

FME en action au CICR

FME WORLD
TOUR **2017**

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Yann Rebois

- Depuis 2000 impliqué dans la cartographie et le milieu humanitaire.
- Depuis 2010 au CICR
- Pas «hyper technique»
- Responsable technique du SIG. Equipe de 30 GIS sur le terrain.
- “Mountaineering addict”



Mandat du CICR

- Assister et protéger les victimes des conflits armés et situations de violence.
- Dialogue confidentiel avec les parties prenantes au conflits.
- 80 contextes, 10 secteurs d'activités.



Assistance



Protection

Operations



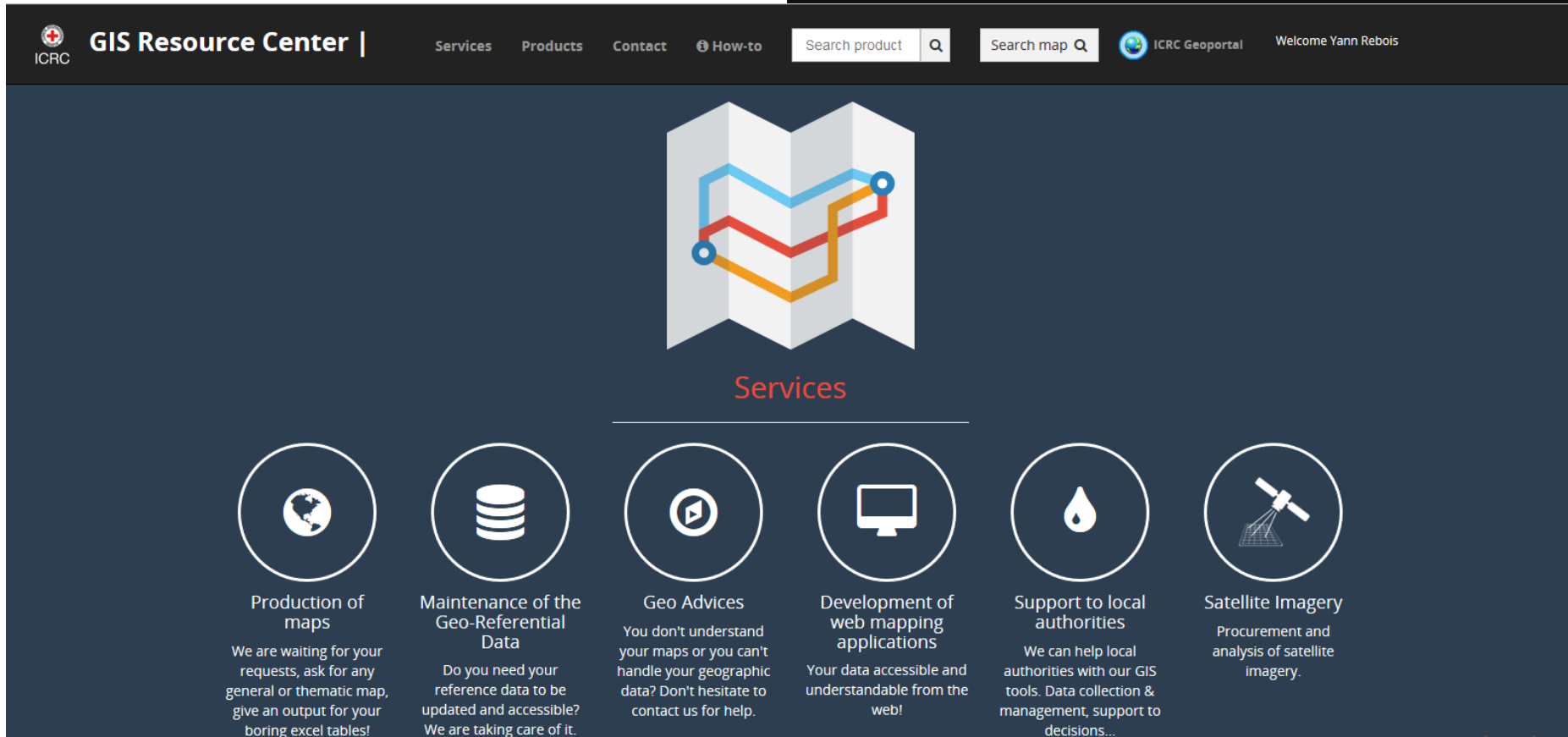
Transversalité de l'

utilisation du SIG



Améliorer la réponse
humanitaire par la
connaissance du
contexte/conflit et
« reporting »

<http://gisupporticrc.github.io/GISResourceCenter/>



The screenshot shows the top navigation bar of the GIS Resource Center website. It includes the ICRC logo, the site name "GIS Resource Center", and several menu items: "Services", "Products", "Contact", and "How-to". There are also search boxes for "Search product" and "Search map", a "ICRC Geoportal" link, and a user greeting "Welcome Yann Rebois".

The main content area features a central graphic of a folded map with a blue, red, and yellow path overlaid. Below this graphic is the heading "Services".

Below the heading, there are six service cards, each with an icon in a circle, a title, and a short description:

- Production of maps**: We are waiting for your requests, ask for any general or thematic map, give an output for your boring excel tables!
- Maintenance of the Geo-Referential Data**: Do you need your reference data to be updated and accessible? We are taking care of it.
- Geo Advices**: You don't understand your maps or you can't handle your geographic data? Don't hesitate to contact us for help.
- Development of web mapping applications**: Your data accessible and understandable from the web!
- Support to local authorities**: We can help local authorities with our GIS tools. Data collection & management, support to decisions...
- Satellite Imagery**: Procurement and analysis of satellite imagery.

<https://github.com/GISupportICRC>



Train and Equip Programs

ICRC | Internal | PROD | This application endeavours to show train and equip programs carried out in three contexts: Kurdistan, Ukraine and the Lake Chad region.



