Serv-I-Quip

DataServ.NET
Windows PC Setup Guide

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Contents

Glossary

Dataserv – Data acquisition software for Serv-I-Quip equipment. Windows software for communicating with PLC and Database(s) to act as process hypervisor.

Dataserv 2.0/2.5 – Legacy version of the software that requires IIS (web browser) for configuration. In limited support, requires quoted project to upgrade due to PLC and hardware changes.
- Identified by presence of the "DSE 2.0" or "DSE 2.5" in the "c:\siq" directory and existence of the "C:\inetpub\wwwroot\dataserv" directory.
- May have additional dependency applications like "cimquest" or "plc engine" due to age.

Dataserv 3.0 – Active development version, stand alone, requires database but supports off system if available. Remote management and access to the application is available through Dataserv Dashboard.
- Identified by presence of the "DSE 3.0" in the "c:\siq" directory.

Domain Policy – Any special considerations and restrictions that may apply to the setup when a customer supplies their own PC Hardware. Generally, but not limited to, password policy and access control.

Base Install – The zip provided by Serv-I-Quip that contains the setup routine and files to install the dependencies and PC configuration for Dataserv.

License Prompt – Only for DSE 3.0, application is tied to the PC and Serv-I-Quip Equipment, new licenses are provided by Serv-I-Quip and do not age out. A self-managed portal is available @ https://License.SIQINC.com

Equipment Serial – The Serv-I-Quip Serial Number of the entire equipment that Dataserv is interfaced and the PC is installed in. Generally located on a blue placard on the equipment itself, or the main screen of the Dataserv HMI.
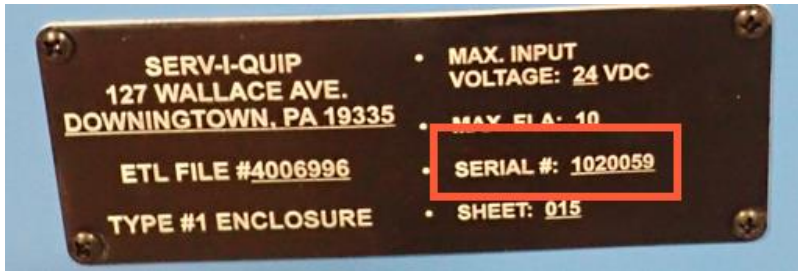
Backing up Dataserv

When Dataserv is already installed on a PC in use in the Serv-I-Quip equipment, a backup should be taken.

- Serv-I-Quip recommends taking backups periodically, and on a ==PER SYSTEM BASIS==, to avoid a loss of data. Serv-I-Quip may have a backup of the configuration for a given system, but generally only from install or upgrades performed with physical access to the system. As such recipes, history, and network configuration changes may not be reflected in backups Serv-I-Quip may be able to provide. Serv-I-Quip makes no guarantee that a backup can be provided.

DSE 2.0 / 2.5

- Application Configuration is stored in two locations:
  - "c:\siq" – Requires entire directory due to potential dependency applications.
  - "c:\inetpub\wwwroot\dataserv\"
- History – Database – See "Take and Restore SQL Backup.docx" for more details on history backup and restore. Configuration and process owner should be consulted to determine requirements for migrating historical data.

DSE 3.0

- Application Configuration is stored in:
  - "c:\siq\"
    - By default, the "c:\siq\DSE 3.0" specifically is the "active running configuration", there may be additional directories in "c:\siq" depending on age of equipment and field updates performed.
      - DSE 3.0 contains an application level backup routine, see "Procedures -> Taking and Restoring Backups" in the Dataserv 3.0 Manual for more details.

- History – Database - See "Take and Restore SQL Backup.docx" for more details on history backup and restore. Configuration and process owner should be consulted to determine requirements for migrating historical data.
  - May be a tighter requirement depending on configuration, as the recipe configurations can be stored in the Database on DSE 3.0.

