



CENTER FOR INTEGRATED HEALTH PROGRAMS



GAP IDENTIFICATION SYSTEM ANALYSIS PLUS

Version 1.0.0.0

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Abbreviations

ART	Antiretroviral therapy
CTT	Client tracking and termination
DB	Database
EMR	Electronic medical record
EDEC	Electronic data entry clerk
EXE	Executable file
GISAT	Gap identification system analytical tool
NDR	National Data Repository
IP	Implementing partner
LGA	Local government area
NMRS	Nigeria medical record system
Sql	Structured query language

Acknowledgements

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Thank you for contributing your time and expertise into developing and refining the GISAT *Plus* App.

Overview

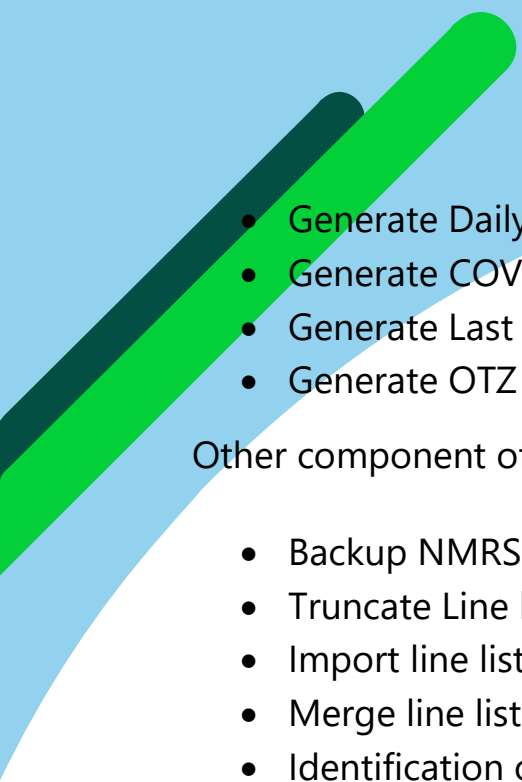
GISAT Plus is a cross platform application (Windows and iOS) focused on optimizing the identified internal data quality issues, unauthorized access to the backend and execution of unauthorized/unapproved SQL script. GISAT Plus - a Graphic User Interface (GUI) application to help address emerging issues with regards to data mining, data cleaning and Merging of line list from various facilities and state.

GISAT Plus Functionalities

1. Reduction of access to the backend at the facility level
2. Control mechanism and accurate use of CIHP approved updated scripts/stored procedure
3. Perfect merging of line list with zero data error
4. Enhancement of data consistency and accuracy.
5. Monitor execution of unapproved script on the NMRS database
6. Control and monitoring versioning of the scripts been developed.
7. Accurate database backup
8. Ease of line list generation using the dropdown functionality of the app
9. Identification of errors for cleaning.

GISAT Plus app will enable the end user to call the following patient line list;

- Generate treatment line list
- Generate HTS line list
- Generate full Pharmacy component line list
- Generate PMTCT line list
- Generate EID line list
- Generate AHD line list

- 
- Generate Daily LIMS-EMR line list
 - Generate COVID-19 line list
 - Generate Last 5 Pharmacy line list
 - Generate OTZ line list

Other component of the application involves the following features

- Backup NMRS DB
- Truncate Line list DB
- Import line list
- Merge line list
- Identification of data entry related gaps

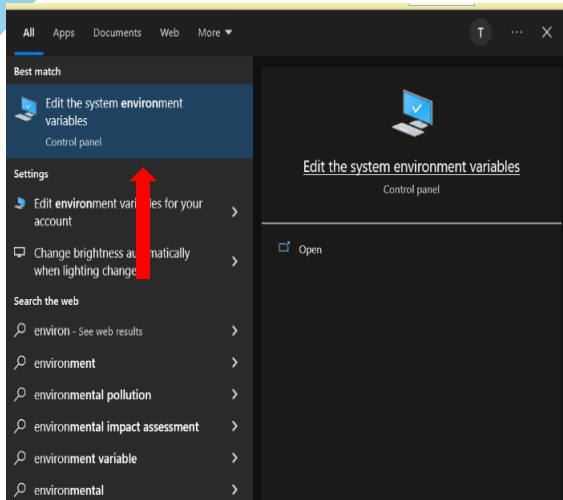
GISAT PLUS App requirement

1. Screen resolution recommendation is **1920x1080** and scaling is **100%** so as to have access to the full GISAT Plus app.
2. MySQL Server 5.7 (or higher) installation
3. Add MySQL\bin path to both the user variable and system variable (if needed) to allow the app have access to the MySQL dump functionality.
4. Database name should be "openmrs"
5. MySQL Server Credentials (Known to the administrator)
6. User must be an admin machine (Computer) user. i.e Login access should be Administrator rights
7. "GISAT_Plus.sql" file.
8. Understanding of "**File Management**" basics.

