



Silhouette v4.13

Administration User's Guide

Note: This system is developed for use only by qualified medical professionals trained and experienced in its use. Do not use the system before reading and understanding this user's guide.

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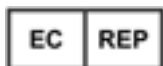
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Contents

Introduction to Silhouette	1
Document Conventions	1
Topics	2
System Description	3
Wound Care	3
Wound Research	3
System Components	4
System Security Features	6
Silhouette User Authentication	6
Silhouette User Session Management	7
SilhouetteCentral Data Security	8
SilhouetteConnect Data Security	9
SilhouetteStar 2 Data Security	9
SilhouetteLite and SilhouetteLite+ Data Security	9
Licensed Features	11
SilhouetteCentral & SilhouetteTokenService Licensed Features	11
SilhouetteConnect Licensed Features	12
Silhouette Concepts and Operation	13
Units in Silhouette	14
Clinical Users, Clinical Data Access Groups, and Roles	15
Provisioning Units and Clinical Access Groups	16
Provisioning Users	16
Provisioning Users in SilhouetteCentral	16
Provisioning Users in Standalone SilhouetteConnect	17
Importing Units, Roles, Clinical Access Groups, and Users	17
Home Users in Silhouette	19
Assessments and Patient Notes	20
Assessments	20
Patient Notes	20
Wounds	21
Orders and Encounters	22
System Events	23
Assessment Email	24
Sending Email	24
Email System Configuration	24
Email System Auditing	25
Silhouette Integration	26

Silhouette Inbound Integration	27
Silhouette Outbound Integration	29
Using Silhouette	31
Accessing SilhouetteCentral	32
Accessing SilhouetteConnect	34
SilhouetteConnect Web Browser Login	36
Logging In to Silhouette	37
The Silhouette Login Screen	37
Completing the Login	38
Access Denied Screen	39
Changing Passwords	39
Recovering a Forgotten Password	40
License Warnings	42
Navigating in Silhouette	43
Application Menu	43
Identifying Patients	45
Searching and Selecting Patients	45
Patient Banner and Sidebar	46
Capturing Wound Images	48
Connecting a SilhouetteStar to SilhouetteConnect using USB	48
Connecting a SilhouetteStar 2 to SilhouetteCentral using Wi-Fi	48
Using the SilhouetteStar to capture images	49
Disconnecting the SilhouetteStar	49
Ending Your Silhouette Session	50
Logging Out From SilhouetteCentral	50
Logging Out From SilhouetteConnect	50
Logging Out From SilhouetteLite or SilhouetteLite+	51
Clinical Data Export	52
Creating a New Data Export	52
Clinical Data Export for Multiple Patients	53
Clinical Data Export for a Single Patient	55
Downloading a Data Export	56
Silhouette Administration	58
Users	59
Creating a Silhouette Local Clinical User	60
Viewing and Editing a User	60
Clinical Data Access Groups	62
Creating a Clinical Data Access Group	63
Clinical Data Access Group Details	63

Authentication Provider Claims	63
Clinical Data Access Group and Unit Relationship	64
Editing a Clinical Data Access Group	66
Roles	67
Creating a Role	68
Role Details	68
Authentication Provider Claims	68
Group Permissions	69
Editing a Role	75
Email Lists	75
Creating an Email List	76
Editing an Email List	78
Assessments	80
Editing an Assessment Type	82
Creating an Assessment Action	83
Editing an Assessment Action	84
Assessment Action Details	85
Trigger Details	86
Action: Send Email Details	88
Action: Send Integration Event Details	89
Patient Notes	90
Editing Patient Notes	91
Unit Administration	92
Editing a Unit	93
Organization Settings	94
General	94
Display and Measurements	96
Reports and Exports	99
SilhouetteConnect Database Backups	100
iOS App	101
SilhouetteStar 2	102
SilhouetteStar 2 Scanner Settings - Configure Timers	103
SilhouetteStar 2 Network Configurations	105
Creating a Network Configuration	106
Editing a Network Configuration	106
SilhouetteStar 2 Wireless Mode Tools - Show MAC Address	107
SilhouetteStar 2 Wireless Mode Tools - Display SSID	108
SilhouetteStar 2 Wired Mode Tools - Set Wired IP Address	109
Checking the SilhouetteStar 2 DHCP Configuration	111

SilhouetteStar 2 Wired Mode Tools - Enable Airplane Mode	111
Retrieving SilhouetteStar 2 Device Logs	113
License	114
Licensing Silhouette	114
Email Configuration	115
SMTP Configuration	115
Welcome Email	116
Password Reset Email	117
Email System Statistics	118
Anatomical Sites	119
Anatomical Site Codes	120
Editing Anatomical Site Codes	121
Silhouette Configuration	122
Integration Client Secret	122
Silhouette System Features	123
Outbound Integration	125
Inbound Integration	126
Login	126
Appendices	129
Appendix A: Getting Support	130
Appendix B: Anatomical Site Hierarchy	131
Head & Neck	131
Torso	133
Pelvis	135
Upper Extremity	136
Lower Extremity	138
Appendix C: Wound State Definitions	141
Selectable Wound States	141
Wound State Notes	141
Wound State Notes: Open	141
Wound State Notes: Healed	141
Wound State Notes: Released from Follow-up	142
Wound State Notes: Amputated	142
Appendix D: Notes Definitions	143
Patient admission	143
Details	143
Physicians	143
Patient Details	144
Details	144

Address	145
Contact	146
Patient discharge	146
Details	146
Assessment of lower limb function	147
Right	147
Ambulation	150
Left	150
Comments	153
Visit Assessment	153
Vital signs	153
Related Pain (Non-Wound)	154
Edema	155
Factors Affecting Healing	156
Wound Assessment	158
Images	158
Details	159
Wound Pain	161
Comments	163
Investigation History	164
Investigation History	164
Medical History	165
Medical History	165
Medication	167
Medication	167
Sensitivities	167
Appendix E: Order and Encounter Notes Definitions	168
Order Notes	168
Encounter Notes	168
Appendix F: Clinical Data Export Format	170
ISO 8601 Date and Time Format	170
Silhouette Identifiers	170
Observation Information	171
Wound Information	171
Patient Notes	172
Wound State Notes	173
Assessment Notes	173
Appendix G: Regular Expressions	176
Patient Identifier Examples for Silhouette	176

Example A	176
Example B	176
Example C	176
Example D	176
Other examples	177
Things to Note	178
Appendix H: Conditional Expression Syntax	179
Appendix I: Template Macros	181
Assessment Integration Filename Templates	181
Reports and Exports Filename Templates	183
Appendix J: Email Templates	186
Silhouette Assessment Emails	186
Silhouette Welcome Emails	186
Silhouette Password Reset Emails	187

Introduction to Silhouette

This Administration User's Guide is intended for Silhouette administrators and is focused on the system administration features.

Other user guides available are:

- The Silhouette Installation and Configuration Guide, which covers the installation and initial configuration of SilhouetteCentral and SilhouetteConnect.
- The Silhouette Clinical User's Guide, which covers the clinical features for clinical users.

This guide is applicable to the following versions of the Silhouette components:

- SilhouetteCentral version 4.13.
- SilhouetteConnect version 4.13.
- SilhouetteStar 2 software version 1.9.
- SilhouetteLite version 1.10.
- SilhouetteLite+ version 1.10.

Document Conventions

Throughout this user's guide, screen, menu, and field names in Silhouette are displayed in a **bold font**. A series of actions are referred to as follows:

Admin > Organization > Settings

which means to select the **Settings** option in the **Organization** menu in the Silhouette Admin section.

The screens your web browser displays may differ slightly from the screen captures shown in this document. However, such differences are minor and do not affect the performance of Silhouette.

Throughout this user's guide, references to Silhouette mean both the SilhouetteConnect Microsoft Windows application and the SilhouetteCentral web application. Where a feature or function is only applicable to one of the Silhouette applications then that application is specifically stated.

Topics

This user's guide is divided into the following high level topics:



[System Description](#)



[Silhouette Concepts and Operation](#)



[Using Silhouette](#)



[Clinical Data Export](#)



[Silhouette Administration](#)



[Appendices](#)

System Description

Wound Care

Silhouette is used in clinical practice by some of the world's largest healthcare providers, including the department of Veteran's Affairs in the US, the NHS in the UK, and many other clinics and hospitals in more than 30 countries. For clinical practice, Silhouette delivers:

- Reliable, accurate and timely wound documentation.
- An easy to use solution for staff.
- A non-invasive solution for patients.
- Reduced commercial and litigation risk.
- Improved patient satisfaction.
- Fewer hospital admissions and visits.
- Shorter hospital stays.
- A reduction in the total cost of patient care.

Wound Research

Silhouette's ability to reliably capture, measure, and manage wound data has been proven in more than 70 clinical trials globally. For clinical research, Silhouette delivers:

- High quality data to support study endpoints.
- Highly accurate, reliable, and repeatable measurements (inter- and intra-operability).
- Reliable data collection for pre-clinical through phase IV, post-marketing surveillance, and observational trials.
- A scalable solution for studies from one site to 250+ investigator sites.
- Immediate access to images, data, and reports for sponsors, CROs, adjudicators, and sites.
- One-click PDF wound assessment reports can be used as source documentation.
- Data exports on demand.
- An easy to use solution for clinical sites.

More details on the system are available in the following topics:

- [System Components](#)
- [System Security Features](#)
- [Licensed Features](#)

System Components

Silhouette is a computerized wound imaging, analysis, and documentation system.

SilhouetteCentral enables users to review, report, securely share and analyze the wound data collected by SilhouetteConnect, SilhouetteLite+ and SilhouetteLite applications. SilhouetteCentral is a web-based application and a central store of wound data gathered in SilhouetteConnect. SilhouetteCentral can also collect wound data directly with a SilhouetteStar 2 scanner.

SilhouetteCentral is divided into four parts:

- Clinical - Provides access to the patient medical data stored in the Silhouette database for reviewing, editing, and updating. Reports, images, and wound measurement data can also be exported for further processing and importing into other applications.
- Administration - Provides facilities to manage units, groups, patients, and system users. SilhouetteCentral can also be used to configure and customize the Silhouette system.
- Integration Interfaces - SilhouetteCentral allows integration of assessment data with other health IT systems using the Silhouette Integration Interface.
- SilhouetteTokenService - Provides centralized user authentication services to the Silhouette suite of products. The token service can also support single sign-on (SSO) for enterprise users using the SAML2 protocol, typically by integrating with an enterprise's AD FS provider.



In this version of SilhouetteCentral there is limited configurability available via the main web app. Contact ARANZ Medical Support if configuration changes need to be made.

SilhouetteConnect is the software installed on a Microsoft Windows tablet, laptop or desktop computer. SilhouetteStar devices connect via USB to a computer running SilhouetteConnect. SilhouetteConnect enables wound assessments to be performed without connection to a network, and the data is synchronized with SilhouetteCentral when a network connection is available.

SilhouetteConnect can be used in two modes of operation:

- Standalone mode provides the power of Silhouette on a single PC. Data is collected and stored on the PC and is shared between all Windows Users. PDF assessment reports can be generated by the users to share the results with other systems.
- Synchronized mode provides offline and wired SilhouetteStar device support for SilhouetteCentral systems. Data collected by SilhouetteConnect can be uploaded to SilhouetteCentral and data stored in SilhouetteCentral can be downloaded and used offline in SilhouetteConnect.

In Synchronized mode, the SilhouetteConnect data is stored per Windows User profile.

In Synchronized mode, the system is administered in SilhouetteCentral and the appropriate settings are downloaded during the synchronization process.



In this version of SilhouetteConnect there is limited configurability available via the main web app. Contact ARANZ Medical Support if configuration changes need to be made.

SilhouetteStar 1 is a device that captures wound images and non-contact 3D measurements of wounds at the point of care. SilhouetteStar 1 operates over a USB cable connected to a computer running SilhouetteConnect software.

SilhouetteStar 2 is a device that captures wound images and non-contact 3D measurements of wounds at the point of care. The images and data captured with SilhouetteStar 2 are uploaded to SilhouetteCentral over a secure Wi-Fi network or to SilhouetteConnect over a USB cable.

SilhouetteStar 2 has software running on it. The software version for SilhouetteStar 2 is typically compatible with a limited range of SilhouetteCentral and SilhouetteConnect software versions. The software on a SilhouetteStar 2 upgrades or downgrades when it is connected to Silhouette to ensure it is compatible.

SilhouetteStar 2 is an IP network device. In wired mode, the device uses a IP network that is local to the computer running SilhouetteConnect. The USB device appears as a network interface in Microsoft Windows using the RNDIS protocol. In wireless mode, the device communicates over the Wi-Fi IP network directly to SilhouetteCentral.

SilhouetteLite+ is comprised of an application and a range finding sensor for Apple® iPhone®, iPod® touch and iPad® devices. SilhouetteLite+ enables users to take wound images, obtain non-contact 2D measurements, and record patient notes on their mobile device. The data collected at the patient's bedside is synchronized with SilhouetteCentral over a secure connection when available.

SilhouetteLite is an application designed for Apple® iPhone®, iPod® touch and iPad® devices. SilhouetteLite is a simplified application that enables users to add patients, wound images and simple notes (without measurements) to SilhouetteCentral. The data collected at the patient's bedside is synchronized with SilhouetteCentral over a secure network connection when available.

System Security Features

Silhouette User Authentication

There are very few pages or actions available to unauthenticated users within Silhouette. All access to patient data and personal information requires the user to be authenticated.

Unauthenticated pages include:

- The unauthenticated landing page.
- The login page.
- The download SilhouetteConnect client page.

When using SilhouetteCentral as part of your Silhouette deployment, all system components use the SilhouetteTokenService provided by SilhouetteCentral to authenticate users. The only component in the system which prompts a User for their User Name and Password information to authenticate them is the SilhouetteTokenService. Once that component authenticates a user it issues limited lifetime security tokens to the client application, allowing the client applications to gain access to the system resources.

The SilhouetteTokenService can optionally authenticate Silhouette local users, Silhouette system clients, and can also use external authentication providers (such as ADFS) to authenticate users through the SAML2.0 single sign on (SSO) protocol. Regardless of provider of user authentication, a user record is created within Silhouette to enable:

- Display of the User's name as they use the application.
- Recording their actions relating to data for audit purposes.
- Optional sending of emails (welcome emails and assessment emails).
- The assignment of Silhouette permissions to the user.

Silhouette local user records are configured in the Silhouette database and have a User Name and a Password. The management of Silhouette Local Users is performed by administrators from within the Silhouette application.

Silhouette system clients are configured in the Silhouette database and have a client identifier and a client secret. The only system client supported by default is the integration client used for accessing the Silhouette Integration Interface. The integration secret is configured by administrators from within the Silhouette application.

User who are authenticated by external authentication providers have user records provisioned in the Silhouette database when they log in, commonly known as Just-In-Time (JIT) Provisioning. These user records are managed in an external directory (e.g. Active Directory) and are updated in Silhouette only when that user logs in to Silhouette again.

- User details recorded in Silhouette are updated when the user logs in.
- The user assignment to Silhouette permissions is through dynamic mapping of external group membership to Silhouette groups. Their group mapping is checked each time they login and their Silhouette assignment is adjusted according.
- Silhouette expires unused external provider user records after a set period (nominally 90 days) of inactivity. This expiration is so that users that are disabled in the remote directory will not show as active forever in Silhouette, as a user record is only updated when a user logs in. If an infrequent but active user gets their record expired it automatically gets provisioned again the next time they login.

Due to the different nature of each of the Silhouette client applications, the user login experience varies slightly between them.

- The SilhouetteCentral web application is perhaps the simplest to understand as the user is seamlessly redirected to the SilhouetteTokenService to be authenticated before gaining access to the web app.
- The non-web applications (SilhouetteConnect, SilhouetteLite and SilhouetteLite+) open the default web browser to login using the SilhouetteTokenService web page or SSO login page. The application waits on the authentication to be completed in the web browser before the user gains further access to the application and data.

The client applications do not handle the users credentials, reducing the opportunity for them to be compromised.

SilhouetteConnect Standalone Mode



When operating in Standalone mode, SilhouetteConnect uses the Microsoft Windows operating system user as the user and trusts the operating system authentication. SilhouetteConnect provisions a user record for the Windows user so that application permissions can be applied and user actions tracked for audit purposes, but does prompt the user for their login credentials.

Silhouette User Session Management

A user session duration within Silhouette varies based on the client application in use.

A SilhouetteCentral user session begins when the user logs in to the SilhouetteCentral web application and ends on any of the following events:

- The user closes the web browser.
- The user selects **Logout** from the SilhouetteCentral application menu.
- The SilhouetteCentral web application times the user session out due to inactivity (optional configuration).



The SilhouetteCentral web application inactivity timeout relies on the web application being left open. If the user leaves the web application without closing the browser then the inactivity timeout will not timeout the user session.

A SilhouetteConnect user session begins when the user logs in to the SilhouetteConnect application and ends based on the following events:

- The user selects **Logout** from the SilhouetteConnect application menu.
- The Sync URL is changed in the application.
- The SilhouetteConnect Maximum Offline Session Time has been exceeded (checked when the user opens or unhides the application).



When enabled for offline sessions, the SilhouetteConnect session is maintained when the user closes the application without logging off.

The SilhouetteConnect user with an active offline session may be asked to re-authenticate to perform a sync with SilhouetteCentral if the limited lifetime security token expires.

A SilhouetteLite or SilhouetteLite+ user session begins when the user logs in to the app and ends based on the following events:

8 • SilhouetteCentral Data Security

- The user selects **Logout** from the navigation bar in the app.
- The user changes the **SilhouetteCentral Sync URL** in the app settings.
- Another user selects Change User or attempts to login when prompted due to a failure to complete a sync with the existing session information.



The SilhouetteLite and SilhouetteLite+ user sessions continue until they log out from the app but they may be asked to re-authenticate if they do not use the app and the limited lifetime security token expires.

Authenticating with any of the client applications always initiates a SilhouetteTokenService user session in the web browser, which ends when they close the web browser or when a SilhouetteCentral user session is terminated. A SilhouetteTokenService user session being left active in the web browser is evident when the user selects **Login** in a client application but are not requested for their credentials. An example is described in the sequence:

1. A SilhouetteConnect user selects **Login**, causing their web browser to open with the login page.
2. The user completes the login process but leaves the web browser open.
3. The user selects **Logout** in SilhouetteConnect, causing their SilhouetteConnect user session to be terminated.
4. The user selects **Login** in SilhouetteConnect, causing their web browser to open but no login page is shown and they are redirected back to SilhouetteConnect and logged in based on their still active SilhouetteTokenService session.

SilhouetteCentral Data Security

Patient demographic information and associated measurement data is stored in a Microsoft SQL Server database. The database uses standard SQL Server authentication mechanisms. SQL Server includes various mechanisms to encrypt both the database and the connection between the database and SilhouetteCentral.

SilhouetteCentral also stores some data in files directly on the file system. It is recommended to configure the host server to use drive encryption to provide encryption of data at rest. The data stored in files includes the following:

- Images are stored in a compressed, proprietary format with anonymized file names.
- Assessment reports requested by a SilhouetteCentral user are created in PDF format and are stored temporarily while being downloaded by the end user.
- Assessment reports generated by the system for Email attachments are stored in accordance to the Email purging configuration (default = 35 days).
- Data exports (CSV files) are stored for a number of days (default = 3 days) to be made available for download by the user who created them.
- SilhouetteConnect databases that are uploaded as part of the Sync process are kept on the silhouette file system for a number of days (default = 10 days) to prevent data loss and allow any data conflict problems to be resolved.

Both the databases and associated files can be stored on the same or different machines depending on the installation criteria.

SilhouetteConnect Data Security

SilhouetteConnect stores data offline from SilhouetteCentral on a local disk of a PC. The database, images and PDF reports are stored unencrypted on the file system. It is recommended to deploy SilhouetteConnect on systems with BitLocker security (or similar) turned on to keep the patient data secure.

SilhouetteConnect in Standalone mode stores data in a location shared between all authenticated users on the system.

SilhouetteConnect in Synchronized mode stores data per Windows User Profile, which is accessible to that user and to PC administrators.

To help protect data in use, SilhouetteConnect provides an application timeout that hides data displayed on the screen. This does not require re-authentication to show the data again. Use the operating system session lock features to provide secure session lock for Silhouette, protecting the application and the stored data.

If synchronizing SilhouetteConnect to a SilhouetteCentral:

- Use the HTTPS protocol to secure the communications with the TLS protocol.
- There are system wide settings for how long SilhouetteConnect will operate offline without contacting SilhouetteCentral to authorize the user.

SilhouetteStar 2 Data Security

SilhouetteStar 2 captures images of wounds, creates a 3D model for measurements and uploads the images to SilhouetteCentral over a Wi-Fi network or a USB wired connection. The images are uploaded and removed from the device almost immediately. If there is a network issue which prevents the immediate uploading of images they are kept on the device only until it turns off.

SilhouetteCentral must be configured to use HTTPS to keep the data secure over the Wi-Fi network.

SilhouetteStar 2 displays the patient name, patient id and date of birth of the patient being assessed by a user via the SilhouetteCentral web interface. Once the clinician closes the web browser or navigates away from the patient, the patient information is removed from the screen and from the devices memory. If there is a communications issue the patient information will remain on the device screen until it enters sleep mode or successfully reconnects to the SilhouetteCentral, allowing images to be captured for that patient semi-offline.

All patient data or images are stored in volatile memory so it is lost if the device turns off.

SilhouetteLite and SilhouetteLite+ Data Security

The SilhouetteLite and SilhouetteLite+ apps support offline operation. A list of patients from Silhouette is stored on the mobile device as well as any assessments waiting to be uploaded. Once assessment data is uploaded to SilhouetteCentral it is removed from the mobile device.

Apple devices offer FIPS 140-2 validated encryption for data stored on the device. The Apple [iOS Security Guide](#) provides a description of how file security works on the device and how it works with iTunes syncs and backups. To ensure the data displayed and stored on the device is safe the following configuration recommendations are made:

- Use Passcode security on the device to enable data file encryption and to protect the device from unauthorized users accessing it.
- Use device owner identification (passcode or biometric authentication) on the device to provide an additional authentication check when launching the SilhouetteLite or SilhouetteLite+ apps in offline mode. The use of device owner identification for access to the apps is enabled by default in SilhouetteCentral, but disabled if required.

10 • SilhouetteLite and SilhouetteLite+ Data Security

- Use screen lock as a session lock to prevent users accidentally leaving sensitive data available.
- Use the Apple Configurator 2 app to supervise devices, in particular:
 - Disable screenshot capabilities, and
 - Disable the Allow pairing to computers for content sync setting or enable the Force encrypted backups feature.

Licensed Features

SilhouetteCentral & SilhouetteTokenService Licensed Features

A number of optional features can be added to a SilhouetteCentral license.

Feature Name	Feature Description
Assessment Email Actions	The Assessment Email Actions feature allows SilhouetteCentral to be configured to send email alerts on assessment creation and / or updates. See Assessment Email for more details. Available for SilhouetteCentral v4.3 and above.
Clinical Data Export	The Clinical Data Export feature for SilhouetteCentral enables assessment data to be exported into comma separated values (CSV) format. Available for SilhouetteCentral v4.4 and above.
Silhouette Integration Interface	The Silhouette Integration Interface feature allows SilhouetteCentral to be integrated to an external system through the third party NextGen Connect (Mirth Connect) open source integration engine. This feature is required to enable Orders workflows within Silhouette. Available for SilhouetteCentral v4.7 and above.
Home User Access	The Home User Access feature allows home user groups and accounts to be created within Silhouette. A home user can login to SilhouetteCentral, review their record and submit basic images and data captured on their own device. Available for SilhouetteCentral v4.10 and above.
SSO Integration	The SSO Integration feature allows Single-Sign-On (SSO) integration with external identity providers (e.g. ADFS) through the SAML 2.0 protocol. A user with an appropriately configured account on the external identity provider will be able to access Silhouette without having a separate Silhouette local user account. Available for SilhouetteTokenService v4.11 and above.

SilhouetteConnect Licensed Features

A number of optional features can be added to a SilhouetteConnect license.

Feature Name	Feature Description
Clinical Data Export	<p>The Clinical Data Export feature for SilhouetteConnect enables assessment data to be exported into comma separated values (CSV) format from SilhouetteConnect when operating in Standalone mode (not synchronizing to SilhouetteCentral). In Synchronizing systems, data export will only be available from SilhouetteCentral.</p> <p>Available for SilhouetteConnect v4.4 and above when operating in Standalone mode.</p>

Silhouette Concepts and Operation

This section describes the basic concepts used within Silhouette and the details of various features and operations. It is divided into the following topics:



[Units in Silhouette](#)



[Clinical Users, Clinical Data Access Groups, and Roles](#)



[Home Users in Silhouette](#)



[Assessments and Patient Notes](#)



[Wounds](#)



[Orders and Encounters](#)



[System Events](#)



[Assessment Email](#)



[Silhouette Integration](#)

Units in Silhouette

Units in Silhouette provide a mechanism to group patient records into sets. Each and every patient records belongs to exactly one Unit.

- Every patient record is associated to single Unit at any point in time.
- A patient record can be moved between units and all data related to the patient record is moved with it.

The primary purpose of a Unit in Silhouette is to control access to the data. User's access to view patient data is controlled through Clinical Data Access groups.

A secondary purpose of a Unit in Silhouette is to help the user filter patient records.

- In the patient search screen, the search can be restricted to patient records in a given set of Units.
- A user's patient shortlist can have patient records automatically included in their shortlist based on a record being moved or created in a given set of Units.

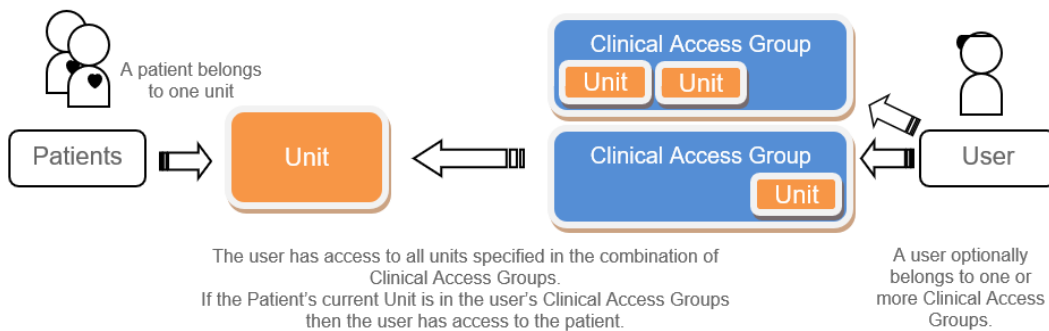
A Unit can represent a clinical site, a facilities, a ward, a clinic, or a class of patient record (e.g. VIP).

Clinical Users, Clinical Data Access Groups, and Roles

Silhouette can optionally support two different types of users, Clinical Users and Home Users. This topic relates to Clinical Users. [See Home Users in Silhouette](#) for details relating to Home Users.

Clinical Users can have access to a set of patient data based on their assigned Clinical Data Access Group(s) and can change clinical data or manage options for the Silhouette system based on their assigned Role(s).

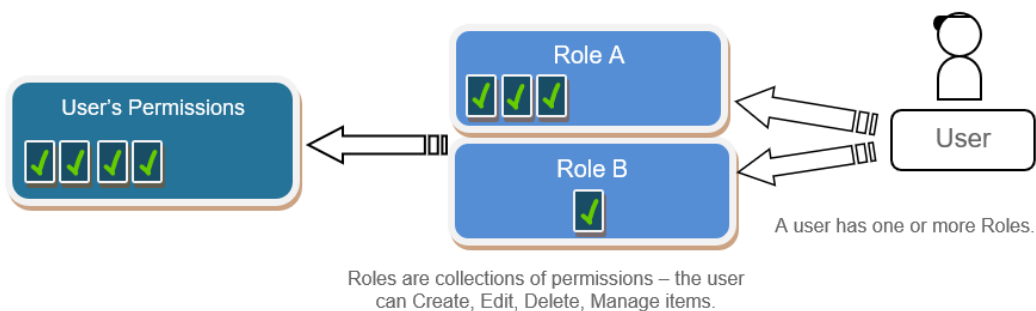
- A Clinical User can be assigned to one or more Clinical Data Access Groups. A Clinical Data Access Group defines the patient data the user will be able to see by listing a set of Silhouette Units, see [Units in Silhouette](#).



Where:

- Every patient belongs to a single Unit. The Unit they belong to can change over time.
- Each user belongs to one or more Clinical Access Groups.
- A Clinical Access Group can be associated with any number of Units within the system.
- A Silhouette Clinical User has access to patient records that belong to the Unit(s) specified by their assigned Clinical Access Groups.

What a user is able to do in the system, what actions they can perform, is set by their assigned roles.



It is possible to create a Clinical Access Group that doesn't provide access to any Units. In this case, the Users assigned to only this Clinical Access Group will not be able to view any clinical data. This is useful for setting up Users that are able to receive emails from the system but should not be able to view any patient data or to have administrators looking after application settings and configuration who do not have access to patient data.

A patient's assignment to a Silhouette Unit is an important way of controlling who has access to patient data and can also be used to allow users to limit patient searches.

Organizations use Units in different ways depending upon how the organization is structured. For example, an organization may use Units to differentiate different departments, wards, facilities or VIP patients. Clinical research organizations typically create a Unit per research site.

When implementing Silhouette for your organization, it is important to spend some time thinking through what roles, units, and clinical access groups are appropriate for your users and patients.

Provisioning Units and Clinical Access Groups

Units can be defined in the **Admin > Units** screen.

The selection of Units a Clinical Access Group can access is defined in the **Admin > Clinical Data Access** screen.

The assignment of a patient record to a Unit is initially set on patient record creation or edited from the patient sidebar **Details** screen.

When using integration from an EMR system to create and update patient records in Silhouette, the Unit a patient record is assigned to is typically mapped from a facility.

Provisioning Users

Provisioning Users in SilhouetteCentral

There are two ways to provision user records in SilhouetteCentral, by creating Silhouette local user records or by linking SilhouetteCentral to an external authentication provider.