Installing Dataserv on a new computer

Staging

1. An Administrator account is required, the setup and first time run of the application require elevated permissions.
2. Verify that there are no pending windows updates and that the new PC has been restarted via Start -> Power -> Restart at least once before starting the setup procedure. This prevents potential conflicts with the Database Server Install.
3. Download a copy of the current Dataserv Base Install.
   - https://softwareupdate.siqinc.com/2024%20Dataserv%20Base%20Install.zip
     - If the link above does not work, contact Dataserv@siqinc.com .
4. Extract this to a common folder on the new PC. The setup files may need to be access later by different user accounts.

### Change Password Files – Optional

If the New PC is domain joined, and depending on Domain Policy, the setup may need to be updated to support these restrictions.

After the setup is extracted onto the New PC, there will be a sub-directory "Changed Password Files", the changes contained there in do a few things:
- Updates the "Default" password for the user accounts setup.
  - Serviquip User account From: "Dataserv1" -> To: "Dataserv1!"
  - Local Database SA and Serviquip account From: "Dataserv1" -> To: "Dataserv1!"
  - Local Database DataservRead (read only) account From: "guest123!" -> To: "Guest123!@#"
- Removes the creation of the local "Operator" account.
- Disables the registry updates related to the setting of AutoLogin for said Operator account.

