vertexType: “IP”
- table: “IP”
- observableType: “Address”

“Port”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Port”

“Process”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Process”

“Course_Of_Action”:

- vertexType: “Course_Of_Action”
- table: “Course_Of_Action”

“URI”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “URI”

“HTTP Session”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “HTTP Session”

“Malware”:

- vertexType: “Malware”
- table: “Malware”

“AddressRange”:

- vertexType: “AddressRange”
- table: “AddressRange”
- observableType: “Address”

“AS”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “AS”

“Whois”:

- vertexType: “Observable”
- table: “Observable”
- observableType: “Whois”

Tables and Columns

VertexTypes/Tables	Properties/Columns														
	name	vertexType	description	shortDescription	source	sourceDocument	observableType	alias	details	ipInt	startIP	endIP	startIPInt	endIPInt	location
AddressRange	✓	✓	✓		✓	✓	✓				✓	✓	✓	✓	✓
Exploit	✓	✓	✓	✓	✓	✓									
IP	✓	✓	✓		✓	✓				✓					
Malware	✓	✓	✓	✓	✓	✓		✓	✓						
Vulnerability	✓	✓	✓		✓	✓									
Weakness	✓	✓	✓		✓	✓									
Campaign	✓	✓	✓	✓	✓	✓		✓							
Course_Of_Action	✓	✓	✓	✓	✓	✓		✓							
Exploit_Target	✓	✓	✓	✓	✓	✓									
Incident	✓	✓	✓		✓	✓		✓							
Indicator	✓	✓	✓		✓	✓		✓							
Threat_Actor	✓	✓	✓	✓	✓	✓		✓							
TTP	✓	✓	✓		✓	✓									
Observable	✓	✓	✓		✓	✓	✓	✓							