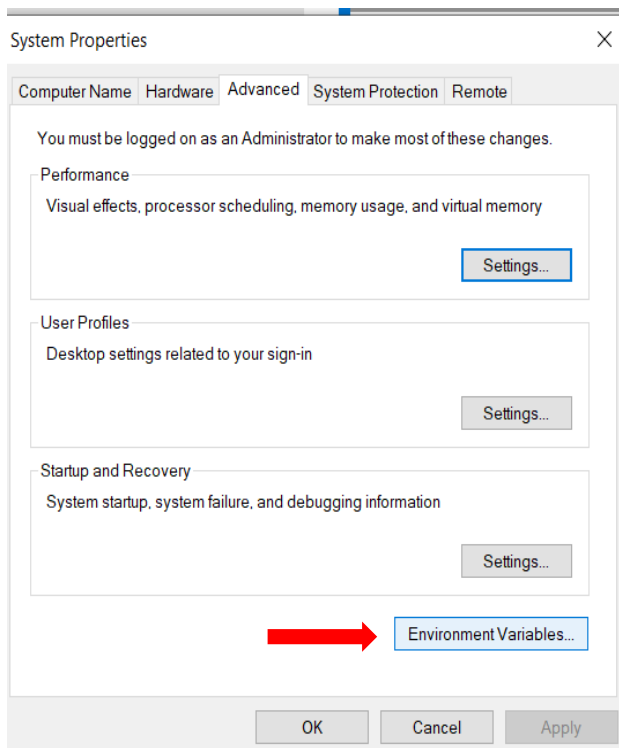
USER GUIDE – Key Updates

ENVIRONMENT VARIABLE SET-UP

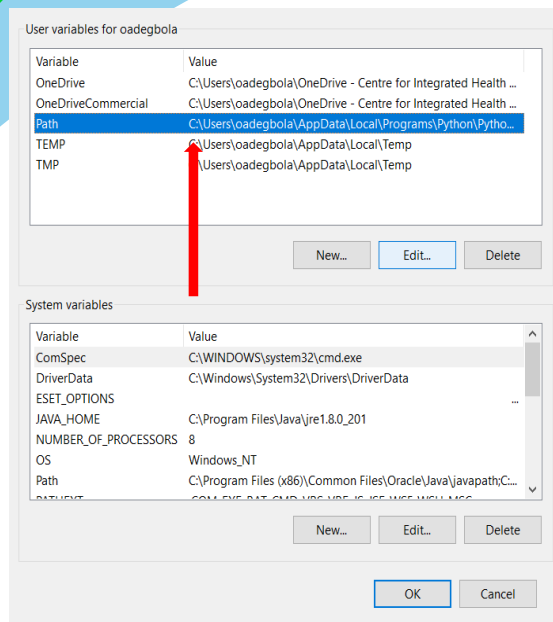
STEP 1: Search for **environment variable** in the window bar and double click