Silhouette local user records are created and edited from within the Silhouette application on the **Admin > Users** screen. These user records are configured in Silhouette with the following attributes:

- First name
- Last name
- Middle name
- Email Address
- User Name
- Password
- Silhouette Group Assignment

User who are authenticated by an external authentication provider (commonly known as an identity provider or IdP) have user records provisioned in the Silhouette database at the time they log in using claims (attributes) provided by the authentication provider. This provisioning technique is known as Just-In-Time (JIT) Provisioning. The user records are managed in an external directory (e.g. Active Directory) and are updated in Silhouette only when that user logs in to Silhouette again.

- External provider user records in Silhouette are updated when the user logs in.
- The external provider user gets assigned Silhouette permissions by dynamically mapping provided group membership claims to Silhouette Groups. Their group mapping is checked each time they login and their Silhouette assignment is adjusted according. The mapping is configured in the **Admin > Groups** screen.
- Silhouette only assigns user records to a single Silhouette group. If the external provider user claims membership to multiple groups, they are assigned to the first one which matches in a non-deterministic fashion. Once assigned, they will always be assigned to the same group each time they login, provided their group claims still match the Silhouette group mapping.

- Silhouette expires unused external provider user records after a set period (nominally 90 days) of inactivity. This expiration is so that users that are disabled in the remote directory will not show as active forever in Silhouette, as a user record is only updated when a user logs in. If an infrequent but active user gets their record expired it automatically gets provisioned again the next time they login.
- External provider user records, for users who have been recently active, can be viewed but not edited in the **Admin > Users** screen. When viewing the record in Silhouette you see the record as it was updated when the user last logged in.
- The Silhouette system can not list all external provider users who have access but have not logged in, or users that did have access and have been removed. This information is available from the external user directory where the user records are managed.

The Silhouette system can be configured to enable each type of user independently, but new deployments always start with Silhouette Local Users enabled. To use external authentication providers for SSO and JIT provisioning, the system requires the SSO Integration optional feature to be licensed.



To use the IE web browser with SSO, the user's PC must be on the same domain at the authentication provider.

Provisioning Users in Standalone SilhouetteConnect

SilhouetteConnect, when in Standalone operational mode, provisions users by trusting the identity provided by the Windows operating system.

SilhouetteConnect Standalone has a default group called 'Standalone Admins' which has full access to all data. When a new Windows user runs SilhouetteConnect and selects login, a Silhouette user account is provisioned and allocated to the 'Standalone Admins' group.

Once a user account is provisioned the account details can be modified by the user in their profile page or by another user in the Users admin page. Details which can be updated include:

- First Name
- Last Name
- Phone Number
- Email Address
- Group

Importing Units, Roles, Clinical Access Groups, and Users

If you have access to the physical server running SilhouetteCentral you can alternatively make use of a more direct import process, as an alternative to using the administration user interface to configure additional groups, users, or units.

Files with the following special filenames can be placed in the Files\Setup folder of SilhouetteCentral's installation folder and will be automatically detected and processed during the next application pool restart. If successfully processed, the file will be deleted from the Files\Setup folder to indicate its successful import.

18 • Importing Units, Roles, Clinical Access Groups, and Users

- Units.csv - a comma separated list of units to import into Silhouette.
- Roles.csv - a comma separated list of roles to import into Silhouette.
- AccessGroups.csv - a comma separated list of clinical access groups to import into Silhouette.
- Users.csv - a comma separated list of users to import into Silhouette.

As an example if you wanted to quickly add 50 additional units to a Silhouette installation you could create a Units.csv file describing the details of the 50 additional units and then place this file in the Files\Setup folder. Once the file is in place, restarting the IIS application pool would cause the 50 units to be imported into the system.

Please contact ARANZ Medical Limited support for assistance preparing the CSV files for importing.

Home Users in Silhouette

Silhouette can optionally support two different types of users, Clinical Users and Home Users. This topic relates to Home Users. [See Clinical Users, Clinical Data Access Groups, and Roles](#) for details relating to Clinical Users.

Home user access is an optional feature of Silhouette, which is useful if you want patients to provide images and some basic assessment of their own wounds from their own home. Home users get access to login to the SilhouetteCentral website and see their own patient record. They can also be granted the right to submit images and basic assessment notes to their patient record for a clinical user to review remotely.

For home users, access to patient data in Silhouette is managed through direct association to patient records. The home user account is still associated to a role(s), which controls which functionality is available to the user.

Home user accounts can be created from the Home User Access section of the relevant patient record and can be edited in the [Users](#) screen.

The Home User Access feature of Silhouette requires that the SilhouetteCentral website is available in patient's home and on patient devices. Enabling this may require some changes for customers hosting SilhouetteCentral on premise or in a private cloud. Before utilizing the Home User feature it is advised to perform a Privacy Impact Assessment to if you have adequate privacy controls in place.

When configuring Silhouette Home User for your organization:

- Give a clinical user the "Can Manage Home Users" permission.
- Update the Home Wound Assessment to make sure it captures the data you wish to gather from your home users when they image a wound.
- Create a Home User role defining the application rights you wish the home users to have.
- Update the Home User Welcome Email to include a link to your privacy statement and any terms of use you wish to share with the home users. You may also want to update the welcome email with any basic instructions or home imaging guidance you wish to give the home users.
- Identify patients who will benefit from imaging at home and are also capable of imaging at home. This includes determining if they have a device that can capture images and submit them using the SilhouetteCentral website.
- Set the patient (or their nominated representative) up with a Home User account and provide any training on the data you would like them to submit. This is typically done when they are present with the clinician, either as an inpatient or when they are visiting a clinic.

Assessments and Patient Notes

Assessments and Patient Notes are the method used in Silhouette to record information about a patient and their wounds.

Assessments

Assessments are the main charting method within Silhouette. Assessments appear on a patient's timeline and represent a set of data recorded at a point in time. Silhouette allows for two different types of assessments:

- Patient Assessments, which are about the patient as a whole (rather than a particular wound) and are useful to record patient risk assessments or similar whole of patient assessments.
- Wound Assessments, which are about a particular wound on the patient and are the main assessment used to track progress of a given wound.

Silhouette comes with some pre-loaded Patient Assessments and Wound Assessments. Extra assessments can be added to the system to suit your organization.

Assessments are key concept when getting your data out of Silhouette.

- A user can create and download a PDF report of an Assessment. See the Clinical User's Guide for more detail.
- The CSV data exports available from Silhouette are largely structured as an export of all data for an assessment type. The exception is the wound export that exports non-assessment based data. [See Clinical Data Export](#) for more detail.
- The email notifications available from Silhouette are based on user interactions with assessments, either assessments getting created and/or assessments being edited. [See System Events](#) for more detail.
- The integration messages out of Silhouette are based on user interaction with assessments, either assessments getting created and/or assessments being edited. [See System Events](#) for more detail.

Patient Notes

Patient notes are like assessments except they do not relate to a point in time and record information about the patient as a person. For example, a patient's allergies may change over time but they are not assessed every week. Patient Notes appear in the patient sidebar whenever viewing the patient and can be appended to assessment reports.

Wounds

Wounds (or regions of interest) are the key concept within Silhouette allowing measurements to be tracked longitudinally. Silhouette uses the wound concept to group images and measurements and graph and compare relevant measurements over time.

Measurements can be made from images in both patient level and wound level assessments, however, only wound level assessments provide the longitudinal tracking of progress.

A wound in Silhouette has the following properties:

- A wound has a label, which is allocated by Silhouette and is unique within the patient. The label can be numerical or alphabetical.
- A wound is referenced to an anatomical location or site.
- A wound has a status, open or closed. Within these wound status' there can be multiple wound states. In the default configuration there is one open status (Open) and multiple closed status' (Healed, Released from Follow-up, or Amputated).
- A wound has a single baseline date which is used to track area reduction. The baseline area measurement is the first non-zero area measurement on or after the baseline date. Authorized users can set the baseline date if you want to restart the tracking of wound healing based on an event (e.g. wound recurrence, a treatment plan change or subject acceptance into a research project).

Orders and Encounters

SilhouetteCentral supports orders to allow integration with EMR systems and provide a convenient way to provide a work list. An order in Silhouette can only be created using the Silhouette Integration Interface and always belongs to an Encounter, which in turn belongs to a Patient record. The Encounter record can only be created through the Silhouette Integration Interface and provides a mechanism to link assessments to a temporary or encounter based patient identifier (e.g. an account number).

- An order can be created as a request for a particular assessment type or for any assessment type.
- An order can must have a unique order id and have a schedule date.
- An order can have a maximum number of assessments specified, which provides a warning if there are more than the specified number of assessments linked to the order when the user attempts to complete the order.
- An order must belong to one encounter, which in turn must belong to one patient.
- A patient record can have more than one encounter, which in turn can have more than one order.
- An assessment can be linked to more than one order, over multiple encounters for the same patient.

The typical order workflow is:

- An order is created and signed in an EMR system, resulting in an HL7 message to Silhouette.
- The wound care provider logs into Silhouette and finds or performs an assessment that they wish to send to the EMR system. They may or may not use the presence of the active order to signal that there is a wound assessment to perform.
- The wound care provider links the assessment to the appropriate order.
- The wound care provider marks the order as completed.
- Silhouette sends the results of the assessment to the EMR system based on either the order being completed or the order and assessment being linked, or both. The order, encounter and patient identifiers provide the EMR system with the information required to ensure the assessment results are made available in the correct part of the EMR system.

System Events

System events are used as triggers to send emails or send integration events.

System events are created when a user creates or updates an assessment.

When using SilhouetteCentral:

- An **Assessment Created** system event is generated whenever the user presses the **Save** button after pressing the **+ Patient Assessment** or **+ Wound Assessment** buttons.
- An **Assessment Updated** system event is generated whenever the user presses the **Save** button after pressing the **Edit** assessment button and making some edits to the assessment.
- An **Assessment Updated** system event is generated whenever the user performs a Change Date or a Move Assessment data administration on the assessment.
- An **Order Linked** system event is generated whenever the user links an assessment to an order.
- An **Order Unlinked** system event is generated whenever the user has unlinked an assessment from an order.
- An **Order Status Changed** system event is generated whenever the user updates the status of an order.
- System events are not generated when an assessment is deleted.

When using SilhouetteConnect, system events are generated when the user performs a **Sync** with SilhouetteCentral:

- An **Assessment Created** system event is generated when a user has created an assessment within SilhouetteConnect.
- An **Assessment Updated** system event is generated when a user has edited an assessment within SilhouetteConnect.
 - Only one assessment system event is generated for an assessment regardless of the number of times it has been edited offline. If an assessment is created and then edited before a **Sync** is performed, then a single **Assessment Created** system event is generated for that assessment after **Sync**.
- An **Order Linked** system event is generated when a user has linked an assessment to an order within SilhouetteConnect.
- An **Order Unlinked** system event is generated when a user has unlinked an assessment from an order within SilhouetteConnect.
- An **Order Status Change** system event is generated when a user has completed an order within SilhouetteConnect.
 - A SilhouetteConnect **Sync** can generate multiple **Order Linked** and **Order Unlinked** events if multiple actions are performed prior to performing a **Sync**.

When using SilhouetteLite or SilhouetteLite+, an **Assessment Created** system event is generated when assessments are uploaded to SilhouetteCentral.

An **Assessment Updated** system event is not generated when items not recorded as part of an assessment are changed. For example, editing a wound description or a patient name does not cause a **Assessment Updated** system event.

Assessment Email

Silhouette assessment email is only available in SilhouetteCentral if the SilhouetteCentral license includes the Assessment Email Actions optional feature.

Assessment email is setup by:

- Performing Email Configuration.
- Creating Email Lists.
- Creating Assessment Email Actions.

The Silhouette Assessment Email works by going through the following steps:

- Periodically looking at a queue of system events (see [System Events](#)), checking the configured Assessment Actions for send email triggers, generating the required email content, generating any required attachments and placing the emails into a email queue.
- Periodically taking pending emails from the email queue and sending them via the configured SMTP email service.
- Periodically taking failed emails from the email queue and retrying them via the configured SMTP email service.
- Periodically purging old system events and emails from the queues.
- Recording the email actions in the email log.

Sending Email

Emails are sent via the configured SMTP server and a retry policy is applied if the email fails initially. With a default configuration and a low number of emails per minute being generated then an email should typically be submitted to the SMTP service within 1 minute of the system event which causes the email. Some of the policy around email sending is documented below:

- No emails older than a maximum number of days will ever be sent (default = 10 days). This policy can come into play if the SMTP email configuration has been disabled for some time and then it is later switched it on or if an old system backup is restored that had emails in the queue.
- Pending emails (ones that have never been attempted) are sent before emails that need to be retried.
- Failed emails that are pending retries are retried with increasing delay between each try. The email retry policy attempts to send approximately 10 times over 5 days, with more frequent attempts earlier in the period and less frequent attempts later in the period.
- If the email can not be sent successfully after all the retry attempts, then it is marked as failed permanently and does not get automatically retried.

Email System Configuration

There are system configuration items that can be set to control the email behavior. The configuration includes control of:

- The period of the jobs which process system events and send emails.
- The number of system events that will be processed in any one period.

- The number of emails that will be processed in any one period.
- The number of emails that will be submitted concurrently to the SMTP service.
- The number of days to keep the system events and emails in the queues.

Refer to the Configuration and Installation Guide for more details on these configuration items.

Email System Auditing

The email system audit information is kept in the email log, typically located on the SilhouetteCentral server in a directory called <application root>\files\logs. A new log is created daily and contains the following details:

- What the email system is doing.
- What system events are causing emails to be queued.
- Who (which system user) caused the system event.
- What assessment the system event is related to.
- When emails are being sent.
- Who emails are being sent to including the destination email address.

The information, except for destination email address, about users and assessments in the log file is presented as database identifiers, so access to the database is required to decode the identifiers to real data about patients and users.

If this information is important for your audit purposes then make sure the log files are backed up appropriately.

Silhouette Integration

Silhouette integration is only available in SilhouetteCentral if the SilhouetteCentral license includes the Silhouette Integration Interface optional feature.

Silhouette supports integration to other customer IT systems using standardized HL7 v2 messaging and PDF documents when deployed with an instance of a third party open source integration engine called NextGen Connect (previously Mirth Connect). The interface between SilhouetteCentral and NextGen Connect is a non-standard Silhouette integration interface.

The initial configuration of SilhouetteCentral and NextGen Connect for integration requires the support of ARANZ Medical during system deployment.

It is common to already have an integration engine deployed as part of the hospital IT system. The deployment of a specific instance of NextGen Connect for Silhouette is required as the configuration management of SilhouetteCentral and NextGen Connect is tightly coupled, i.e. a change in one application often results in a change in the other application.

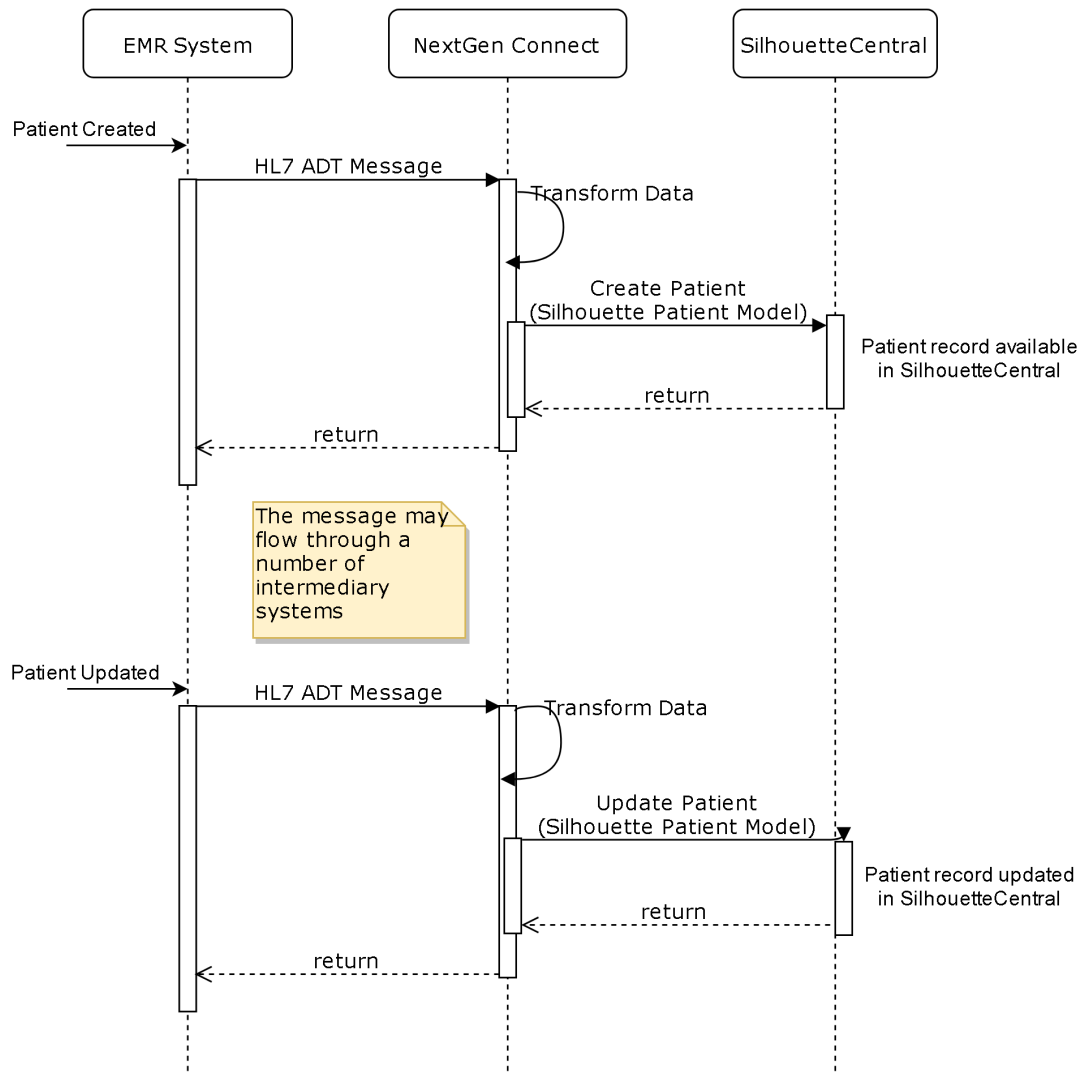
Integration is separated into two main categories:

- Inbound integration where data flows from an external system into Silhouette, see [Silhouette Inbound Integration](#).
- Outbound integration where data flows from Silhouette into an external system, see [Silhouette Outbound Integration](#).

Silhouette Inbound Integration

The inbound integration is typically an HL7 data feed originating from a hospital EMR system being used to create and update patient records within Silhouette.

An example inbound integration data flow is shown in the image below for creating and updating a patient.



Silhouette allows a set of note fields to be flagged as integration identifiers for the relevant entity and can be independent of the identifiers used by users to find and identify entities in the Silhouette user interface. Integration identifier fields are used as the fields to match HL7 messages to Silhouette records.

- The integration identifiers for a patient are usually one or more of the patient identifiers from the HL7 PID.3 field or the Account number from the HL7 PID.18 field.
- The integration identifiers for an encounter is usually a visit number or an account number.
- The integration identifier for an order is always the order number.

The configuration steps involved to enable a successful inbound integration are:

1. Install an instance of NextGen Connect for Silhouette integration.
2. Reset the SilhouetteCentral Integration Secret and paste the secret into the NextGen Connect configuration map so it can authenticate to Silhouette, see [Integration Client Secret](#).

28 • Silhouette Inbound Integration

3. Configure SilhouetteCentral to indicate which note fields are Integration Identifiers.
4. Configure a machine to machine VPN to encrypt HL7 messages between the EMR System and NextGen Connect. This step is optional and can be skipped on the approval from the applicable security officer.
5. Configure the EMR System or intermediary system to send the appropriate HL7 messaging to the Silhouette integration instance of NextGen Connect.
6. Configure NextGen Connect channels to receive HL7 messages, translate them into the Silhouette Integration Model (see [Inbound Integration](#)) and forward them to SilhouetteCentral.

Of the above steps, only step 2 is covered in the scope of this guide. However, to enable a successful integration, ARANZ Medical staff can assist in all steps of the setup as part of a system deployment project.

Silhouette supports the following actions on the integration interface:

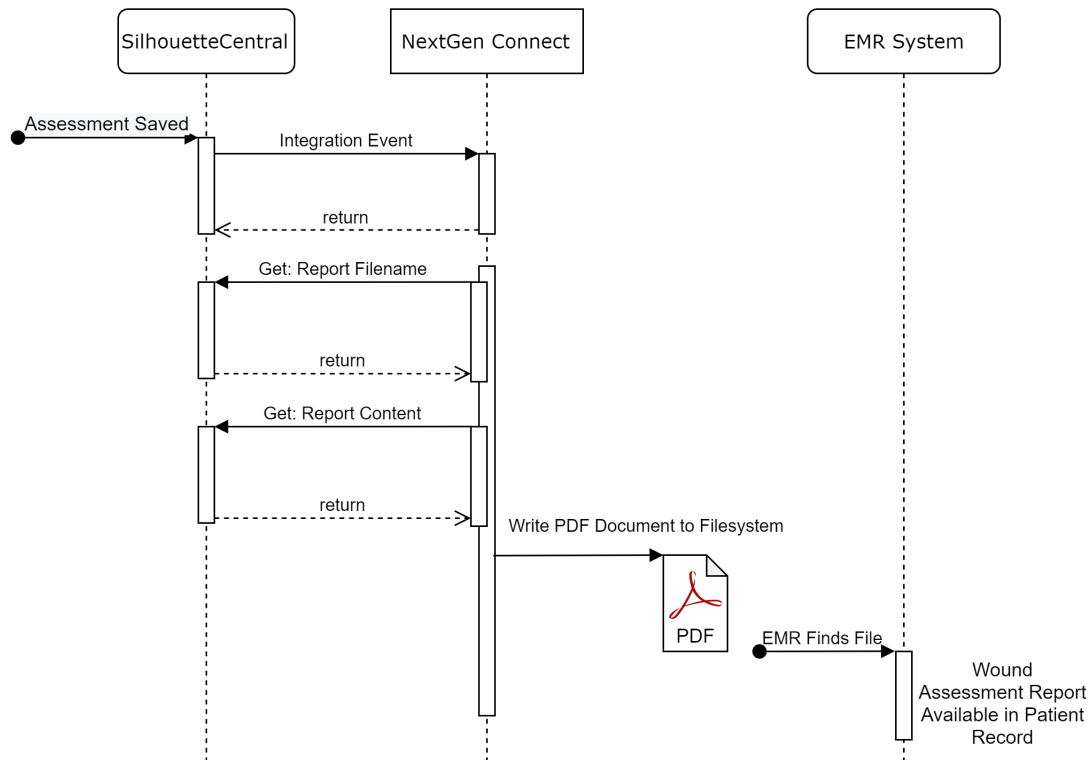
- Patient create / update / delete / merge
- Encounter create / update
- Order create / update

An HL7 conformance document is available on request to ARANZ Medical Support.

Silhouette Outbound Integration

The typical outbound integration is the generation of a wound assessment report from Silhouette and the subsequent loading that report onto the patient record in another hospital IT system.

The typical outbound integration data flow is shown in the image below.



The generation of Integration Events are based on the System Events (see [System Events](#)) and Assessment Actions. The Silhouette integration event sending works by going through the following steps:

- Periodically looking at a queue of system events (see [System Events](#)), checking the configured Assessment Actions for send integration event triggers, generating the required integration event content and placing the integration event into a integration event queue.
- Periodically taking pending integration events from the integration event queue and sending them to the configured outbound integration interface.
- Periodically taking failed integration events from the integration event queue and retrying them.
- Periodically purging old system events and integration events from the queues.

The Integration Events do not include any patient data, just identifiers which can be used to retrieve data from Silhouette. Further details of Integration Events are outside the scope of this guide.

The configuration steps involved to enable a successful outbound integration are:

1. Install an instance of NextGen Connect for Silhouette integration.
2. Configure an IIS reserves proxy with certificates to terminate an HTTPS channel for the encryption of the Integration Events from Silhouette to NextGen Connect. This step is not required if NextGen Connect is on the same server as Silhouette.
3. Reset the SilhouetteCentral Integration Secret and paste the secret into the NextGen Connect configuration map so it can authenticate to Silhouette, see [Integration Client Secret](#).

4. Configure SilhouetteCentral to sending integration events to NextGen Connect, see [Outbound Integration](#).
5. Configure SilhouetteCentral Assessment Actions to send integration events, see [Creating an Assessment Action](#).
6. Configure NextGen Connect with appropriate channels to receive the Integration Event and do some or all of the following:
 - a. Create the PDF assessment report in a location shared with the EMR with the correct report name or supporting meta-data file.
 - b. Export the images from the assessment in a location shared with the EMR with a known name or supporting meta-data file.
 - c. Send an HL7 results message with embedded PDF assessment report, Images or the raw measurements and notes as observations to an EMR system.
7. Configure the EMR system to monitor the shared file location or listen for the HL7 results messages and ingest the data appropriately.

Of the above steps, only steps 3, 4 and 5 are covered in the scope of this guide. However, to enable a successful integration, ARANZ Medical staff can assist in all steps of the setup as part of a system deployment project.

Using Silhouette

This section describes the basics of using with Silhouette. It is divided into the following topics:



[Accessing SilhouetteCentral](#)



[Accessing SilhouetteConnect](#)



[Logging In to Silhouette](#)



[License Warnings](#)



[Navigating in Silhouette](#)



[Ending Your Silhouette Session](#)

Accessing SilhouetteCentral

To access SilhouetteCentral, navigate to the URL of your SilhouetteCentral instance using your web browser. If you are already authenticated to the system and have an active session then you will see the patient search screen. If you need to start a new user session in SilhouetteCentral then you will see the unauthenticated landing page.



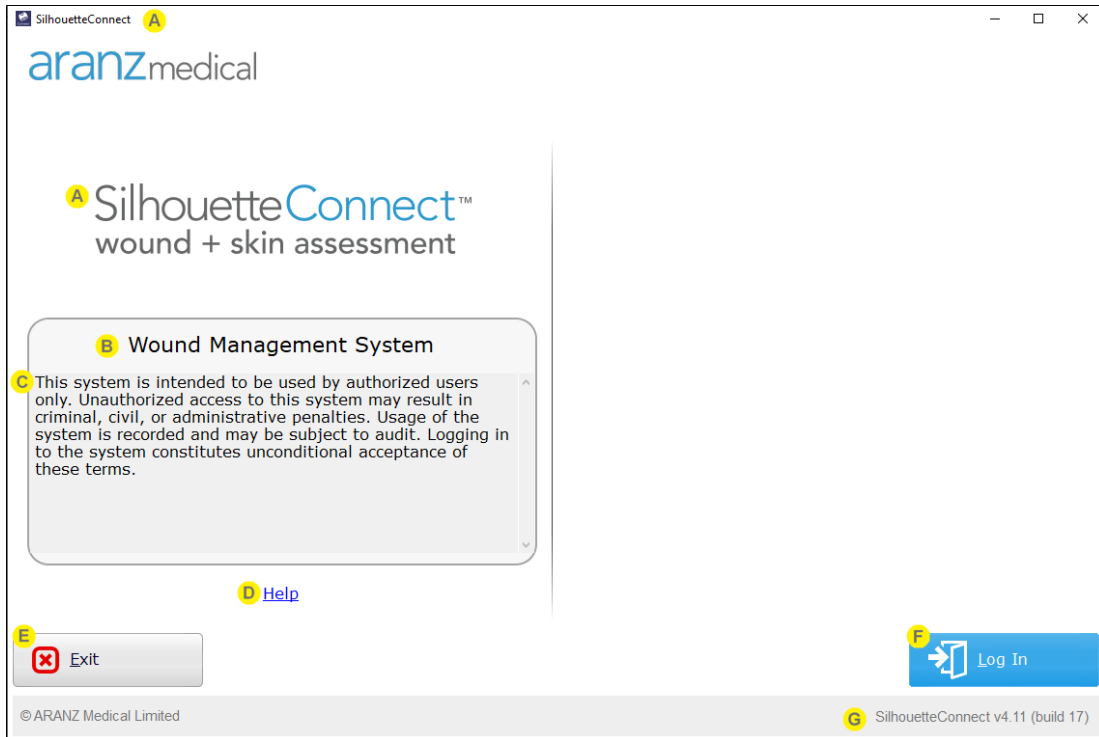
- A** The SilhouetteCentral word mark is shown to help you confirm you are accessing SilhouetteCentral rather than SilhouetteConnect.
- B** The system identification is shown as configured by the system administrator. Use this to confirm that you are accessing the correct system or instance (e.g. training vs. production).
- C** The login banner text is shown if an administrator has configured it. The login banner will contain any conditions or terms of use you are agreeing to by accessing the system.
If you are concerned about anything stated in the login banner, do not select the **Login** button and contact your system administrator to confirm the correct path forward.
- D** Select the **Login** button to confirm that you want to login to the system. See the help topic [Logging In to Silhouette](#) for more details.

- E** Select the Help link to open the help documentation web pages. This link typically takes you to a web page where you can access the Silhouette user guides, however the link can be customized for your system.
- F** The footer of the page includes the Silhouette version number, which can be helpful if you require support.

Accessing SilhouetteConnect

To access SilhouetteConnect, open the Silhouette Connect application on your PC. The SilhouetteConnect start screen contains some helpful information to review before proceeding with the login.

Some of the information shown on the start screen can be configured by your system administrator. If SilhouetteConnect is set to Synchronized mode then the information shown on this screen is updated only after a successful sync with SilhouetteCentral.



- A** The application title and the SilhouetteConnect word mark is shown to help you confirm you are accessing SilhouetteConnect application.
- B** The system identification is shown as configured by the system administrator. Use this to confirm that you are accessing the correct system or instance (e.g. training vs. production).
If the SilhouetteConnect is setup to synchronize with SilhouetteCentral, the first time you start SilhouetteConnect the system identification is derived from the configured SilhouetteCentral URL. Once you successfully perform a sync the system identification will be updated.
- C** The login banner text is shown if an administrator has configured it. The login banner will contain any conditions or terms of use you are agreeing to by accessing the system.
If you are concerned about anything stated in the login banner, do not select the **Login** button and contact your system administrator to confirm the correct path forward.
If the SilhouetteConnect is setup to synchronize with SilhouetteCentral, the first time you start SilhouetteConnect the login banner is default text. Once you successfully perform a sync the login banner will be updated.