Lnd Regional Units

RH_LND | Internal | PROD | Web map showing the ICRC Lnd Divisions



ICRC Internal Maps Search

ICRC | Internal | PROD | Platform for maps upload and search



ICRC support to schools and kindergartens

ICRC | Public | PROD | Story map about support to schools and kindergarten from ICRC in eastern Ukraine



Population Kiosk

ICRC | Internal | PROD | Application dedicated to population data and locations datasets



Aid for weapon-wounded people in Mindanao

ICRC | Public | TEST | Story map about life-saving for weapon-wounded people in Mindanao



Satellite Imagery for Protection

Protection | Internal | PROD | Portal dedicated to the use of satellite imagery for Protection unit



Recipient Places - RP quality check

ICRC | Internal | PROD | Application designed for quality checking of Recipient places



ICRC Annual Report 2015

ICRC | Public | PROD | Web app with the official figures of the ICRC Annual Report 2014



Supporting Physical Rehabilitation in Pakistan

ICRC | Public | PROD | This interactive map shows where the ICRC



HCID Recommendations Monitoring Tool

ICRC | Internal | TEST | Web app designed to visualize and manage the



Recipient Places Manager

ICRC | Internal | TEST | With this RP Manager you will be able to visualise ICRC Recipient Places and request their





Cas 1

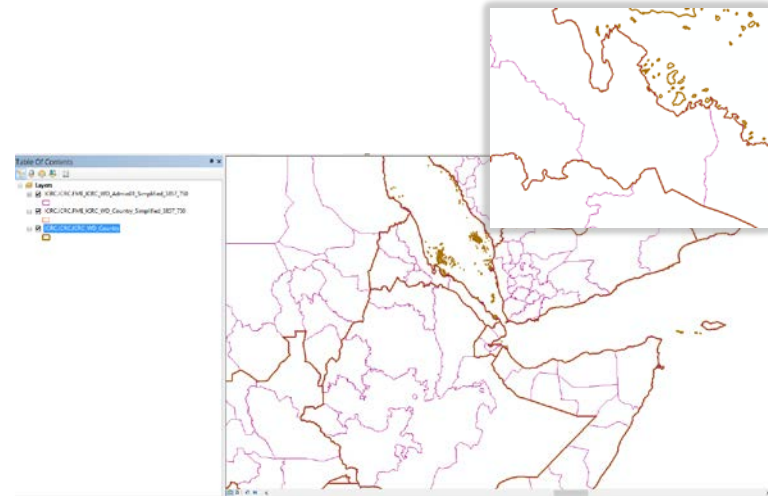
-

**Simplification des
géométries**

Simplification des Géométries

Même base ArsSDE unique pour produire des cartes papier parfois a grande échelle (entre frontières) mais aussi de nombreuses applications web...

Pre-simplification pour Tableau..



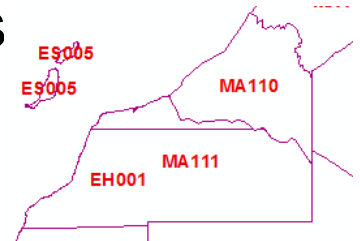
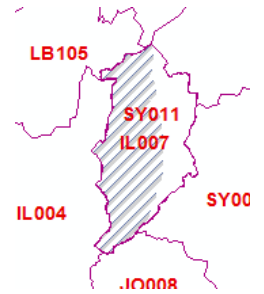
Simplification des Géométries

Défis.

Simplification identique entre les couches (pays, Admin, zone ICRC...)

Beaucoup d'exceptions:

- 2 codes pour Golan (SY,IL). Pas un doublon !
- Superposition d'entités mais frontières différentes



A black and white photograph of a bottle pouring water into a stream, with a landscape in the background. The bottle is tilted, and a stream of water is pouring out of its spout. The background shows a wide river or stream flowing through a valley, with hills and a cloudy sky in the distance. The overall scene is somewhat desaturated and has a grainy texture.

Cas 2

-

**Rapport sur les
premises**

Premises - définition

Bâtiment où les équipes CICR vivent et travaillent.

- Besoin pour la sécurité, et suivi des finances, logistiques.
- Besoin de connaître les position exactes pour des notifications éventuelles, utilisées par plusieurs métiers...

Une application pour localiser et rapporter modifications nécessaires.

ICRC Premises & POIs map | 1.0

Select site Filter Reports lists Request Creation of Premise How-to App guide

Chercher une place

Juba

Report Premise

Here you can report any wrong information you find at premises.

P002840

Which problem have you found? **Problem of the information**

Wrong coordinates

Please provide us the correct information, if available (max. characters: 1900):

An email is sent automatically to gisupport and FAD!

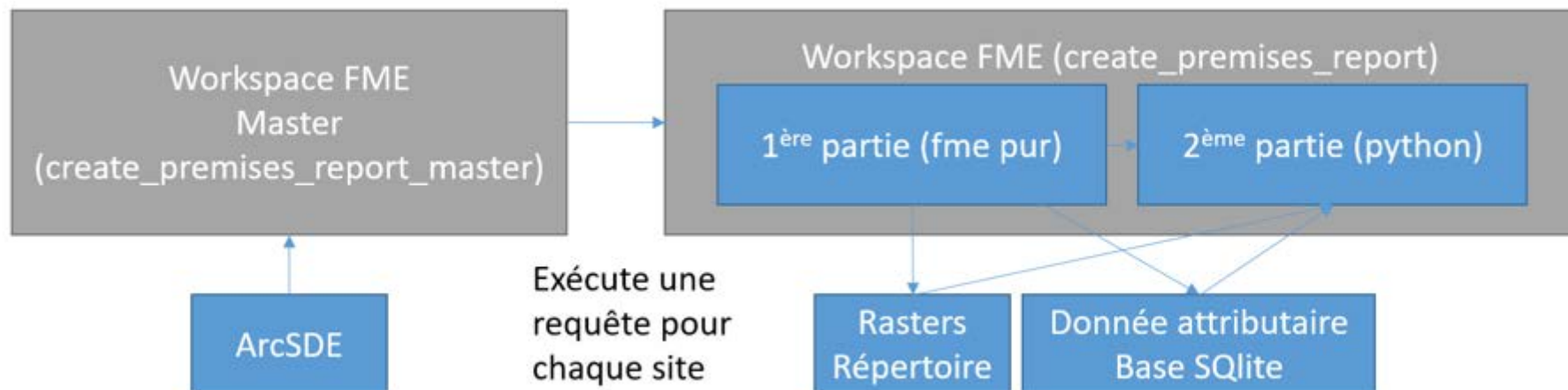
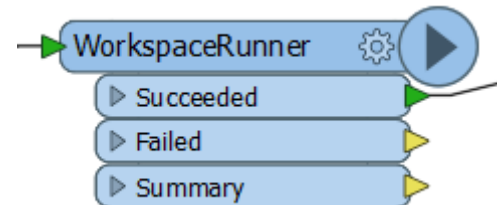
Report Premise Cancel

