

LifeStream Analytics Export Utility

Getting Started With LSAX

The LifeStream Analytics Export Utility is an advanced console-based tool for IT users enabling the export of a published data query to text file(s) in .XML or .CSV format without requiring the LifeStream Analytics Feature. See Published Queries for an overview of the types of published queries available, and how to reference them with LSAX.

LSAX does not schedule reports, nor does it inherently run in an unattended fashion. Using functionality built into the Microsoft Windows Operating System, LSAX can be configured to schedule the running of reports, but it is beyond the scope of this manual to describe how to do so. Familiarity with .CMD and .BAT Windows file types is recommended for local implementation of a scheduled configuration.

Before you begin, a user must be set up in a Scheduled Analytics Reports Only User Role for authorized IT support staff to configure the LSAX Utility.

Download the Microsoft Windows web-enabled software by going to **www.honeywelllifecare.com/download**. Register for a new user account if this is your first time visiting the Honeywell Life Care Solutions site. Follow all installation instructions provided at the download page. You will need your Organization's PIN number, and administrative access on your local computer to install.

When your installation has completed, proceed with the following tasks to create your first command string with LSAX:

1. Open a command line interface on your computer and reference the LSAX console, from within the Current App folder of the LifeStream installation directory. The following command line is provided as an example:

```
"C:\Program Files\Honeywell HomMed\Organization\LifeStream\CurrentApp>Lsax"
```

2. Press Enter with this command entered, to see the base menu of LSAX and a list of commands.

```
C:\>"Program Files\Honeywell HomMed\LEM103\LifeStream\CurrentApp\Lsax.exe"
Lsax - LifeStream Analytics Export Utility
Usage: Lsax.exe -username=name -password=pwd -query=name -published -output=file
name
  -username= LifeStream user name to run the report.
  -password= LifeStream password to run the report.
  -query= LifeStream query to run.
  -published= Query is Published Query.
  -output= Output file path;
           To add date/time use timestamp tag, eg: {timestamp:yyyyMMdTTHHmss}
           To add table name in CSV file use {table} tag, eg: {table}.csv
```

Take note of the following:

- Use quotations when a space is referenced in a file path or name.

- As you add commands to this initial directory reference, it normal for a command to be long and wrap to the next line. Do not press **Enter** until you have finished building the command strings noted below.
- Use the **Left** and **Right** arrow keys to move backward or forward in your command string to edit text.
- The default location for the LifeStream installation directory is *C:\Program Files\Honeywell HomMed\LifeStream*, but you may need to redirect the command line to the local lettered drive of your installation directory. To do so, use the following command, where D represents the drive letter of your installation directory: **cd D:**

Analytics Export Command

This example shows the complete process of exporting a single Published Query or Saved Query, continuing from the steps above.

1. Press the **Up** arrow on your keyboard to repeat the command string in step 1 or retype the file path. Enter a space, and add the *Schedule Analytics Reports Only* username and password to the command string as represented in the example below. Do not press **Enter** until you are instructed to do so:

```
-username=usernamehere -password=#passw0rd!here
```

2. Add a space and append the query command and full query path in quotations. When referencing a published query, add a space and append `-published` to the end of the string. Reference the published query list for a list of available published query paths to use.

```
-query="LifeStream Benchmarking\Count of Active TH Cases (2012 04 26)" -published
```

Licensed Analytics users may name a saved query by referencing the query name. Always reference the full query path in quotations:

```
-query="User\UserSavedQueryName"
```

3. Add a space and specify the output directory, filename and file type (XML or CSV):

```
-output"C:\Users\administrator\Desktop\filename.csv"
```

4. Confirm your command string looks like the following example. Press Enter to run the command and generate the output file.

```
"C:\Program Files\Honeywell
HomMed\Organization\LifeStream\CurrentApp&gt;Lsax" -
username=lsaxusernamehere -password=passwordhere -
query="LifeStream Benchmarking\Count of Active TH Cases (2012
04 26)" -published -output="C:\Users\Admin\Desktop\Export File
Name.csv"
```

- Multiple files may be exported when referencing complex queries with multiple data sets. For example, two .CSV files corresponding to each site from the following report may be exported:

Site Name				
Arlington				
Patient Full Name	Site Name	Suspension Begin Date	Suspension End Date	Suspension Comment Text
Hundley, Tracy	Arlington	09/17/2013 07:31:59	09/24/2013 21:59:59	
Site Name				
Arpin				
Patient Full Name	Site Name	Suspension Begin Date	Suspension End Date	Suspension Comment Text
Abreu, Salvador	Arpin	08/11/2016 11:16:35	08/18/2016 21:59:59	My suspension comment

Advanced users may use LSAX options to customize the data output. To close the command prompt, type exit and press Enter.