- D** Select the **Help** link to launch the help documentation in your default web browser. This link typically takes you to a web page hosted at aranzmedical.com where you can access the Silhouette user guides, however the link can be customized for your system.
- E** Select the **Exit** button to close the SilhouetteConnect application.
- F** Select the **Login** button to confirm that you want to login to the application. The login flow depends on the operational mode and the previous state of Silhouette.
- If using SilhouetteConnect in Standalone mode then you will be logged in using your Windows identity and will not be asked to enter any credentials.
- If using SilhouetteConnect in Synchronized mode, you must be connected to a network with the ability to browse to the SilhouetteCentral URL to be able to login to SilhouetteConnect. When you select the **Login** button, your default web browser will open to allow you to authenticate, see [SilhouetteConnect Web Browser Login](#).
- The online authentication can be skipped in a Synchronized mode SilhouetteConnect if all the following conditions are met:
- The Silhouette system is configured to Allow SilhouetteConnect Offline Operation.
 - You have previously logged in to SilhouetteConnect.
 - You have not exceeded the systems configured SilhouetteConnect Maximum Offline Session Time.
 - You have not explicitly logged out of SilhouetteConnect.
- G** The footer of the page includes the Silhouette version number, which can be helpful if you require support.

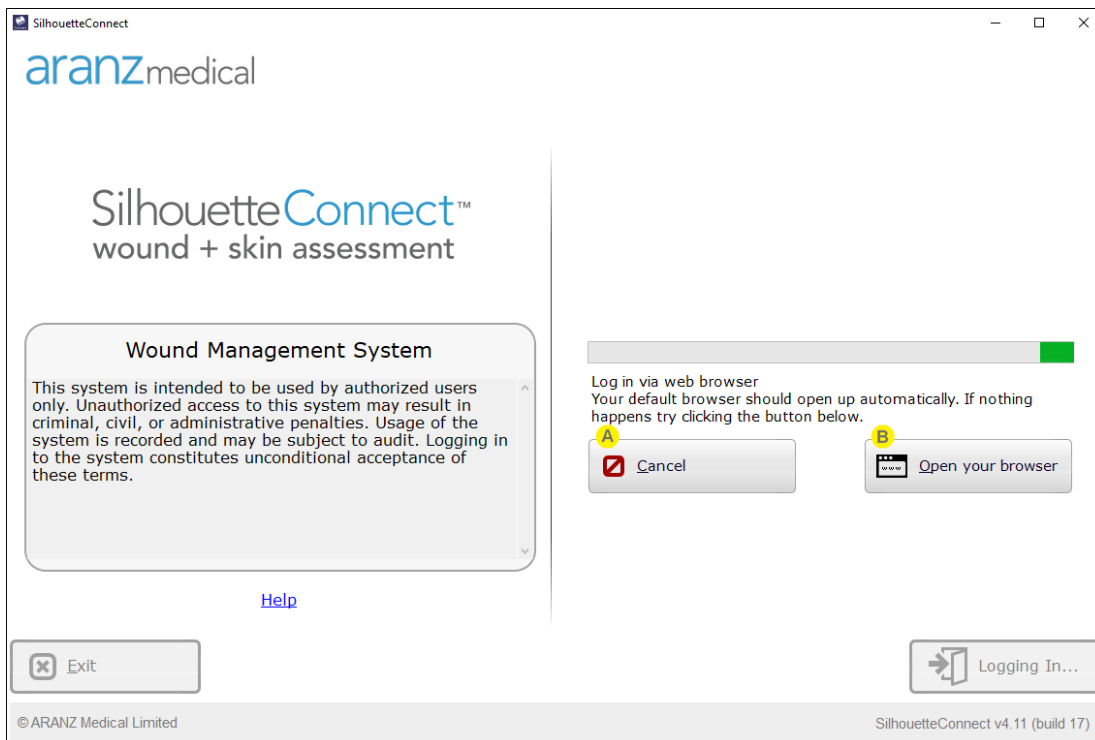
SilhouetteConnect Web Browser Login

When you select the **Login** button in Synchronized mode SilhouetteConnect, your default web browser will open to allow you to authenticate. Once the login process is completed in your web browser, most web browsers will prompt you asking if you want to allow the SilhouetteConnect application to open. Allowing this means that the SilhouetteConnect application will receive your authentication from the web site and complete the login.

If you have closed SilhouetteConnect it won't automatically open, you can reopen the application and initiate a new login request.

See the help topic [Logging In to Silhouette](#) for help with the login process in the web browser.

The SilhouetteConnect application will show a message to indicate it is waiting for confirmation of the login from the web browser, providing Cancel or Open Web Browser buttons. If the login takes too long then the request will timeout and SilhouetteConnect shows a message to try logging in again.



A Select the **Cancel** button to cancel the login request. Canceling the login request enables the **Exit** and **Login** buttons again.

B Select the **Open your browser** button to re-initiate the login request in your web browser. Use the **Open your browser** button if the web browser does not open by itself, if you close the browser by mistake, if you cancel the request in the web browser, or if you cancel the web browser request to open the SilhouetteConnect application by mistake.

If you close SilhouetteConnect while it is waiting for the web page login it will not automatically relaunch. Re-open SilhouetteConnect and initiate another login.



Occasionally the confirmation of the login can get blocked between the web browser and the SilhouetteConnect application. If you have completed the login process in the web browser but SilhouetteConnect still appears to be waiting for the confirmation (or shows that the request has timed out), then close the web browser, cancel the request from SilhouetteConnect, then exit and restart SilhouetteConnect.

Logging In to Silhouette

To use the Silhouette system you need to first login. Once logged in, the data you can see and the operations you can perform are governed by the permissions allocated to you.

Logging in to Silhouette always uses your web browser, regardless of the component of Silhouette that you are using. The only exception is when using SilhouetteConnect in Standalone mode, see [Accessing SilhouetteConnect](#) for more details.

It is important to log in using your unique identity. Silhouette records the names of users viewing, creating, and modifying patient records, and using the correct user name ensures accurate auditing.


The exact login screens you will see vary depending on the system configuration. Topics included in this section describe the login process and associated password management.

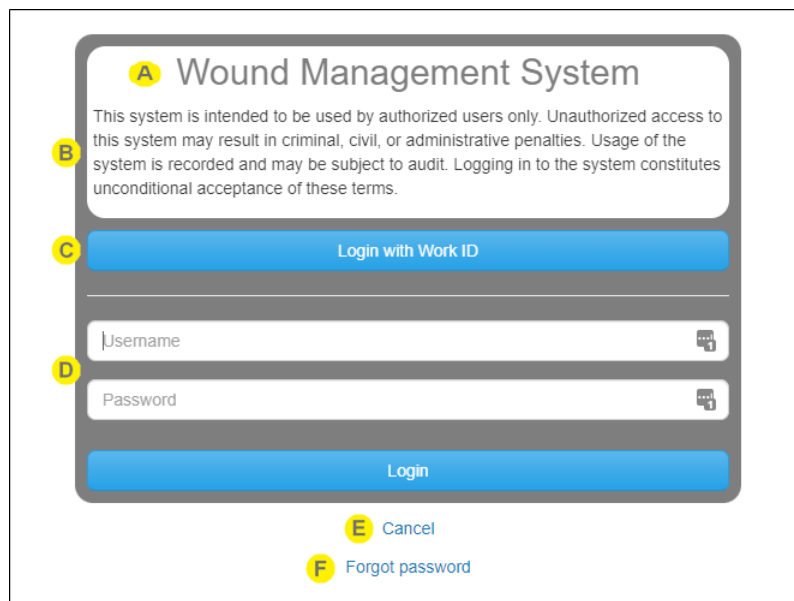
- [The Silhouette Login Screen](#)
- [Access Denied Screen](#)
- [Changing Passwords](#)
- [Recovering a Forgotten Password](#)

The Silhouette Login Screen

If your Silhouette system is configured to allow local user login or is configured with more than one SSO option then the Silhouette login screen will be displayed.

If there is only a single SSO option configured then you be immediately signed in or shown the SSO login page.

 The Login screen will be skipped if your web browser still has an active login session. If you want to force a login flow for some reason, then Logout from SilhouetteCentral and then try the login again.



- A** The system identification is shown as configured by the system administrator. Use this to confirm that you are accessing the correct system or instance (e.g. training vs. production).
- B** The login banner text is shown if an administrator has configured it. The login banner will contain any conditions or terms of use you are agreeing to by accessing the system.
If you are concerned about anything stated in the login banner, do not select the **Login** button and contact your system administrator to confirm the correct path forward.
- C** If there are SSO options enabled there will be a **Login with** button for each configured authentication provider. Select the appropriate **Login with...** button to use your SSO authentication provider.



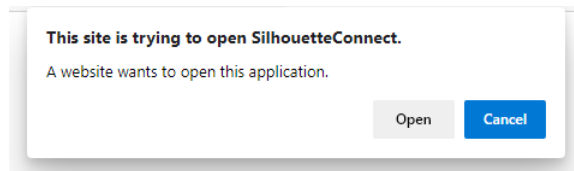
If you are using the IE web browser then your computer must be on the same domain as the authentication provider for this login to work.

- D** If login with Silhouette local accounts is enabled then there are **Username** and **Password** fields available to enter your assigned Silhouette account details. Enter the Silhouette **Username** and **Password** supplied to you and select **Login**.
While logging in, you may occasionally be prompted to change your password if a system administrator has made use of the password expiry features or set your account to force a password reset. In this case you need to pick a new password that meets the password complexity requirements and enter it before you will get access to Silhouette.
Many browsers prompt you to save a **User Name** and **Password** for websites you log in to. Check your organizations policies on this feature, if in doubt do not permit the browser to save your login details for Silhouette.
- E** Use the **Cancel** link if you wish to cancel the login request.
- F** Use the **Forgot Password** link to reset the password using your email address that is associated to your Silhouette user account.
Forgot password emails are only available for Silhouette local accounts, not for user accounts provisioned through SSO authentication providers.
The Forgot Password link is shown if the Silhouette system is configured with appropriate SMTP emails settings and the Forgot Password email feature is enabled.

Completing the Login

Once login is completed successfully, you will be redirected back to the Silhouette client you used to initiate the login, e.g. the SilhouetteCentral website, the SilhouetteLite+ application, or the SilhouetteConnect application.

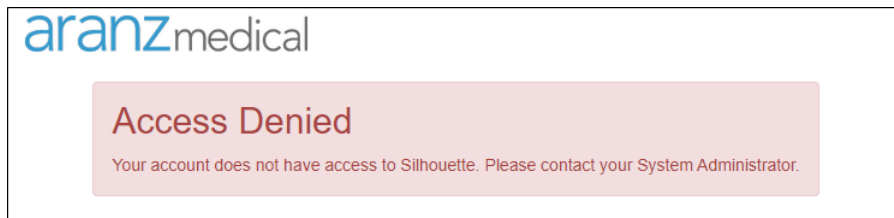
- If using the SilhouetteCentral website, the redirect is seamless and happens in the same browser tab.
- If using the SilhouetteConnect application, your browser may prompt you to allow the application to open. Different web browsers have different prompts, but an example is provided below. Select Allow or Open to complete the login to SilhouetteConnect. Selecting Cancel prevents SilhouetteConnect from completing the login.



When logging in to the SilhouetteConnect application, the application is typically not brought to the foreground. Once you respond to the web browser prompt, close the web browser tab and select SilhouetteConnect from the Windows Taskbar to use the application.

Access Denied Screen

If your account has no access assigned in Silhouette you will see a message stating Access Denied. If you see this message it means that your account has not been assigned any permissions within Silhouette. Contact your system administrator to be granted the correct access.



Changing Passwords

For users with permission to manage Users and Groups, your own and others passwords are managed via the [Users](#) screen.

Note that user names and passwords are used across the Silhouette Product Suite, so you will also need to use the new password when logging in to SilhouetteCentral, SilhouetteLite, SilhouetteLite+, or SilhouetteConnect.

For users without permissions to manage Users and Groups to change their Silhouette password:

1. Navigate to the **Admin > Profile** screen.
2. Select the **Change Password** button.
3. Enter your existing password in the **Current Password** box.
4. Enter your new password in both the **New Password** and **Confirm Password** boxes.
5. Select the **Save** button to update the system with your new password.

When SilhouetteConnect is operating in Synchronized mode, in addition to changing their password in SilhouetteCentral, as above, all users can change their password by accessing **Admin > Profile** in SilhouetteConnect. A synchronization must be performed before the password change is applied across the system. During synchronization SilhouetteConnect needs to ask for the user's old Silhouette password (which SilhouetteCentral still has) to successfully complete. If the old password can't be remembered the password can be reset via SilhouetteCentral, before the sync can proceed.

Logging in to an offline SilhouetteConnect after a password has been changed in SilhouetteCentral requires the user's original password until a synchronization is completed. When SilhouetteConnect is online, it allows the new password to be used.

Recovering a Forgotten Password

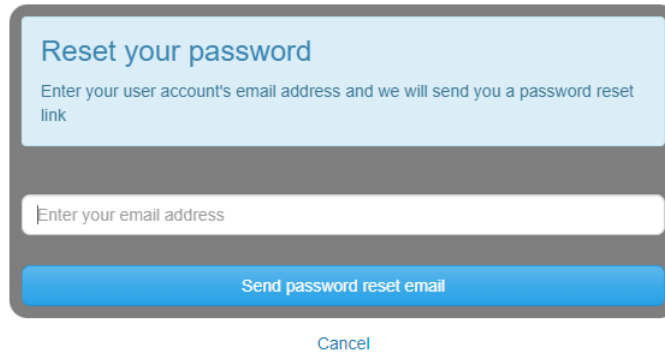
Silhouette allows users with local user accounts to reset their password using the email address registered with their Silhouette user account. This feature is only available if the following conditions are met:

- The SilhouetteCentral system is configured to send emails using a valid SMTP Email sending service.
- The system administrator has enabled the password reset feature.
- Your email address is listed with your Silhouette user account.

If the reset password feature is not available then contact your system administrator for further advice on how to regain access to your account.

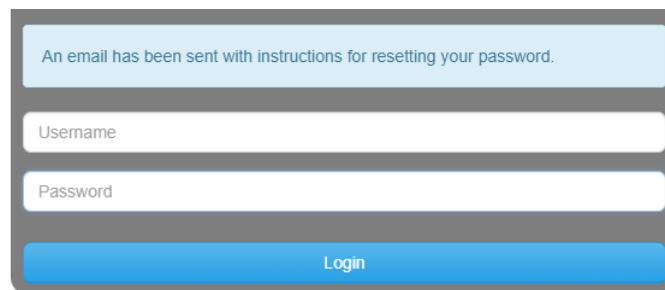
If you have forgotten your password, select the "Forgot Password" link on the login screen (see help topic [The Silhouette Login Screen](#)).

Once the "Forgot password" link is selected, you are prompted to enter your email address. You should enter the email address that is associated with your Silhouette user account and select the **Send password reset email** button. Select the **Cancel** link to return to the login screen.



The screenshot shows a modal window titled "Reset your password". Below the title is a subtitle: "Enter your user account's email address and we will send you a password reset link". There is a text input field with the placeholder text "Enter your email address". Below the input field is a blue button labeled "Send password reset email". Below the button is a "Cancel" link.

Once you select the **Send password reset email** button, you are returned to the login screen and will see a message displayed to confirm that an email with instructions to reset your password has been sent to the email address you specified. For security reasons, the confirmation message is displayed even if the email you entered is not included in the Silhouette system.



The screenshot shows a modal window with a confirmation message: "An email has been sent with instructions for resetting your password." Below the message are two text input fields: "Username" and "Password". At the bottom is a blue button labeled "Login".

Check your email account for the email sent by Silhouette. Use the link in the email to reset your password. Selecting the link loads the website and prompts you to enter a new password.

Reset Password

Reset the password for the account associated with the email example@example.com. The password must match the following criteria:

- A minimum of 3 characters
- A maximum of 20 characters

[Cancel](#)

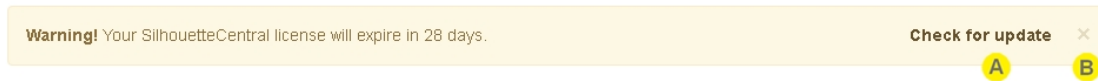
You will receive confirmation that your password has been changed. You can now proceed to log on with the new password.

Password change successful. You may now login with your new password.

If you receive a password reset request email and do not remember requesting it, an additional link in the email may (depending upon system configuration) be provided that allows you to cancel the password reset request so any other person who manages to view the email can not reset your password. The password reset links emailed will always expire after some time. The default link expiry time is 60 minutes but can be changed by your system administrator.

License Warnings

Once logged in to SilhouetteConnect or SilhouetteCentral you may see license warnings if the license is nearing expiry. The warning is shown in a banner near the top of the screen.



- A** Select the **Check for Update** link to query the ARANZ Medical licensing server for an update. The **Check for Update** function can also be accessed through the Admin pages.
- B** Select the **X** on the warning banner to dismiss it. The banner will be dismissed until the user logs in again.

Navigating in Silhouette

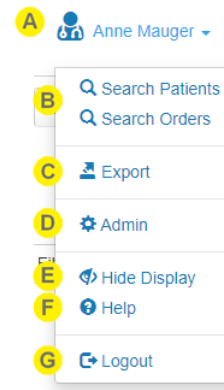
The basics of navigating within Silhouette are described in the following topics:

- [Application Menu](#)
- [Identifying Patients](#)
- [Searching and Selecting Patients](#)
- [Patient Banner and Sidebar](#)
- [Capturing Wound Images](#)

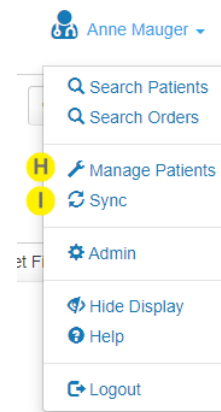
Application Menu

Once you have logged in to Silhouette, your name is shown in the top right-hand corner. Select your name to show the Application Menu. The options available in the application menu depend on the options available in your application and on your permissions.

Application Menu for SilhouetteCentral and SilhouetteConnect in Standalone mode.



Application Menu for SilhouetteConnect in Synchronized mode.



Select your name in the top right of the application to show the Application Menu.



Select the **Search Patients** option at any time to return to the patient search screen.

If the Silhouette system is configured to support integration with orders then the **Search Orders** option will also be available. Select **Search Orders** to search for an order.



Data Export

Opens the Data Export screen, where clinical data exports can be generated and downloaded.

This menu item is only shown if the current user has the **Can Export Data** permission.

This menu item is not available in SilhouetteConnect if it running in Synchronized mode.



Admin

Change your account settings such as your name, email address and password.

Also, if your account has the correct permissions, then you can administer settings for the application.

See the help topic [Silhouette Administration](#) for more details.



Hide Display

Forces the display to be hidden to protect any private or personal information from being seen by unauthorized observers.

The display is also hidden automatically on an inactivity timeout, configurable by a system administrator.

The hide display feature is not a screen lock as you will not be required to authenticate again to unhide the display. The Silhouette hide display should be used in conjunction with the operating system screen lock.



Help

Contains links to the User Guides to help you use Silhouette. It also contains the links to legal and licensing information for Silhouette.



Logout

Log out of SilhouetteCentral or SilhouetteConnect, see the help topic [Ending Your Silhouette Session](#) for more details.

Once logged out of SilhouetteConnect, in Synchronized mode, then you will need to be connected to the network to log back in.



Manage Patients

Opens the Manage Patients screen on SilhouetteConnect, allowing the selection of patients to download to this instance of SilhouetteConnect.

This menu item is only shown in SilhouetteConnect if it is running in Synchronized mode and if the current user has the **Can Manage Patients** permission.



Sync

Initiates a Sync to SilhouetteCentral.

This menu item is only shown in SilhouetteConnect if it is running in Synchronized mode and if the current user has the **Can Synchronize** permission.

Identifying Patients

Silhouette uses three (3) pieces of information to positively identify patients. By default, this information is setup for clinical practice environments:

- Patient name (first name + last name)
- Patient ID
- Patient Date of Birth

These bits of information are displayed throughout the system to help positive identification of the patient being imaged.

Silhouette requires that every patient in the system has an ID. The patients name and date of birth can be made optional for clinical research focused deployments.

Contact ARANZ Medical support to make changes to the patient identifiers.

Searching and Selecting Patients

The patient selection screen is where you can search for and select patients by their first name, last name, or Patient ID. This screen is the starting point for all clinical tasks in the application and the first screen most users will see once logged in to Silhouette. This screen can be accessed from the application menu or by selecting the patient search icon at the top left of the screen.

In SilhouetteConnect, the search only looks for patient records that have been downloaded to the local PC using the Manage Patients feature. In SilhouetteCentral, the search looks for patient records in the entire Silhouette database.

A

Search box

Enter part of the patient's name or Patient ID.

For example, searching for the letters "an" filters the list so that it displays patients whose name or Patient ID begins with the letter sequence "an".

Narrow the search further by entering more of a patient's name or Patient ID.

The **Unit filter** drop-down can be used to filter the results to only include patient records in a specific set of Silhouette Units.

B

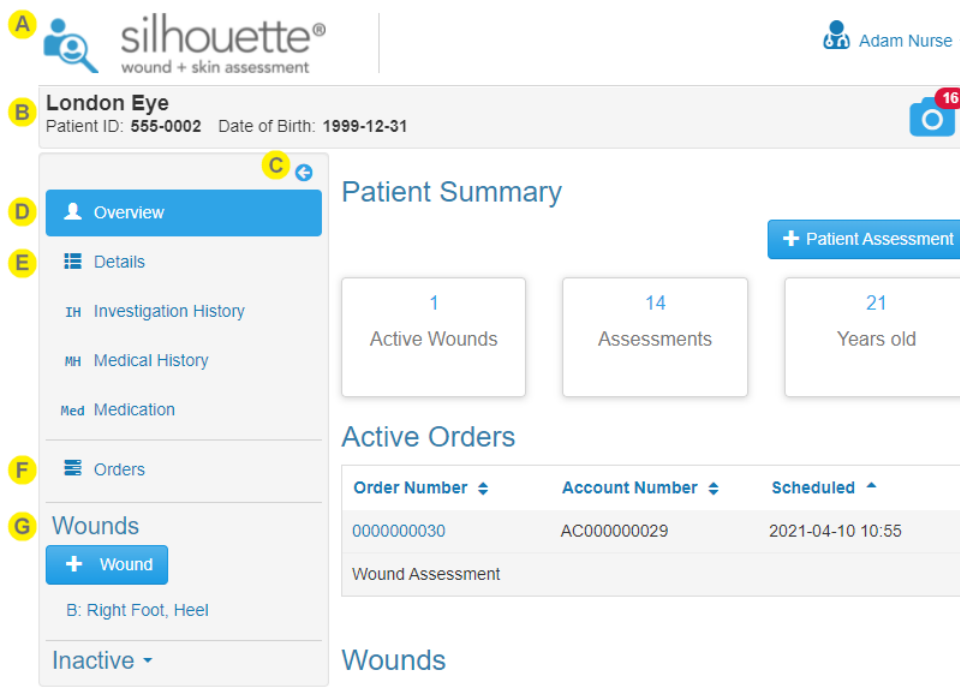
Select the **x** button to clear the search box. The **Reset Filter** button can also be used to clear the search box. The **Reset Filter** button also clears the search results and resets the **Unit filter** to your saved filter. See the Clinical User's Guide for more details on the patient search and filter operation.

- C** Select the **Search** button to perform the search and show the patients that match the search criteria. The search results are displayed below the search box as a set of tiles.
 - Select a patient tile to view the patient overview.
 - Selecting the **Search** button with an empty search criteria shows all patients available to the current user. The results are shown 50 at a time with a load more button.

Patient Banner and Sidebar

Once a patient is selected a patient banner is displayed at the top of the screen and a sidebar is displayed on the left that can be used for navigating between sections.

The sidebar can be expanded and collapsed, and the currently selected section is highlighted in blue in the sidebar.



- A** Select the patient search icon or the logo to go back to the **Patient Select** screen.
- B** The patient banner shows at the top of the screen and includes the positive patient identifiers and access to the image portfolio.
 - Select the camera icon to open the image **Portfolio**, containing the unassigned captured images and the SilhouetteStar connection information.
- C** The sidebar can be collapsed or expanded.
- D** The selected sidebar item is highlighted.
 - Select **Overview** to open the Patient Summary.
- E** Select **Details** to open the Patient Details screen. The remained of the patient note sections available on the sidebar are configurable in the Admin section.

- F** Select **Orders** to see a list of all orders for the patient, if the system is configured for use with orders.
- G** The list of wounds is shown in the sidebar, grouped by active and inactive status.
 - Select a wound from the list to open the Wound Overview.
 - Selecting the + **Wound** button to create a new wound.

Note that it is possible to use multiple tabs to view SilhouetteCentral. Care should be taken to ensure the correct patient data is being reviewed when using this feature.

Capturing Wound Images



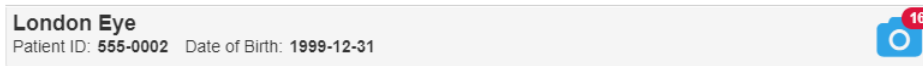
To get more comprehensive help with the Clinical UI in Silhouette, please see the Clinical User's Guide.

In order to capture wound images, Silhouette must be connected to a SilhouetteStar device.

Connecting a SilhouetteStar to SilhouetteConnect using USB

SilhouetteConnect allows connection of either the SilhouetteStar 1 or the SilhouetteStar 2 scanner via a USB cable. The USB connected scanner automatically connects, if plugged in, once as the user is logged in to SilhouetteConnect.

To check that the device is detected and connected, either check the screen of the SilhouetteStar 2 or navigate to the Portfolio dialog for a patient. The Portfolio dialog is accessed by selecting the **camera icon** in the Patient banner.



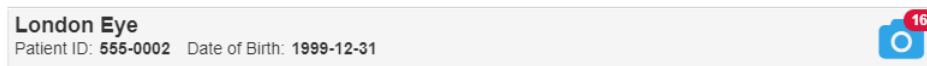
The portfolio dialog provides a message indicating that the device is connected and is ready to capture images.

Connecting a SilhouetteStar 2 to SilhouetteCentral using Wi-Fi

SilhouetteCentral allows connection of the SilhouetteStar 2 using Wi-Fi. For this, Silhouette needs at least one SilhouetteStar 2 network configured. See [Creating a Network Configuration](#).

To connect the scanner to SilhouetteCentral via Wi-Fi:

1. Open the Portfolio dialog by select the **camera icon** on the Patient banner.



2. If the Portfolio shows the captured images instead of the networks available, use the **Connect the SilhouetteStar** link.
3. The dialog will display a QR code. If there are multiple SilhouetteStar 2 networks configured, it will show a dropdown so that the correct network can be selected.
4. Press the button on the SilhouetteStar 2 to turn on the lasers.
5. Hold the SilhouetteStar 2 with the button facing up and form a star with the lasers on the QR code to connect to Silhouette.

Once it has connected, the Patient details will be shown on the SilhouetteStar 2 display, and images can be captured.

Using the SilhouetteStar to capture images

Images can be captured whenever the SilhouetteStar scanner is connected and there is a patient selected.

To capture images:

- Press the button on the SilhouetteStar to turn the lasers on.
- Form a star with the lasers inside the wound, making sure one laser is crossing the deepest part of the wound.
- Press the button on the SilhouetteStar to take the image, holding the device as still as possible for approx. 2 seconds. The SilhouetteStar 1 initiates the image capture when the button is pressed, while the SilhouetteStar 2 initiates the image capture when the button is released.
- The lasers turn off after a timeout. If the lasers turn off and there are still more images to be captured, then press the button to turn them on again.

Captured images are uploaded to the selected patient's portfolio and can be used when creating assessments. If using SilhouetteConnect, the images in the patient's portfolio are stored locally on the computer and are not synchronized to SilhouetteCentral until the patient data is removed from SilhouetteConnect. Images stay in the portfolio until they are used in an assessment or until they are deleted by the user.

The user is able to navigate between patients in Silhouette while the SilhouetteStar scanner is connected and images are captured to the portfolio of the currently selected patient. When using a Wi-Fi connection to SilhouetteCentral, the SilhouetteStar 2 patient selection is synchronized to the user session in the browser tab it was originally connected to. If that browser tab is closed then the device is disconnected and must be re-connected to another browser tab by scanning the connection QR Code in that tab.

Disconnecting the SilhouetteStar

The SilhouetteStar will remain connected until the Silhouette user session ends (e.g. by closing the application, by logging out, by application session timeout, by closing the web browser), etc.

When operating in Wi-Fi mode, the SilhouetteStar 2 will go to sleep after a period of inactivity to preserve the battery power. When the button is pressed, the device will wake up and attempt to reconnect to the last user session. If that user session has ended then the device will display a failed to connect message. Connect it to another session by scanning another connection QR Code.

If using the SilhouetteStar 2, the internal battery needs to be charged, even when operating in a USB connected configuration.

Ending Your Silhouette Session

The way you end your login session varies depending on the Silhouette client application you are using. See the following topics:

- [Logging Out From SilhouetteCentral](#)
- [Logging Out From SilhouetteConnect](#)
- [Logging Out From SilhouetteLite or SilhouetteLite+](#)

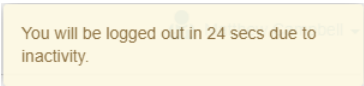
Logging Out From SilhouetteCentral

To Logout from SilhouetteCentral, select **Logout** from the application menu.

Logging out from SilhouetteCentral also ends your session on the SilhouetteTokenService, but does not end your session with any SSO authentication provider.

Closing the Web Browser completely is similar to logging out of SilhouetteCentral. Closing the web browser tab that SilhouetteCentral is in but leaving other tabs open will mean that your session stays active and you will not be asked to re-authenticate when you next browse to the SilhouetteCentral website.

Your system may time out your SilhouetteCentral session if you are not using it. Contact your system administrator if you would like to know what the SilhouetteCentral Idle Session Timeout is set to. Before your session is terminated there will be a message shown in the application.



You will be logged out in 24 secs due to inactivity.



If you have unsaved work when the idle session timeout expires that work is not saved.