Based on the Domain Policy determine if the New PC will require these "Changed Password Files" to be used. To apply the "Changed Password Files" copy the contents of the "Changed Password Files" directory up one level, maintaining folder structure, then overwrite when prompted.
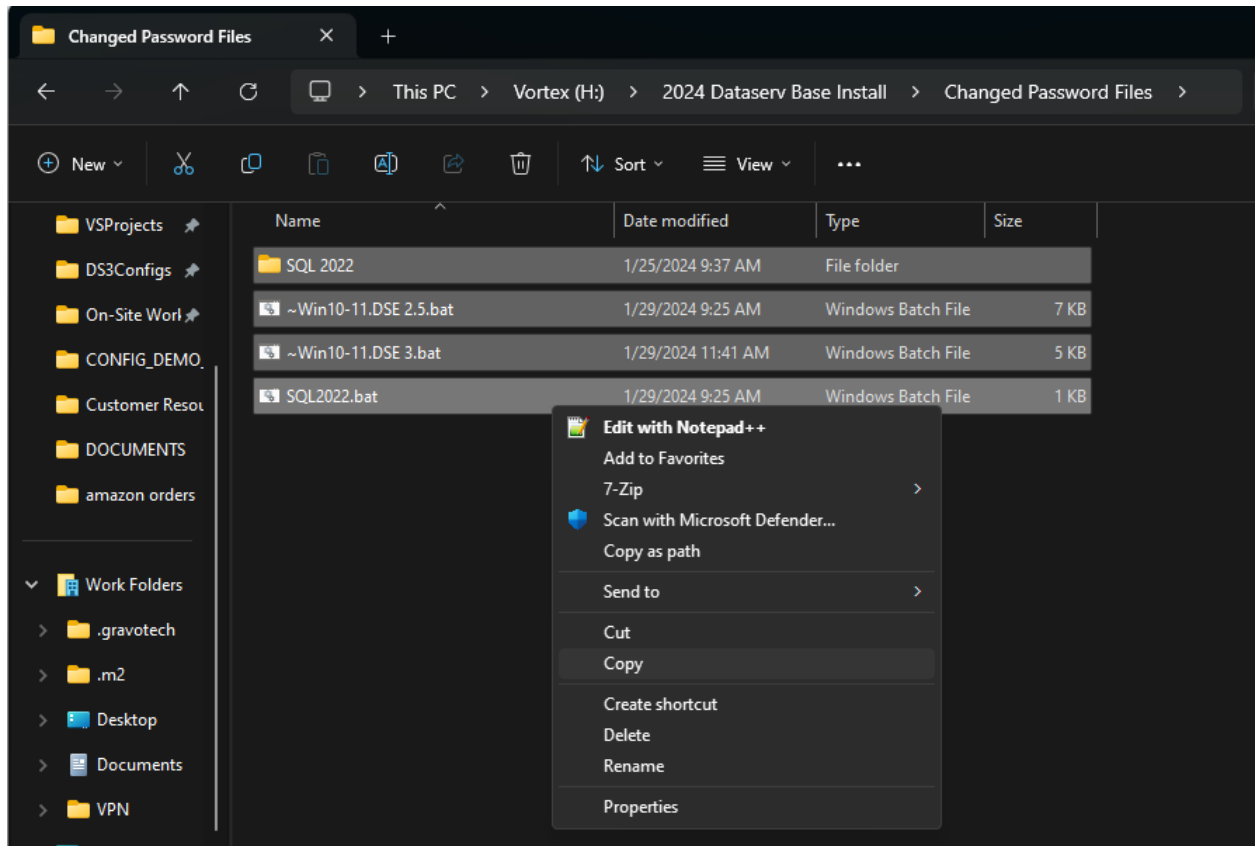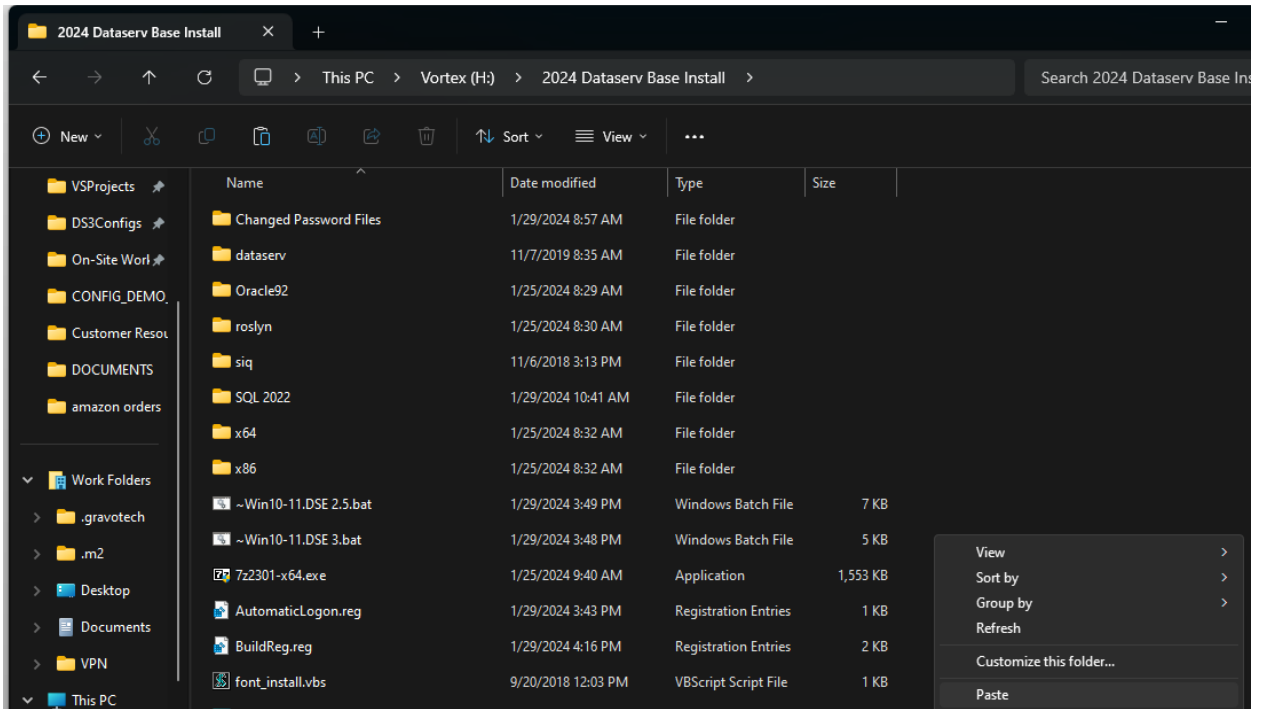
Increase Password Complexity - Optional

If the updated password still does not meet requirements the sub files can be updated to reflect an even stricter policy, it is important to document these newer passwords when seeking help from Serv-I-Quip.

