INSTALLATION INSTRUCTIONS

Download the installation save file INUENDOINS.SAVF to your hard drive in an easy to reach directory, preferably one at the root level of C. For example: C:\mydir

On your IBM i:

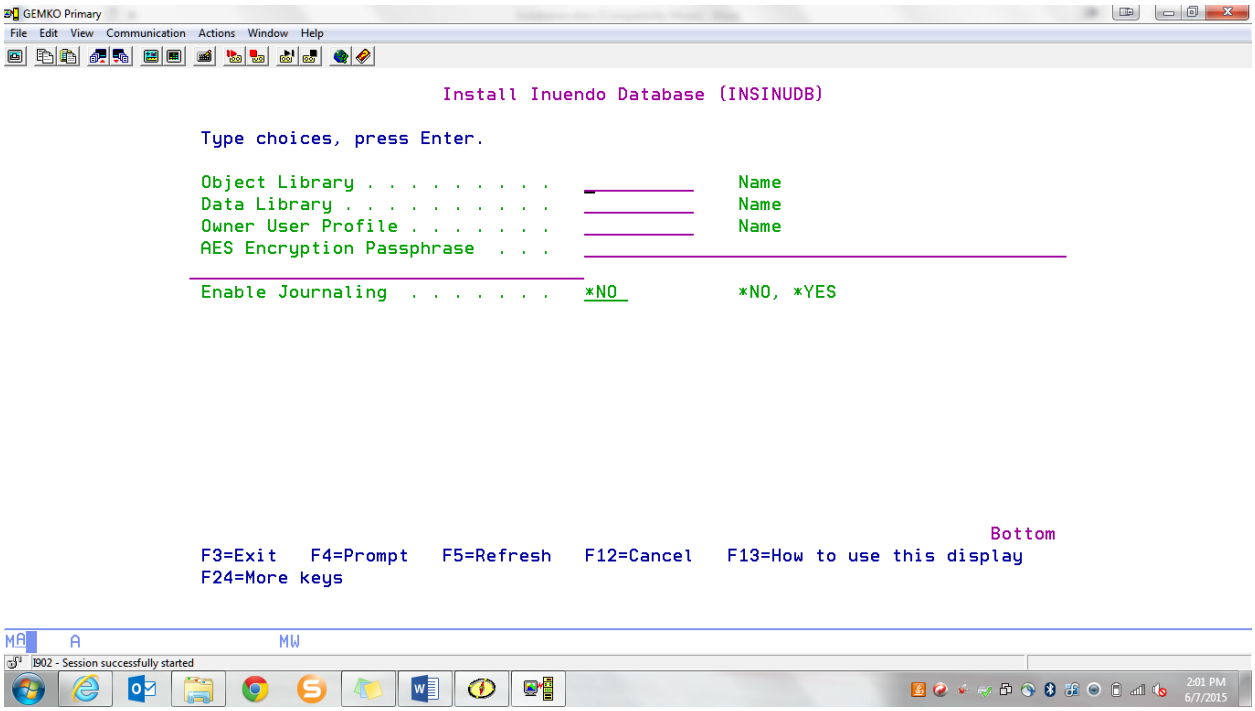
- Create a save file on your IBM i: CRTSAVF FILE(MYLIB/INUENDOINS)

From your desktop PC:

- Open the DOS command prompt
- FTP a.b.c.d <enter> (where a.b.c.d is the IP address of your IBM i)
- Enter user and password as prompted
- BIN <enter>
- PUT C:\MYDIR\INUENDOINS.SAVF MYLIB/INUENDOINS.SAVF <enter>
- QUIT <enter>

Back to your IBM i:

- Sign on as a user with *SECOFR authority
- Restore the installation objects to QTEMP: RSTOBJ OBJ(*ALL) SAVLIB(INUENDOINS) DEV(*SAVF) SAVF(MYLIB/INUENDOINS) MBROPT(*ALL) ALWOBJDIF(*ALL) RSTLIB(QTEMP)
- Ensure that QTEMP is in your library list: ADDLIBLE LIB(QTEMP)
- Enter the command INSINUDB and prompt with F4.



The three required names must not exist on your system when the command is run:

- The Object Library is where the source code, service programs and SQL functions will go.
- The Data Library is where the Inuendo tables will go.
- The User Profile will own all objects in both libraries.

The AES encryption passphrase will be used for encryption and decryption of the NOTX and NUMX data types. It must be exactly 64 positions long. For security reasons, this string is not stored in a readable form. Therefore, it is VERY IMPORTANT that you produce a screen shot of this entry prior to pressing ENTER. Once the installation is complete, the passphrase cannot be recovered. Ensure that object STDCRYPFNC (type *SRVPGM) is backed up regularly.

IBM i database journaling can be turned on for the Inuendo tables, however since Inuendo is a self journaling system with its own rollback capabilities, this may not be necessary unless you are replicating to a disaster recovery site. For that reason, the journal option defaults to *NO.