Premises 28 premises

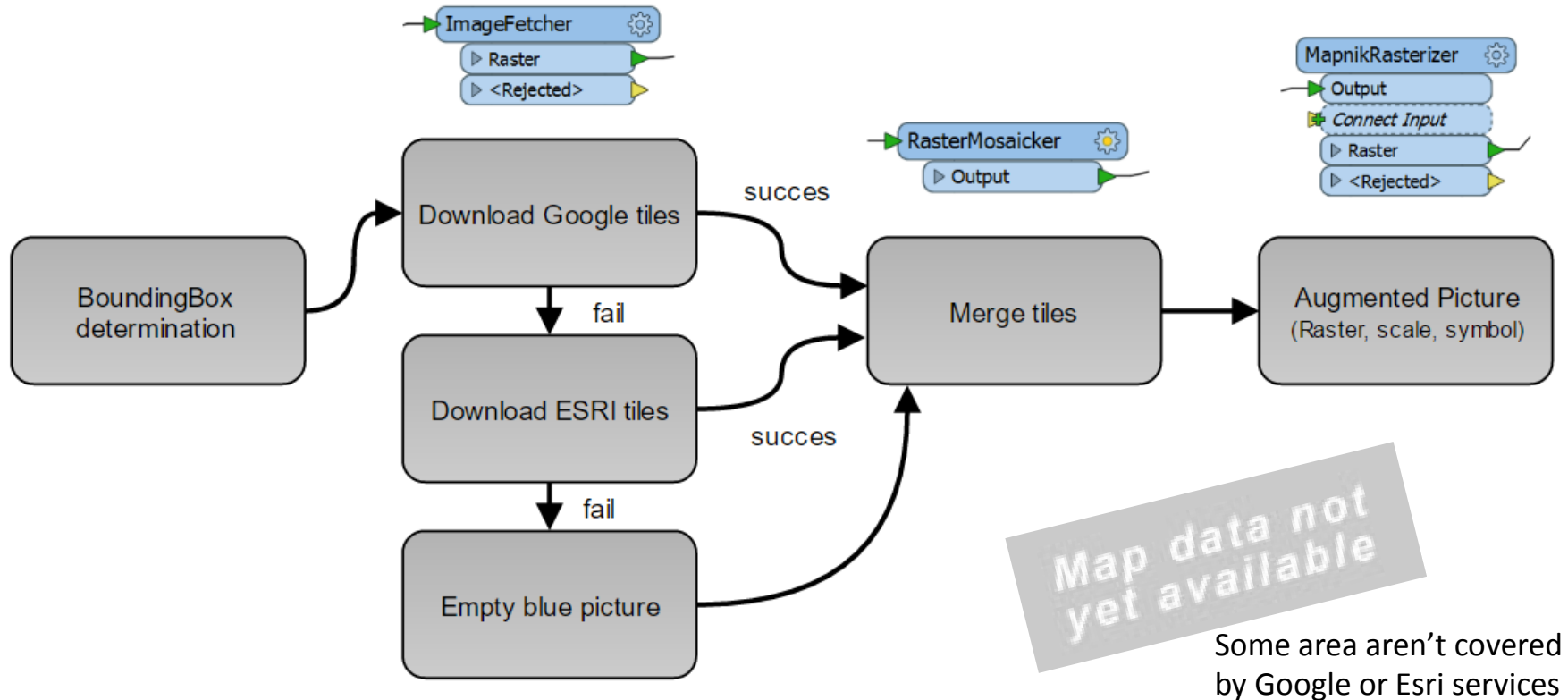
- P002840 | WJUB01 (JUB) Warehouse
- P004097 | Contract number not available (JUB) Juba Workshop
- P004098 | Rainbow Hotel (JUB) Rainbow Hotel
- P012665 | TJUB03 (JUB) Marina Plot
- P012666 | WJUB05 (JUB) Medical WH Extension
- P013025 | RJUB15 (JUB) Unity
- P013030 | DMAL01 (JUB) Sous-delegation
- P013036 | Contract number not available (JUB) National Society
- P013037 | Contract number not available (JUB) National Society

Premises - Architecture

- Un PDF par site
- Un site peut avoir plusieurs premises
- Utilisation d'un master-slave WorkspaceRunner



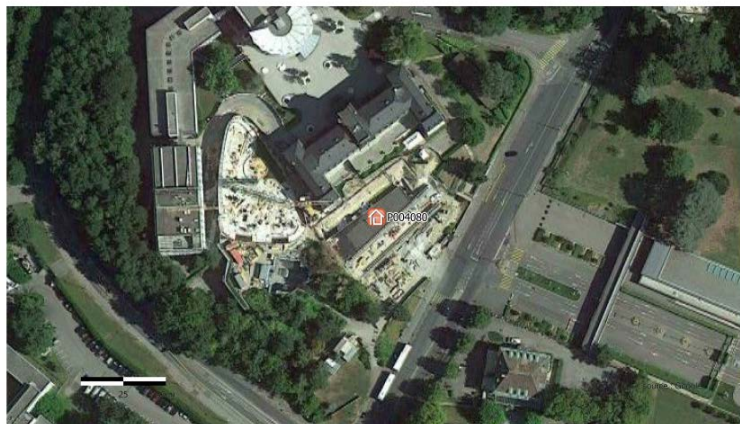
Premises – Raster



Premises – Système de coordonnées

En fonction du site nous devons privilégier certains formats de coordonnées.

Premise number : P004080



Premise Fact Sheet

Site name : Geneva

Site code : GVA

Premise code : P004080

Position unverified

Localisation

Longitude : 6.13738543

Latitude : 46.22745827

Source location : Satellite Image

Longitude DMS : 6° 8' 14.58755" E

Latitude DMS : 46° 13' 38.84977" N

Zone UTM : UTM84-32N

Longitude UTM : 279254.988995249

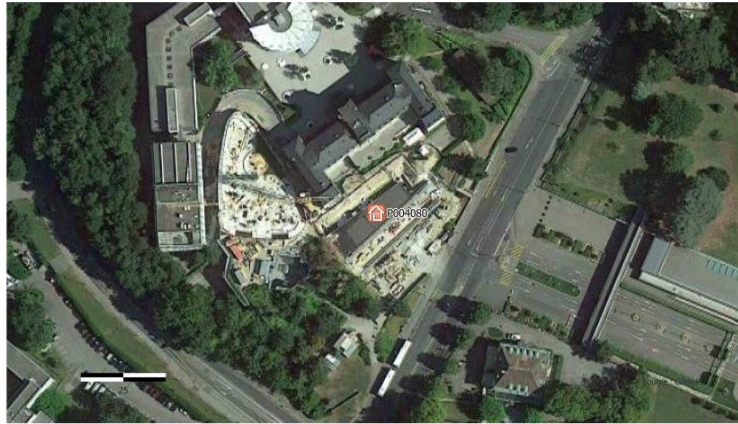
Latitude UTM : 5123303.73130721

Code MGRS : 32TKS7925423303

Adress : 19, Avenue de la Paix, 1202 Genève

Premises – PDF

Premise number : P004080



Premise Fact Sheet

Site name : Geneva

Site code : GVA

Premise code : P004080

Position unverified

Basé sur les des
bibliothèques python
externes

Premises Global overview by Site - Geneva - 2017-03-08 - Could be used externally