Logging Out From SilhouetteConnect

When using SilhouetteConnect Standalone mode then there is no **Logout** option available as the login session is your Windows login session.

When using SilhouetteConnect in Synchronized mode there are both **Close** and **Logout** options available in the application menu. Logging out will end your SilhouetteConnect session and you will need to be connected to the network to login using your web browser the next time you want to use SilhouetteConnect.

If your Silhouette system is configured to allow SilhouetteConnect offline operation, rather than logging out you can close the application. Closing the application will allow you to open it later without having to be connected to the network to re-authenticate. You will be allowed to use the application without re-authenticating until the configured maximum offline session time configured for your system or until you select **Logout**.



Your offline session time is restarted each time you perform a Sync with SilhouetteCentral.

Logging Out From SilhouetteLite or SilhouetteLite+

When using the iOS applications SilhouetteLite or SilhouetteLite+ you can end your session by selecting Logout from the navigation bar on the patient select screen. If you have data captured that needs to be uploaded to SilhouetteCentral, then logging out will block access to the application until that data has uploaded successfully.

Once you select logout then you will need to be connected to the network and able to navigate to SilhouetteCentral before you can login again.

The application can be closed without logging out if you need to operate offline. In this scenario, your Silhouette system can be setup to require you to enter the device owner authentication (passcode or biometric id) before opening the application again.

Clinical Data Export

Silhouette Clinical Data Export is an optional feature that can be enabled in a Silhouette license. The feature can be added to a license for either SilhouetteConnect (applies to Standalone mode only) or for SilhouetteCentral.

A clinical data export extracts patient, wound and assessment data into a comma separated values (CSV) file. See [Appendix F: Clinical Data Export Format](#) for more details on the data export format.

It is the responsibility of the person requesting and saving the data export output to protect that data once it is exported.

To perform an assessment data export the user performs the following steps:

- A user must have the **Can Export Data** permission.
- An export can be generated by selecting **Export > New Export** from the application menu or by selecting **Export Assessments** from the patient overview. [See Creating a New Data Export](#).
- Once the export is completed then the export can be downloaded by selecting **Export** from the application menu. [See Downloading a Data Export](#)



Clinical data exports create clear text documents containing patient information. Take care to protect the privacy of the exported data. Files downloaded from Silhouette need to be stored and transmitted in compliance to your organizations data privacy policies and procedures.

The Silhouette system performs the export by:

- New clinical data export requests are queued and executed one at a time.
- The export is performed by taking a temporary copy of the data to be exported. This is to minimize the amount of time that people can be changing data on the system as the data is being exported.
- The data is transformed into the export format and made available for download.
- In SilhouetteCentral, a file cleanup is run once a day. The file cleanup removes any exports older than the configured setting (the default is 3 days).
- In SilhouetteConnect, a file cleanup is run whenever a user logs in. The file cleanup removes any exports older than the configured setting (the default is 3 days).
- In SilhouetteConnect, an exported file is also removed from the system once the user has requested the download. The file is removed even if the user cancels on the Save File dialog.

The clinical data export includes the current active data in Silhouette, which includes any data changes or corrections made.

Creating a New Data Export

There are two ways to create a new data export.

- Clinical data export for multiple patients within a given date range.
- Clinical data export for a single patient.

To create a new data export your Silhouette user group needs the permission *Can Export Data*.

Clinical Data Export for Multiple Patients

To export data for multiple patients in either SilhouetteCentral or a Standalone SilhouetteConnect:

- Select the **Export** option from the application menu to show the Clinical Data Exports screen.
- Select the **New Export** button from the Clinical Data Exports screen on Silhouette.

The Create Clinical Data Export screen is shown and is used to complete a new data export request for multiple patients.

A

Export Type

Select the **Export Type** you wish to export from the list. A single assessment type or a wound export can be selected.

To export all assessment data, create an individual export request for each assessment type.

Wound assessment exports also include the wound state captured at the time of the assessment.

However, use the **Wound** export to export all wound state information, including wound state that has been set without performing a wound assessment (e.g. initial creation of the wound).

B

Unit

Select the unit(s) you wish to export data from. Selecting **All Units** will export data for all patients that you have access to in Silhouette.

C

From and To

Enter a date range for the assessments to include in the export.

The To cannot be before than the From date.

The date range entered is inclusive of assessments performed on that day. All assessments with a date time recorded from the beginning of the day on the **From** date to the end of the day on the **To** date are included in the data export.



There is no enforced limit on the date range you can enter. However, the Silhouette system will timeout exports that take longer than 10 minutes. If a timeout occurs then try exporting the data in multiple exports using smaller date ranges.

The number of assessments that can be included within the timeout period will depend on your specific database configuration.

D

Time Zone

Select the **Time Zone** that is used to determine what the precise time the start of the **From** day is and the end of the **To** day is. The time zone options are limited to your local PC time zone setting or UTC (Coordinated Universal Time).

The selection of the time zone does not change the data exported, just the selection of which assessment data to export.

For example:

- There is an assessment recorded in the system with the date 28th of Feb 2018 at 1800 hours America/Los Angeles (Pacific Standard Time or UTC-8) which equates to 1st of March 2018 at 0200 hours UTC.
- Selecting to export assessments **From** the 1st of March 2018 based on the America/Los Angeles time zone will exclude the assessment from the export as it is before the 1st of March 2018 at 0000 hours in the America/Los Angeles time zone.
- Selecting to export assessments **From** the 1st of March 2018 based on the UTC time zone will include the assessment from the export as it is after the 1st of March 2018 at 0000 hours in the UTC time zone.
- The assessment date in the data export is 2018-02-28T18:00:00+8 and the assessment time zone is America/Los Angeles regardless of the **Time Zone** selection when creating the export.

E

Export

Select the **Export** button to create the export request.

The Clinical Data Export screen will be shown with the newly created export highlighted in the table, see [Downloading a Data Export](#) for more details.

F

Cancel

Select the **Cancel** button to cancel the export request.

Clinical Data Export for a Single Patient

To export data for a single patient (includes all assessments of that type without specifying a date range):

- Navigate to the Patient Summary screen for the patient by selecting **Overview** in the patient sidebar.
- Select the **Export** button from the top of the screen.

The Export Clinical Data dialog is shown and can be used to complete the data export request for the patient.

A

Export Type

Select the **Export Type** you wish to export from the list. A single assessment type or a wound export can be selected.

To export all assessment data, create an individual export request for each assessment type.

Wound assessment exports also include the wound state captured at the time of the assessment.

However, use the **Wound** export to export all wound state information, including wound state that has been set without performing a wound assessment (e.g. initial creation of the wound).

B

Export

Select the **Export** button to create the export request.

The Clinical Data Export screen will be shown with the newly created export highlighted in the table, see [Downloading a Data Export](#) for more details.

C

Cancel

Select the **Cancel** button to cancel the export request.

Downloading a Data Export

To download a data export, select the **Export** option from the application menu to access the Clinical Data Exports screen in SilhouetteCentral or SilhouetteConnect (Standalone mode only).

The Clinical Data Exports screen is also shown whenever you create a new data export, see [Creating a New Data Export](#).

Clinical Data Exports				
Exports will be available to download for 3 days.				
Created A	Status B	Export Type C	Filter D	E
2019-07-26 15:47	Ready for Download	Wound	Patient PA-000001	Download
2019-07-26 15:47	Ready for Download	Wound Assessment	Patient PA-000001	Download
2019-07-26 15:47	Ready for Download	Lower Limb Assessment	Patient PA-000001	Download
2019-07-26 15:48	Ready for Download	Wound	Date range 2019-01-01 13:00 to 2019-07-01 12:00. Patients from all units.	Download
2019-07-26 15:48	Ready for Download	Wound Assessment	Date range 2019-01-01 13:00 to 2019-07-01 12:00. Patients from all units.	Download

F New Export

The table on the Clinical Data Exports screen shows the exports that are currently running or are finished and available to download. You can see and download only data exports which you have created.

If there are no exports to download there will be no table and a message stating that there are no exports to download.

A Created

The date and time the export was requested.

B Status

Shows the current status of the export. When an export is created it goes in to a queue of exports and the Silhouette system will run one export at a time.

The status refreshes at a rate of approximately 15 seconds.

Valid statuses that can show are:

- Queued - the request is in the data export queue waiting to start.
- Running - the export is currently being attempted.
- Failed - the export failed. Review the silhouette central log file for more insight into the failure. A typical reason for failure may be that the requested export was too big. The recommendation is to retry the export by creating a new export with a smaller date range and or a smaller set of units.
- Canceled - the export was canceled by the user prior to it finishing.
- Ready for Download - the export has successfully completed and is ready for download.

C Export Type

The export type column lists the type of data included in the export.

D Filter

The filter column provides a summary of the filter used to create the export.



If there is an action available for the export then a button is available on the right of the table.

Valid actions are:

- **Cancel.** Cancels the export creation if the status is Queued or Running.
- **Download.** In SilhouetteCentral this action downloads the export to your web browsers default download directory. In SilhouetteConnect this action causes a Save dialog to show and you can select a location to save the export to. In SilhouetteConnect the Download action can only be used once and causes the export to be removed from the system.

If the status of the download has changed by the time you press the action button, then a prompt to refresh the screen is shown and the action is not performed.



Clinical data exports create clear text documents containing patient information. Take care to protect the privacy of the exported data. Files downloaded from Silhouette need to be stored and transmitted in compliance to your organizations data privacy policies and procedures.



New Export

Select the **New Export** button to create a new export request, see [Creating a New Data Export](#) for details.



Clinical data exports are removed from Silhouette after a number of days (the default is 3 days). If you do not download them, or want them again, they will need to be regenerated.

Silhouette Administration

- User
 - Profile
 - Personal Shortlist Criteria
- Staff
 - Users
 - Clinical Data Access
 - Roles
 - Email Lists
- Clinical Data
 - Assessments
 - Patient Notes
 - Units
- System
 - Organization Settings
 - SilhouetteStar 2
 - License
 - Email Configuration
 - Anatomical Sites
 - Silhouette Configuration
 - Default Shortlist Criteria

Silhouette administration is controlled through either SilhouetteCentral or SilhouetteConnect, see [Using Silhouette](#).

The administration options available depend on the particular Silhouette application you are using and what mode it is operating in. Each topic identifies which specific application and mode it is relevant to, in general:

- SilhouetteCentral contains most of the administration settings for the system.
- SilhouetteConnect operating in Synchronized mode contains administration settings applicable to the administration of the PC it is installed on. The system wide settings are configured in SilhouetteCentral and updated in SilhouetteConnect when a synchronization is performed.
- SilhouetteConnect operating in Standalone mode contains a subset of all system administration, settings that are applicable to Standalone (non-enterprise) mode.

The admin section is accessed through the **Application Menu** and is organized into sections, which are selected from the left hand sidebar. On small screens, the sidebar is displayed above the content and you will need to scroll down to see all information that is displayed.

The sections displayed depend on the permissions assigned to the user.

Topics included in this section are:

Staff

- [Users](#)
- [Clinical Data Access Groups](#)
- [Roles](#)
- [Email Lists](#)

Clinical Data

- [Assessments](#)
- [Patient Notes](#)
- [Unit Administration](#)

System

- [Organization Settings](#)
- [SilhouetteStar 2](#)
- [License](#)
- [Email Configuration](#)
- [Anatomical Sites](#)
- [Silhouette Configuration](#)



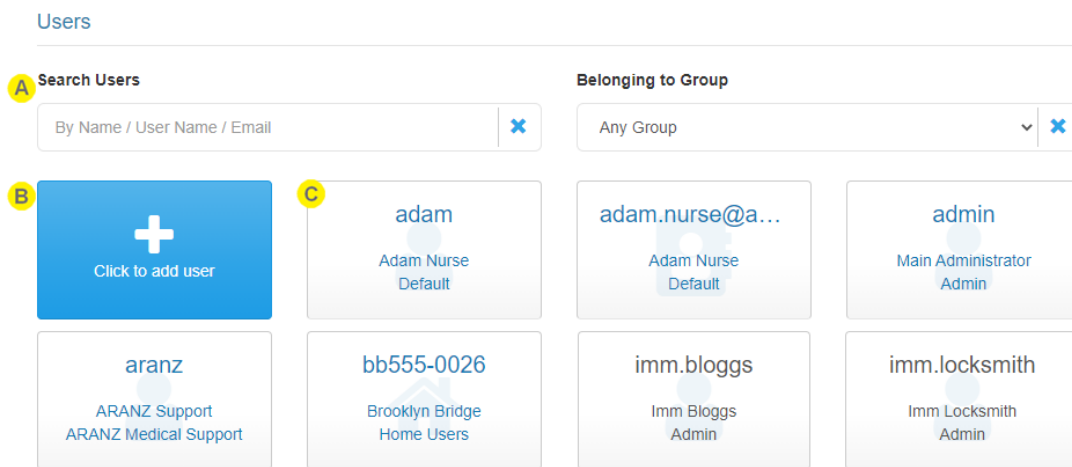
The **Profile** and **Personal Shortlist Criteria** topics are covered in the Clinical User's Guide.

Users

Users must have a user account to access any of the Silhouette applications (SilhouetteCentral, SilhouetteLite, SilhouetteLite+, or SilhouetteConnect). The **Users** screen allows you to:

- Add and manage Silhouette local clinical user accounts.
- Manage home user accounts.
- View a list of recently active SSO user accounts. Recently active usually means that they have logged in to Silhouette within the last 90 days.

To define and manage users, select **Admin > Users**. The **Users** option is not available in SilhouetteConnect when it is running in Synchronized mode. In Synchronized mode, user administration is performed in SilhouetteCentral.



A

Filter options

Limit the users shown in the list using these options.

B

Create button

The create button is only available in SilhouetteCentral. In SilhouetteConnect Synchronized mode, users are created in SilhouetteCentral and in SilhouetteConnect Standalone mode user accounts are provisioned automatically based on Windows User accounts.

Select this button to create Silhouette local clinical users. [See Creating a Silhouette Local Clinical User.](#)

Other types of user accounts are created in different ways.

C

User tiles

Select the user tile to view or edit the user account. [See Viewing and Editing a User.](#)

Most common tasks for a User manager (e.g. unlock user accounts, reset passwords, or disable user accounts) are performed by finding and selecting the correct user tile and editing it.

The icon on the tile indicates the type of user.

- The tiles with person icons are Silhouette local clinical user accounts.
- The tiles with address book icons are external authentication provider user accounts.
- The tiles with house icons are Silhouette local home user accounts.

Tiles with gray text are user accounts that are in Locked or Disabled status.

Creating a Silhouette Local Clinical User

To add a new local clinical user account to SilhouetteCentral, in the **Users** screen select the **Click to add user** button. The **Create User** screen is displayed, with compulsory fields marked with an asterisk. Enter the required information.

Note that every local user account within the organization must have a unique **User Name**.

The **Role(s)** a user is assigned to determines what Silhouette permissions the user has and the **Access Group(s)** the user is assigned to determines the patients the user has access to.

When you have entered the user's details, select the **Save** button at the bottom of the screen to save the user's information. If the welcome email is configured and you have entered an email address for the user then you will be given the option to send a welcome email to the user.

Viewing and Editing a User

To view user account details (including your own), select that user's tile in the **Users** screen. The information for the user is displayed in a read-only view.

Clinical User Details		
User Name *	Status *	Authentication Provider
adam	Enabled	Silhouette Local User
Role(s) *	Access Group(s)	
Clinician	Site A access (no VIP)	
First Name *	Middle Name	
Adam	-	
Last Name *	Phone Number	
Nurse	-	
Email Address	Last Email Queued	
adam.nurse@example.com	2022-11-14 22:17	
Force Password Reset At Next Logon *		
No		

A

Select **Send Email** to queue a new welcome email from to the user's listed email address. Before the email is queued you will get a chance to review the email content.

The **Send Email** button is only available if there email sending service is configured and enabled and the user account has an **Email Address** configured.

The user details show the **Last Email Queued**, which is the date and time the last welcome email was queued to this user. If a dash (-) is shown that means no welcome email has been sent.

The **Send Email** function is only available in SilhouetteCentral if an Email sending service has been configured.

B

Select **Reset Password** to change the user's password. If the account is your own account then you will be asked to re-enter your own password first.

The **Reset Password** button is only available if the **Authentication Provider** in the user details is listed as Silhouette Local User. Password management for user accounts provisioned for external authentication providers is performed in the external provider.

The **Reset Password** function is not available in SilhouetteConnect Standalone mode as SilhouetteConnect doesn't require a password but trusts the identity provided by the Windows operating system.

C

Select **Delete** to delete a user. A confirmation prompt is presented before the user is deleted.

A user can be disabled instead of deleted by selecting **Edit** and changing the **Status** field. The **Status** drop-down controls if a user can log in to Silhouette. A user is able to log in when their status is "Enabled". To temporarily stop a user from logging in, you can set their status to "Disabled". The status is set to "Locked" if the system has automatically disabled an account due to the incorrect password being entered too many times.

The **Delete** button is only available if the **Authentication Provider** in the user details is listed as Silhouette Local User. User accounts provisioned for external authentication providers are automatically removed from Silhouette after a period of inactivity (nominally after 90 days with no log in) or if they attempt to login and they have had their permission to use Silhouette removed by the external provider.

D

Select the **Edit** button to change from read-only mode to edit mode.

In Edit mode, compulsory fields are marked with an asterisk. After editing the user's details, select the **Save** button at the bottom of the screen to save the user's information and return you to the read-only view.

The **Edit** button is only available if the **Authentication Provider** in the user details is listed as Silhouette Local User. The user account details for user accounts provisioned for external authentication providers are updated each time that the user logs in to Silhouette. If the user has been disabled in the external authentication provider their account will continue to show with an Enabled status in Silhouette until the account has been deleted due to inactivity.

E

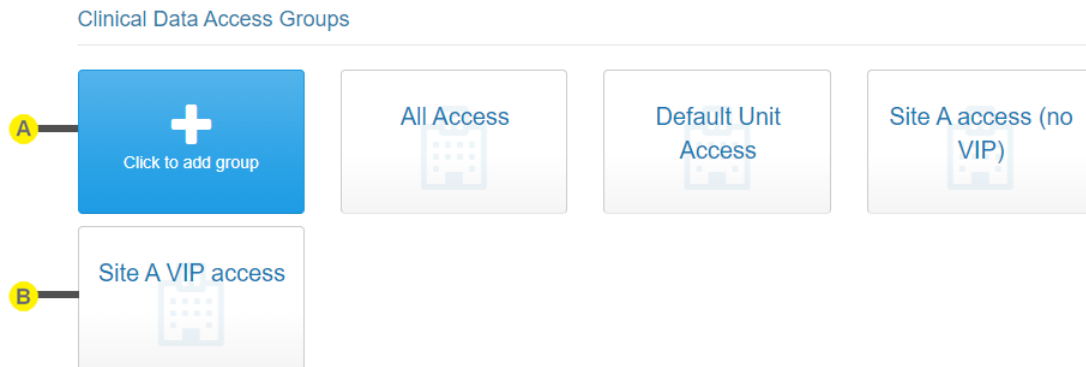
Select **Close** and to go back to the [Users](#) screen.

Clinical Data Access Groups

Clinical access groups are created based upon groups of users with similar patient data access requirements. They define a set of units that you want a group of users to have access to.

As an example, you may create a clinical access group to allow access to all wards in one site.

To define and manage clinical access groups, select **Admin > Clinical Data Access**. The **Clinical Data Access** option is not available in SilhouetteConnect when it is running in Synchronized mode. In Synchronized mode, clinical data access administration is performed in SilhouetteCentral.



A

Create button

[See Creating a Clinical Data Access Group.](#)

B

Clinical Data Access Group tile

Select the group tile to view or edit the group. [See Editing a Clinical Data Access Group.](#)

Creating a Clinical Data Access Group

To create a new clinical data access group, in the **Clinical Data Access Groups** administration screen select the **Click to add group** button. The **Create Clinical Data Access Group** screen is displayed with compulsory fields marked with an asterisk.

The Save and Cancel buttons are at the bottom of the screen.

Select the **Save** button at the bottom of the screen to create the group.

Select the **Cancel** button at the bottom of the screen to exit the screen without creating the group.

Clinical Data Access Group Details

Enter a **Group Name** and **Description**.

Details	
Name *	Description
<input type="text"/>	<input type="text"/>

Authentication Provider Claims

The Authentication Provider Claims section is only shown in SilhouetteCentral and only if Single Sign On (SSO) Integration is enabled and configured.

The Authentication Provider Claims provide the mapping between Silhouette groups and a users groups from external authentication provider. When a user signs in with an external authentication provider, the external provider sends a set of group claim values, such as the names of the groups a user is assigned in the external system.

Add the group claim(s) that you want to map to the Silhouette group you are creating to the Authentication Provider Claims.

Silhouette supports the assignment of a single user record to multiple silhouette clinical data access groups. A user with multiple mapped claims from the external authentication provider will get access to all mapped clinical data access groups.

Authentication Provider Claims	
Authentication provider claim values that map to this staff group.	
A Work Id	B <input type="text"/> x D
C +	

A There can be more than one external authentication provider configured. There is a set of claims for each configured authentication provider. Each provider can be configured zero or many claim mappings.

In the screenshot there is only one configured with the name **Work Id**.

B Enter the exact claim text you will receive from the external authentication provider that you wish to map to this Silhouette group.

For example, given the following scenario:

- Active Directory Federated Services (AD FS) is being used to provide SSO with Active Directory (AD).
- AD FS is configured to pass the LDAP *Token-Groups - Unqualified Names* attribute as the group claims.
- There is an AD group called *Wound System Admins*.
- You want users assigned to the *Wound System Admins* group to be assigned to the Silhouette group you are creating.

You will enter the text "Wound System Admins" in to the Authentication Provider Claims in Silhouette.

AD FS can be configured with a number of LDAP attributes representing a users group membership. Some examples:

- LDAP attribute: *Token-Groups - Unqualified Names* = Claim Value: Group Name, e.g. Wound System Admins
- LDAP attribute: *Token-Groups - Qualified by Long Domain Name* = Claim Value: domain_name\group name, e.g. ad.example.com\Wound System Admins.
- LDAP attribute: *Is-Member-Of-DL* = Claim Value: LDAP Path of Group, e.g. CN=Wound System Admins,OU=Wound Care Roles,OU=Clinical Users,DC=ad,DC=example,DC=com

C Use the + button to add more claim values to match. If there are multiple claims configured then a user only needs to match one of them to be included in the group (i.e. claim value 1 or claim value 2 or claim value 3 etc...).

D Use the x button to remove one of the claim values. All claims can be removed, which means that users from that authentication provider will never be included in this Silhouette group.

Clinical Data Access Group and Unit Relationship

The selection of Unit(s) for a clinical data access group controls the clinical data that the group members can access. [See Clinical Users, Clinical Data Access Groups, and Roles](#) for more information on how the relationship between Users, Patients, Groups and Units work.

The screenshot shows a configuration window titled "For The Following Units". It contains several rows of "Yes/No" toggle buttons. A bracket labeled 'A' groups the "All And Future Units" row. A bracket labeled 'B' groups the "East Hospital - Ward A", "East Hospital - Ward B", "West Hospital - Ward A", "West Hospital - Ward B", and "West Hospital - Ward C" rows.

Unit	Yes	No
All And Future Units	<input type="checkbox"/>	<input type="checkbox"/>
East Hospital - Ward A	<input type="checkbox"/>	<input type="checkbox"/>
East Hospital - Ward B	<input type="checkbox"/>	<input type="checkbox"/>
West Hospital - Ward A	<input type="checkbox"/>	<input type="checkbox"/>
West Hospital - Ward B	<input type="checkbox"/>	<input type="checkbox"/>
West Hospital - Ward C	<input type="checkbox"/>	<input type="checkbox"/>

A

All And Future Units

Select Yes for **All And Future Units** to give the users assigned to this clinical data access group access to all existing units and all new units as they are created within Silhouette.

Select No for **All And Future Units** to manually select which individual units the users assigned to this clinical data access group will have access to.

B

Individual unit selection




Select which units you want users assigned to this clinical data access group to have access to.

When a new unit is created in the system then any existing clinical data access groups do not automatically get permission to access it.

It is possible to create a clinical data access group that does not have access to any units.

Editing a Clinical Data Access Group

To edit a clinical data access group to Silhouette, in the **Clinical Data Access Group** administration screen, select the clinical data access group you wish to edit from the list of groups. The information for the clinical data access group is displayed in a read-only view.

A 
B 
C 

Details

Name *
Site A access (no VIP)

Description
Provides access to all site A units

Authentication Provider Claims

Authentication provider claim values.

Work ID

- APP_SILHOUETTE_Group1

Access to Clinical Data in the Following Units -

All And Future Units

No

Default Unit	VIP / Site A	Ward A / Site A	Ward B / Site A
No	No	Yes	Yes

A**Delete**

Select the Delete button to delete the group. Before deleting you will be asked to confirm the delete operation.

If a clinical data access group has users assigned to it, then it can not be deleted.

B**Edit**

Select the **Edit** button to change to edit mode from read only mode. Update the information, as required. To save the clinical data access group, select the **Save** button at the bottom of the screen.

C**Close**

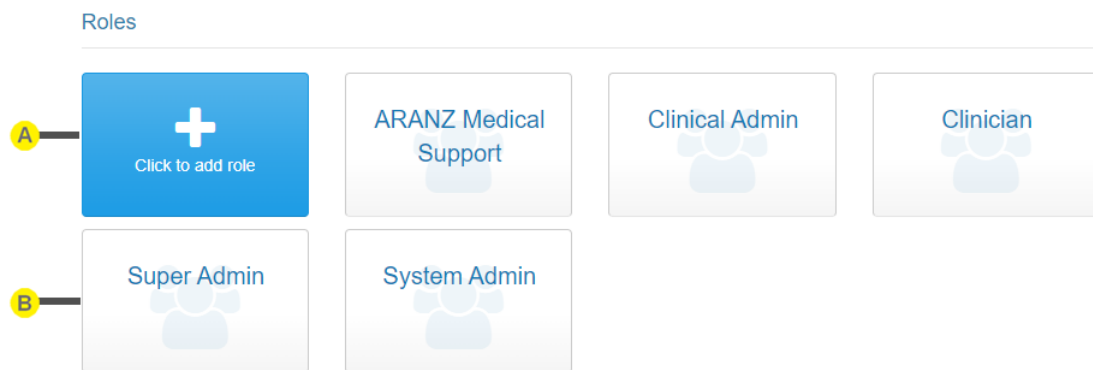
Select the Close button to go back to the [Clinical Data Access Groups](#) screen.

Roles

Roles are created to collect specific sets of granular Silhouette permissions into meaningful roles that can be assigned to users.

As an example, you may create a role for images and one for providers.

To define and manage roles, select **Admin > Roles**. The **Roles** option is not available in SilhouetteConnect when it is running in Synchronized mode. In Synchronized mode, role administration is performed in SilhouetteCentral.



A

Create button

[See Creating a Role.](#)

B

Role tile

Select the role tile to view or edit the group. [See Editing a Role.](#)

Creating a Role

To create a new role, in the **Roles** administration screen select the **Click to add role** button. The **role** screen is displayed with compulsory fields marked with an asterisk.

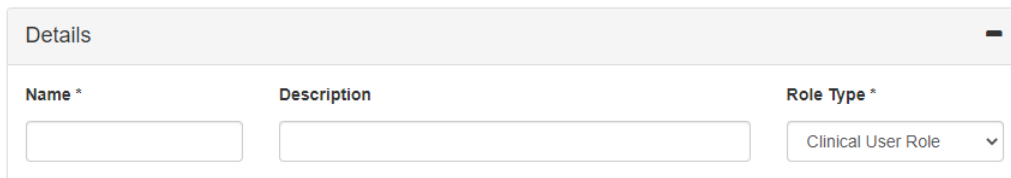
The Save and Cancel buttons are at the bottom of the screen.

Select the **Save** button at the bottom of the screen to create the role.

Select the **Cancel** button at the bottom of the screen to exit the screen without creating the role.

Role Details

Enter a **Name**, **Description**, and **Role Type**.



The screenshot shows a form titled "Details" with three input fields: "Name *", "Description", and "Role Type *". The "Role Type" field is a dropdown menu currently set to "Clinical User Role".

The **Role Type** can be one of the following selections:

- **Clinical User Role.** This selection designates this role as one designed for clinical (or system administrators). Users with this role type are given access to clinical data based on their assignment to Clinical Data Access Groups.
- **Home User Role.** This selection designates this role as one designed for home users. Users with this role type are assigned access directly to individual patient records and the permissions you can grant on this role type are limited to **Can Create Assessment**, **Can Create Report**, and **Can Create Wound**.

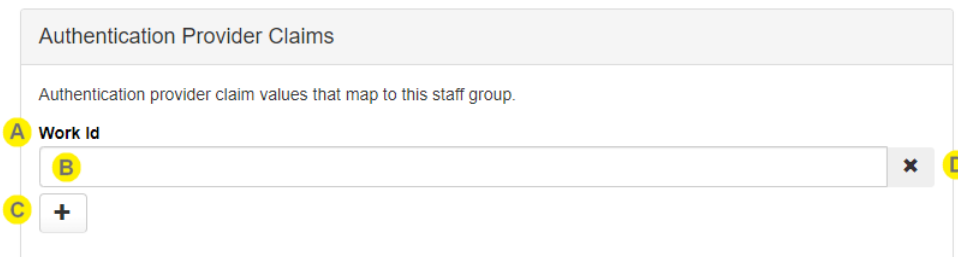
Authentication Provider Claims

The Authentication Provider Claims section is only shown in SilhouetteCentral and only if Single Sign On (SSO) Integration is enabled and configured.

The Authentication Provider Claims provide the mapping between Silhouette roles and a users external authentication provider groups. When a user signs in with an external authentication provider, the external provider sends a set of group claim values, such as the names of the groups a user is assigned in the external system.

Add the group claim(s) that you want to map to the Silhouette role you are creating to the Authentication Provider Claims.

Silhouette supports assignment of a single user record to multiple silhouette roles. A user with multiple mapped claims from the external authentication provider will get assigned to all mapped roles.



The screenshot shows the "Authentication Provider Claims" section. It contains a text input field with the value "Work Id" and a plus sign button below it. There are also several yellow circular callouts labeled A, B, C, and D pointing to different parts of the interface.