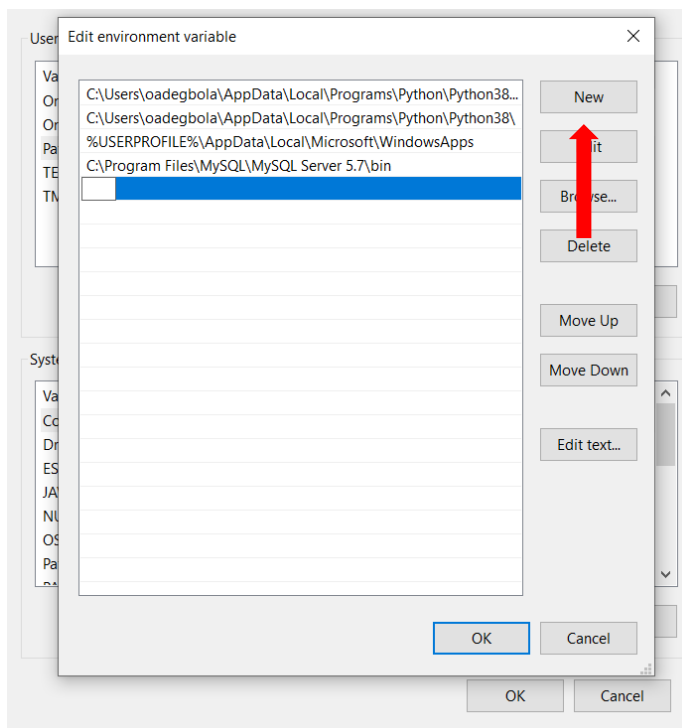
STEP 2: Select **environment variable**



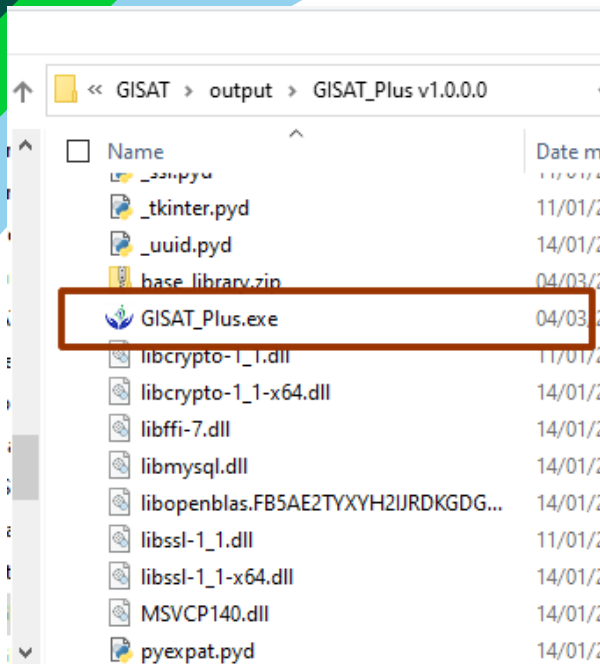
STEP 3: On the User variables, select path and Click on edit



STEP 4: Click on new and paste the path C:\Program Files (x86)\MySQL\MySQL Server 5.7\bin

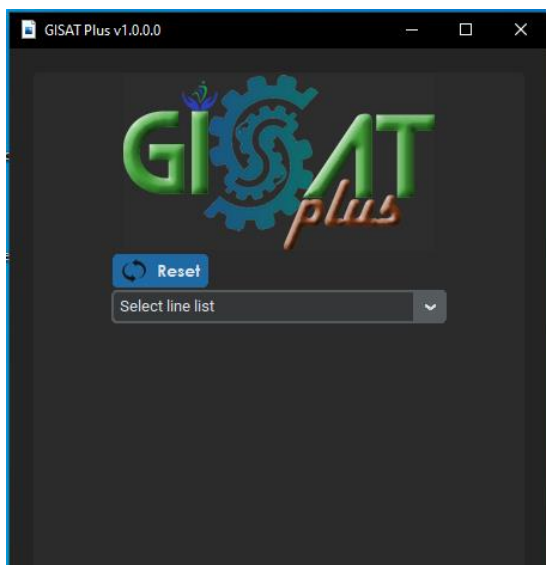


LUNCHING THE TOOL



Download the file and decompressed the file in any folder on your computer and look for the executable file **"GISAT_PLUS.EXE"** to lunch the tool.

When launched you should have access to the tool as shown below



GENERATING LINELIST

To have access to the full functionalities of the application, click on the drop down box '**Select line list**' to select the linelist you wish to work on/generate.

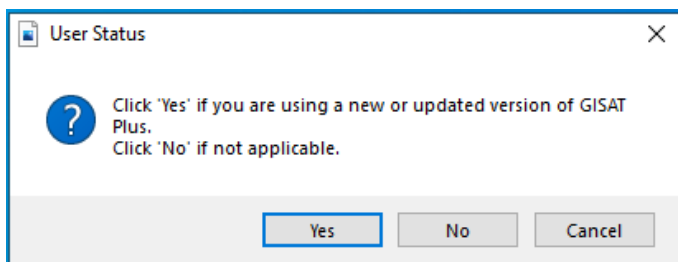
Note: This dropdown filled is a multifunctional selection which controls the line list to be generated and the list to be imported for merging (see the guide of merging below).