Site name : Geneva

Global overview of the area



Types of premises in this area



General information

Number of premises : 16

Number of warehouse : 3

Mean distance to the main office : 2251 m

Max distance to the main office : 9052 m

Site Name	Site Code	Premise Use Type	Longitude	Latitude	Source	Address	Validity	Premises Code	Name	Country code
Geneva	GVA	Main Office	4-12862733	46-22282333	Satellite Image	10, Avenue de la Paix, 1202 Genève	-	P004079	102 8677 0	CH
Geneva	GVA	Main Office	4-12862697	46-22178923	Satellite Image	10, Avenue de la Paix, 1202 Genève	-	P004077	102 8677 0	CH
Geneva	GVA	Main Office	4-12752528	46-22282333	Satellite Image	10, Avenue de la Paix, 1202 Genève	-	P004078	102 8677 0	CH



Cas 3

-

Tableau

Tableau software

- Analyse en temps réels des opérations et des programmes.
- Jointure données métiers sur existant géographique.
- GIS fournisseur de données référentielles au sein des différentes applications.
- Peu d'intégration – dynamique avec serveur GIS

Tableau software

Contraintes : Contraintes : l'objet que nous
poussons dans la base SQL est limité par la
longueur du champ géométrique WKT

```
MULTIPOLYGON(((1 1,5 1,5 5,1 5,1 1),(2 2,2 3,3  
3,3 2,2 2)),((6 3,9 2,9 4,6 3)))
```

Simplification **REQUIRED**

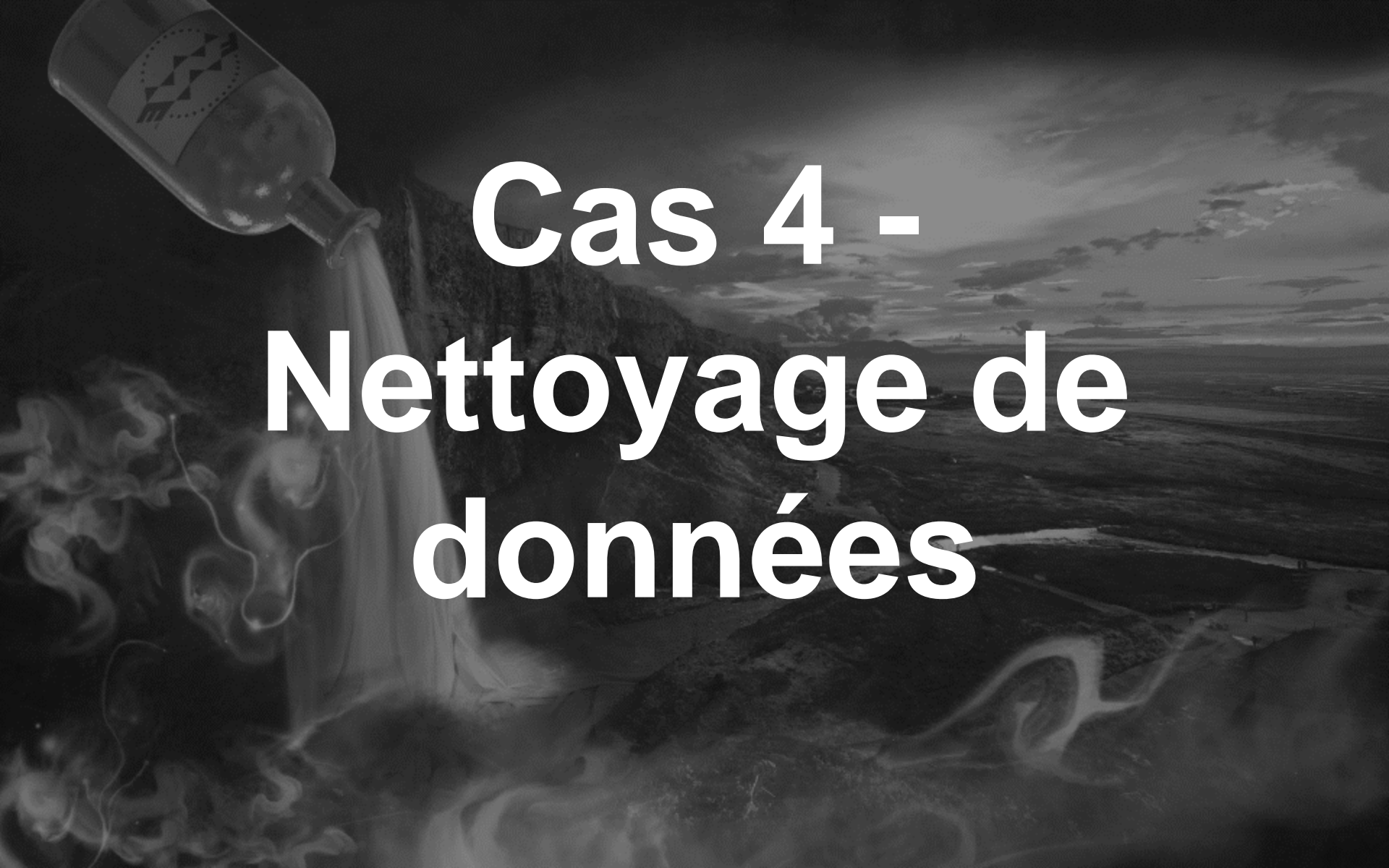


Note : Tableau 10.3 peut lire des
Shp, mais ne correspond pas à
la manière de déployer le soft
sur le terrain..

Tableau software

Le processus de simplification n'est pas facile.

- Comment pouvons nous limiter la géométrie WKT de la Géométrie du référentiel «Russie» (grand) et «Georgie» (petit) tout en conservant les partages de frontières ? Ce sur la même année, et garder plus ou moins la même forme?
- Gestion des enclaves... Casse tête



Cas 4 - Nettoyage de données

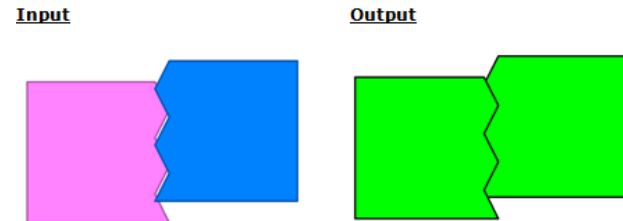
Nettoyage de données

Des données hétérogènes nécessitent une uniformisation et nettoyage !