Note: Your system must be capable of compiling full freeform RPG. Therefore, IBM i release 7.1 TR7 or higher is required. Installing the latest available PTF cumulative and group packages is always recommended prior to installing Inuendo. The installation process will attempt to compile a program named VERIFYRPG to see if your system meets the prerequisites. If it does not, the installation will terminate immediately.

Once the command completes (generally under 2 minutes), you will have the following:

- Table ENTPROP, with the FOUNDER class defined
- Table ENTHEAD, with the FOUNDER entity instantiated
- Preloaded class definitions
    - DATATYPE (description of each data type)
    - CLASSERROR (info regarding unsuccessful or prohibited Class operation attempts)
    - PROPERROR (info regarding unsuccessful or prohibited Property operation attempts)
- Eight property value subtables
    - ENTDATE (native date type)
    - ENFLAG (one byte character)
    - ENTLINK (BIGINT type, for entity ID's)
    - ENTNOTE (VARCHAR of length 254, for freeform text)
    - ENTNUMB (DECIMAL 23.5, handles most monetary, quantity or statistical values)
    - ENTNOTX (VARCHAR of length 254, encrypted)
    - ENTNUMX (VARCHAR of length 64, encrypted)
    - ENTDATX (VARCHAR of length 40, encrypted)
- Twelve service programs
    - STDCRYPFNC (encryption/decryption functions)
    - STDENTINP (all GET related procedures, plus helpers)
    - STDENTOUT (all PUT related procedures plus newEntity)
    - STDENTRULE (miscellaneous helpers and stored procedures)
    - STDENTUTIL (utilities for database integrity)
    - STDENTSQL1 (SQL friendly wrappers for functions using optional Moment)
    - STDENTSQL2 (overflow from STDENTSQL1)
    - STDENTAGGR (entity level aggregation functions)
    - STDPRPAGGR (property level aggregation functions)
    - STDENTGRP (entity group stored procedures – foundations for reports/inquiries)
    - STD5250UTL (convenience functions for 5250 based applications)
    - WHODUNNIT (utilities to determine which application program performed an action)
- SQL functions for most exported procedures in the above service programs
    - GET functions are overloaded to support calls with/without MOMENT arguments
- Menu INUENDO
    - Option 1 is Class/Property Maintenance
    - Option 2 is the Set Session Moment command (SETSSNMOM)
    - Option 3 is the Display Session Moment command (DSPSSNMOM)
    - Option 4 is the Clear Session Moment command (CLRSSNMOM)
- Two sample synchronization trigger programs
    - SYNSTATE
    - SYNCUST
- Time travel support commands
    - SETSSNMOM (sets session moment to a frozen point in time, prevents PUT operations)
    - DSPSSNMOM (displays the session moment, if in effect)
    - CLRSSNMOM (clears session moment and returns to real time, re-enables PUT operations)

Now, what do I do with it ?

The best place to get started is one of your "prism points" (see the PDF titled "Inuendo – Data's New Direction). In most organizations, this would be one of three legacy master files:

- Company Master (recommended)
- Vendor Master
- Customer Master

Records must be added to the ENTPROP file to define classes and their associated properties to represent these business objects. Use Option 1 on menu INUENDO (start menu for the user profile you specified on INSINUDB). Hopefully we'll get some web browser savvy developers on board this grass roots effort who can turn this maintenance program into a browser experience.

Examine the layout of that file and attempt to weed out the noise:

- Fields that are not truly unique to that type of business object
- Structures that can be found in other files (these could be their own class)
- Aggregates (buckets, mins, maxes, last "something" date, etc.)
- Data that can be found elsewhere
- Unused or filler fields

The weeding out process is one that we can use the LinkedIn group to discuss, so that anyone can get their arms around the concept and its best practices.

Once the noise is peeled away, you'll probably discover that there isn't much left. Some of what's left may have a convenient placeholder in the Entity Header format. For example:

- Company Name (the Descriptor)
- Company Number (the Numeric Legacy ID)

For the fields that remain, they will need to be assigned a Property Nickname. Which means it's back to the ENTPROP file. Option 1 on the INUENDO menu allows creation/maintenance of classes and the properties of classes. If you have used a 5250 based maintenance program before on IBM i, it should be reasonable intuitive. Try using this utility to create one or more class descriptions. The Technical Reference PDF shows some examples.

The optional Partner Class setting on a Class definition indicates that a new entity of that class must specify an entity of the Partner Class as its Parent (the entity from which it is spawned). At the Property level, the optional Partner Class lets you specify that a Link property must contain a value that is the unique ID of an entity of the Partner Class. These can be modified at any time to change the enforcement going forward.

Getting actual data into the Inuendo tables is done by using the procedures contained in the STDENTOUT service program (or its associated SQL functions). In the November, 2017 refresh, a nuts and bolts Entity editor will debut to assist "5250 heavy" shops through the early stages of application modernization.