Group Permissions

Below is a description of each permission that can be assigned to a role. The permissions are divided up into areas:

- Clinical Data Permissions.
- Silhouette Permissions.
- Administrator Permissions.
- User Administrator Permissions.

Clinical Data Permissions

Clinical Data Permissions control the access to patient data.

Clinical Data Permissions	
A Can Create Patient Yes	B Can Edit Patient Yes
C Can Delete Patient Yes	
D Can Create Assessment Admission Assessment, SilhouetteLite Assessment, Discharge Assessment, Wound Assessment, Lower Limb Assessment, Visit Assessment	
E Can Edit Assessment Yes	F Can Create Report Yes
G Can Export Data Yes	H Can Delete Assessment Yes
I Can Trace Image Yes	
J Can Create Wound Yes	K Can Edit Wound Yes
L Can Delete Wound Yes	M Can Set Baseline Yes
N Can Link Assessment to Order Yes	O Can Unlink Assessment from Order Yes
P Can Complete Order Yes	

A Can Create Patient
Controls if users assigned to this role can create patients.

B Can Edit Patient
Controls if users assigned to this role can edit patient details or any of the patient notes.
The ability to view the patient notes in the Clinical UI is also linked to the application the user is using. [See Patient Notes](#) to show how to control which patient notes are visible in each of the Silhouette applications.

- C** **Can Delete Patient**
Controls if users assigned to this role can delete patients.
- D** **Can Create Assessment**
Controls which assessments (if any) the user is allowed to create. Creating assessments includes the ability to use images from the portfolio in an assessment (assigns the image to a wound).
This is a multi-selection list box, listing all of the assessment types available in the system. Leaving the selection list empty means that the user can not create any assessments.
The ability to create different assessments is also linked to the application the user is using. [See Assessments](#) to show how to control the assessments that are creatable in each of the Silhouette applications.
- E** **Can Edit Assessment**
Controls if users assigned to this role can edit assessments. Editing assessments includes the ability to add or remove images.
- F** **Can Create Report**
Controls if users assigned to this role can create reports for assessments.
- G** **Can Export Data**
Controls if users assigned to this role can export assessment and patient data to CSV files. This permission is only available if the Silhouette license has the Clinical Data Export optional feature enabled.
- H** **Can Delete Assessment**
Controls if users assigned to this role can delete assessments.
- I** **Can Trace Image**
Controls if users assigned to this role can add, edit and delete tracings (outlines and rulers) on a captured image.
- J** **Can Create Wound**
Controls if users assigned to this role can create wounds.
- K** **Can Edit Wound**
Controls if users assigned to this role can edit wounds.
- L** **Can Delete Wound**
Controls if users assigned to this role can delete wounds.
- M** **Can Set Baseline**
Controls if users assigned to this role can set the baseline for a wound.
- N** **Can Link Assessment to Order**
Controls if users assigned to this role can link an assessment to an order.



Can Unlink Assessment from Order

Controls if users assigned to this role can unlink an assessment from an order.



Can Complete Order

Control if users assigned to this role can complete orders. Note that the reactivate order permission is granted under Can Manage Orders.



Note that there is no separate view permission above. The right to view a patients data is controlled through the assignment to Clinical Data Access Groups.

Silhouette Permissions

Silhouette Permissions control the access to functions relating to SilhouetteConnect usage in synchronized mode.

Silhouette Permissions	
A Can Manage Patients	No



Can Manage Patients

Controls if users assigned to this role can add and remove patients from the offline data set held in a SilhouetteConnect install. If a SilhouetteConnect user does not have this role then they must rely on the automatic synchronization of patients with orders to get data on to their SilhouetteConnect instance.

Administrator Permissions

Administrator permissions control access to various sections in the admin sidebar, except the user administration options.

Administrator Permissions	
A Can Manage Assessment Types	B Can Manage Settings
No	No
C Can View Logs	D Can Manage Units
No	No
E Can Manage Clinical Data	F Can Manage Orders
No	No
G Can Manage Email Lists	
No	

A Can Manage Assessment Types
Controls if users assigned to this role can edit assessment types.
This permission controls the visibility of the **Admin > Assessments** and the **Admin > Patient Notes** items in the Silhouette admin sidebar.

B Can Manage Settings
Controls if users assigned to this role can access the organization settings.
This permission controls the access to all items listed under the **Admin > Systems** heading in the Silhouette admin sidebar.

C Can View Logs
Controls if users assigned to this role can view the logs.
This permission only works for members of the ARANZ Medical Support role.

D Can Manage Units
Controls if users assigned to this role can add, edit and delete units.
This permission controls the visibility of the **Admin > Units** item in the Silhouette admin sidebar.

F Can Manage Clinical Data
Controls if users assigned to this role can perform clinical data administration tasks.
Clinical administration data tasks include the following:

- Moving images to a different patient.
- Moving assessments to different wounds or patients.
- Changing the date and time recorded for an assessment.

F Can Manage Orders
Controls if users assigned to this role can perform data administration tasks for Orders.
Data administration tasks for Orders include the following:

- Deleting an Order.
- Reactivation of a Completed Order, allowing it to have other assessments linked to it.

G Can Manage Email Lists
Controls if users assigned to this role can create or edit email lists.
This permission controls the visibility of the **Admin > Email Lists** item in the Silhouette admin sidebar

User Administrator Permissions

User administrator permissions control access to the user, clinical data access groups and role permissions. These permissions are generally highly privileged permissions as they can be used to grant additional access to the system and the data contained in the system.

User Administrator Permissions	
A Can Manage Clinical Data Access	B Can Manage Roles
Yes	Yes
C Can Manage Home Users	
Yes	
D Can Manage Clinical Users	E Visible Users
Yes	All
F Assignable Roles *	
All and future Roles	

A**Can Manage Clinical Data Access**

Controls if users assigned to this role can create or edit clinical data access groups.

This permission controls the visibility of the **Admin > Clinical Data Access** item in the Silhouette admin sidebar.

Users with this permission can edit the Clinical Data Access Groups they are assigned to, including adding or removing access to clinical data.

B**Can Manage Roles**

Controls if users assigned to this role can create or edit roles.

This permission controls the visibility of the **Admin > Roles** item in the Silhouette admin sidebar.

A user with this permission can edit all roles, including roles they are assigned to. The only limitation is that they cannot remove **Can Manage Roles** permission on roles they are assigned to. This limitation is designed to prevent users from locking themselves out of the system.

C**Can Manage Home Users**

Controls if users assigned to this role can create and edit home user records. To create home users the home user manager must also have access to the clinical data they are granting access to.

D**Can Manage Clinical Users**

Controls if users assigned to this role can add, edit and delete user records.

This permission, in conjunction with the Can Manage Home Users permission, controls the visibility of the **Admin > Users** item in the Silhouette admin sidebar.

If set to Yes, additional options to select **Visible Users** and **Assignable Roles** are shown.

E

Visible Users

This option is only available if **Can Manage Clinical Users** is set to Yes and it controls which set of clinical users the user manager can access and edit.

The available options are **All** and **My Access Groups**.

- Choosing the **All** option allows users assigned to this role to be global user managers. They will be able to see and edit all users in the system and will be able to assign existing and new users to any clinical data access groups.
- Choosing the **My Access Groups** option allows users assigned to this role to be limited user managers. A limited user manager can only see other user's records where they are assigned to the at least one of the same clinical data access groups as the logged in user. This allows the creation of site user administrators, where they can create and manage user access for their site but not for other sites within the same organization or study.

If a limited user manager views or edits a user record that has access to more groups than they do, then the groups they cannot edit show as Non-Editable Access Group(s).

Access Group(s) *

Site A access (no VIP), Site A VIP access

Non-Editable Access Group(s)

Default Unit Access

F

Assignable Roles

This option is only available if **Can Manage Clinical Users** is set to Yes and it controls which clinical user roles the user manager can assign to users they are creating or editing.

The assignable roles is a multi-select list of all roles already defined in the system and a special **All and future Roles** option.

- Selecting **All and future Roles** means that user manager assigned to this role will be able to assign (or remove) any role to user records they are creating or editing.
- Selecting a specific set of already defined clinical roles means that the user manager assign to this role will only be able to assign (or remove) this specific set of roles from user records they are creating or editing.

When a user manager who is assigned a specific set of roles to manage views or edits a user record they will see the assigned roles split into Role(s), which they can edit, and Non-Editable Role(s), which they cannot edit.

Role(s)

-

Non-Editable Role(s)

Clinician

Editing a Role

To edit a role Silhouette, in the **Role Administration** screen, select the role from the list of roles. The information for the role is displayed in a read-only view.

The screenshot shows the 'Role Administration' interface for editing a role. At the top right, there are three buttons: 'Delete' (red), 'Edit' (blue), and 'Close' (grey), each with a yellow lettered callout (A, B, and C respectively). Below these buttons is a 'Details' section with a table:

Name *	Description	Role Type *
Imagers	A role for imagers	Clinical User Role

Below the 'Details' section is the 'Authentication Provider Claims' section, which contains the text 'Authentication provider claim values.' and a list item: 'Work ID' with a sub-item 'APP_SILHOUETTE_Imagers'. To the left of the 'Silhouette Permissions' section is the 'Clinical Data Permissions' section, which contains a table:

Can Create Patient	Can Edit Patient
No	No

Below this table is the 'Can Delete Patient' section with the value 'No'. To the right of the 'Clinical Data Permissions' section is the 'Silhouette Permissions' section, which contains the 'Can Manage Patients' section with the value 'No'. Below the 'Silhouette Permissions' section is the 'Administrator Permissions' section.

A

Delete

Select the **Delete** button to delete the role. Before deleting you will be asked to confirm the delete operation.

If a group has users assigned to it, then it can not be deleted and the **Delete** button will not be shown.

B

Edit

Select the **Edit** button to change to edit mode. Update the information, as required. To save the role, select the **Save** button at the bottom of the screen.

A user cannot edit the **Can Manage Roles** permission for a role they are assigned to. This is to prevent them from accidentally changing permissions they cannot restore.

C

Close

Select the Close button to go back to the [Roles](#) screen.

Email Lists

Email lists are only available in SilhouetteCentral and only if the SilhouetteCentral license includes the Assessment Email Actions optional feature.

The Email Lists option allows Silhouette users who need to receive the same Assessment Emails to be grouped into lists. An Email List is a collection of up to 100 Silhouette users who will receive the same email. Emails are sent by

76 • Creating an Email List

defining Assessment Actions and an Assessment Action can reference more than one Email List if the number of recipients for a particular action needs to be higher, see [Creating an Assessment Action](#).

Select **Email Lists** from the admin sidebar to access the feature. **Email Lists** is only available in SilhouetteCentral for users who have the **Can Manage Users** permission and also have access to **All and Future Units**.

Email Lists



A **Add Email List button**
[See Creating an Email List.](#)

B **Email list tile**
The tile shows the name of the Email List and the number of users currently in the list.
Select the email list tile to view or edit the email list. [See Editing a Clinical Data Access Group.](#)

Creating an Email List

To create a new Email List, select **Add Email List** in the Email Lists screen. The new email list screen is displayed.

The screenshot shows the 'Email List Details' form. At the top is a header 'Email List Details'. Below it are two input fields: 'Name *' (labeled with a yellow circle 'A') containing 'List 1' and 'Description' (labeled with a yellow circle 'B'). Below these is a section 'Recipients: 2 of 100 (adding 0, removing 0)'. Under this section are two input fields: 'Search Users' (labeled with a yellow circle 'C') containing 'By Name / User Name / Email' and 'Belonging to Group' (labeled with a yellow circle 'D') containing 'Any Group'. Below these are two buttons: 'Add All' and 'Remove All'. Below the buttons is a table with columns 'Name', 'Email', 'Staff Group', 'Status', and 'Remove' (labeled with a yellow circle 'F'). The table has two rows: 'Main Administrator' and 'Test User'. The 'Remove' column contains a 'Remove' button for each row. A yellow circle 'E' is positioned above the 'Recipients' and 'Non Recipients' tabs.

Name	Email	Staff Group	Status	Remove
Main Administrator	admin@aranzmedical.com	Admin	Enabled	Remove
Test User	user1@aranzmedical.com	Admin	Disabled	Remove

A **Name**
Enter a short name for the Email List.

B**Description**

Enter a longer description for the Email List.

C**Search Users**

Enter some search criteria to filter the list of users presented in both the **Recipients** and **Non Recipients** tabs. The search for users is based on the beginning of their first name, middle name, last name, user name or email address.

Use the **X** button to clear the search criteria and to show all users again.

D**Belonging to Group**

Select a staff Group from the drop down to filter the **Recipients** and **Non Recipients** tabs to show only those Users belonging to the selected Group.

Use the **X** button to clear the Group filter and show all users again.

E**Recipients and Non Recipients tabs**

Select the **Recipients** tab to review the list of Silhouette users that are part of Email List and to remove them.

Select the **Non Recipients** tab to review the list of Silhouette users that are not part of the Email List and to add them.

The list of users is split over multiple pages if there are too many to display at once. Paging controls provided at the bottom of the view.

F**Add and Remove**

Select the **Add** button or **Add all** button to add recipients to the list. The Email List can have a maximum of 100 recipients added to it. The **Add all** button cannot be used if it will cause the Email List to exceed the maximum number of recipients.

Select the **Remove** button or **Remove all** button to remove users from the list.

The **Add all** and **Remove all** buttons add or remove all users shown in all pages of the currently selected tab.

As recipients are added or removed the section header is updated to show the total number in the list. The section header also shows the total number of adds and removes that will be made when the list is saved.

The changes are not saved until the **Save** button is pressed.



The status of the Silhouette user accounts is shown in the list of Recipients. Adding recipients with Disabled or Inactive user accounts is allowed.

Recipients with a status of Disabled will not receive any emails.

Recipients with a status of Inactive and Enabled will receive emails.

Editing an Email List

Select an Email List tile in the **Email Lists** screen to display an Email List.

Email List Details

Name *	Description
List 1	-

Recipients: 2 of 100

E Search Users **Belonging to Group**

By Name / User Name / Email Any Group

Recipients Non Recipients

Name	Email	Staff Group	Status
Main Administrator	admin@aranzmedical.com	Admin	Enabled
Test User	user1@aranzmedical.com	Admin	Disabled

A Export

Exports the Email List as a zip file to enable an easier review of the list.

The Export zip file contains two comma separated values (CSV) files:

- RecipientGroupEmailActions.csv contains a list of the Assessment Actions that reference this Email List.
- RecipientGroupMembers.csv contains a list of the users in the Email List.

These exports are provided to enable easier review of all recipients and their relationship to Assessment Actions. Changes can not be made in the exported files and then imported.

B Delete

Deletes the Email List. An Email List can not be deleted if it is used in an Assessment Action.

C Edit

Opens the Email List in edit mode so users can be added or removed from the list. [See Creating an Email List.](#)

D Close

Return to the Email Lists administration screen.

**Search Users and Belonging to Group**

Allows the list of users shown in the **Recipients** and **Non Recipients** tabs to be filtered. [See Creating an Email List](#) for more details.

**Recipients and Non Recipients tabs**

Select the **Recipients** tab to review the Silhouette users that are part of the Email List.

Select the **Non Recipients** tab to review the Silhouette users that are not part of the Email List.

The list of users is split over multiple pages if there are too many to display at once. Paging controls provided at the bottom of the view.



The status of the Silhouette user accounts is shown in the list of Recipients.

Recipients with a status of Disabled will not receive any emails.

Recipients with a status of Inactive and Enabled will receive emails.

Assessments

Assessments are the main charting mechanism within Silhouette. Assessments appear on a patient's timeline and represent a set of data recorded at a point in time. Silhouette allows for two different types of assessments:

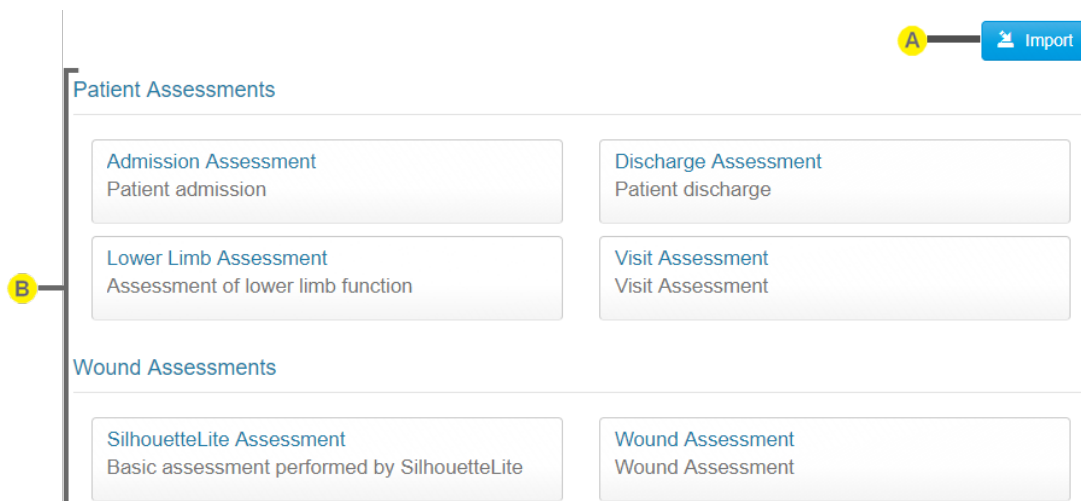
- Patient Assessments, which are about the patient as a whole (rather than a particular wound) and are useful to record patient risk assessments or similar whole of patient assessments.
- Wound Assessments, which are about a particular wound on the patient and are the main assessment used to track progress of a given wound.

Silhouette comes with some pre-loaded Patient Assessments and Wound Assessments. Extra assessments can be added to the system to suit your organization.

Assessments are different to patient notes, which appear in the patient sidebar and do not relate to a point in time. For example, a patient's allergies may change over time but they are not assessed every week. [See Patient Notes](#) for help administering patient notes.

To define and manage assessments, select **Admin > Assessments**. The **Assessments** option is not available in SilhouetteConnect when it is running in Synchronized mode. In Synchronized mode, assessment administration is performed in SilhouetteCentral.

Assessments can also have automatic actions performed when they are created or updated. Assessment actions can be configured for each assessment if your system is licensed appropriately.



A

Import button

Allows an assessment definition zip file to be imported, which either creates a new assessment or modifies the definition of an existing assessment.

A newly imported Assessment is not be accessible to any users by default. [See Editing a Clinical Data Access Group](#) for information on granting users access to create the new Assessment.

When importing Assessments, the assessment actions and any email templates are also imported. This import may cause additional units or email recipient lists to be created if they don't already exist. The configuration of assessment actions should be reviewed manually after import.

Contact ARANZ Medical Limited for help to configure the assessments you need.



Assessment Tiles

Selecting an assessment opens the assessment definition to show the detail and allow editing. [See Editing an Assessment Type](#).



Use caution when modifying the definition of existing assessments. Assessments created offline in either SilhouetteLite or SilhouetteLite+ with previous definitions may fail to sync if the new definition has changes such as making a field required that wasn't previously required.

Editing an Assessment Type

To edit an assessment in Silhouette, in the **Admin > Assessments** screen, select the assessment from the list. The information for the assessment is displayed in a read-only view.

Details	
Name	Type
Wound Assessment	Wound Assessment
Description	Can create within application
Wound Assessment	SilhouetteCentral, SilhouetteLite+

A

Export

Select the **Export** button to download a zip file containing the assessment type definition. The assessment type can then be imported into another Silhouette system (e.g. between a test and production system) or provided to ARANZ Medical for modification.

B

Delete

Select the **Delete** button to delete the assessment type. The system prevents you from deleting assessment types which have been used to create assessments for patients. If you wish to prevent more assessments being created of a given type then disable new assessments by deselecting all applications under the **Can create within application** option.

C

Edit

Select the **Edit** button and update the information as required.

- The **Name** is displayed to users when they create assessments and is displayed at the top of the assessment.
- The **Type** can be Wound Assessment or Patient Assessment.
- The **Description** is provided to show as additional detail to the user when they create the assessment.
- The **Can create within application** allows the selection of which application can be used to create an assessment of this type. Selecting SilhouetteCentral means both SilhouetteCentral and SilhouetteConnect.

Once edited, select the **Save** button at the bottom of the screen to save the settings.

D

Close

Select **Close** to go back to the [Assessments](#) screen.

Creating an Assessment Action

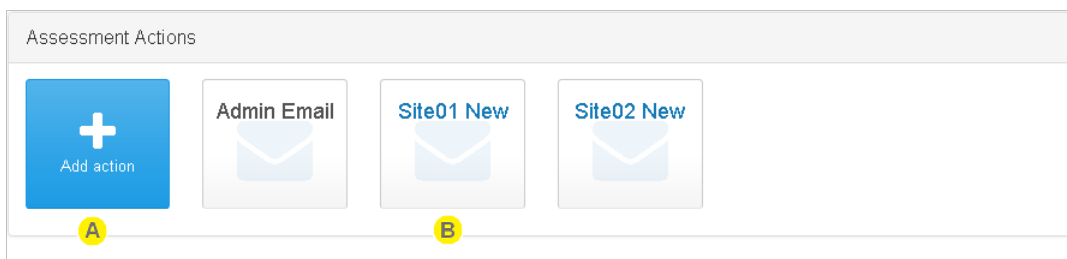
Assessment actions are only available in SilhouetteCentral and only if the SilhouetteCentral license includes either the Assessment Email Actions or the Silhouette Integration Interface optional features.

Assessment actions available in Silhouette 4.13 are:

- Send Email, which provides the ability to send a list of users an email if an assessment is created or updated, see [Assessment Email](#).
- Send Integration Event, which provides the ability to integrate assessment data with an external system, see [Silhouette Outbound Integration](#).

Each assessment that is created can optionally have many assessment actions. Each assessment action is made up of a trigger (controlling when the action will happen) and the action configuration.

To create or edit an assessment action in SilhouetteCentral, first select the assessment you wish to work with from the list in the **Admin > Assessments** screen. If your system is enabled for Assessment Actions there will be an Assessment Action section available.



A

Select the **Add action** button to add a new assessment action.

B

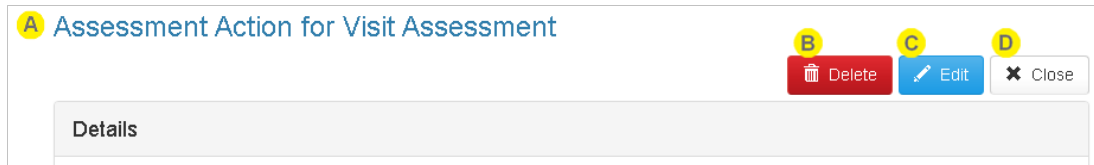
The assessment actions already created for the assessment are listed as tiles with the assessment action name. Select the assessment action tile to view and edit an existing assessment action.

Disabled assessment actions are shown with gray titles and enabled assessment actions are shown with blue titles.

The tiles have an icon in the background indicating if they are Send Email or Send Integration Event actions.

Editing an Assessment Action

To edit an assessment action in Silhouette, in the **Admin > Assessments > Assessment** screen, select the assessment action from the list. The information for the assessment action is displayed in a read-only view.



- A** The title of the screen provides information about which assessment type this assessment action is for.
- B** Select the **Delete** button to delete the assessment action.
- C** Select the **Edit** button to switch to edit mode and make changes to the assessment action. See the details below.
In edit mode there are **Save** and **Cancel** buttons at the bottom of the screen.
- D** Select **Close** to go back to the Assessment screen.

Assessment Action Details

Details

Name * A

Action Type * B

Send Email
▼

Enabled C

Yes
No

Description D

A

Name

Provide a short but descriptive name to help identify the action in the list.

B

Action Type

Select what action be performed when the trigger condition is met. Once the assessment action is saved the **Action Type** can not be changed.

The options are:

- **Send Email** - An email will be queued and sent when the trigger conditions for the assessment action are met.
- **Send Integration Event** - A Silhouette Integration Event will be queued and sent when the trigger conditions for the assessment action are met.

Selecting a value for the action type can cause a change to the information required in the action section before saving the assessment action.

C

Set **Enabled** to Yes to enable the assessment action.

Set **Enabled** to No to disable the assessment action and prevent triggers from occurring.

D

The **Description** field is optional and allows the recording of more details about what the action is intended for. This is helpful for maintenance purposes if there are a lot of actions that have slightly different conditions.

Trigger Details

A Select the assessment **Event(s)** that will cause the action to trigger. The events occur based on the user pressing the **Save** button on the assessment. At least one **Event** must be selected. The available events are:

- **Assessment created**
Actions including this event will trigger whenever a new assessment of the current type is first saved. Assessments can be created in any of the Silhouette components and this trigger will fire when the assessment gets uploaded (or synced) with SilhouetteCentral.
- **Assessment updated**
Actions including this event will trigger whenever a user edits and then saves an assessment.

B The **In Unit** selection drop down allows you to set this action to trigger only for assessments created or updated for patients in particular units.

- Select **All and future units** to cause the action to trigger on assessments for all patients (i.e. no unit filter).
- Select one or more specific units from the list to restrict the action to only trigger on assessments for patients currently assigned to those units. If a new unit is defined in Silhouette, then assessment actions with a specific **In Unit** filter will need to be edited to include the new unit, if required.

The unit filter for the trigger is evaluated when the trigger is evaluated and does not remember the patient unit when the assessment was actually created or modified.

Example

Given an assessment action set to trigger for wound assessment created for patients **In Unit** "Site01" and there is a patient "Patient A" in unit "Site01".

The following set of actions will cause the assessment action to trigger:

1. A wound assessment is captured in SilhouetteConnect.
2. The data from SilhouetteConnect is synced to SilhouetteCentral.

However, the following set of action will *not* cause the assessment to trigger:

1. A wound assessment is captured in SilhouetteConnect.
2. The patient is edited so that they are reassigned to unit "Site02".
3. The data from SilhouetteConnect is synced to SilhouetteCentral.



Optionally enter an expression as a **Condition** that must evaluate to true before the assessment action will trigger. [See Appendix H: Conditional Expression Syntax](#) for details on writing expressions.

The expression can use note field variables defined for the assessment or for the encounters and orders. [See Appendix E: Order and Encounter Notes Definitions](#) and "[Appendix E: Order and Encounter Notes Definitions](#)" for the variables defined in the default set of assessment notes. Contact your ARANZ Medical representative for support in creating custom notes fields.

Use the **Validate** button to check the syntax of the entered expression. If the validation is bad then the **Condition** field will turn red.

The condition is evaluated based on the assessment notes values at the time of the trigger evaluation, not at the time the save button was pressed.

Example

Given there is a boolean note field "Ready to Email" in wound assessment that has a variable "wound_ready_to_email" and there is an assessment action with a trigger condition of "IsNull(wound_ready_to_email,false) == true".

The following set of actions will cause the assessment action to trigger:

1. A wound assessment is captured in SilhouetteConnect with the value of Ready to Email set to "Yes".
2. The data from SilhouetteConnect is synced to SilhouetteCentral.

However, the following set of action will *not* cause the assessment to trigger:

1. A wound assessment is captured in SilhouetteConnect with the value of Ready to Email set to "Yes".
2. The wound assessment is edited in SilhouetteConnect, changing the value of Ready to Email set to "No".
3. The data from SilhouetteConnect is synced to SilhouetteCentral.

Action: Send Email Details

- A** Select one or more Email Recipient Lists in the **To** field.
- B** Enter a **Subject** line for the email.
- C** Set **Attach Report** to Yes to generate and attach a PDF report of the assessment to the email. The PDF reports generated and attached are not encrypted or password protected so consider carefully if patient data privacy can be protected before selecting Yes to **Attach Report**.
- D** The **Email template** sets the content of the email. A default email template is provided and can be downloaded by saving the Assessment Action and selecting the template filename in Edit mode. The default email template provided creates an HTML email in English with no patient data included. The Email body of the default Email template looks like:

A <assessment type name> has been created or updated.

Use this link to access the assessment: <hyperlink to the assessment in SilhouetteCentral>

[See Appendix J: Email Templates](#) for information on the Email templates. It is recommended contacting your ARANZ Medical representative for support in creating custom Assessment Email templates.

Use the **Select** button to select a new email template.



Consider patient information data privacy when sending emails from Silhouette. If any protected health information or any patient data is included in the email template or by attaching the PDF report then you need to consider any data privacy compliance issues, including processing by email sending providers and email recipient systems.

The default email template doesn't include any patient data and provides a link to SilhouetteCentral, where the recipient must authenticate before viewing the data.

Action: Send Integration Event Details

Action: Send Integration Event

Report Name Template * 



Report Name Template

Enter the template for the filename using template macros from [Appendix I: Template Macros](#).

Select **Validate** to check the template entered for syntax.

The final formatting of the filename is completed in the downstream integration engine.

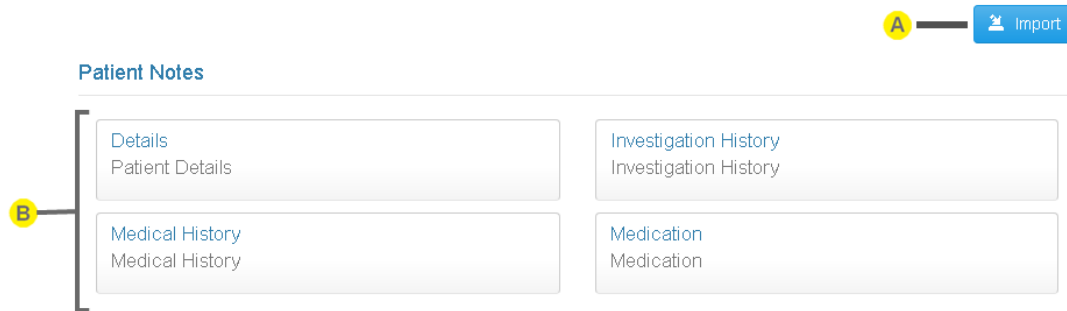


Report name template validation may fail if the your permissions to administer assessment types have been removed since you started editing or creating the assessment action. You can test the validation by entering a literal string that will always validate successfully, i.e. filename.pdf.

Patient Notes

The Patient Notes admin section shows the patient notes categories which appear on the patient sidebar (includes Details, Investigation History, Medical History and Medication by default). Patients notes can be added or removed from the system to suit your organization.