- Dataserv.ini – Database Server configuration
  - SAPWD
- SQL_2022.SQL – Database database configuration
  - Serviquip database login
  - DataservRead login
- SQL2022.bat – Database Server standalone setup
  - Sa login
- ~Win10-11.DSE 2.5.bat & ~Win10-11.DSE 3.bat – guided setup
 - Serviquip computer login
  - Sa login

Restore Backup

Contents of the backed up "c:\siq" (old PC) should be placed in the "siq" sub directory of the extracted Base Install folder.

Contents of the backed up "c:\inetpub\wwwroot\dataserv" (old PC) should be placed in the "dataserv" sub directory of the extracted Base Install folder.

Run Setup

For Dataserv 2.0 / 2.5 the "~Win10-11.DSE 2.5.bat" file needs to be <u>Run As Administrator</u>.
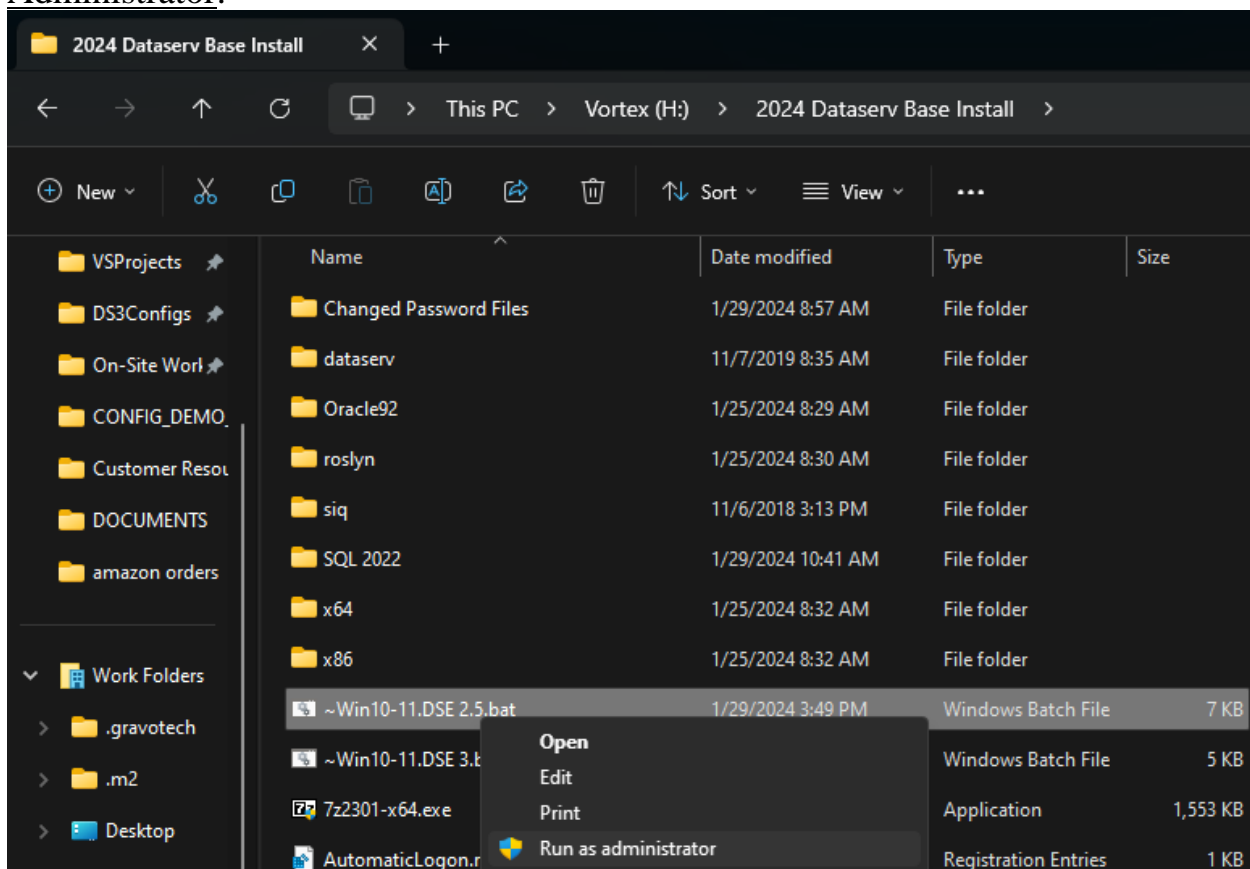

A command prompt window will appear and start running through the setup. Eventually a set of shortcuts will be created and leave a window up that says "Shortcuts Created, Setup Finished".