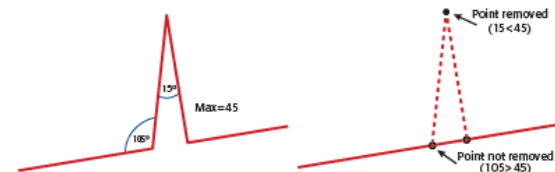
Type de nettoyage:

- ArcSDEGridSapper
- Self interection
- Min area
- OGC test
- Arcpy repair

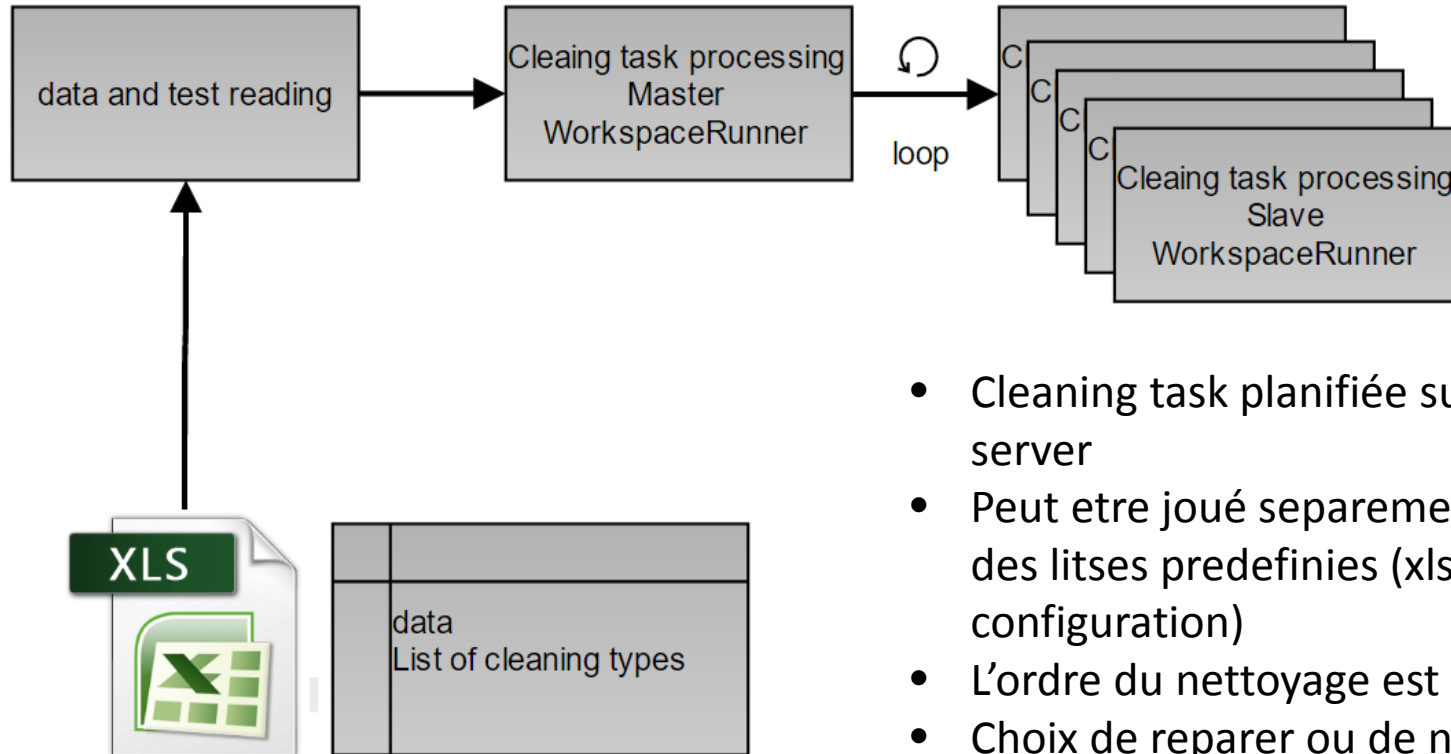
- SliverRemover



- SpikeRemover



Nettoyage de données- architecture



- Cleaning task planifiée sur FME server
- Peut etre joué separement ou sur des litses predefinies (xls. De configuration)
- L'ordre du nettoyage est important
- Choix de reparer ou de notifier

A black and white composite image. In the upper left, a bottle is tilted, pouring a stream of liquid into a landscape. The landscape consists of dark, jagged mountains in the foreground and a wide, flat expanse, possibly a beach or a plain, leading to a sea under a sky with scattered clouds. The overall tone is dramatic and atmospheric.

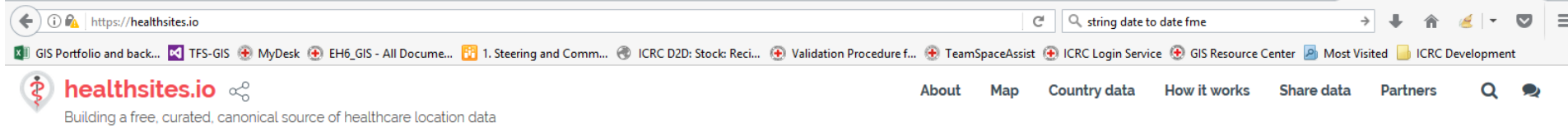
Cas 5

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Integration de sources de données externes

Healthsite

<https://healthsites.io/>



223246
healthsites
added

[edit the map](#)

[how it works](#)



Partners

HEALTH IT'S A
CARE MATTER
IN OF LIFE
DANGER & DEATH



International
Hospital
Federation



Humanitarian
OpenStreetMap
Team



GIS Unit

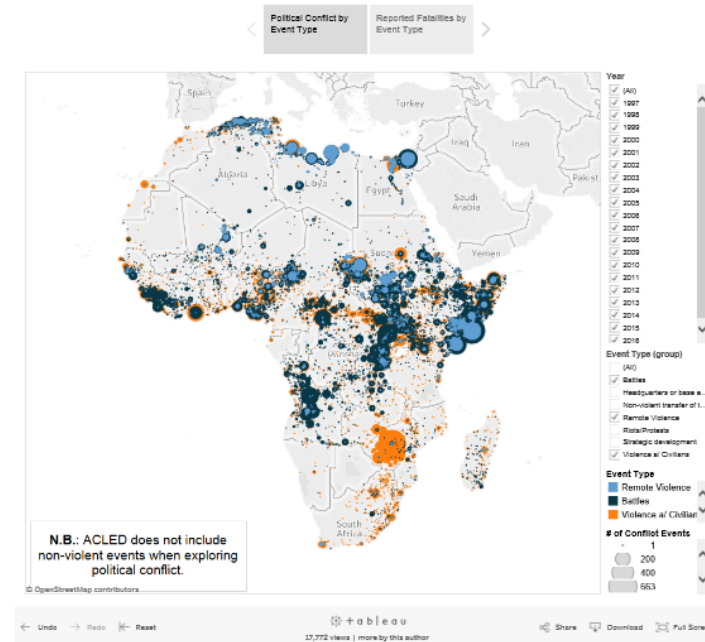
ACLED (Armed Conflict Location & Event Data)