To define and manage Patient Notes, select **Admin > Patient Notes**. The **Patient Notes** option is not available in SilhouetteConnect when it is running in Synchronized mode. In Synchronized mode, assessment administration is performed in SilhouetteCentral.



A

Import button

Allows patient notes definition zip file to be imported, creating a new patient note or modifying an existing patient notes.

Contact ARANZ Medical Limited for help to configure the Patient Notes you need.

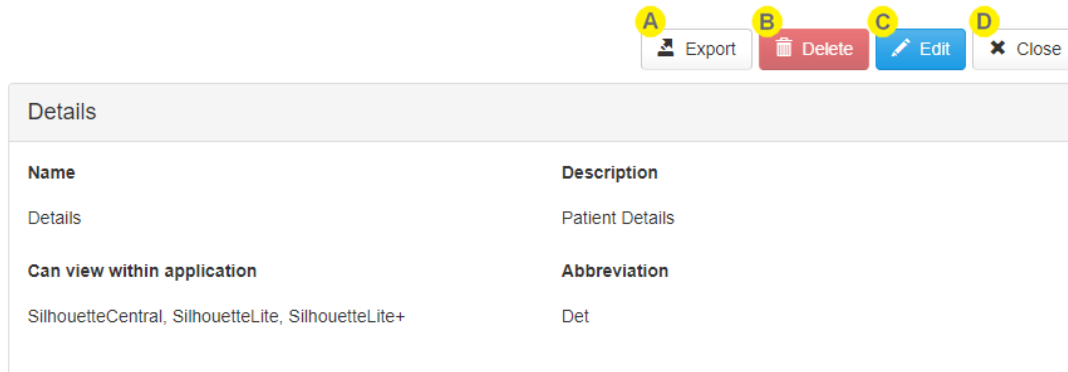
B

Patient Note tile

Select the patient note to view and edit the details. [See Editing Patient Notes](#)

Editing Patient Notes

To edit Patient Notes setup in Silhouette, select the patient note tile from the list of patient notes in the **Admin > Patient Notes**. The information for the patients notes is displayed in a read-only view.



A

Export

Select the **Export** button to download a zip file containing the patient notes definition. The patient notes can then be imported into another Silhouette system (e.g. between a test and production system) or provided to ARANZ Medical for modification.

B

Delete

Select the **Delete** button to delete the patient notes from the system. The system allows you to delete patient notes even if there are some patients with notes recorded against them.

C

Edit

Select the **Edit** button to update the information, as required.

- The **Name** is displayed in the patient sidebar.
- The **Description** allows some text to help keep track of what the patient notes are for.
- The **Can view within application** controls where the patient notes are visible. SilhouetteCentral means both SilhouetteCentral and SilhouetteConnect. Selecting SilhouetteLite or SilhouetteLite+ has no effect as these applications do not have features to view the patient notes.
- The **Abbreviation** is a short string between 1 and 3 characters used to show the patient notes section on the collapsed view of the patient sidebar. The patient details abbreviation is not used as there is a standard icon allocated for use on the sidebar.

Once edited, select the **Save** or **Cancel** button at the bottom of the screen to save or cancel the changes.

D

Close

Select **Close** to go back to the [Patient Notes](#) screen.

Unit Administration

A unit defines an entity which patients can be assigned to. Different organizations use units in different ways, depending upon how the organization is structured. For example, an organization may use units to differentiate different departments, wards, or facilities.

To define and manage units, select **Admin > Units**. The **Units** option is not available in SilhouetteConnect when it is running in Synchronized mode. In Synchronized mode, assessment administration is performed in SilhouetteCentral.



A Create button

B Unit tile

Select the tile for a unit to view and edit the unit, [See Editing a Unit](#).

Editing a Unit

To edit a unit in Silhouette, in the **Unit Administration** screen, select the unit from the units list. The information for the unit is displayed in a read-only view.

The screenshot shows a modal window titled 'Details' for a unit. At the top right of the modal are three buttons: a red 'Delete' button with a trash icon (labeled A), a blue 'Edit' button with a pencil icon (labeled B), and a grey 'Close' button with an 'X' icon (labeled C). Below the buttons, the 'Name *' field contains the text 'East Hospital - Ward A'.

A

Delete

To delete the unit, use the **Delete** button.

Silhouette does not allow all units to be deleted.

Silhouette prevents a unit with patients assigned to it from being deleted.

B

Edit

Select the Edit button to change from ready-only view to editing mode.

- The **name** is used through-out the system to represent the Unit, including when creating and editing patients.

Once edited, select the **Save** or **Cancel** button at the bottom of the screen to save or cancel the changes.

C

Close

Select **Close** to go back to the [Unit Administration](#) screen.

Organization Settings

The **Organization Settings** page contains configuration items that change the Silhouette system operation for everyone using the system. The availability of each setting depends on the application you are using (SilhouetteCentral or SilhouetteConnect) and the optional features that are enabled in the license.

Select the **Edit** button to edit any of the settings.

When editing, a **Save** and **Cancel** button is available at the bottom of the screen.

- Select **Save** and apply all configuration changes.
- Select **Cancel** to discard changes.

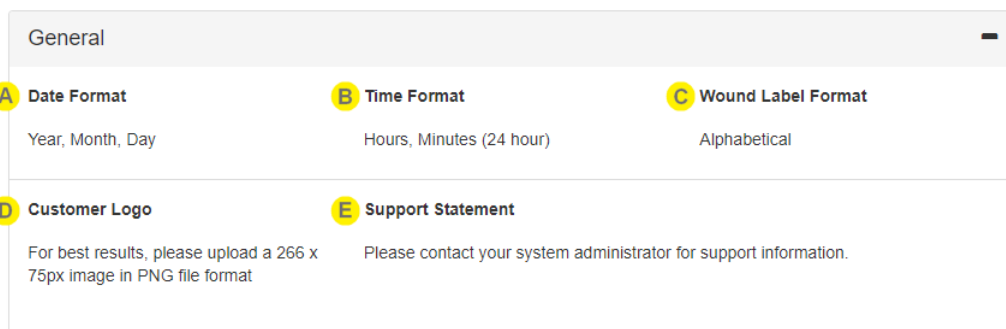
The organizational settings are separated into a number of panels, described in the following topics:

- [General](#)
- [Display and Measurements](#)
- [Reports and Exports](#)
- [SilhouetteConnect Database Backups](#)
- [iOS App](#)

General

The General organization settings set the Silhouette look and feel applicable to your organization and region.

The settings are available in both SilhouetteCentral and in SilhouetteConnect operating in Standalone mode. When using SilhouetteConnect in Synchronized mode these settings are downloaded from SilhouetteCentral as part of the synchronization process.



A**Date Format**

The Date Format sets how dates are displayed in the system, e.g. date of birth, assessment dates, image capture dates.

Options are:

- Year, Month, Day (e.g. 1987-12-25)
- Month, Day, Year (e.g. 12-25-1987)
- Day, Month, Year (e.g. 25-12-1987)

B**Time Format**

The Time Format sets how times are displayed in the system, e.g. time of assessment, time of image captures.

Options are:

- Hours, Minutes (am/pm) (e.g. 09:05 pm)
- Hours, Minutes (24 hour) (e.g. 21:09)
- Hours, Minutes, Seconds (am/pm) (e.g. 09:05:01 pm)
- Hours, Minutes, Seconds (24 hours) (e.g. 21:09:01)

C**Wound Label Format**

The Wound Label Format allows you to set the format for wound labels as either:

- Alphabetical
- Numerical

When using Alphabetical labels the first 26 wounds are labeled A to Z. After 26 wounds two character labels are used, e.g. AA, AB, AC...

D**Customer Logo**

Allows you to upload a logo that will be shown on the header of the SilhouetteCentral and SilhouetteConnect applications. The logo is also included in the PDF Assessment Reports.

For best results, upload a 266 x 75px image in PNG file format, with a white background and no transparency.

When editing the organization settings there are options available to **Select** a new image file or **Delete** the already selected image file.

The image file is not saved until you select **Save** for the organization settings page.

E**Support Statement**

Sets the text shown in the SilhouetteCentral and SilhouetteConnect application help page after selecting **Help** from the application menu.

Display and Measurements

The Display and Measurement organization settings configure what measurements are shown in the application and how they are shown.

The settings are available in both SilhouetteCentral and in SilhouetteConnect operating in Standalone mode. When using SilhouetteConnect in Synchronized mode these settings are downloaded from SilhouetteCentral as part of the synchronization process.

Display and Measurements		
A Show Area	A Show Area Reduction	A Show Island Area
Yes	Yes	No
A Show Perimeter	A Show Axes	A Show Rulers
Yes	Yes	Yes
A Show Max Depth	A Show Mean Depth	A Show Volume
Yes	Yes	Yes
B Area Units	C Depth Units	D Length Units
cm ²	mm	mm
E Volume Units	F Axis Method	
cm ³	Longest Axis	
G Ignore Islands in Area Computations	G Ignore Islands in Perimeter Computations	
No	No	

A The various Show Measurements options control if measurements are shown in the Silhouette user interface and the PDF Assessment Reports. Disable a measurement type if you are not interested in using it in your organization.

Disabling a measurement type means that it is not displayed to users of the system. For example, if you only utilize the 2D capable SilhouetteLite+ imaging then it is advantageous to turn off the display of 3D related measurements.

Disabled measurement types are always included in data exports, regardless of this setting.

Each measurement type is calculated in a specific way (e.g. area is the cap area). A separate document "How SilhouetteStar Works" contains details on the definition of each measurement. The document is available by contacting ARANZ Medical support.

B Area Units

Sets the measurement units to use when displaying area related measurement types, including both Area and Island Area.

Options are:

- cm² - selecting cm² displays area measurements in cm² units with 1 dp precision, e.g. 16.2cm².
- mm² - selecting mm² displays area measurements in mm² units with 0 dp precision, e.g. 1622mm².

C**Depth Units**

Sets the measurement units to use when displaying depth related measurement types, including both Max Depth and Mean Depth.

Options are:

- cm - selecting cm displays depth measurements in cm units with 1 dp precision, e.g. 0.3cm.
- mm - selecting mm displays area measurements in mm units with 0 dp precision, e.g. 3mm.

D**Length Units**

Sets the measurement units to use when displaying length related measurement types, including Perimeter Length, Width, and Ruler lengths.

Options are:

- cm - selecting cm displays depth measurements in cm units with 1 dp precision, e.g. 0.3cm.
- mm - selecting mm displays area measurements in mm units with 0 dp precision, e.g. 3mm.

E**Volume Units**

Sets the measurement units to use when displaying Volume.

Options are:

- cm^3 - selecting cm^3 displays area measurements in cm^3 units with 1 dp precision, e.g. 4.9cm^3 .
- mm^3 - selecting mm^3 displays area measurements in mm^3 units with 0 dp precision, e.g. 4867mm^3 .

F

Axis Method

The Axis Method setting allows you to choose how the length and width axis of an outline is calculated. The options are:

- **Longest Axis.** Choosing this option means that the length is reported as the longest possible axis of the outline. The width is reported as the longest possible axis of the outline which is perpendicular to the length.
- **North South East West (East/West is Length).** Choosing this option means that the length is reported as the longest axis running east to west (based on the image orientation). The width is reported as the longest axis running north to south (based on the image orientation).
- **North South East West (North/South is Length).** Choosing this option means that the length is reported as the longest axis running north to south (based on the image orientation). The width is reported as the longest axis running east to west (based on the image orientation).
- **Smallest Rectangle.** Choosing this option means that Silhouette calculates the smallest rectangle that can fully contain the outline drawn by the user. The length is reported as the longest axis of that rectangle and the width is the smaller axis of the rectangle.

It is recommended to use the Longest Axis setting in most scenarios.

Changing the Axis Method does not cause the re-calculation of any existing measurements. However, if the user edits an existing image, the new calculations will use the latest Axis Method setting.

A separate document "How SilhouetteStar Works" contains details on what each measurement type is. The document is available by contacting ARANZ Medical support.

G

The two settings **Ignore Islands in Area Computations** and **Ignore Islands in Perimeter Computations** are used to control how wound islands are included in the measurement calculations.

The software identifies an island as any outline nested inside another outline. The area surrounded by the nested outline is treated as an island of healthy skin within the larger wound.

Ignore Islands in Area Computations

- Selecting No means that the wound area measurement being reported as the smaller outline area subtracted from the larger outline area.
- Selecting Yes means that the wound area measurement being reported as the larger outer outline area.

Ignore Islands in Perimeter Computations

- Selecting No means that the wound perimeter is reported as the outer outline perimeter plus the wound island outline perimeter.
- Selecting Yes means that the wound perimeter is reported as the outer outline perimeter only.

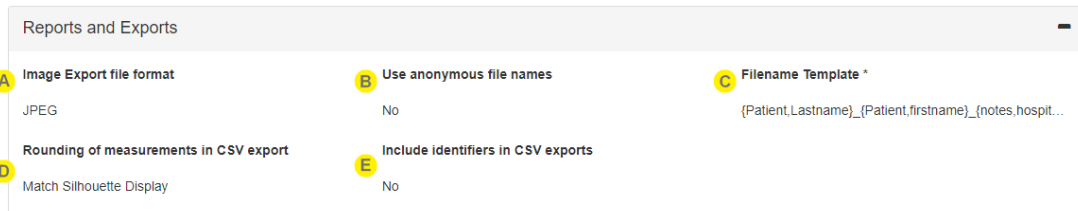
Changing these options does not cause the re-calculation of any existing measurements. However, if the user edits an existing image, the new calculations will be based on the latest settings.

There is a separate organizational setting in the Reports and Exports section allowing you to choose what measurement units to use in CSV exports, see the help topic [Reports and Exports](#).

Reports and Exports

The Reports and Export organization settings control the settings related to CSV data exports, PDF Assessment Reports and Image file downloads.

The settings are available in both SilhouetteCentral and in SilhouetteConnect operating in Standalone mode. When using SilhouetteConnect in Synchronized mode these settings are downloaded from SilhouetteCentral as part of the synchronization process.



A **Image Export file format** sets the image format used when downloading images from the Silhouette image viewer. This setting is also applied when a data archive is performed by ARANZ Medical.

The available settings are:

- JPEG
- PNG

JPEG is the default and recommended setting.

B **Use anonymous file names** sets the type of file names used when generating PDF Assessment Reports and downloading images from the image viewer.

- Select **Yes** to use anonymous filenames made up of letters, numbers and dashes. The anonymous filenames are similar to '4a866f0b-3061-a832-967d-1f7604f3689d' in form.
- Select **No** to use the **Filename Template** setting to create a filename from patient data.

C **Filename Template** is the template used for filenames when **Use anonymous file names** is set to No. This setting is not shown if the **Use anonymous file names** is set to Yes.

The format of the template is documented in [Appendix I: Template Macros](#). An example filename template is {Patient,PatientId}_{Wound,Label}_{Wound,AnatomicalSite}_{Assessment,Date}.

D **Rounding of measurements in CSV export** sets the precision of measurements shown in the CSV exports.

- Select **One tenth of a mm** to export measurements in the same precision regardless of the measurement units chosen for the display.
- Select **Match Silhouette Display** to export the same precision as seen in the Silhouette UI, which are described in the [Display and Measurements](#) topic.

This setting available if the system is licensed to use the Clinical Data Export optional feature.

E **Include identifiers in CSV exports** sets if Silhouette database identifiers are included in the CSV data exports for patient, wounds, assessments and anatomy. See the help topic [Appendix F: Clinical Data Export Format](#) for details.

This setting available if the system is licensed to use the Clinical Data Export optional feature.

SilhouetteConnect Database Backups

The SilhouetteConnect Database Backups organization settings control how SilhouetteConnect creates and maintains database backups.

The settings are available in both SilhouetteCentral and in SilhouetteConnect operating in Standalone mode. When using SilhouetteConnect in Synchronized mode these settings are downloaded from SilhouetteCentral as part of the synchronization process.

Setting	Value
A Enable SilhouetteConnect database backups	Yes
B Keep a daily backup for days *	7
C Keep a weekly backup for weeks *	13

A **Enable SilhouetteConnect database backups** controls if SilhouetteConnect does any backups. If enabled, SilhouetteConnect will evaluate the need for a daily or weekly database backup whenever the application is started or whenever the user logs in.

- A weekly database backup is taken if there has been no weekly backup taken for the current week (Sunday to Saturday). Weekly backup files can be identified by the `.w` in the filename.
- A daily database backup is taken if it has been more than 24 hours since the last backup file was created (weekly or daily). Daily backup files can be identified `.d` in the filename.

The backup files are named with the timestamp in the filename in the format `yyyyMMdd`.

When using SilhouetteConnect in Standalone mode, the backups are created in the directory `%programdata%\ARANZ Medical Limited\SilhouetteConnect\Data\Backup\`.

When using SilhouetteConnect in Synchronized mode, the backups are create in the directory `%localappdata%\ARANZ Medical Limited\SilhouetteConnect\Data\Backup\`.

B **Keep a daily backup for days** sets how many days the daily SilhouetteConnect backups are kept. Whenever SilhouetteConnect is started or a user logs in, any daily backups older than the configured number of days are removed. The age of the backup file is based on the timestamp recorded in the filename.

The range is 1 to 15 days, with a default of 7 days.

C **Keep a weekly backup for weeks** sets how many weeks the weekly SilhouetteConnect backups are kept. Whenever SilhouetteConnect is started or a user logs in, any weekly backup files older than the configured number of weeks are removed. The age of the backup is based on the timestamp recorded in the filename.

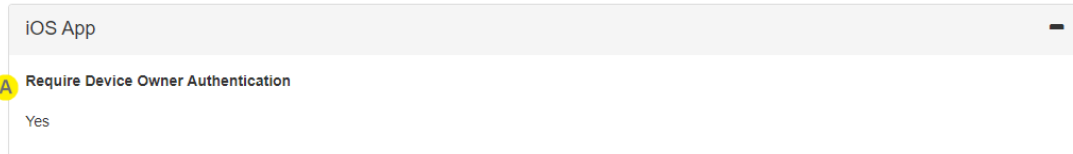
Range 0 to 30 weeks, with a default of 13 weeks.

A setting of 0 weeks means that no weekly backups are created or kept.

iOS App

The iOS App organization settings control additional settings for the SilhouetteLite or SilhouetteLite+ iOS applications.

The settings are only available in SilhouetteCentral, not in SilhouetteConnect. The settings are only relevant if using one of the Silhouette iOS Apps with your system.



Require Device Owner Authentication controls if the SilhouetteLite or SilhouetteLite+ apps ask the user for device owner authentication when they launch or come to the foreground when there is a user session stored.

The device owner authentication method depends on the mobile device model and configuration and can be either:

- Face ID
- Touch ID
- Passcode

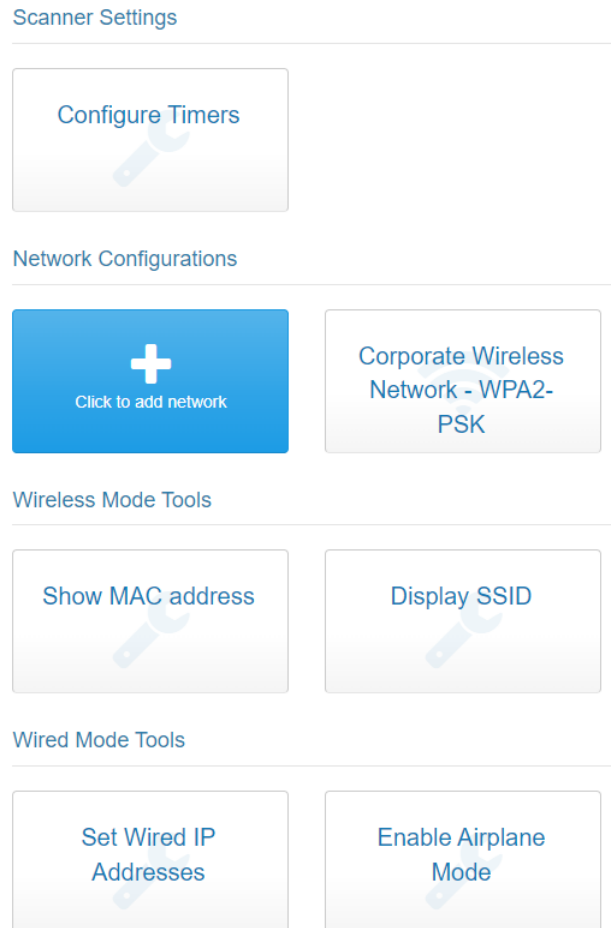
If there is no device owner authentication configured on the device then the app will complain and not allow access.

The Silhouette iOS apps do allow fallback to passcode authentication if Face ID or Touch ID fail.

SilhouetteStar 2

The SilhouetteStar 2 system settings are settings and tools that control how the SilhouetteStar 2 scanner operates with this system. The settings and tools available are different between SilhouetteConnect and SilhouetteCentral and not all tools available are relevant to all use cases.

When using SilhouetteStar 2 in wired mode with SilhouetteConnect, the Wired Mode Tools are most relevant. When using SilhouetteStar 2 in wireless mode, the Scanner Settings, Network Configurations, and Wireless Mode Tools are most relevant.



The following SilhouetteStar 2 settings and tools are available in SilhouetteConnect when deployed in Standalone (non-Synchronized) operating mode.

- **Scanner Settings > Configure Timers**, see the topic [SilhouetteStar 2 Scanner Settings - Configure Timers](#).
- **Wired Mode Tools > Set Wired IP Addresses**, see the topic [SilhouetteStar 2 Wired Mode Tools - Set Wired IP Address](#)
- **Wired Mode Tools > Enable Airplane Mode**, see the topic [SilhouetteStar 2 Wired Mode Tools - Enable Airplane Mode](#).

The Wired Mode Tools listed are also available for use in SilhouetteConnect when deployed in Synchronized operating mode.

The following SilhouetteStar 2 settings and tools are available in SilhouetteCentral.

- **Scanner Settings > Configure Timers**, see the topic [SilhouetteStar 2 Scanner Settings - Configure Timers](#).
- **Network Configurations**, see the topic [SilhouetteStar 2 Network Configurations](#).
- **Wireless Mode Tools > Show MAC address**, see the topic [SilhouetteStar 2 Wireless Mode Tools - Show MAC Address](#).
- **Wireless Mode Tools > Display SSID**, see the topic [SilhouetteStar 2 Wireless Mode Tools - Display SSID](#).
- **Wired Mode Tools > Set Wired IP Addresses**, see the topic [SilhouetteStar 2 Wired Mode Tools - Set Wired IP Address](#).
- **Wired Mode Tools > Enable Airplane Mode**, see the topic [SilhouetteStar 2 Wired Mode Tools - Enable Airplane Mode](#).

In addition to these tools, which are accessed through the Silhouette applications, there is also a way to retrieve application log files from the SilhouetteStar 2. See the topic [Retrieving SilhouetteStar 2 Device Logs](#) for instructions if you need to do this to help troubleshoot connection problems.

SilhouetteStar 2 Scanner Settings - Configure Timers

You can configure SilhouetteStar 2 Scanner timers in either SilhouetteCentral or in SilhouetteConnect operating in Standalone mode. When using SilhouetteConnect operating in Synchronized mode these settings are downloaded from SilhouetteCentral.

These settings change the way the SilhouetteStar 2 inactivity timeouts work. See the Clinical User's Guide for more details on the SilhouetteStar 2 Inactivity Timeouts and the sleep mode operation.



Edit and **Close** buttons are available to allow editing of the settings.

Select the **Edit** button to change from read-only mode to edit mode. Doing so will cause **Save** and **Cancel** buttons to show.

Once in edit mode, make the required changes and then, select the **Save** button at the bottom of the screen to save the configuration and return to the read-only view.

Select the **Close** button to return to the SilhouetteStar 2 admin page, see the help topic [SilhouetteStar 2](#).

B Idle time before sleep (no images) (seconds)

This setting controls how long the SilhouetteStar 2 waits without any user interaction before going into sleep mode, when it shows a sleeping kiwi bird on the display. This setting can be set between 60 and 1200 settings.

The specific application of this setting varies depending wired mode use with SilhouetteConnect and Wireless mode use with SilhouetteCentral.

- When operating in wired mode with SilhouetteConnect, the idle period for the scanner starts from when the SilhouetteConnect user logs out or closes SilhouetteConnect.
- When operating in wireless mode with SilhouetteCentral, the idle period for the scanner starts when the user last interacts with the scanner by pressing the button or capturing an image.

When using SilhouetteStar 2 in wireless mode with SilhouetteCentral, making the idle time longer can be more convenient as the scanner does not need to be woken up as often, however, it will cause the battery to go flat faster.

C Sleep time before turning off (seconds)

This setting controls how long the scanner stays in sleep mode before turning off. Sleep mode is when the scanner displays a sleeping kiwi bird on the display. Sleep mode has the benefit of saving battery power but enabling a quick start time.

When using SilhouetteStar 2 in wireless mode with SilhouetteCentral, when the scanner is woken from sleep mode it automatically attempts to re-connect to the last WiFi network and SilhouetteCentral web browser session/tab it was connected to. The reconnection behavior means that the user does not need to scan the connection barcode on their web browser again to begin using the scanner to capture images.

If the previous web browser session has ended or the tab been closed then the SilhouetteStar 2 will show that the reconnection failed and will allow the user to scan a new connection barcode.

This setting can be set between 60 and 3600 seconds.

D Idle time cycles before sleep (with images)

This setting allows the idle time set by the **Idle time before sleep (no images)** to be extended up to the set number of cycles when there are still images on the scanner being transferred to the Silhouette software (e.g. 120 seconds idle time before sleep (no images) with 5 cycles = 120 seconds x 5 = 600 seconds).

This setting typically only applies to the SilhouetteStar 2 when being used in wireless mode with SilhouetteCentral due to the amount of time it can take to upload images over some WiFi networks or if the device is taken momentarily out of coverage.

The SilhouetteStar 2 does not store images or associated patient details in storage within the scanner so if the images cannot be uploaded prior to the device going to sleep and eventually turning off, then any un-transferred images are not able to be recovered.

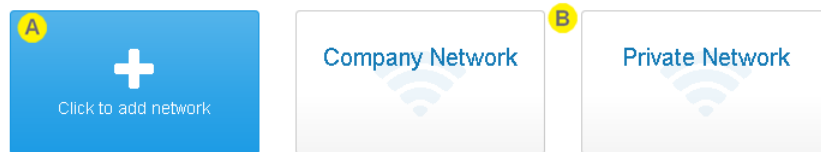
SilhouetteStar 2 Network Configurations

The settings in the **SilhouetteStar 2** Network Configurations section are used to define available 2.4 GHz Wi-Fi networks to allow the SilhouetteStar 2 to connect for use in wireless mode with SilhouetteCentral.

These Wi-Fi networks are displayed within SilhouetteCentral in the connection QR code, which the SilhouetteStar 2 scans to determine the network settings and to connect to the user's web browser session/tab.

To define and manage network configurations, select **Admin > SilhouetteStar 2** in SilhouetteCentral. The **Network Configurations** sections is not available in SilhouetteConnect.

Network Configurations

**A****Create button**

Select the + **Click to add network** button to define a wireless network that can be used by SilhouetteStar 2 scanners for connecting to SilhouetteCentral. [See Creating a Network Configuration.](#)

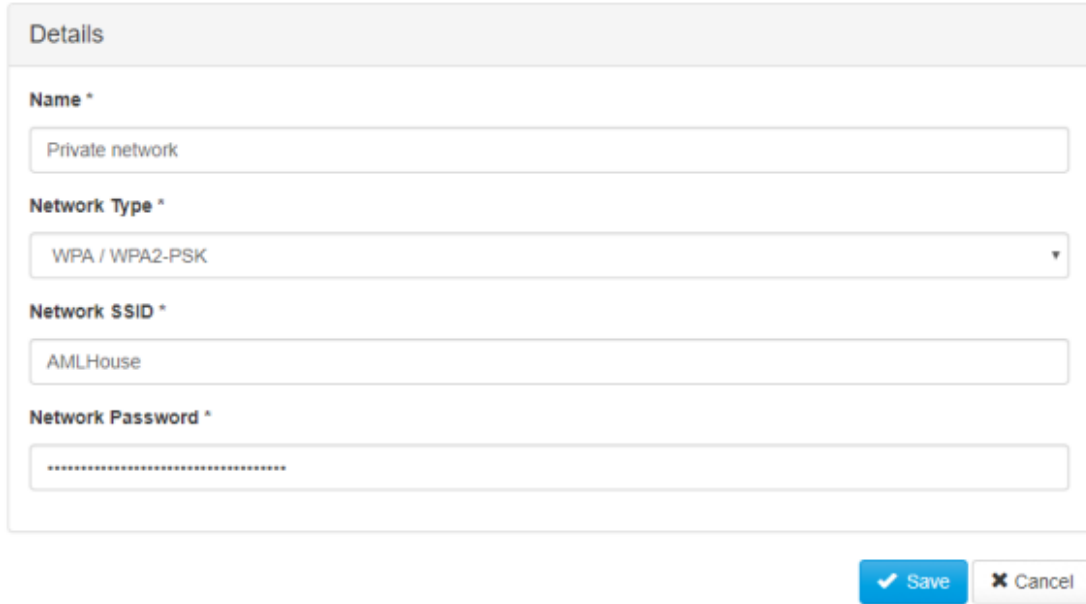
B**Network Configuration tile**

Select a network configuration tile to see the details of the defined network. [See Editing a Network Configuration.](#)

Creating a Network Configuration

Select the **Click to add network** button in the **SilhouetteStar 2** screen to create a new network configuration. The **Create Network** screen is displayed, with compulsory fields marked with an asterisk.

Enter a **Name**, **Type**, **Network SSID**, and **Network Password**. The network password must be at least 8 characters long.