Validate and Update Configuration

1. If the "Changed Password Files" were used:

a. C:\inetpub\wwwroot\dataserv\web.config – If the local serviquip account was being used for impersonation, then the password needs to be updated.

b. C:\inetpub\wwwroot\dataserv\data\datadestinations.xml – Check for "server=localhost" connection string, update the "pwd=" to reflect the updated password.

2. Open the Browser and enter http://localhost/dataserv into address bar. Log in as "serviquip", password "dataserv".
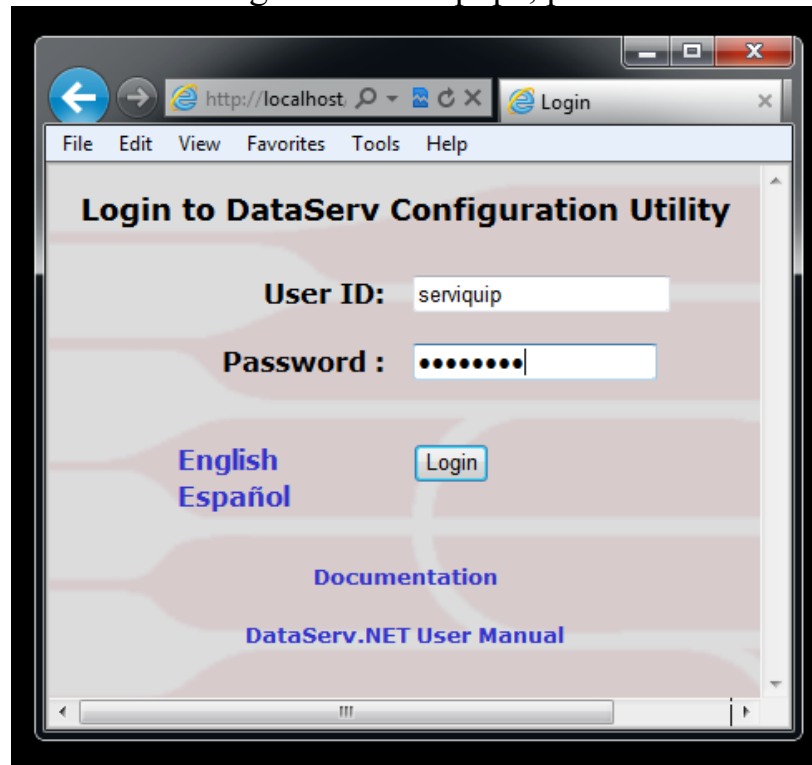
a. If web page fails to load, document error and contact Dataserv@siqinc.com .

3. Highlight and copy PC name from top of welcome screen.

4. Click "Administration" link, then "HMI Configuration".

5. Replace any occurrence of previous PC name with new PC name copied in step 5.

Tag Name	Value	D
DataServHMI.TimeOut	60	H
DataServHMI.MaxConnec	1	T
DataServHMI.Modulos43C	False	F
DataServHMI.WipeStepAu	1	V
DataServHMI.ScannerEna	ScannerEnabled	V
DataServHMI.HostName	DEFAULT	V
DataServHMI.HostPort	19336	V
DataServHMI.TagConfigLo	HTTP://DEFAULT/DATASERV/DATA/TAGLIST.XML	V
DataServHMI.ScreenConfi	HTTP://DEFAULT/DATASERV/DATA/SCREEN.XML	V
DataServHMI.OperatingMc	StreamMode	A
DataServHMI.WebServer	DEFAULT	V
DataServHMI.ScannerCon	HTTP://DEFAULT/DATASERV/DATA/HMI_ScannerConfig.XML	V
DataServHMI.ServiceScre	HTTP://DEFAULT/DATASERV/DATA/FORCES.XML	V
DataServHMI.ServiceMode		V
DataServHMI.ServiceMode	1	S
DataServHMI.UseOperato	True	U

Save Cl

6. Click "Admin Home" then "Data Environment Configuration"
7. Replace environment item "Station Name" with new PC name from step 5 or desired value. This is what is recorded in output data for station identification.