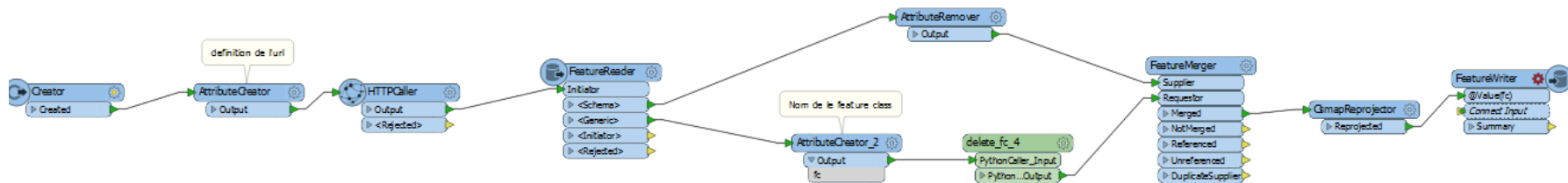
Dynamic Maps and Graphs

The dynamic maps below have been drawn from ACLED Version 7. They illustrate key dynamics in event types, reported fatalities, and actor categories. Clicking on the maps, and selecting or de-selecting options in the legends, allows users to interactively edit and manipulate the visualisations, and export or share the finished visuals. The maps are visualised using Tableau Public.

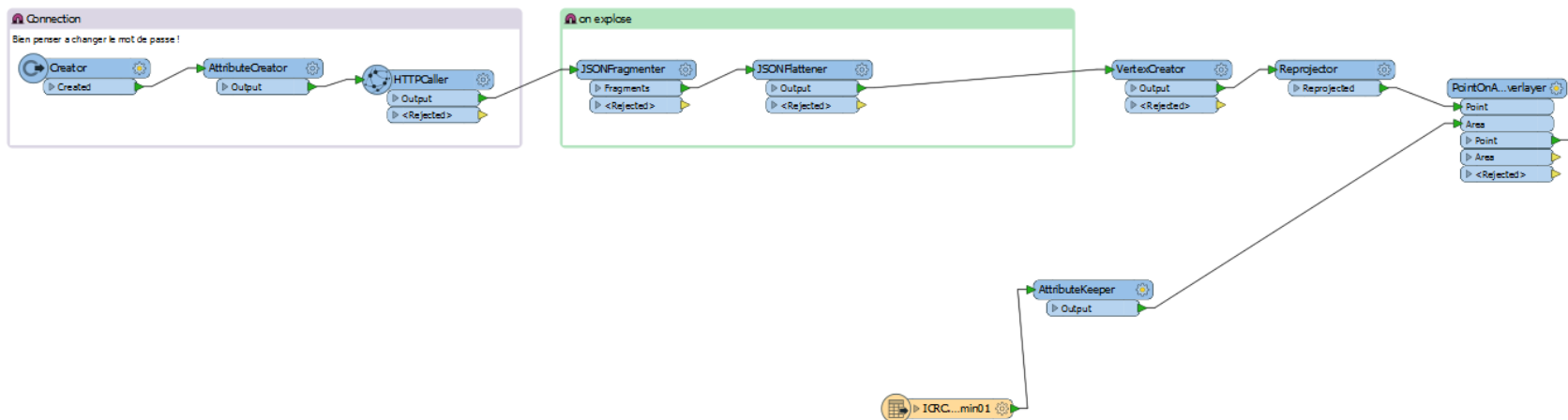
Political Conflict in Africa (Data from the Armed Conflict Location and Event Data [ACLED] Project)



Integration pour Health Sites



«Début» de l'integration pour Acled



A black and white photograph of a bottle pouring liquid into a pool of water, with a coastal landscape in the background. The bottle is tilted, and a stream of liquid is falling into the water, creating ripples. The background shows a coastline with a beach, buildings, and a cloudy sky.

Use case 6

-

Gazetteer

Gazetteer et Admin01. Référentiel de lieu peuplés

- Quelle est la population affectée ?
- Quels villages à visiter pour une évaluation vétérinaire ?
- Village ou des exactions ont été commises

Un référentiel commun

Gazetteer – Points clés

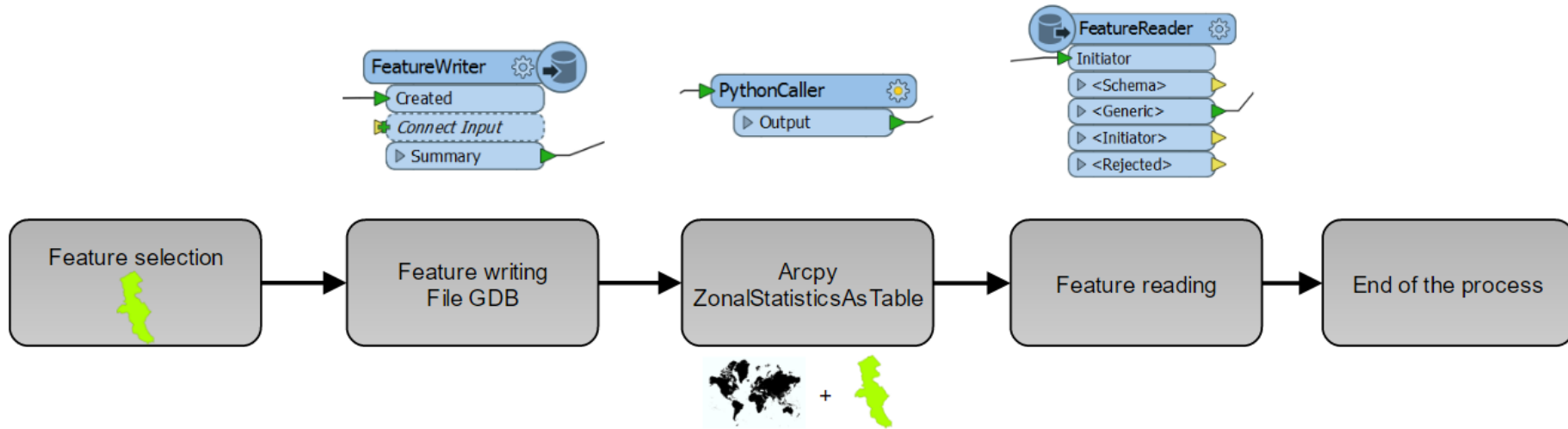
Population basée sur un raster en alternative



