**Alpha testing of O3\_Input**

Thank you for helping test O3\_Input! This first stage is to check that individuals at other institutions can use the encryption process to connect to ARIA and pull data into O3.

1. **Get the files**

You have been given access to a private git hub repository. The first step is to down load the code from the repository. There are two programs that you will use. Down load the code into separate folders

* EncryptDecryptWPF

[CSMayoLab/EncryptDecrypt: EncryptDecrypt](https://github.com/CSMayoLab/EncryptDecrypt)

* O3\_Input

<https://github.com/CSMayoLab/O3_Input>

You will first need to encrypt the connection string to connect to ARIA, and then copy the encrypted string in to the configuration file.

1. **Encrypt Connection String**

This is the connection string format. Replace the red italicized text with your value

Server = *servername*; Database = *databasename*; User Id = *username*; Password = *password*;

Use the program EncryptDecryptWPF to encrypt the connection string.

If you leave the encryption key blank it will use a standard secret value. This is recommended for less typing and remembering.

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Description automatically generated

You can enter an 8 character string to use as the encryption key. In this example we used fourfour

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1. **Copy into the json query file**

The O3\_Input\_QuerySet.json file is in the directory with the O3\_Input program files that you downloaded from GitHub. Open the file.

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There are two groups: PatCourseInfo and SiteInfo. Each of these groups define a connection string to be used with all of the queries in the respective group.

Paste the encrypted connection string into the value for the ConnectionString key in each group. Save the file, then you are ready to run the program.

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Within each group there is an ActiveQuery\_List and at ParkedQuery\_List. The program will only run the encrypted queries inside of the ActiveQuery\_List. If you want to keep a query item ({…}), but not run it, move it into the ParkedQuery\_List.

This functionality is helpful if you are debugging set of queries, one-by-one. It is also useful if you are developing a new query.

1. **Run O3\_Input**

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1. **Check that it runs with an existing data set**

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Click on the button to Open Existing Data Set

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Open O3RecordSet\_2024022016451.json

1. **Modify patient list file for check that it runs with ARIA**

You have to modify the tab delimited file to include MRNs, CourseIds and Anonymization names, to match a couple of patients in your ARIA database.

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1. **Check that it runs pulling data from ARIA**

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Leave the db connection encryption key blank if you used the standard value or enter the custom one if that is how you encrypted the connection string. Leave the key for queries blank. Click the Get Patient Information from ARIA button. Select the patient list file you just modified to contain your patients.

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It will keep you posted as it works through the patients and let you know when done.

1. **Get the site summary data**

Click on the Get Site Information from ARIA. It will keep you updated as it progresses through

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It takes a bit longer (~3-4) min to get all of this summary information on all patients and courses over the last 4 years.

1. **Check that you can see the data in the tabs and the O3 JSON data**

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Patient Info

A screenshot of a computer

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O3 JSON file with patient information near the top

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Site summary data near the bottom of the O3 JSON file.

**Log File**

A log file is used to record progress through extraction of data from queries. The tables returned by the queries are also written as tab delimited text into the log file.

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The pages following show the data elements returned by the queries in the configuration file.

No data is automatically sent or saved.

The only data retained is in the O3 JSON file if the user chooses to write the file to a local folder.

The contents of the O3 JSON file are fully visible in the O3\_Input application.

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Patient\_MRN

RTCourse\_Name

Patient\_SexAtBirth

Patient\_DateOfBirth

Patient\_DateOfDeath

Patient\_CauseOfDeath

Patient\_Race

PatientSer

CourseSer

SessionSer

RTTreatedPlan\_Name

RTPlanSer

PlanSetupSer

RTCourseSession\_Number

RTCourseSession\_DateOfRecord

DateFirstTreatmentOfPlan

DateLastTreatmentOfPlan

RTTreatedPlan\_Modality

RTTreatedPlanDetailsXRT\_Technique

RTTreatedPlanDetailsXRT\_Energy

RTCourseSession\_NCBCTInSession

RTCourseSession\_NkVInSession

RTCourseSession\_NMVInSession

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Patient\_MRN

RTCourse\_Name

DiagStaging\_DateOfRecord

DiagStaging\_ICDCode

DiagStaging\_Overall

StageComponents

DiagnosisDescription

DiagnosisName

PatientSer

CourseSer

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HCO\_Name

HCO\_Site\_Name

HCO\_SiteImgTrtUnitInfo\_Name

HCO\_SiteImgTrtUnitInfo\_Make

HCO\_SiteImgTrtUnitInfo\_Model

HCO\_SiteImgTrtUnitInfo\_SerialNumber

HCO\_SiteImgTrtUnitInfo\_YearOfInstallation

ResourceSer

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Year

HCO\_SiteCount\_DateOfRecord

HCO\_SiteImgTrtUnitInfo\_Name

NPatients

NSessions

A screen shot of a computer program

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Year

HCO\_SiteCount\_DateOfRecord

NumberofPatients

ARIACourseCount

NumberofRadiationTherapyTreatmentCourses

NumberofRadiationTherapyTreatmentSessions