Home

Environment Configuration:

Company Name	CUSTOMER
Machine Serial Number	N/A
Station Name	DEFAULT
PLC IP Address	192.168.101.15

8. From Home -> Run History -> Click the tables.
   a. Unless the restore SQL has been performed there should be no data.
   b. If an error message of "Could not open connection to local SQL database." Is shown, verify the "SQL Server (MSSQLSERVER)" service is running under "services.msc". If it is not there, then the sql install failed.

Run the "SQL2022.bat" from the install directory and note the error code/message.

    c. If column errors are shown at the top, the table likely does not exist yet, it should generally be created on first record insert, if the issue persists after running a cycle on the system, please contact Dataserv@siqinc.com .

9. Close configuration utility and right-click Start Center icon and select "Run as administrator." Select "Yes" when the Windows Prompt comes up to allow the program to continue.

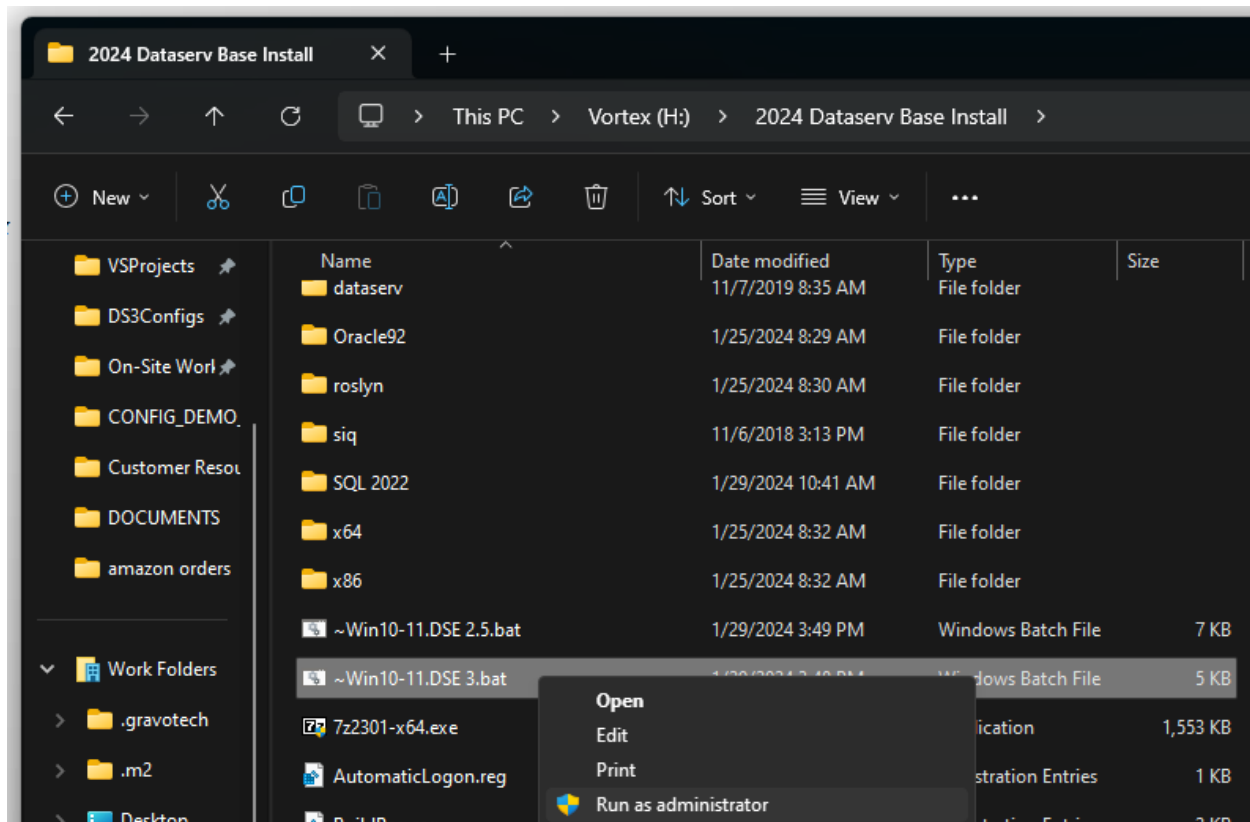10. Note HMI layout and adjust screen resolution if necessary.