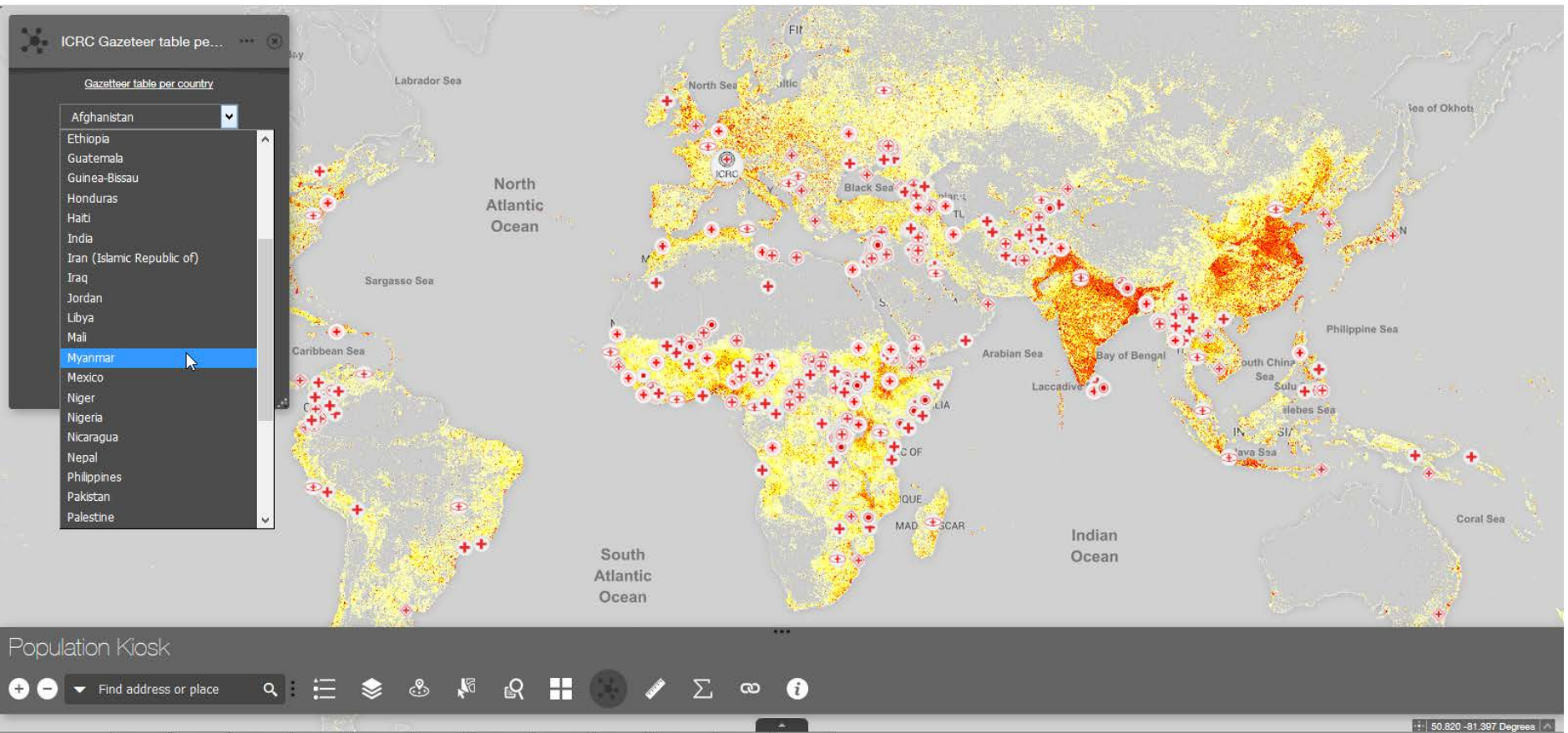
Le polygone de l'entité qui servira de "cookie cutter"



Gazetteer – Points clés



Le guichet «pop» pour accéder aux données

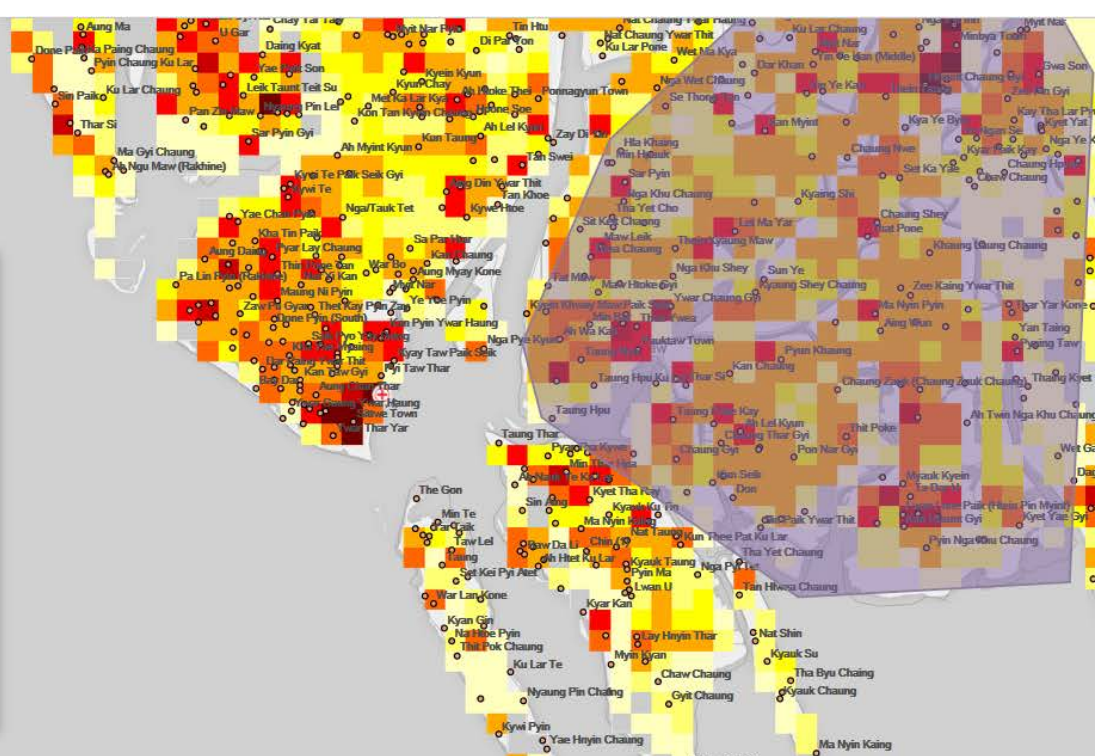


ICRC Gazeteer table pe... ...

Gazetteer table per country

Myanmar ▼

Download



Sum of Population ...