The screenshot shows a 'Details' form with the following fields:

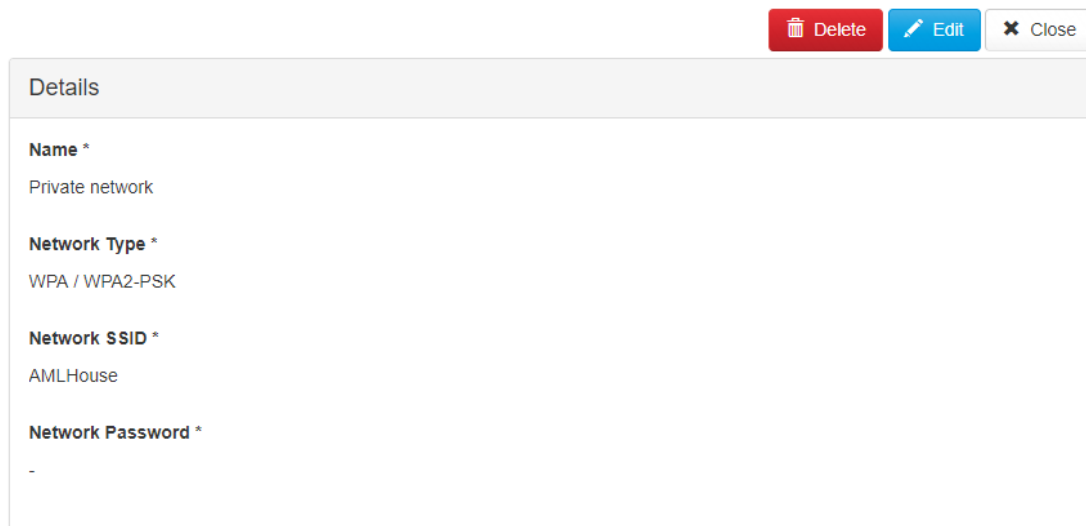
- Name ***: Text input field containing 'Private network'.
- Network Type ***: Dropdown menu showing 'WPA / WPA2-PSK'.
- Network SSID ***: Text input field containing 'AMLHouse'.
- Network Password ***: Password input field with masked characters.

At the bottom right of the form are two buttons: a blue 'Save' button with a checkmark icon and a grey 'Cancel' button with an 'X' icon.

To save the network settings, select the **Save** button at the bottom of the screen.

Editing a Network Configuration

To edit a network configuration, in the **SilhouetteStar 2** screen, select the network from the networks list. The information for the network is displayed in a read-only view.



The screenshot shows a 'Details' form in a read-only view. At the top right, there are three buttons: a red 'Delete' button with a trash icon, a blue 'Edit' button with a pencil icon, and a grey 'Close' button with an 'X' icon. The form fields are:

- Name ***: Private network
- Network Type ***: WPA / WPA2-PSK
- Network SSID ***: AMLHouse
- Network Password ***: -

Select the **Edit** button to edit the network and update the information, see [Creating a Network Configuration](#).

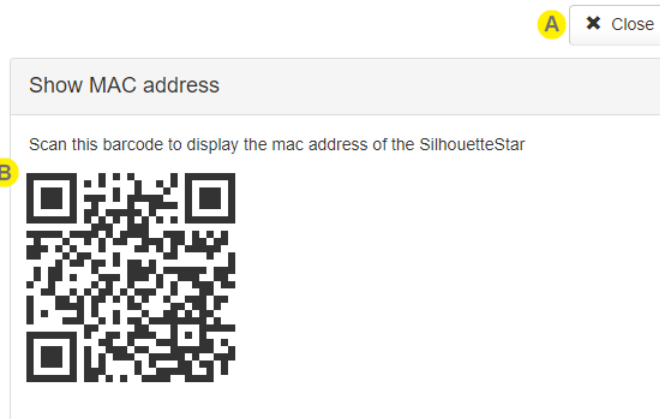
To delete the network, use the **Delete** button.

Select the **Close** button to go back to the [SilhouetteStar 2 Network Configurations](#) screen.

SilhouetteStar 2 Wireless Mode Tools - Show MAC Address

The Show MAC Address tool allows you to see the SilhouetteStar 2 wireless radio MAC address on the SilhouetteStar 2 display. This is useful if you need to use the MAC address to enable MAC address access control on the wireless network.

Select the **Show MAC Address** tool from the [SilhouetteStar 2](#) admin page to show the Show MAC Address screen.



- A** Select the **Close** button to close the Show MAC Address tool and return to the [SilhouetteStar 2](#) admin page.
- B** Use the SilhouetteStar 2 to scan the displayed barcode to show the MAC Address of the wireless radio on the SilhouetteStar 2 display.
Once scanned, the device shows the Wi-Fi MAC address until it is dismissed with a device button press.



The SilhouetteStar 2 tool barcodes can only be scanned if the SilhouetteStar 2 is not already connected to a network.



The SilhouetteStar 2 tool barcodes can be printed, or downloaded as images and emailed. This is helpful if you need to give them to Silhouette users without access to the settings screens to scan them for diagnostic or setup purposes.

SilhouetteStar 2 Wireless Mode Tools - Display SSID

The Display SSID tool allows you to see the SSID of the wireless network that the SilhouetteStar 2 is connected to. This is useful when diagnosing wireless connection problems.

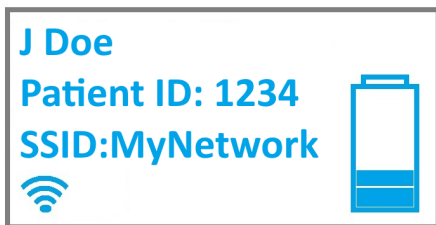
Select the **Display SSID** tool from the [SilhouetteStar 2](#) admin page to show the Display SSID screen.



A Select the **Close** button to close the Display SSID tool and return to the [SilhouetteStar 2](#) admin page.

B Use the SilhouetteStar 2 to scan the displayed barcode. Scanning the barcode must be completed prior to the wireless connection barcode to connect to SilhouetteCentral.

The SSID is shown on the third line of the display, replacing the Patient DoB. When enabled, the SSID of the Wi-Fi network is displayed whenever the device is connected to Wi-Fi, or if it is attempting to connect to a Wi-Fi network.



The SilhouetteStar 2 device continues show the SSID on the display until it is power cycled or until the **Display SSID** QR code is scanned again.



The SilhouetteStar 2 tool barcodes can only be scanned if the SilhouetteStar 2 is not already connected to a network.



The SilhouetteStar 2 tool barcodes can be printed, or downloaded as images and emailed. This is helpful if you need to give them to Silhouette users without access to the settings screens to scan them for diagnostic or setup purposes.

SilhouetteStar 2 Wired Mode Tools - Set Wired IP Address

When operating with SilhouetteConnect in wired USB mode, the SilhouetteStar 2 establishes a connection with the computer using Internet Protocol (IP) over USB (a protocol called Remote NDIS or RNDIS). This means that there are IP addresses assigned on the USB link. The SilhouetteStar 2 provides the computer end of the USB link an IP address via the Dynamic Host Configuration Protocol (DHCP).

The default IP address used by the SilhouetteStar 2 is the link local IPv4 reserved address of 169.254.0.1 /30 and it assigns the corresponding address 169.254.0.2 /30 to the computer.

In some rare cases the default IP addresses used may not be suitable in your organization. If that is the case, a fixed network will need to be assigned for use by all SilhouetteStar 2 devices in your organization. The **Admin > SilhouetteStar 2** settings page provides a tool to set the wired IP address of the SilhouetteStar 2.

This tool is available in SilhouetteCentral and SilhouetteConnect.



A

Select the **Close** button to close the tool and return to the [SilhouetteStar 2](#) admin page.

B

Computer IP Address

Enter the IPv4 Address (in dotted decimal notation) that the SilhouetteStar 2 should assign to the computer. This address must be in the same IPv4 subnet as the **SilhouetteStar 2 IP Address**, with respect to the **Subnet Mask**.

The default factory setting is 169.254.0.1

C

SilhouetteStar 2 IP Address

Enter the IPv4 Address (in dotted decimal notation) that the SilhouetteStar 2 device will use. This address must be in the same IPv4 subnet as the **Computer IP Address**, with respect to the **Subnet Mask**.

The default factory setting is 169.254.0.2

D

Subnet Mask

Enter the IPv4 Subnet Mask (in dotted decimal notation) for the SilhouetteStar 2 to computer USB link network. This **Subnet Mask** must allow the network to span the **Computer IP Address** and the **SilhouetteStar 2 IP Address**.

The default factory setting is 255.255.255.252



Generate QR Code

Once valid IP addresses have been entered, click on the **Generate QR Code** button. A QR Code encoding the settings is displayed on the screen.

✕ Close


Set Wired IP Addresses

Computer IP Address *

SilhouetteStar 2 IP Address *

Subnet Mask *

Generated QR Code



Apply the settings to SilhouetteStar 2

To apply the settings to the SilhouetteStar 2:

- With the SilhouetteStar 2 turned on and not connected to Silhouette (displaying *Please Connect*),
- Press the SilhouetteStar 2 button to turn on the lasers (begins scanning for a QR Code).
- Hold the SilhouetteStar 2 up to the screen with the button at the top and so that the lasers form a star over the QR code.
- The SilhouetteStar 2 will display "DHCP Updated" once the QR Code has been scanned and the settings have been saved.
- To apply the settings, reset the SilhouetteStar 2 by holding the device button down for approximately 16 seconds. The screen will go blank and the button needs to be pressed again to start the device.

Once these settings are applied to a SilhouetteStar 2 scanner, they are remembered even after the firmware is updated.

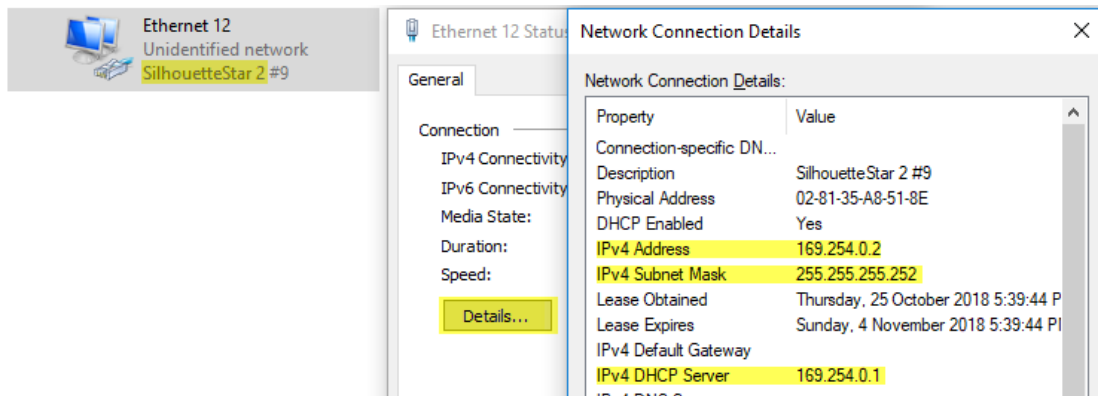


The SilhouetteStar 2 tool QR codes can be printed, or downloaded as images and emailed. This is helpful if you need to give them to Silhouette users without access to the settings screens to scan them for diagnostic or setup purposes.

Checking the SilhouetteStar 2 DHCP Configuration

To confirm the DHCP settings the SilhouetteStar 2 is using, you can check the settings once the device is plugged into a PC by:

- Navigating to the Control Panel > Network and Internet > Network Connections.
- Right-click on the Ethernet Adapter that has a SilhouetteStar 2 label and selecting **Status**.
- On the Ethernet Adapter status page click the **Details...** button.
- The IPv4 Address, IPv4 Subnet Mask and IPv4 DHCP Server are all listed in the Network Connection Details dialog and correspond to the Computer IP Address, the Subnet Mask, and the SilhouetteStar 2 IP Address settings in Silhouette.

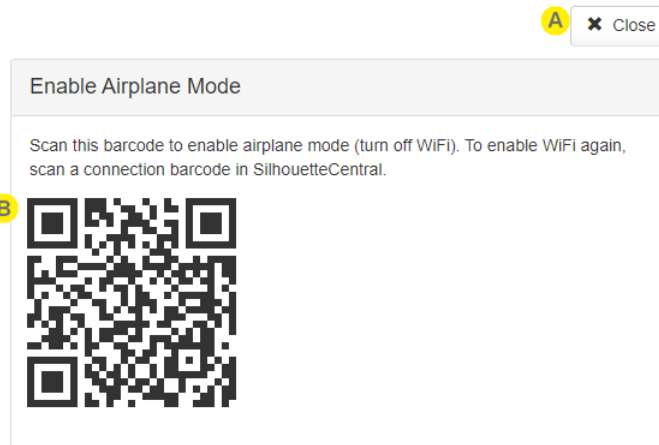


SilhouetteStar 2 Wired Mode Tools - Enable Airplane Mode

The Enable Airplane Mode tool allows you to turn off the SilhouetteStar 2 wireless radio. This is useful if you wish to:


- Transport or store the SilhouetteStar 2 scanner.
- Transport a SilhouetteStar 2 through an area that is designated as no transmitting devices allowed. Turning the device off or putting it to sleep also turns the SilhouetteStar 2 radio off, however, if the button is inadvertently bumped and the scanner turns on, then the SilhouetteStar 2 radio will turn on if it was previously on.
- Only ever use the device in wired mode with SilhouetteConnect.


Select the **Enable Airplane Mode** tool from the [SilhouetteStar 2](#) admin page to show the Enable Airplane Mode screen.



- A** Select the **Close** button to close the Enable Airplane Mode tool and return to the [SilhouetteStar 2](#) admin page.

- B** Use the SilhouetteStar 2 to scan the displayed barcode to turn on airplane mode.
Once airplane mode is successfully enabled, the SilhouetteStar 2 device shows the airplane icon in place of the Wi-Fi signal strength indicator.
To enable Wi-Fi again follow the normal SilhouetteStar 2 connection process.

 The SilhouetteStar 2 tool barcodes can only be scanned if the SilhouetteStar 2 is not already connected to a network.

 The SilhouetteStar 2 tool barcodes can be printed, or downloaded as images and emailed. This is helpful if you need to give them to Silhouette users without access to the settings screens to scan them for diagnostic or setup purposes.

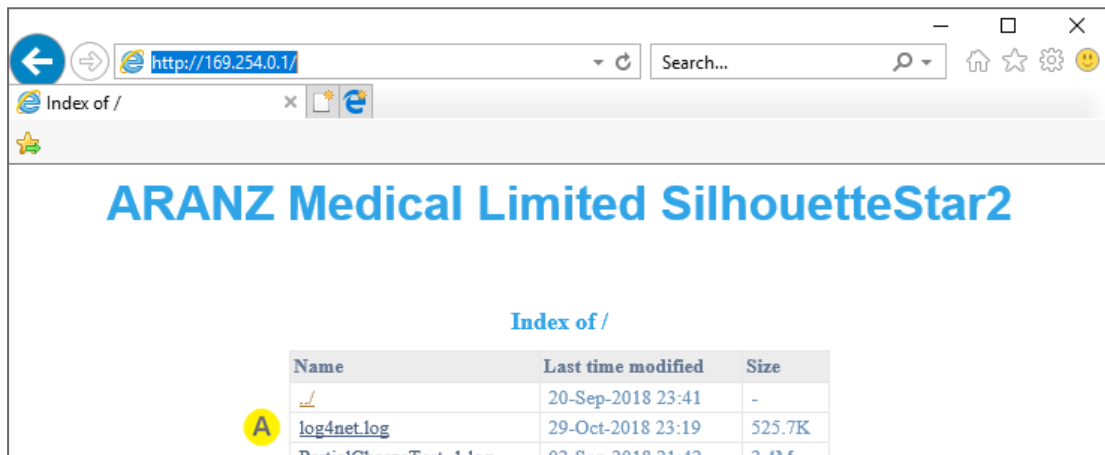
Retrieving SilhouetteStar 2 Device Logs

The SilhouetteStar 2 device keeps software logs, which can be accessed and sent to ARANZ Medical support if there are any problems with the SilhouetteStar 2.

The logs are able to be downloaded from a basic web site hosted on the SilhouetteStar 2. To access the web site:

1. Have the SilhouetteStar 2 turned on and plugged into the computer using the USB cable.
2. Use a Web Browser on the computer to access the web page at <http://169.254.0.1/>. [See Checking the SilhouetteStar 2 DHCP Configuration](#) to confirm the IP address that the SilhouetteStar 2 is using.

An example of the SilhouetteStar 2 device web site is shown below in the IE web browser.



log4net.log

The log file(s) on the SilhouetteStar 2 device have the file name **log4net.log**.

To download a log file right-click on the file name and select *Save link as....* If you need to supply log files to ARANZ Medical Support:

1. Save the file(s) to your local computer into a folder named with the device serial number and the current date.
2. Zip the whole folder up.
3. Send the zipped log file folder to support@aranzmedical.com.

The SilhouetteStar 2 creates a new log file once the current log file reaches a size limit (nominally 1MB) and archives the older log files. Up to 10 older log files are kept on the device before being deleted.

- The current log file on the device is named log4net.log.
- The most recent archived log file is named log4net.log.1
- The oldest archived log file is named log4net.log.10

There may be other files available for download but these can typically be ignored.

License

The **Admin > License** screen allows you to update the license for the current Silhouette component. For example, the **License** screen in SilhouetteCentral shows details about the licensing of SilhouetteCentral and the **License** screen in SilhouetteConnect shows details about the licensing for that install of SilhouetteConnect. The following license details are displayed:

1. **Client Code:** The client code that the product is licensed against. If there is no client code in the text box, then the Silhouette instance is unlicensed and operating in a trial mode.
2. **Created:** The creation date of your license.
3. **Expires:** This is the expiry date of your license. The word 'Never' is displayed if you have a perpetual license.
4. **Features:** Any optional software features that have been enabled with the license are listed here. [See Licensed Features](#) for information on the optional features available.

Licensing Silhouette

A **Check for Update** section with an **Update** button is provided below the license details. To license Silhouette for the first time, enter your client code and select the **Update** button. To subsequently update your license, for example if you have purchased additional features or extended your warranty, it is only necessary to select the **Update** button.

In order for the automatic license update process to function, access to the Internet is required. If there is no Internet access, instructions on obtaining the license file manually are provided once the **Update** button is pressed.

HTTP Proxy Configuration

The ARANZ Medical licensing server is hosted on the internet. When attempting communication with the licensing server, SilhouetteCentral uses .NET's default proxy settings. If your network environment requires the use of a different proxy server, update the defaultProxy setting within the SilhouetteCentral web.config file.

As an example if you desire SilhouetteCentral to make use of a proxy server located at 192.168.2.1 port 8888 you could update the relevant section of the web.config file as follows:



```
<system.net>
  <defaultProxy enabled="true">
    <proxy proxyaddress="http://192.168.2.1:8888"/>
  </defaultProxy>
</system.net>
```

Please refer to Microsoft's online .NET framework configuration documentation for further details.

Email Configuration

The email configuration page contains the system settings related to the Silhouette system sending emails. These settings are only available in SilhouetteCentral, to users with the Can Manage Settings permission.

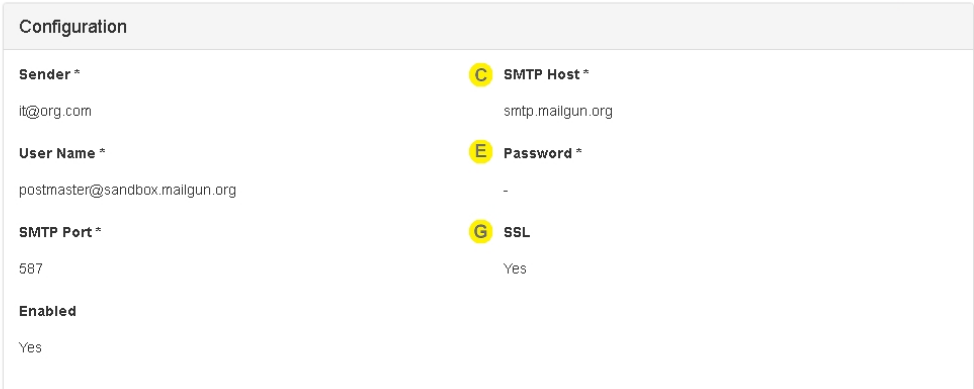
This section includes the following topics:

- [SMTP Configuration](#)
- [Welcome Email](#)
- [Password Reset Email](#)
- [Email System Statistics](#)

SMTP Configuration

The Email SMTP Configuration options can only be set in SilhouetteCentral. The Email configuration must be enabled to allow email sending functions to operate (e.g. password reset, assessment emails).

Select the Email Configuration option in the admin sidebar to set the SMTP Email server settings.



The screenshot shows a configuration form titled "Configuration" with an "Edit" button in the top right corner. The form contains the following fields:

Field Label	Value
Sender *	lit@org.com
User Name *	postmaster@sandbox.mailgun.org
SMTP Port *	587
Enabled	Yes
SMTP Host *	smtp.mailgun.org
Password *	-
SSL	Yes

A

Edit

Select the **Edit** button to change from read-only mode to edit mode.

In Edit mode, compulsory fields are marked with an asterisk. After editing the Email configuration details, select the **Save** button at the bottom of the screen to save the configuration and return to the read-only view.

The Edit button will not be present for SilhouetteCentral instances hosted by ARANZ Medical, as these instances have their email settings managed by ARANZ Medical. Please contact your Account Manager if you are a hosted SilhouetteCentral customer and wish to customize your email configuration.

B

Sender

The reply to address used when sending email from Silhouette.

C

SMTP Host

The Simple Mail Transfer Protocol (SMTP) host that is used to send Email.

D

User Name

The user name of the account used to send mail on the SMTP host.

E

Password

The password of the account used to send mail on the SMTP host.

F

SMTP Port

The TCP port used to communicate with the SMTP host. Get this information from the SMTP host provider.

G

SSL

Set to Yes if your SMTP Host supports sending Email using SSL.

H

Enabled

Set to Yes to enable Email sending from SilhouetteCentral.

Set to No to disable all Email sending from SilhouetteCentral.

Welcome Email

To edit the Welcome Email templates select the Edit button at the top of the page.

The default templates provided with Silhouette include placeholder text that is not ready for sending to users. They are provided as a starting point. As a minimum the following changes should be made:



- Replace the text *(Insert Organisation Name)* with your organizations name.
- Replace the text *(Insert URL here)* in the Home User template with a link to your privacy policy or statement.
- Consider adding any helpful getting started instructions, letting users know why they are receiving the email and giving them a contact address if they have any questions.
- If you wish to share any terms or conditions of use with the users then the welcome email is a good place to include these (or a link to them).

Welcome Email	
<p>Clinical User Email Subject *</p> <p>Welcome to Silhouette</p>	<p>Clinical User Email Template</p> <p>DefaultClinicalTemplate.cshhtml</p>
<p>Home User Email Subject *</p> <p>Welcome to Silhouette</p>	<p>Home User Email Template</p> <p>DefaultHomeTemplate.cshhtml</p>

A**Email Subjects**

The email subject line for any welcome emails sent from Silhouette.

If the Home User Access feature is enabled then there are separate email subject configuration for the Clinical vs. the Home users.

B**Email Templates**

The email template dictates what is included in the body of the welcome emails.

If the Home User Access feature is enabled then there are separate email template for the Clinical vs. the Home users.

In read mode, select the link to download the current template file. This file can be edited with help from ARANZ Medical support.

In edit mode, a valid welcome email template file can be selected and uploaded with your custom template, see [Appendix J: Email Templates](#) for information on how to edit or create email templates.

Password Reset Email

Password reset emails are used to send password reset links to users with local Silhouette user accounts, in case they forgot their password.

To fully enable the password reset emails there is configuration required in the Silhouette Token Service by a privileged user, see the separate Installation and Configuration guide.

To edit the Password Reset Email templates select the Edit button at the top of the page.

Password Reset Email	
A Email Subject *	B Password Reset Email Template
Reset your Silhouette password	DefaultPasswordResetTemplate.cshtml

A**Email Subject**

The email subject line for password reset emails sent from Silhouette.

B**Password Reset Email Template**

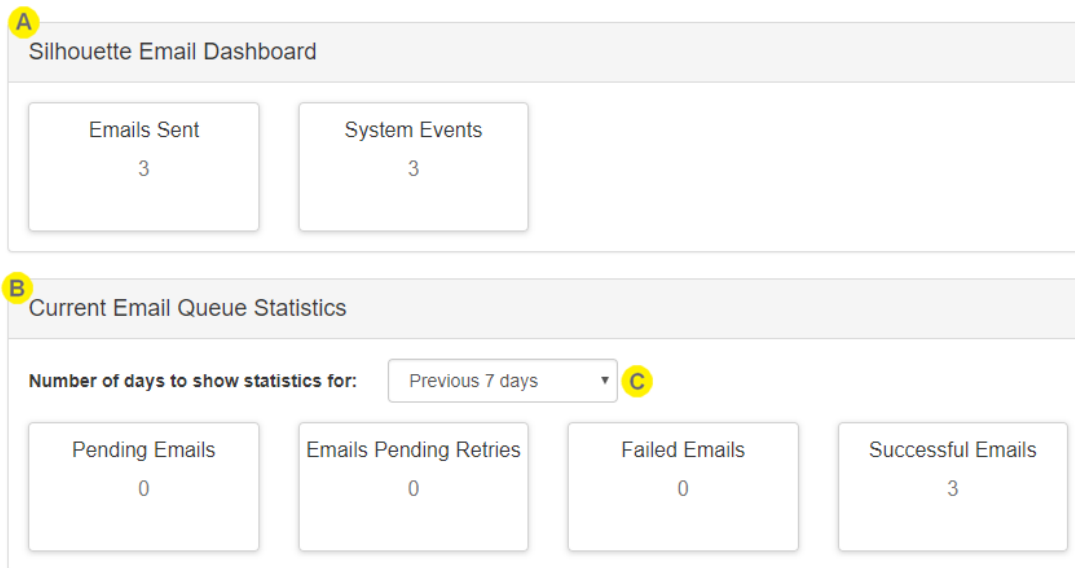
The email template dictates what is included in the body of the password reset emails.

In read mode, select the link to download the current template file. This file can be edited with help from ARANZ Medical support.

In edit mode, a valid welcome email template file can be selected and uploaded with your custom template, see [Appendix J: Email Templates](#) for information on how to edit or create email templates.

Email System Statistics

At the bottom of the Email Configuration page, there is a section showing the performance of the email system.



A System Email Dashboard

This section shows the total number of emails sent and system events (e.g. assessment create or update events) that caused an email that have ever been generated by Silhouette. Typically the email sent count will be higher as a single system event can result in multiple emails generated with each email getting sent to multiple recipients as individual emails.

B Current Email Queue Statistics

This section shows the count of emails in the current processing queue. The queue only shows values for up to a maximum of 30 days, as the emails that have been sent by Silhouette that are older than this are removed from the System.

Pending Emails: The number of emails that are in the queue waiting to be sent

Emails Pending Retries: The number of emails that have failed to send at least once, but that Silhouette will attempt to send later

Failed Emails: The number of emails that have failed to send even after Silhouette has tried multiple times to send them.

Successful Emails: The number of emails that successfully been sent.

C Current Email Queue Statistics Date Range

Select the date range to show the current queue statistics for.

Anatomical Sites

The **Anatomical Sites** page allows you to review and enter codes for each of the anatomical sites within Silhouette for the purposes of integration.

The codes are made available for use when integrating data out of Silhouette into an external system. Coding data into Silhouette from an external system must be achieved in a data transformation prior to reaching the Silhouette Integration Interface.

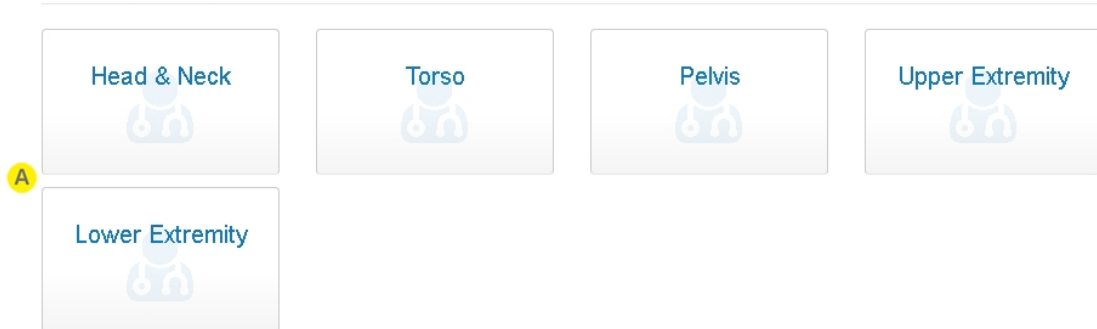


The Anatomical Sites page does not allow the editing of the anatomical site hierarchy. To modify the anatomical site hierarchy used in Silhouette please contact support@aranzmedical.com.

The full anatomical site hierarchy setup in Silhouette is shown in [Appendix B: Anatomical Site Hierarchy](#).

Select **Anatomical Sites** from the admin sidebar to show a list of the Anatomical Groups in the system.

Anatomical Groups



Select an Anatomical Group tile to view the anatomical sites within that group as a table, see [Anatomical Site Codes](#).

Anatomical Site Codes

The **Anatomical Sites** page allows you to review and enter codes for each of the anatomical sites within an Anatomical Group.

- Empty cells in the Handedness and Region columns of the table indicate that there is no grouping at that level of the anatomical hierarchy.
- An unspecified Code value is shown as a '-'.¹

Details				
Gross Division	Handedness	Region	Display Text	Code
Scalp		Superior	Scalp, Superior	-
Scalp		Posterior	Scalp, Posterior	-
Scalp		Left Lateral	Scalp, Left Lateral	-
Scalp		Right Lateral	Scalp, Right Lateral	-
Forehead		Anterior	Forehead, Anterior	-
Forehead		Left Lateral	Forehead, Left Lateral	-
Forehead		Right Lateral	Forehead, Right Lateral	-
Temple	Left		Left Temple	-
Temple	Right		Right Temple	-
Orbit	Left	Superior	Left Orbit, Superior	-
Orbit	Left	Inferior	Left Orbit, Inferior	-



Edit

Select **Edit** to change the **Code** for each anatomical site, see [Editing Anatomical Site Codes](#).



Close

Select **Close** to go back to the list of Anatomical Groups.

Editing Anatomical Site Codes

Details				
Gross Division	Handedness	Region	Display Text	Code
Scalp		Superior	Scalp, Superior	<input type="text" value="A"/>
Scalp		Posterior	Scalp, Posterior	<input type="text"/>
Scalp		Left Lateral	Scalp, Left Lateral	<input type="text"/>
Scalp		Right Lateral	Scalp, Right Lateral	<input type="text"/>
⋮				
Neck		Posterior	Neck, Posterior	<input type="text"/>

B
C

A

Enter a short code into the **Code** column for all sites that need a code for integration.