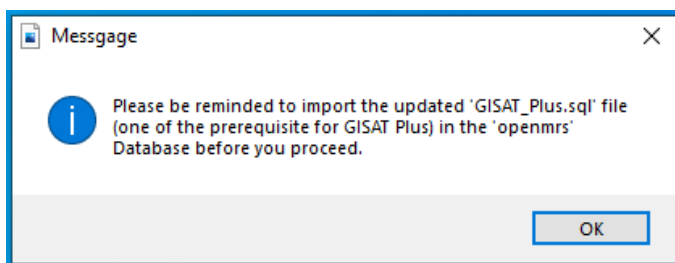
For a first time user, click on yes (Subsequent use of the app, you're to select No).

Use the "Yes" button when using an updated or a new copy of GISAT Plus.

"No" to continue from where you stopped.



Then you will get a prompt reminding you to import the GISAT_Plus.sql file in the "openmrs DB. Click on OK if that is already done.



UNDERSTANDING GISAT Plus Application

GISAT Plus v1.0.0.0

GISAT plus

Reset

Treatment Line List

05/03/2023

Generate NMRS Line List

Backup NMRS DB

MERGE LINE LIST

Truncate Linelist DB

Import list

Select IP:

Select State:

Select Surge Command:

Select LGA:

Switch is "ON" - All validation activated

05/03/2023

ON

Start Merging

Total No. of IP: (0.) | Total No. of State: (0.) | Total No. of Surge Command: (0.)
Total No. of LGA: (0.) | Total No. of Facility: (0.) | Total No. of Records: (0.)

GISAT Plus Logo

- Reset
- List of NMRS Line list (Dropdown)
- Multi-function
- Reporting date field
- Generate NMRS Line list
- Backup NMRS Database

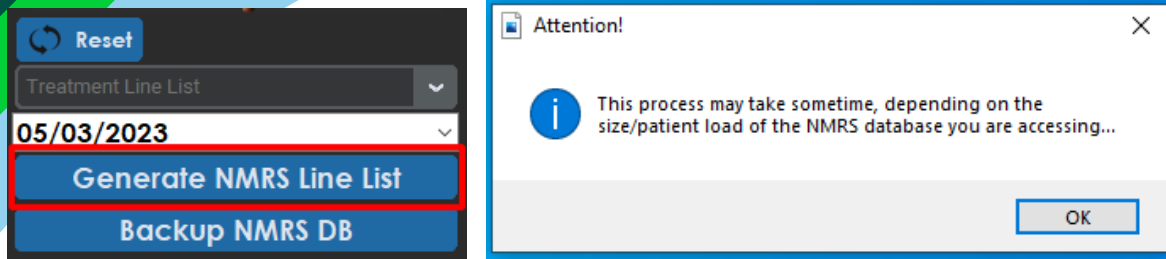
- Truncate Line list DB – “validation_Linelist” merging DB
- Import Line list – Loading the Validation_Linelist DB

Merge Line List

- Select IP Dropdown
- Select State Dropdown
- Select Surge Command Dropdown
- Select LGA Dropdown
- Reporting Date validation “Date Field”
- Validation Switch
- Start Merging

Line list Database status Panel

Step 9: Select the reporting date you wish to generate the line list, then click on generate NMRS Line list