Input Output

zonaloutput

OBJECTID	OBJECTID_1	COUNT	AREA	SUM	SourceLayer
1	1	533	1161474294	129944	LANDSCAN
2	1	1443	1419126206	89427	WorldPop20
3	1	931	1408232302	102654	gpw2015_v4

Population Kiosk

Find address or place + -

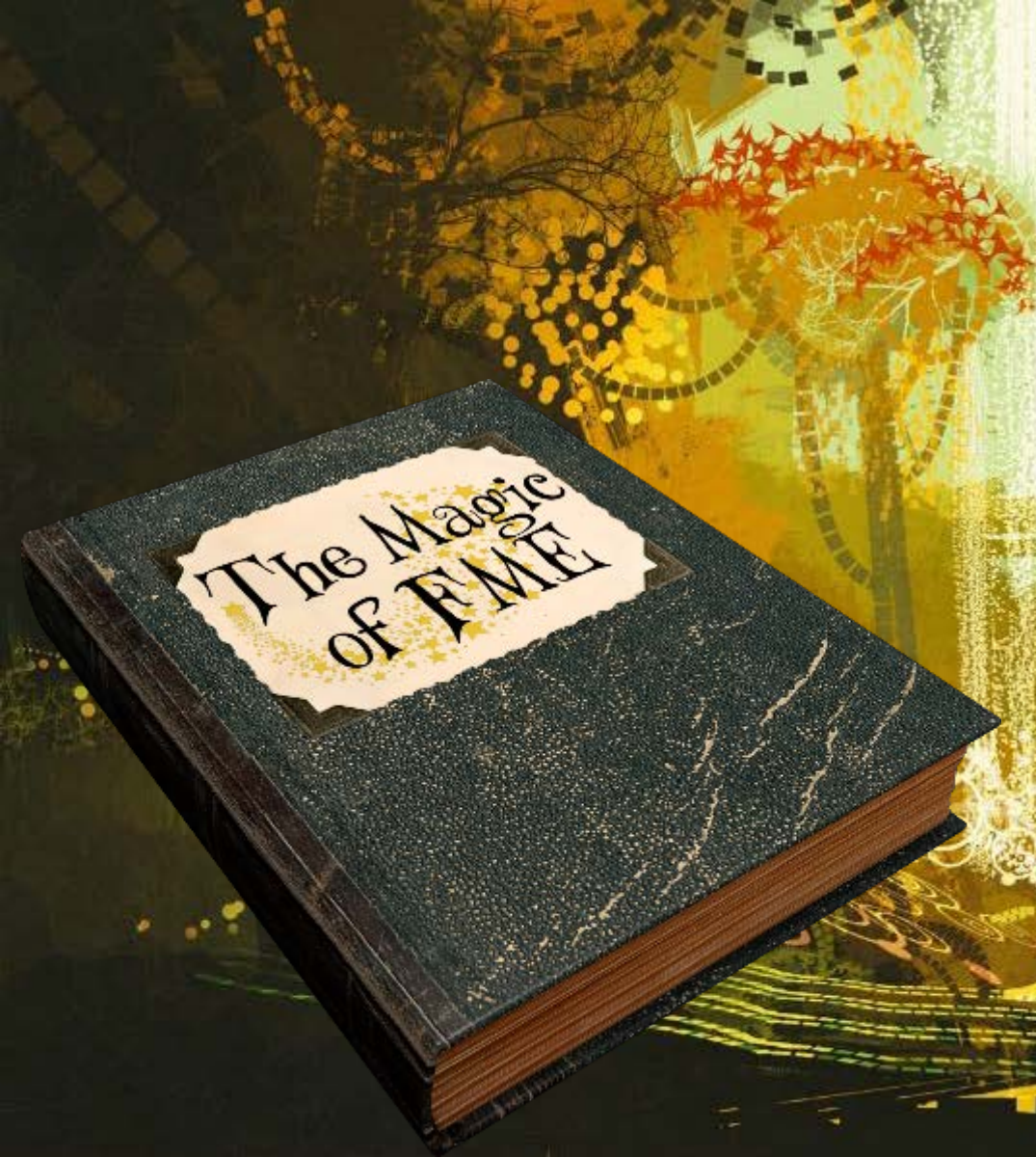
	A	B	C	D	E	F	G	H
1	Admin01Name	Admin01CodeICRC	Admin01Code	SourceOfGazeteer	Admin01Pop	Admin01PA	Admin01	Admin01PopulationSource
2	Naypyitaw	MM015	MM015	MIMU	1 330 057	8 020	166	Raster GDB
3	Sagaing Region	MM012	MM012	MIMU	7 358 103	113 056	65	Raster GDB
4	Yangon Region	MM014	MM014	MIMU	9 943 110	10 760	924	Raster GDB
5	Yunnan Sheng	CN033	CN033	GAUL, adjusted CarONG	61 303 287	469 022	131	Raster GDB
6	Shan State (East)	MM011	MM011	MIMU	1 133 275	42 782	26	Raster GDB
7	Tanintharyi Region	MM013	MM013	MIMU	1 818 965	43 452	42	Raster GDB

1	OBJECTID	Name	NameLocal	GZ_AlterName	GZ_CountryName	GZ_CountryISO2	GZ_Admin01NameICRC	GZ_Admin01CodeICRC	GZ_Admin01Name
31663	2076564	Kyoe Kyar	ကျွဲကြွဲ		Union of Myanmar	MM	Ayeyarwady	MM018	Ayeyarwady
32207	2077108	Thauk Kyar Du	သောကြာဒူး		Union of Myanmar	MM	Ayeyarwady	MM001	Ayeyarwady
32231	2077132	Pyar Thar su	ပြာသာစု		Union of Myanmar	MM	Ayeyarwady	MM001	Ayeyarwady
32253	2077154	Kyaung Kone	ကျောင်းကုန်း		Union of Myanmar	MM	Ayeyarwady	MM001	Ayeyarwady
32256	2077157	Kyauk Myaung	ကျောက်မြောင်း		Union of Myanmar	MM	Ayeyarwady	MM001	Ayeyarwady
32263	2077164	Kayin Su	ကရင်စု		Union of Myanmar	MM	Ayeyarwady	MM001	Ayeyarwady

La véritable boîte à outils dès que l'on a des questions...

Probablement 10% des outils utilisés..

- Consolidation d'aires d'image satellites commandées
- Calcul de champs
- Backup
- Nettoyage et comparaison de Bases de Données
- Sharepoint connectors ?



Thank you!

@inser team

Safe for grant «non
profit»

Program

Yann Rebois

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[http://gisupporticrc.github.io/GISResource
Center/](http://gisupporticrc.github.io/GISResourceCenter/)

www.icrc.org