



go.data



World Health
Organization

```
1 #include "VehicleTypes.h"
2 #include "BuggyPawn.generated.h"
3
4 UCLASS()
5 @class ABuggyPawn : public AWheelVehicle
6 {
7     GENERATED_UCLASS_BODY()
8
9     // Begin Actor overrides
10     virtual void PostInitializeComponents() override;
11     virtual void Tick(float DeltaSeconds) override;
12     virtual void ReceiveHit(class AActor* HitActor, class FVector* HitLocation, class FName* HitComponent) override;
13     virtual void FellOutOfWorld() override;
14     // End Actor overrides
15
16     // Begin Pawn overrides
17     virtual void SetupPlayerInputComponent(UInputComponent* Component) override;
18     virtual float TakeDamage(float Damage, class AActor* Instigator, class FVector* Location, class FName* HitComponent) override;
19     virtual void TakeDamage(float Damage, class AActor* Instigator, class FVector* Location, class FName* HitComponent) override;
20     // End Pawn overrides
21
22     /** Identifies if pawn is a vehicle.
23     * @return true if the pawn is a vehicle, false otherwise.
24     */
25     UPROPERTY(VisibleAnywhere, BlueprintReadOnly, Category="GOARN")
26     bool IsVehicle() const;
27
28     /** replicating data to server.
29     * @return true if the pawn is a vehicle, false otherwise.
30     */
31     UFUNCTION()
32     void ServerIsVehicle();
33 }
```

GOARN

Global Outbreak Alert and Response Network

OVERVIEW

GO.DATA - WHAT IS IT?

Go.Data is a field data collection platform focusing on case data (including lab, hospitalization and other variables through case investigation form) and contact data (including contact follow-up). Main outputs from the Go.Data platform are contact follow-up lists and chains of transmission.

WHAT ARE THE KEY FEATURES OF THE GO.DATA SOFTWARE?

Outlined below are major highlights of progress made by the Regional Office in the area of data and information management.

Multi-platform

Go.Data offers different types of operation (online, offline) and different types of installation (server, standalone). It functions on a range of operating systems (Windows, Linux, Mac). In addition, Go.Data has an optional mobile app for iOS and Android. The mobile app is focused on case and contact data collection, and contact follow-up.

Multi-lingual

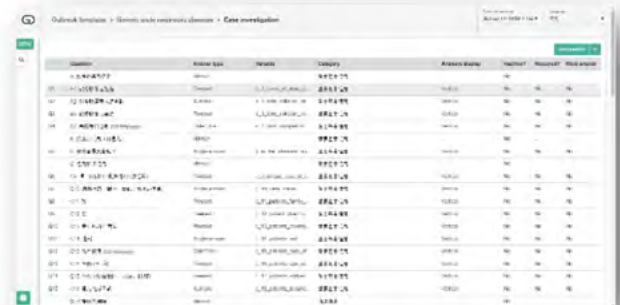
Go.Data is multi-lingual, with possibility to add and manage additional languages through user interface.

Configurable

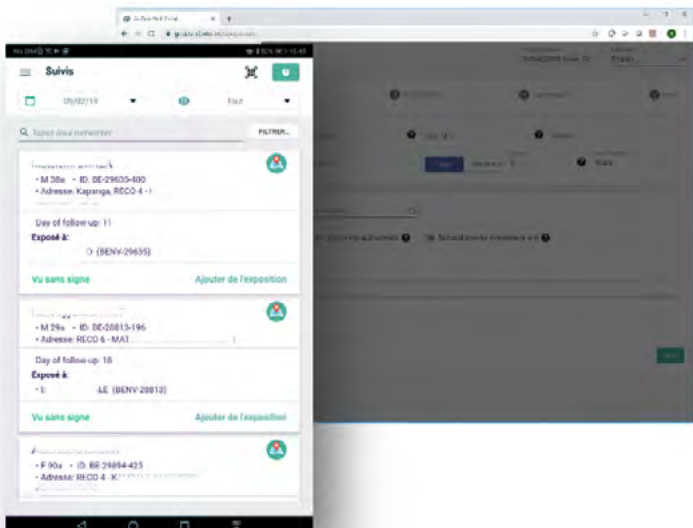
It is highly configurable, with possibility to manage:

- Reference data,
- Location data, including coordinates,
- Outbreak data, including variables on the case investigation form and the contact follow-up form.

One Go.Data installation can be used to manage multiple outbreaks. Each outbreak can be configured in a different way to match the specifics of a pathogen or environment.



Case ID	Case Name	Status	Location	Administrative	Gender	Age Group	Occupation
01	01-00000001	Resolved	123 Street, Paris	FRANCE	M	30-39	Student
02	01-00000002	Resolved	456 Avenue, London	UNITED KINGDOM	F	20-29	Teacher
03	01-00000003	Resolved	789 Blvd, New York	UNITED STATES	M	40-49	Engineer
04	01-00000004	Resolved	1011 St, Tokyo	JAPAN	F	50-59	Homemaker
05	01-00000005	Resolved	1213 Rd, Sydney	AUSTRALIA	M	60-69	Retired
06	01-00000006	Resolved	1415 Way, Melbourne	AUSTRALIA	F	70-79	Unemployed
07	01-00000007	Resolved	1617 Dr, Perth	AUSTRALIA	M	80-89	Unemployed
08	01-00000008	Resolved	1819 Pl, Adelaide	AUSTRALIA	F	90-99	Unemployed
09	01-00000009	Resolved	2021 Cr, Brisbane	AUSTRALIA	M	10-19	Unemployed
10	01-00000010	Resolved	2223 Av, Gold Coast	AUSTRALIA	F	20-29	Unemployed



Case and contact data collection

User can add cases, contacts, laboratory results. In addition users also have an option to create events which may be relevant for outbreak investigation.