Note: The LSAX Export Utility is limited to the export of 100,000 data points, per query.

LSAX Options

- Time Stamp** Reference the date/time of the export in the file name, or to put into a folder, use this format for a timestamp tag: `{ timestamp : yyyyMMddTHHmms }`.
- Table** Add a table name in a CSV file use a `{ table }` tag in the file name: `{ table } . csv`
- Grouped** Advanced users familiar with creating a hierarchy using grouping may use a group tag in the console for .XML output, and may apply additional console commands or functions outside the scope of these instructions.

Published Queries

A Published Query is a pre-configured LifeStream database query template created by Honeywell, for use with the LifeStream Analytics custom report generation engine. Contact Honeywell for more information about LifeStream Analytics or Clinical Monitoring Services.

The following list of available Published Queries (P4608EN) is subject to change. This list was last updated in March 2018, revision 2.

Using Published Queries and LSAX

Organizations using LifeStream Web without a LifeStream Analytics license may download the LifeStream Manager installation package to use the console-based LSAX utility.

LSAX enables the export raw data gathered by Published Queries into an unformatted .XML or .CSV file format.

A Scheduled Analytics Reports Only user role must first be created to export Published Query results through a console-based interface. Reference LSAX from the Analytics User Manual, for more information.

Note: *Not all Published Queries may be suitable for export via LSAX. Read the full description from the table below before attempting to export published query data via LSAX. Always reference the Published Query full path in quotations in the console interface, and not the common name of the query.*

Clinical

Name	Path	Description
Biometric Management of Averages	Clinical\Biometric Management of Averages (2013 09 30)	Displays the average biometric readings and averages for each patient. Default settings include readings from the first date of the previous full week (Sunday - Saturday).
Count of Alerts for Previous Day	Clinical\Count of Alerts for Previous Day (2013 09 30)	Displays the amount of alerts from the previous day for all active patients. Groups and displays the vital reading by severity and allows for data filtering by the last full day.
Count of Patients Monitored for Previous Month	Clinical\Count of Patients Monitored for Previous Month (2013 09 30)	Displays monitored patients (active and inactive) from the first day of the month to the last day of the previous month.
Daily Note Report for Red Alerts	Clinical\Daily Note Report for Red Alerts (2013 09 30)	Display's clinician's notes/comments for all patients' red condition status alerts, including a view of all notes/comments.
Glucose Biometric High Average	Clinical\Glucose Biometric High Average (2013 09 30)	Displays the average high glucose readings for all patients who have reported results above a normal medical range (filtered from 130mg/dl to 700mg/dl).
Glucose Readings and Averages for all Patients	Clinical\Glucose Readings and Averages for all Patients (2013 09 30)	Displays all glucose readings and averages, grouped by medical record number, minimum/maximum reading or averages.
Length of Service by Diagnosis	Clinical\Length of Service by Diagnosis (2013 09 30)	Displays a list of all active patients with an episode less than 60 days, grouped by diagnosis.
User Productivity Report	Clinical\User Productivity Report (2013 09 30)	Displays the amount of alert status conditions each LifeStream user responds to, starting with the first day of the previous month through the last day.

Equipment Tracking

Name	Path	Description
Monitor Status by Site Table - Count	Equipment Tracking\Monitor Status by Site Table - Count (2010 09 27)	Track monitor utilization and count the monitors in each status category at every site.
Monitor Status by Site Table - Percentage	Equipment Tracking\Monitor Status by Site Table - Percentage (2010 09 27)	Track monitor utilization with a table showing only the percentage of monitors in each status category for every site.
Monitor Status by Site with Patient Detail	Equipment Tracking\Monitor Status by Site with Patient Detail (2010 09 27)	Track monitor utilization and list all monitors by status for every site. Report displays the patients assigned to a monitor and their addresses.