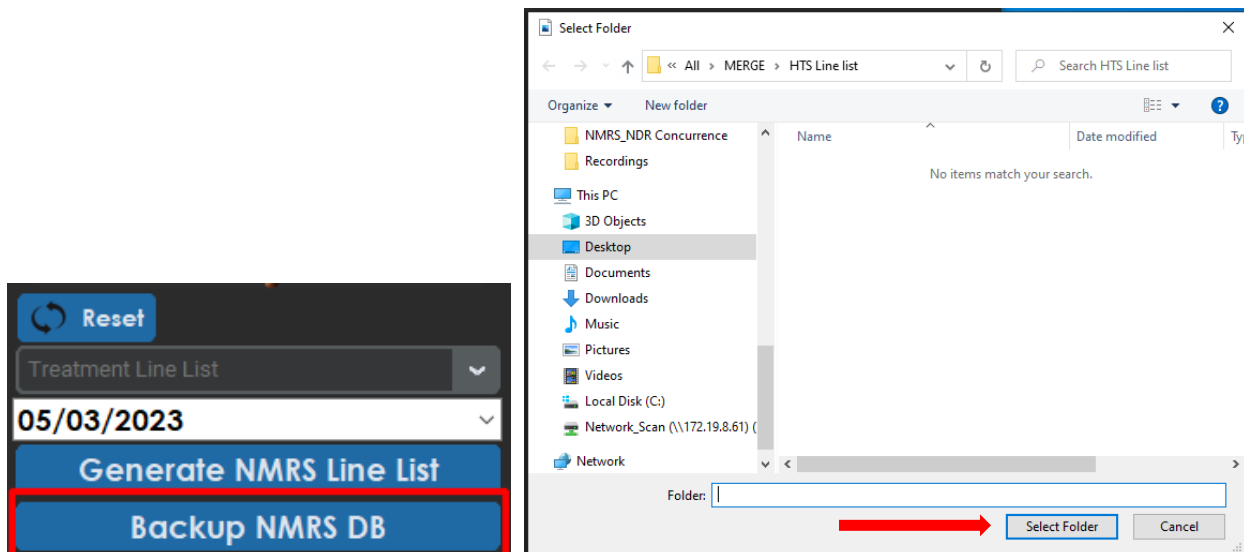


This prompt will pop up then click ok and create a folder on your PC where you will prefer the line list to be saved and save it there.

BACKUP NMRS DB

The tool can also be used to back up the NMRS DB by following this steps

- Select the date and click on the **“Backup NMRS DB”** select the folder you wish to save the backup on your PC and click **“Select Folder”**.
- Note: The backup file remains 0KB till the completion of the SQLdump process. The required time is dependent on the size/patient load of the database.



MERGE LINE LIST

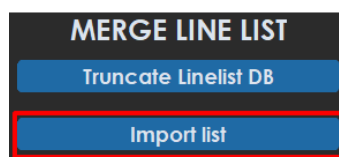
The “Merge Line List” of GISAT Plus App is separated from the “openmrs” database. This is the part of the app that speaks to Gap Identification, data cleaning and clean merging of line list across LGA, Surge Command, State or IP.

TRUNCATE LINELIST DB

This truncates all the previously imported data as it relates to the selection from the “**Select Line List**” dropdown box.

IMPORTING LINELIST

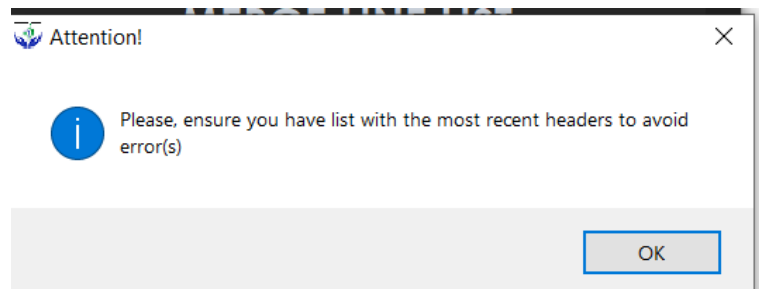
Import generated Line list by clicking on “**Import list**”



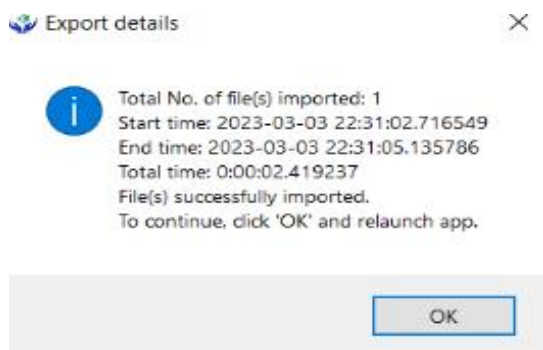
Ensure the list you intend to work with is selected from the “Select Line list” dropdown box at the top of the app.

This prompt implies that all Line list prepared for import must be generated using the GISAT Plus App.

This prompt implies that all Line list prepared for import must be generated using the GISAT Plus App.



Then select the folder in which the linelists you wish to merge are click “**Select Folder**”. After importing a dialog box as shown below will pop up, this will alert you if your linelist have been correctly, completely and successfully imported



MERGING LINELIST

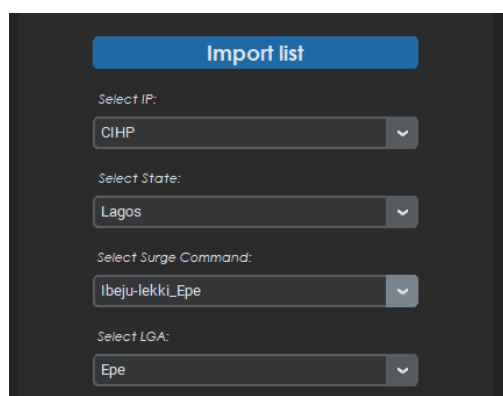
After importing linelist, Merging can now happen. To merge select the option you are merging from