Restore Backup

Contents of the backed up "c:\siq" (old PC) should be placed in the "siq" sub directory of the extracted Base Install folder.

Run Setup

For Dataserv 3.0 the "~Win10-11.DSE 3.bat" file needs to be <u>Run As Administrator</u>.

A command prompt window will appear and start running through the setup. Eventually a set of shortcuts will be created and leave a window up that says, "Shortcuts Created, Setup Finished".

Validate and Update Configuration

1. If the "Changed Password Files" were used:
   a. C:\siq\DSE 3.0\Config\Table.xml – Update any connection string fields that are looking at "server=localhost". There will be multiple tables defined.

2. Launch the "DSE" shortcut on the desktop via "Run As Administrator".
3. On first launch a couple prompts are expected.
   a. "Anonymous Usage Statistics" – This is a per user basis and has no baring on functionality of the system. Answer however appropriate.
   b. License Prompt – Generate a License Request via https://License.SIQINC.com or send a screenshot of this prompt to Dataserv@siqinc.com along with the Equipment Serial the New PC is being setup for. Serv-I-Quip will generate an updated file with directions on how to restore.
      i. Once captured, the prompt can be "accepted" and the application will be in a 7 day "Grace Period" with some limited functionality.

Figure 1 One version of the DSE 3.0 License Prompt, there are a few formats so may not match.

   c. Database Prompts – blue info prompts are good and indicate the database connection(s) are good and table schemas are being created. Red or Yellow indicate an error and should be documented, and troubleshooting performed.
4. The HMI will eventually launch, verify screen resolution is appropriate.

Troubleshooting

Database

- If the verification of SQL does not work, there is a chance the install failed. This occurs when there are other pending windows updates, or the computer has not been restarted since imaging.
  - In the Setup directory run the "SQL2022.bat" file, this performs just the SQL setup process. Monitor the console output for any error codes.

DSE 2.0 / 2.5

- On recent Windows 10 setups there has been an issue with IIS instancing the "DataServ Web Utility" as an application, this causes a "404" or "File Not Found" or "File Processing" error when trying to load the http://localhost/dataserv page.
  - Open IIS Manager (not the one with the version number), and navigate through the application tree until there is a folder "Dataserv", right click on it and "make application".
- The web.config from the old system causes and error.
  - The web.config is from a much older version of IIS and is no longer compatible.
    - Reach out to Dataserv@siqinc.com and Serv-I-Quip will provide a newer version of the file with directions.
  - The impersonation is no longer supported by Domain Policy. Generally happens if the Domain Policy does not like any local administrators.
    - The impersonation needs to be removed from the web.config
    - Folder security needs to be updated on "c:\inetpub\wwwroot\dataserv" and all child folders to grant "Full Control" to the "IIS_IUSRS" account.
      - If Domain Policy does a security audit on this as well, then customer must provide a domain account with read/write access to this directory for the Web Configuration utility to function.
- DSE Disconnected from PLC.
  - Confirm the IP address of the PC has access to the PLC address as defined in the Environment Config of the Web Configuration Utility.
    - Verify the PLC address is correct based on records.
    - Confirm if the Old PC was using a static or "internal cabinet" network configuration for reaching the PLC.

- DSE Disconnected from PLC.
  - Confirm the IP address of the PC has access to the PLC address as defined Dataserv Engine Console (HMI -> Dataserv -> Show Dataserv Engine; Engine -> Admin -> Designers -> PLC)
    - Verify the PLC address is correct based on records.
    - Confirm if the Old PC was using a static or "internal cabinet" network configuration for reaching the PLC.