This process collects the DB and I/O data needed to size your SQL Server environment for Delphix.

1. On **TARGETS** (typically non-prod): The data collection process creates three small tables in MSDB (DLPX\_DBIORaw, DLPX\_DBIORolled, and DLPX\_CollectionStatus) and a SQL Agent (DLPX\_IOCollection) which runs every minute (for about one second) to populate the tables. The TARGET collection process takes **24 hours** by default. Sysadmin permission is required on TARGETS.
2. On **SOURCES** (typically production): Three queries are run; capturing server, database and backup information. The process typically completes in a few seconds. No data is written nor objects created on SOURCE SQL servers. Read access to MSDB is required on SOURCES
3. We need both **SOURCE** and **TARGET** data to draw useful conclusions

### Prerequisites

1. Login to any networked Windows system with PowerShell v3 or greater
   1. Windows 8 and Windows 2012 include PowerShell v3, [older OS’s](https://4sysops.com/archives/powershell-versions-and-their-windows-version/) may [update](http://wahlnetwork.com/2015/12/21/how-to-upgrade-windows-powershell-to-version-5-0/)
2. Download the MSSQL IO Collector and extract the ZIP file
3. In PowerShell “as Administrator” run **PS> SET-EXECUTIONPOLICY UNRESTRICTED** ([more info](https://4sysops.com/archives/powershell-bypass-executionpolicy-to-run-downloaded-scripts/))
4. Unblock the file via explorer file properties or **PS> unblock-file MSSQL-IOCollector.ps1**
5. The script will fail to collect data if your SA account has been renamed

### Collection

1. Open a PowerShell window and CD to the script folder
2. For each **SOURCE** run the following command once
   1. **PS> .\MSSQL-IOCollector.ps1 -dbType s -dbserver <hostname\instance>**
      1. This one-time process will download SOURCE data immediately
3. For each **TARGET**, run the following **twice** (once to start, and once later to download)
   1. **PS>** .\**MSSQL-IOCollector.ps1 -dbType t -dbserver <hostname\instance>**
   2. Once IO collection is complete, you **must** run the command again to download the IO data
      1. Before IO collection is complete, you may run the same command to see a completion ETA
      2. TARGET IO collection should run while typical workloads are active
      3. The default collection is 1440 minutes (1 day). To run longer, use **-samples <mins>**

### Delivery

1. You will see a folder called SQLIO which contains your collected data - validate three files per server.
2. To compress the data, run **PS> .\MSSQL-IOCollector.ps1 -zip** (or manually ZIP the folder)
3. Email the ZIP to Delphix, or use <https://upload.delphix.com> if email delivery is problematic. Using **PS> .\MSSQL-IOCollector.ps1 -upload** may expedite transfer to the upload site.
4. Regardless of your upload method, please contact Delphix and communicate your results.

### Cleanup

1. After downloading the data or to cancel a running job, run this to clean up (clears SQL tables & agent)
2. **PS> .\MSSQL-IOCollector.ps1 -dbType t -dbserver <host\inst> -action c**

### Help and Tips

1. Use tab completion for everything except the hostname. (PowerShell is pretty smart about this)
2. Run **PS> get-help MSSQL-IOCollector.ps1 -detailed** for more info about the script
3. If you only have a few servers to get data from, just use the up arrow to edit your prior commands. If you have many servers, create your commands in a text editor, then cut and paste to PowerShell.