Select only IP; if you are merging at the IP level

Select IP and State: if you are merging at State level

Select IP, State and Surge Command to merge at the surge command level

Select IP, state, surge command and LGA to merge at the facility or LGA level



The screenshot shows a dark-themed form titled "Import list" in a blue header. It contains four dropdown menus, each with a label and a selection arrow:

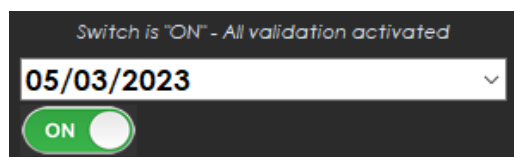
- Select IP: CIHP
- Select State: Lagos
- Select Surge Command: Ibeju-lekki_Epe
- Select LGA: Epe

VALIDATION SWITCH

The “Validation Switch” is to activate or deactivate the validation function of the GISAT Plus application. The switch can be toggle “On” and “Off”.

If switch is on, all validations activated including the validation date field.


Recommended



The screenshot shows a dark-themed interface with the text "Switch is 'ON' - All validation activated" at the top. Below it is a date field displaying "05/03/2023" with a dropdown arrow. At the bottom is a green toggle switch labeled "ON".

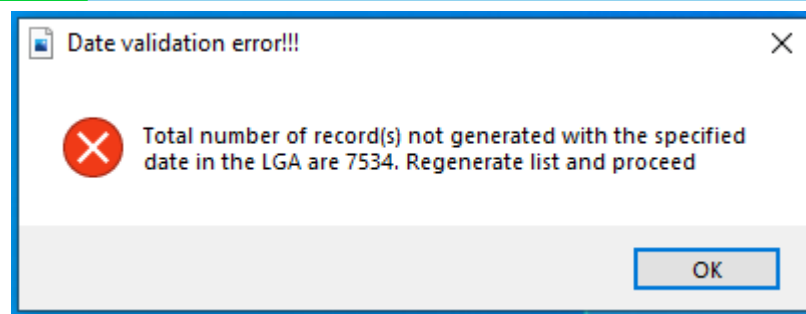
If switch is off, all validations deactivated including the validation date field.

Not Recommended



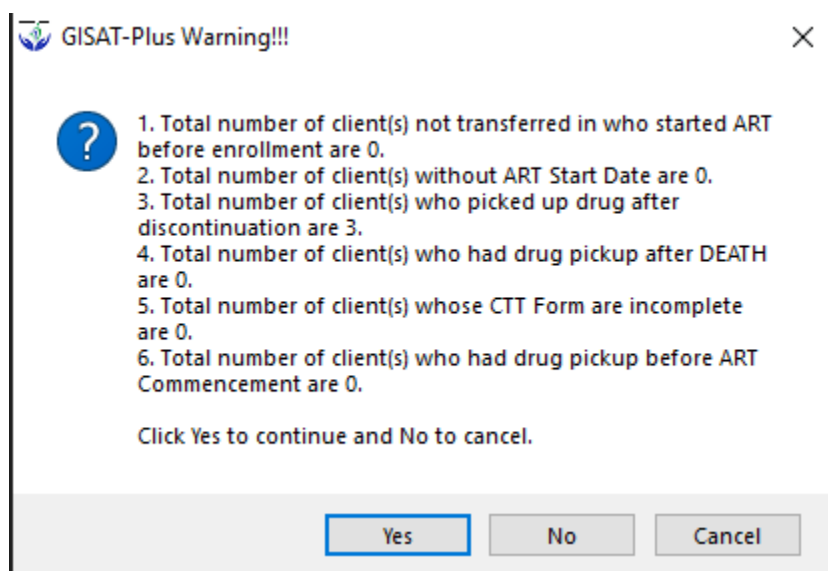
The screenshot shows a dark-themed interface with the text "Switch is 'OFF' - All validation deactivated" at the top. Below it is a date field displaying "05/03/2023" with a dropdown arrow. At the bottom is a red toggle switch labeled "OFF".

Priority Validation – The priority validation is the reporting date specified during the line list generation. The date specified on GISAT Plus “Date Validation” field must conform with the date line list was generated. If the condition is not met, merging and other validations will be impossible (see error message below).



After selecting the appropriate options, select the date the line list was generated then click on start merging.

The validation warning will pop up showing some inconsistency/validation error in the merged linelist as shown below.



NB: Always keep the validation on to allow for the tool to validate the imported line list before merging

If the validate switch is off, line list will be generated irrespective of the inconsistencies and errors.