Contact follow-up lists are generated using outbreak parameters (i.e. number of days to follow-up contacts, how many times per day should contacts be followed-up).

Extensive data export and data import features are available to support the work of data managers and data analysts.

Name	Phone Number	Status
002212061	98765 43210	Followed up
002212062	98765 43210	Not followed up
002212063	98765 43210	Followed up
002212064	98765 43210	Not followed up
002212065	98765 43210	Followed up
002212066	98765 43210	Not followed up
002212067	98765 43210	Followed up
002212068	98765 43210	Not followed up
002212069	98765 43210	Followed up
002212070	98765 43210	Not followed up

Performing contact follow-up

Go.Data has features to perform contact tracing using the web app or optional mobile app. Contact follow-up data are presented in form of lists, graphs and operational dashboards. Contact tracing coordinators can review workload of each contact tracing team.



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System administration



System administrators have access to extensive set of features to manage users, assign roles and permissions and limit access to specific outbreak(s) only. In addition, they have access to usage logs, can create and restore backups and manage settings of one Go.Data instance.

OPTIONS FOR GO.DATA HOSTING

OPTION #1

CENTRALLY HOSTED SERVER



One Go.Data installation for the entire region or for multiple countries. Separate outbreak is created for each country on the central server instance of Go.Data, and user access is provided at outbreak level (i.e. users from one country can only access case and contact data from their country).

-  Maintenance is easier.
 - Installation of any updates is done centrally
 - Synchronization of the mobile phones can be done from anywhere.
 - If WHO is an option, there is a process in place for quickly setting up a Go.Data server (~2 days).
-
-  Countries may be reluctant to host detailed information which is required for contact tracing (e.g. names, addresses) on an external server.
 - May require agreements between WHO and member states for this arrangement (TBC).
 - WHO to manage user accounts and user access on behalf of member states.

OPTION #2

COUNTRY HOSTED SERVER



Separate Go.Data installation for each country. Countries install and manage Go.Data on their infrastructure.

-  Country has complete ownership and control of the server.
 - Synchronization of the mobile phones can be done from anywhere.
-
-  Likely to take more time to implement as this option requires internal governmental approvals and provisioning infrastructure.
 - Requires training to complete the technical setup and training.
 - Requires dedicated staff / team to manage the server.
 - Not all countries may be in a position to quickly host Go.Data server.

OPTION #3

STANDALONE INSTALLATION

Go.Data is installed on one or more computers in the country. These are typically personal computers or notebook / laptop computers. Data can be replicated across the computers.



-  Fast to implement.
 - User has complete ownership and control of the computer and data.
 - Synchronization of mobile phones requires users to be in the same location as the computer.
-
-  If there are multiple instances in a country it will be required to setup a consolidation point.
 - Limited availability of Go.Data to when the laptop is running.
 - Personal data stored on multiple standalone computers.
 - Increased security risks through loss or damage of the standalone computers.

DEVICE OPTIONS FOR GO.DATA MOBILE APP

OPTION #1

WHO



In limited outbreak situations, WHO, through the regional or country offices, can provide a number of mobile devices for use with Go.Data. These devices are handed over to MoH who assume complete ownership and control of these devices.

-  A limited stock is kept in the organization and can be rapidly deployed.
 - Standardized devices meeting minimum Go.Data app requirements.
 - For duration of outbreak, WHO, partners and MoH support the operationalization of the devices, including training and bandwidth.
 - When available, Mobile Device Management (MDM) solutions can be installed on devices to restrict alternative uses and provide remote management features.
-
-  Limited capacity to scale the provisioning of devices if outbreaks occur across an extended area.
 - Logistics to distribute the devices.
 - Requires staff / team to configure, setup and manage the devices.
 - MDM solutions require separate licensing.

OPTION #2

MEMBER STATE



Member states manage the procurement and provisioning of mobile devices. The Go.Data mobile app is pre-installed on these devices before they are handed to field workers.

-  Country has complete ownership and control of the mobile devices.
 - Devices can be sourced locally.
 - For duration of outbreak, WHO, partners and MoH support the operationalization of the devices, including training and bandwidth.
 - When available, Mobile Device Management (MDM) solutions can be installed on devices to restrict alternative uses and provide remote management features.
-
-  Likely to take more time to implement as this option requires funding and internal governmental approvals and procurement.
 - Logistics to distribute the devices.
 - Requires staff / team to configure, setup and manage the devices.
 - MDM solutions require separate licensing.

OPTION #3

BYOD

Follows a Bring Your Own Device (BYOD) model where end users use their personal devices. The Go.Data mobile app is installed on the personal device.

-  Fast to implement, end-users install app on devices they are familiar with.
 - For duration of outbreak, WHO, partners and MoH support the operationalization of the devices, including training and bandwidth.
-
-  Devices not guaranteed to meet minimum requirements.
 - Personal data stored on private devices increases the risk of unauthorized access to patient data by family and other persons.
 - MDM solutions cannot be enforced.
 - Increased security risks through loss or damage of the devices.