LifeStream Benchmarking

Name	Path	Description
Count of Active TH Cases	LifeStream Benchmarking\Count of Active TH Cases (2012 04 26)	Display the amount of active telemonitored cases per site.
Count of Alerts	LifeStream Benchmarking\Count of Alerts (2012 04 26)	Report the categories of alerts and amount of alerts for active patients and valid packets only. Display the reading time of the vitals from the last week, grouped by patient ID.
Count of Assigned Monitors	LifeStream Benchmarking\Count of Assigned Monitors (2012 04 26)	Display the amount of assigned monitors, including monitors assigned to multiple patients.
Count of Monitors by Site	LifeStream Benchmarking\Count of Monitors by Site (2012 04 26)	Provide a count and status of all monitors, grouped by site.
Count of Readings per Day	LifeStream Benchmarking\Count of Readings per Day (2012 04 26)	Display the amount of readings today.
Count of Red Alerts_BP	LifeStream Benchmarking\Count of Red Alerts_BP (2012 04 26)	Display blood pressure monitor condition status alerts from all active patients.
Count of Red Alerts_Day	LifeStream Benchmarking\Count of Red Alerts_Day (2012 04 26)	Display the amount of condition status alerts today.
Count of Red Alerts_Past Week	LifeStream Benchmarking\Count of Red Alerts_Past Week (2012 04 26)	Display all condition status alerts from the last week.
Count of Red Alerts_SPO2	LifeStream Benchmarking\Count of Red Alerts_SPO2 (2012 04 26)	Display the SPO2 condition status alerts from all active patients.
Count of Red Alerts_Weight	LifeStream Benchmarking\Count of Red Alerts_Weight (2012 04 26)	Display weight condition status alerts from all active patients.
Count of Response to Vitals	LifeStream Benchmarking\Count of Response to Vitals (2012 04 26)	Report displays Responses to Vitals based on the amount and percentage for the last week of data.
Response Time_Scheduled Readings	LifeStream Benchmarking\Response Time_Scheduled Readings (2012 04 26)	Report shows the time scheduled vitals were acquired, acknowledged and the total response time to that reading. Included is an average of all response times shown as the median. This report displays the last week of data.

Name	Path	Description
Response Time_Un-Scheduled Readings	LifeStream Benchmarking\Response Time_Un-Scheduled Readings (2012 04 26)	Report shows the time any unscheduled vital sign readings were acquired, the time vitals were acknowledged and the response time to that reading. Included is an average of all response times shown as the median time to that reading and an average of all response times. This report displays the last week of data.
TH Monitor Time	LifeStream Benchmarking\TH Monitor Time (2012 04 26)	Display the medical ID for a patient and show episode start and end dates; monitoring start and end date; the monitoring timeframe and active/inactive status.

Outcome Measures

Name	Path	Description
Hospital and ER Admits	Outcome Measures\Hospital and ER Admits (2010 09 027)	List all patients the telehealth clinicians have marked as having been admitted to the hospital or the emergency room in the last month. The patient ID, name, primary diagnosis and response comments are also included in this report.

Select Services

Name	Path	Description
Count of Alerts for Previous Month	Select Services\Count of Alerts for Previous Month	Displays all readings, the reading time and the alert condition status of all vital sign measurements in the previous month, grouped by patient. The patient ID, name and readings count are also included in this report.
Count of Patients Monitored for Previous Month	Select Services\Count of Patients Monitored for Previous Month	Displays the count of all patients monitored. Report shows data from the first day of the month to the last day of the previous month.
Monthly Hospital and ER Admits	Select Services\Monthly Hospital and ER Admits	Lists all patients that the telehealth clinicians have marked as having been admitted to the hospital or emergency room in the last full month. The patient's ID, name, diagnosis and response comments are also included.
Total Number of Patients by Diagnosis Percentage	Select Services\Total Number of Patients by Diagnosis Percentage	Displays the count and percentage of the total number of patients, grouped by primary diagnosis. The report shows the data from the first day of the month to the last day of the previous month.
Weekly Note Report for Red Alerts	Select Services\Weekly Note Report for Red Alerts	Displays clinicians' notes and comments for all patients' red alerts. May use the report to view all notes and comments, and determine the need to follow up with the highest risk patients.

Workload

Name	Path	Description
Distribution of Vitals Readings by Hour	Workload\Distribution of Vitals Readings by Hour (2010 09 27)	Show the distribution of vitals readings in each hour of the day for the previous day.
Length of Monitoring Period by Case Manager	Workload\Length of Monitoring Period by Case Manager (2010 09 27)	Report the average length of monitoring time for active patients, filtered by case manager. Details about the monitoring period and diagnosis are displayed.
Patient Load by Care Provider	Workload\Patient Load by Care Provider (2010 09 27)	Display the active patients, filtered by care provider. Care providers are sorted alphabetically and may be filtered by care provider "types of interest."

LSAX

Name	Path	Description
Alert Previous Day	LSAX\Alert_Previous_Day	Data export queries for LifeStream Analytics Export Utility (LSAX) usage only.
Alert Year to Date	LSAX\Alert_YTD	
Answer Previous Day	LSAX\Answer_Previous_Day	
Answer Year to Date	LSAX\Answer_YTD	
Monitoring Period All	LSAX\Monitoringperiod_All	
Monitoring Period All Active	LSAX\Monitoringperiod_All_Active	
Monitoring Period Previous Day	LSAX\Monitoringperiod_Previous_Day	
Patient All	LSAX\Patient_All	
Patient Previous Day	LSAX\Patient_Previous_Day	
Response Previous Day	LSAX\Response_Previous_Day	
Response Year to Date	LSAX\Response_YTD	
Visit Previous Day	LSAX\Visit_Previous_Day	
Visit Year to Date	LSAX\Visit_YTD	