The use of duplicate codes is allowed so that sites can be grouped as a common item for integration purposes.

The codes entered can be up to 128 characters but it is recommended to keep them much shorter than that.

B**Save**

Select **Save** to save the changes to the codes.

C**Cancel**

Select **Cancel** to exit edit mode without saving the changes to the codes.

Silhouette Configuration

The **Silhouette Configuration** page contains configuration items that change the Silhouette system operation. The configuration items are organized into sections and each section may or may not be available depending on the application you are accessing (SilhouetteCentral or SilhouetteConnect) and the optional features that are included in the license.

Select the **Edit** button to edit any of the settings.

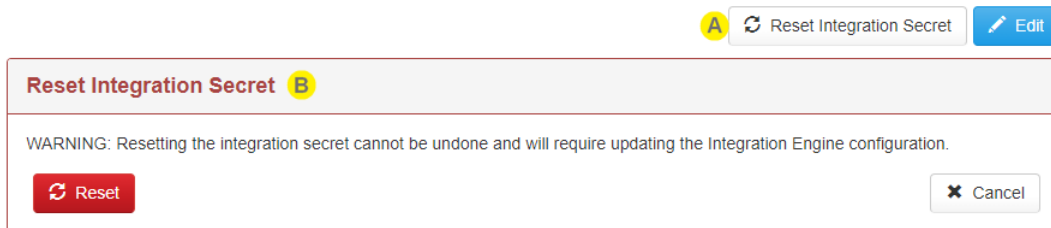
When editing, a **Save** and **Cancel** button is available at the bottom of the screen.

- Select **Save** and apply all configuration changes.
- Select **Cancel** to discard changes.

If the SilhouetteCentral license has the Silhouette Integration Interface feature enabled then there is also a Reset Integration Secret button available, see the help topic [Integration Client Secret](#).

Integration Client Secret

The integration engine used in conjunction with the Silhouette Integration Interface is a system client that does not use a user account and password to authenticate. The authentication uses a well-known client id (integration_engine) and a secret that is set on the Silhouette Configuration page.



A Select **Reset Integration Secret** to reset or set the integration client secret. You will see a confirmation warning before the reset take place.

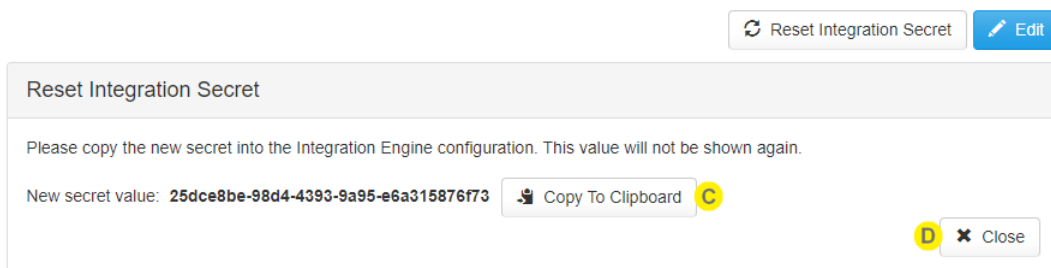
On initial installation of the Silhouette system there is no default integration secret. You must perform a reset to initially set a secret.

The Reset Integration Secret button is only available on SilhouetteCentral if the license includes the Silhouette Integration feature.

B A warning is shown to confirm you really want to reset the integration secret.

Select **Reset** to confirm you want to reset the secret. This will generate a new secret and show it to you once.

Select **Cancel** to cancel the integration secret reset.



C Once the integration secret is reset the new value is shown in bold. This value needs to be copied into the configuration of the integration engine.

The value is only ever shown at this time and cannot be retrieved. If it is lost the integration secret needs to be reset again.

A **Copy to Clipboard** button is provided to copy the secret value.

D Select **Close** once you have copied the new secret value.

Silhouette System Features

The Silhouette System Features are settings which configure system wide features.

Unless otherwise noted in the details for each setting, the settings are available in SilhouetteCentral and in SilhouetteConnect when operating in Standalone mode.

A Automatic Boundary Detection Enabled

The Automatic Wound Boundary Detection feature reduces the time taken to trace wounds by allowing clinicians to define a region of interest (ROI) on the image and then instruct Silhouette to automatically detect the wound boundary within the ROI. The Automatic Wound Boundary Detection algorithm works best when used on wounds with well defined boundaries (e.g. typical diabetic foot ulcers).

The Automatic Wound Boundary Detection feature does not replace a clinician's judgment. A clinician with appropriate expertise is still required to review and edit the auto outline before accepting it. The more complex the wound boundary the more likely the user will need to manually edit the automatic boundary or revert to manually tracing the image.

- Select **Yes** to enable all users to use the Auto Boundary Detection tool when tracing images.
- Select **No** to disable the use of the Auto Boundary Detection tool for all users.

B Orders Enabled

Selecting **Yes** enables the orders workflows and orders related screens in Silhouette, including:

- Orders Search.
- Active Orders on the patient dashboard.
- Orders linking in the assessment views.
- Orders on the patient sidebar.

Selecting **No** disables the orders workflows and hides the screens in Silhouette.

This setting is only available in SilhouetteCentral if the license has the optional feature Silhouette Integration Interface included.

C Use Custom Help URL?

Selecting **Yes** allows you to specify a custom web page that users will be directed to when they select the help links in SilhouetteCentral or SilhouetteConnect.

Selecting **No** uses the standard product help URL to direct you to these manuals, which are hosted by ARANZ Medical.

D Custom Help URL

If you've selected **Yes** to the **Use Custom Help URL?** option then enter the URL you want to use for the help documents. Specify the full URL including the protocol (<https://>), the domain and path.

Once set, this URL can be tested by selecting the help link on the login pages or by selecting the help page from the application menu and selecting the Silhouette Manuals button.

E Hide App Idle Timeout (mins)

Set a value between 1 and 30 minutes. This sets how long the app will wait when there is no user interaction before showing a pop-up to hide the information on the screen from unauthorized observers.

The hide app idle timeout is not a replacement for the privacy provided by the operating system lock screen as Silhouette does not re-authenticate the user when they un-hide the app. The Silhouette hide display is useful for users who use more than one application at a time, where Silhouette might be inactive but visible on the screen.

Use the session timeout setting if you require the Silhouette system to timeout the user's session and require them to re-authenticate. See the [Login](#) topic for details on the session timeout setting.

Outbound Integration

The outbound integration configuration options are only available in SilhouetteCentral and only if SilhouetteCentral has the Silhouette Integration Interface licensed.

Outbound Integration	
A Enabled	Yes
B Url *	C Port *
http://staging.aml	9999
D Authentication Type *	
Basic	
User Name *	Password *
silhouettesystem	-

A

Enabled

Select **Yes** to allow SilhouetteCentral to send integration events to the downstream integration engine. Select **No** to stop SilhouetteCentral sending integration events to the downstream integration engine.

When outbound integration is enabled, users creating or updating assessments can cause an outbound integration event to be sent to the downstream integration engine (see the topic [Silhouette Outbound Integration](#) for more details).

Disabling outbound integration stops integration events being sent, rather than delaying them to be sent later. If outbound integration is enabled again, only new actions are processed causing outbound integration events.

B

Url

Enter the Url of the integration engine to send the integration events to.

The entered Url should begin the protocol http:// or https:// and a hostname. A path after the hostname is not supported. Examples:

- https://integrationengine.domain
- http://localhost
- http://10.10.10.10

C

Port

Enter the TCP port number to match the integration engine HTTP listener TCP Port.

D

Authentication Type

Set the authentication type to Basic for Basic HTTP Authentication or None for no Authentication.

If the authentication type is set to Basic, specify a User Name and Password as required by the integration engine configuration.

Inbound Integration

The inbound integration configuration options are only available in SilhouetteCentral and only if it has the Silhouette Integration Interface licensed.

Inbound Integration

A Create record on update request if record not found

Yes

<p>B Encounter Integration Model</p> <p>Download</p> <p>Patient Integration Model</p> <p>Download</p>	<p>Order Integration Model</p> <p>Download</p> <p>Merge Patients Integration Model</p> <p>Download</p>
--	--

A Create record on update request if record not found

The Silhouette inbound integration interface supports separate 'create' and 'update' requests but can allow 'update' requests to be used for both update and create.

Select **Yes** to cause SilhouetteCentral to create a record when an update request is received and the record does not already exist.

Select **No** to cause SilhouetteCentral to send an error response to the update request if an update request for a record that does not already exist.

This setting applies to all entities on the integration interface (e.g. patients, encounters, and orders).



It is recommended that this setting is enabled unless there is a requirement to treat updates and creates differently.

B Integration Models

Use the **Download** links to download the currently configured Silhouette integration data models. These models are updated when the notes configuration in Silhouette change. The XML data models downloaded using these links are used in the integration engine when mapping external data formats into the Silhouette data models.

There is an integration model for each endpoint on the Silhouette Integration Interface and for each Assessment Type within Silhouette. The Silhouette integration interface expects that incoming data conforms to the appropriate Silhouette Integration Model.

Login

The settings in the Login section impact:

- What information is displayed to an unauthenticated user before they login to the system to help them decide if they are attempting to login to the correct system.
- The Silhouette User Session Management. See the help topic [System Security Features](#) > [Silhouette User Session Management](#) for more details regarding how these settings impact the system operation.

Login

A Allow SilhouetteConnect Offline Operation

Yes No

B SilhouetteConnect Maximum Offline Session Time (hrs) *

C SilhouetteCentral Idle Session Termination Enabled

Yes No

D SilhouetteCentral Idle Session Timeout (mins) *

E System Identification *

F Login Banner

This system is intended to be used by authorized users only. Unauthorized access to this system may result in criminal, civil, or administrative penalties. Usage of the system is recorded and may be subject to audit. Logging in to the system constitutes unconditional acceptance of these terms.

A**Allow SilhouetteConnect Offline Operation**

Select **Yes** to allow SilhouetteConnect users to work in SilhouetteConnect without being connected to the network. If Yes is selected then you will need to specify the **SilhouetteConnect Maximum Offline Session Time (hrs)**.

Select **No** to require SilhouetteConnect users to authenticate online every time they start or unhide the application.

This setting is only available in SilhouetteCentral.



Disabling SilhouetteConnect Offline sessions means that the user will need to be connected to the network every time they unhide the application, effectively making the Hide App Idle Timeout the re-authentication period.

If the user has unsaved work then they will not be able to save that work until they successfully authenticate online again.

B**SilhouetteConnect Maximum Offline Session Time (hrs)**

Set the maximum time you want to allow SilhouetteConnect users to operate offline. The SilhouetteConnect offline time is reset each time they use SilhouetteConnect to contact SilhouetteCentral, by performing any of the following actions:

- Logging in.
- Syncing.
- Managing Patients.

Set the maximum offline session time in hours between 1 hour and 744 hours (31 days).

This setting is only available in SilhouetteCentral if the **Allow SilhouetteConnect Offline Operation** has been set to **Yes**.

C

SilhouetteCentral Idle Session Termination Enabled

Select **Yes** to enable the timeout of SilhouetteCentral website user sessions if they are left idle. If enabled, then SilhouetteCentral Idle Session Timeout (mins) will require a value.

Select **No** to allow a SilhouetteCentral user session to remain active until the user shuts the web browser or selects logout.

This setting is only available in SilhouetteCentral.

D

SilhouetteCentral Idle Session Timeout (mins)

If you've enabled the SilhouetteCentral Idle Session Termination option then enter the number of minutes a session can be idle before the user session is terminated.

A user's session is refreshed whenever they interact with the SilhouetteCentral website or when they use the SilhouetteStar 2 scanner in wireless mode to capture images.

Set the to a value in minutes between 5 and 120.

This setting is only available in SilhouetteCentral if the SilhouetteCentral Idle Session Termination is enabled.



If a user has unsaved changes when the Idle Session Timeout limit is reached then those changes are discarded.

E

System Identification

Enter the text you would like to show on the unauthenticated landing pages of both SilhouetteCentral and SilhouetteConnect.

Set this value to something meaningful to you and your users. If you have separate training and production instances of Silhouette then use this setting to help identify which system you are accessing.

This setting is available in SilhouetteCentral and SilhouetteConnect when operating in Standalone mode.

F

Login Banner

Enter the text you would like to show on the login pages to unauthenticated users before they login in both SilhouetteConnect and SilhouetteCentral.

This setting is available in SilhouetteCentral and SilhouetteConnect when operating in Standalone mode.

Appendices



[Appendix A: Getting Support](#)



[Appendix B: Anatomical Site Hierarchy](#)



[Appendix C: Wound State Definitions](#)



[Appendix D: Notes Definitions](#)



[Appendix E: Order and Encounter Notes Definitions](#)



[Appendix F: Clinical Data Export Format](#)



[Appendix G: Regular Expressions](#)



[Appendix H: Conditional Expression Syntax](#)



[Appendix I: Template Macros](#)



[Appendix J: Email Templates](#)

Appendix A: Getting Support

You can contact ARANZ Medical support by using the contact information listed below:

Customer Support

Email: support@aranzmedical.com

Phone (International): +64 3 961 1988

Phone (US Customers): 855 272 0341

Phone (UK Customers): 0800 011 9628

Sales Inquiries

Phone (International): +64-3-374-6120

Phone (US customers): 866-467-0934

Fax: +64-3-374-6130

Email: sales@aranzmedical.com

Please contact your system administrator for first level support contact information.

ARANZ Medical Website

www.aranzmedical.com

Appendix B: Anatomical Site Hierarchy

Wounds recorded within SilhouetteConnect and SilhouetteCentral are always assigned to an anatomical site for grouping, reporting and identification purposes.

The anatomical sites in Silhouette are organized into a hierarchy with the following levels:

- Group. All anatomical sites are contained within a top level group.
- Gross Division. The gross division level always exists in the hierarchy and is used to identify a broad area of anatomy.
- Handedness. Some anatomical sites have a handedness, e.g. left or right.
- Region. The region level is used if the gross division is too gross and needs further division into regions.

When specifying an anatomical site the user is prompted to select options from each level in the hierarchy, from the Group to the Region level. The options available in the next level depend upon the selection the user made in the previous.

The anatomical sites described in this appendix reflect the default set of anatomical sites setup within SilhouetteCentral and SilhouetteConnect. They do not show any customizations made.

- The Display Text is the anatomical site description used within Silhouette. It typically uses an algorithmic approach to combine the various levels of the hierarchy into a description. In a few cases the algorithm generated description is overridden by a specific location description.
- The Code can be configured in Silhouette to be used alongside the description when sending data to another IT system.

Head & Neck

Gross Division	Handedness	Region	Display Text	Code
Scalp		Superior	Scalp, Superior	
		Posterior	Scalp, Posterior	
		Left Lateral	Scalp, Left Lateral	
		Right Lateral	Scalp, Right Lateral	
Forehead		Anterior	Forehead, Anterior	
		Left Lateral	Forehead, Left Lateral	
		Right Lateral	Forehead, Right Lateral	
Temple	Left		Left Temple	
	Right		Right Temple	

Gross Division	Handedness	Region	Display Text	Code
Orbit	Left	Superior	Left Orbit, Superior	
		Inferior	Left Orbit, Inferior	
		Eyeball	Left Orbit, Eyeball	
		Medial	Left Orbit, Medial	
		Lateral	Left Orbit, Lateral	
	Right	Superior	Right Orbit, Superior	
		Inferior	Right Orbit, Inferior	
		Eyeball	Right Orbit, Eyeball	
		Medial	Right Orbit, Medial	
		Lateral	Right Orbit, Lateral	
Cheek	Left	Superior	Left Cheek, Superior	
		Inferior	Left Cheek, Inferior	
		Anterior	Left Cheek, Anterior	
		Posterior	Left Cheek, Posterior	
		Central	Left Cheek	
	Right	Superior	Right Cheek, Superior	
		Inferior	Right Cheek, Inferior	
		Anterior	Right Cheek, Anterior	
		Posterior	Right Cheek, Posterior	
		Central	Right Cheek	
Ear	Left	Superior	Left Ear, Superior	
		Inferior	Left Ear, Inferior	
		Anterior	Left Ear, Anterior	
		Posterior	Left Ear, Posterior	
	Right	Superior	Right Ear, Superior	
		Inferior	Right Ear, Inferior	
		Anterior	Right Ear, Anterior	
		Posterior	Right Ear, Posterior	
Nose		Superior	Nose, Superior	
		Inferior	Nose, Inferior	
		Anterior	Nose, Anterior	
		Left Lateral	Nose, Left Lateral	
		Right Lateral	Nose, Right Lateral	

Gross Division	Handedness	Region	Display Text	Code
Lip		Upper	Lip, Upper	
		Lower	Lip, Lower	
		Left Angle	Lip, Left Angle	
		Right Angle	Lip, Right Angle	
Jaw		Anterior	Jaw, Anterior	
		Inferior	Jaw, Inferior	
		Left Lateral	Jaw, Left Lateral	
		Right Lateral	Jaw, Right Lateral	
Neck		Anterior	Neck, Anterior	
		Left Lateral	Neck, Left Lateral	
		Right Lateral	Neck, Right Lateral	
		Posterior	Neck, Posterior	

Torso

Gross Division	Handedness	Region	Display Text	Code
Thorax	Left	Clavicular region	Left Clavicular region	
		Axilla	Left Axilla	
		Lateral region	Left Lateral region, Thorax	
	Right	Clavicular region	Right Clavicular region	
		Axilla	Right Axilla	
		Lateral region	Right Lateral region, Thorax	
Sternum		Superior	Sternum, Superior	
		Inferior	Sternum, Inferior	

Gross Division	Handedness	Region	Display Text	Code
Breast	Left	Superior	Left Breast, Superior	
		Inferior	Left Breast, Inferior	
		Anterior	Left Breast, Anterior	
		Medial	Left Breast, Medial	
		Lateral	Left Breast, Lateral	
		Nipple	Left Breast, Nipple	
	Right	Superior	Right Breast, Superior	
		Inferior	Right Breast, Inferior	
		Anterior	Right Breast, Anterior	
		Medial	Right Breast, Medial	
		Lateral	Right Breast, Lateral	
		Nipple	Right Breast, Nipple	
Abdomen		Right upper quadrant	Abdomen, Right upper quadrant	
		Right lower quadrant	Abdomen, Right lower quadrant	
		Left upper quadrant	Abdomen, Left upper quadrant	
		Left lower quadrant	Abdomen, Left lower quadrant	
		Midline - upper	Abdomen, Midline - upper	
		Umbilical	Abdomen, Umbilical	
		Midline - lower	Abdomen, Midline - lower	
		Left flank	Abdomen, Left flank	
		Right flank	Abdomen, Right flank	
Back	Left	Scapular region	Left Back, Scapular region	
		Thoracic region	Left Back, Thoracic region	
		Lumbar region	Left Back, Lumbar region	
	Right	Scapular region	Right Back, Scapular region	
		Thoracic region	Right Back, Thoracic region	
		Lumbar region	Right Back, Lumbar region	
Spine		Thoracic	Spine, Thoracic	
		Lumbar	Spine, Lumbar	

Pelvis

Gross Division	Handedness	Region	Display Text	Code
Spine/Gluteal cleft		Sacrum	Sacrum	
		Coccyx	Coccyx	
		Peri-anal	Peri-anal	
Buttock	Left	Superior	Left Buttock, Superior	
		Inferior	Left Buttock, Inferior	
		Central	Left Buttock	
		Medial	Left Buttock, Medial	
		Lateral	Left Buttock, Lateral	
	Right	Superior	Right Buttock, Superior	
		Inferior	Right Buttock, Inferior	
		Central	Right Buttock	
		Medial	Right Buttock, Medial	
		Lateral	Right Buttock, Lateral	
Misc. bony prominences	Left	Iliac Crest	Left Iliac Crest	
		Greater trochanter	Left Trochanter	
		Ischial Tuberosity	Left Ischial Tuberosity	
	Right	Iliac Crest	Right Iliac Crest	
		Greater trochanter	Right Trochanter	
		Ischial Tuberosity	Right Ischial Tuberosity	
Groin	Left		Left Groin	
	Right		Right Groin	
Genital Male		Scrotum	Scrotum	
		Penis	Penis	
		Perineum	Perineum	
Genital Female		Vulva	Vulva	
		Labia	Labia	
		Perineum	Perineum	

Upper Extremity

Gross Division	Handedness	Region	Display Text	Code
Shoulder	Left	Superior	Left Shoulder, Superior	
		Anterior	Left Shoulder, Anterior	
		Posterior	Left Shoulder, Posterior	
		Lateral	Left Shoulder, Lateral	
	Right	Superior	Right Shoulder, Superior	
		Anterior	Right Shoulder, Anterior	
		Posterior	Right Shoulder, Posterior	
		Lateral	Right Shoulder, Lateral	
Upper Arm	Left	Anterior	Left Upper Arm, Anterior	
		Posterior	Left Upper Arm, Posterior	
		Medial	Left Upper Arm, Medial	
		Lateral	Left Upper Arm, Lateral	
		Circumferential	Left Upper Arm, Circumferential	
	Right	Anterior	Right Upper Arm, Anterior	
		Posterior	Right Upper Arm, Posterior	
		Medial	Right Upper Arm, Medial	
		Lateral	Right Upper Arm, Lateral	
		Circumferential	Right Upper Arm, Circumferential	
Elbow	Left	Anterior	Left Elbow, Anterior	
		Posterior	Left Elbow, Posterior	
		Medial	Left Elbow, Medial	
		Lateral	Left Elbow, Lateral	
		Circumferential	Left Elbow, Circumferential	
	Right	Anterior	Right Elbow, Anterior	
		Posterior	Right Elbow, Posterior	
		Medial	Right Elbow, Medial	
		Lateral	Right Elbow, Lateral	
		Circumferential	Right Elbow, Circumferential	

Gross Division	Handedness	Region	Display Text	Code
Forearm	Left	Anterior	Left Forearm, Anterior	
		Posterior	Left Forearm, Posterior	
		Medial	Left Forearm, Medial	
		Lateral	Left Forearm, Lateral	
		Circumferential	Left Forearm, Circumferential	
	Right	Anterior	Right Forearm, Anterior	
		Posterior	Right Forearm, Posterior	
		Medial	Right Forearm, Medial	
		Lateral	Right Forearm, Lateral	
		Circumferential	Right Forearm, Circumferential	
Wrist	Left	Anterior	Left Wrist, Anterior	
		Posterior	Left Wrist, Posterior	
		Medial	Left Wrist, Medial	
		Lateral	Left Wrist, Lateral	
		Circumferential	Left Wrist, Circumferential	
	Right	Anterior	Right Wrist, Anterior	
		Posterior	Right Wrist, Posterior	
		Medial	Right Wrist, Medial	
		Lateral	Right Wrist, Lateral	
		Circumferential	Right Wrist, Circumferential	
Hand	Left	Palm	Left Hand, Palm	
		Dorsum	Left Hand, Dorsum	
		Medial	Left Hand, Medial	
		Lateral	Left Hand, Lateral	
		Circumferential	Left Hand, Circumferential	
	Right	Palm	Right Hand, Palm	
		Dorsum	Right Hand, Dorsum	
		Medial	Right Hand, Medial	
		Lateral	Right Hand, Lateral	
		Circumferential	Right Hand, Circumferential	

Gross Division	Handedness	Region	Display Text	Code
Finger	Left	Thumb	Left Thumb	
		Index Finger	Left Index Finger	
		Middle Finger	Left Middle Finger	
		Ring Finger	Left Ring Finger	
		Little Finger	Left Little Finger	
	Right	Thumb	Right Thumb	
		Index Finger	Right Index Finger	
		Middle Finger	Right Middle Finger	
		Ring Finger	Right Ring Finger	
		Little Finger	Right Little Finger	

Lower Extremity

Gross Division	Handedness	Region	Display Text	Code
Thigh	Left	Anterior	Left Thigh, Anterior	
		Posterior	Left Thigh, Posterior	
		Medial	Left Thigh, Medial	
		Lateral	Left Thigh, Lateral	
		Circumferential	Left Thigh, Circumferential	
	Right	Anterior	Right Thigh, Anterior	
		Posterior	Right Thigh, Posterior	
		Medial	Right Thigh, Medial	
		Lateral	Right Thigh, Lateral	
		Circumferential	Right Thigh, Circumferential	
Knee	Left	Anterior	Left Knee, Anterior	
		Posterior	Left Knee, Posterior	
		Medial	Left Knee, Medial	
		Lateral	Left Knee, Lateral	
		Circumferential	Left Knee, Circumferential	
	Right	Anterior	Right Knee, Anterior	
		Posterior	Right Knee, Posterior	
		Medial	Right Knee, Medial	
		Lateral	Right Knee, Lateral	
		Circumferential	Right Knee, Circumferential	

Gross Division	Handedness	Region	Display Text	Code
Lower leg	Left	Shin	Left Shin	
		Calf	Left Calf	
		Medial	Lower left leg, Medial	
		Lateral	Lower left leg, Lateral	
		Circumferential	Lower left leg, Circumferential	
	Right	Shin	Right Shin	
		Calf	Right Calf	
		Medial	Lower right leg, Medial	
		Lateral	Lower right leg, Lateral	
		Circumferential	Lower right leg, Circumferential	
Ankle	Left	Medial Malleolus	Left Medial Malleolus	
		Lateral Malleolus	Left Lateral Malleolus	
		Ankle Flexure	Left Ankle Flexure	
		Posterior	Left Ankle, Posterior	
	Right	Medial Malleolus	Right Medial Malleolus	
		Lateral Malleolus	Right Lateral Malleolus	
		Ankle Flexure	Right Ankle Flexure	
		Posterior	Right Ankle, Posterior	
Foot	Left	Dorsum	Left Foot, Dorsum	
		Sole	Left Foot, Sole	
		Medial	Left Foot, Medial	
		Lateral	Left Foot, Lateral	
		Heel	Left Foot, Heel	
	Right	Dorsum	Right Foot, Dorsum	
		Sole	Right Foot, Sole	
		Medial	Right Foot, Medial	
		Lateral	Right Foot, Lateral	
		Heel	Right Foot, Heel	

Gross Division	Handedness	Region	Display Text	Code
Toe	Left	Big	Left Toe, Big	
		Second	Left Toe, Second	
		Third	Left Toe, Third	
		Fourth	Left Toe, Fourth	
		Fifth	Left Toe, Fifth	
	Right	Big	Right Toe, Big	
		Second	Right Toe, Second	
		Third	Right Toe, Third	
		Fourth	Right Toe, Fourth	
		Fifth	Right Toe, Fifth	

Appendix C: Wound State Definitions

Silhouette can record the current wound status or wound state with some optional notes. The table below shows the default set of states. In Silhouette version 4.13 these can only be modified by direct database manipulation.

Selectable Wound States

The default wound state selected when creating a new wound is the state with the lowest order index.

Name	Order Index	Wounds Display As
Open	0	Active
Healed	1	Inactive
Released from Follow-up	2	Inactive
Amputated	3	Inactive

Wound State Notes

The user is given the opportunity to record some relevant notes based on the wound state selected.

Wound State Notes: Open

Item	Properties
Recurring	Data type Boolean Active Yes Required No Variable 'recurring ' <i>Note: The variable name has a space trailing character.</i> Export name Wound State - Recurring

Wound State Notes: Healed

There are no default notes captured with the Healed state.

Wound State Notes: Released from Follow-up

Item	Properties
Wound release reason	Data type List (single selection) Active Yes Required No Variable wound_release_reason Export name Wound State - Wound release reason Selectable list items: <ul style="list-style-type: none"> • Discharged with wound • Patient lost to follow-up • Specialist wound care not required • Other
Wound release comment	Data type Text Active Yes Required No Variable wound_release_comment Multi-line No Max Length 255 Export name Wound State - Wound release comment

Wound State Notes: Amputated

Item	Properties
Amputation category	Data type List (single selection) Active Yes Required No Variable amputation_category Export name Wound State - Amputation category Selectable list items: <ul style="list-style-type: none"> • Major • Minor

Appendix D: Notes Definitions

In addition to images and measurements SilhouetteConnect and SilhouetteCentral can be used to capture notes. Notes can be associated with a particular patient, visit or wound assessment. The following section of this document outlines the note fields available for clinicians to enter.

The notes described in this appendix reflect the default set of notes that SilhouetteCentral and SilhouetteConnect are setup with. They do not show any customizations made.

Patient admission

Details

Item	Variable	Data Type	Properties
Expected Discharge	expected_discharge_date	Date	Active Yes Required No Visible Yes Persistent No
Palliative Care	palliative_care	Boolean	Active Yes Required No Visible Yes Persistent No

Physicians

Item	Variable	Data Type	Properties
Treating	admission_and_discharge_treating_physician	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Referring	admission_and_discharge_referring_physician	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No

Patient Details

Details

Item	Variable	Data Type	Properties
Patient ID	details_patient_id	Text <ul style="list-style-type: none"> • Max Length: 128 • Multi-Line: No 	Active Yes Required Yes Visible Yes Persistent No
Unit	details_unit	Unit	Active Yes Required Yes Visible Yes Persistent No
Last Name	details_last_name	Text <ul style="list-style-type: none"> • Max Length: 128 • Multi-Line: No 	Active Yes Required Yes Visible Yes Persistent No
First Name	details_first_name	Text <ul style="list-style-type: none"> • Max Length: 128 • Multi-Line: No 	Active Yes Required Yes Visible Yes Persistent No
Middle Name	details_middle_name	Text <ul style="list-style-type: none"> • Max Length: 128 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Date of Birth	details_date_of_birth	Date	Active Yes Required Yes Visible Yes Persistent No

Item	Variable	Data Type	Properties
Gender	details_is_female	List (single selection)	Active Yes Required Yes Visible Yes Persistent No
	<ul style="list-style-type: none"> • Male • Female 		

Address

Item	Variable	Data Type	Properties
Street	address_street	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Suburb	address_suburb	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
City	address_city	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
State	address_state	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Postcode	address_postcode	Text <ul style="list-style-type: none"> • Max Length: 50 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No

Item	Variable	Data Type	Properties
Country	address_country	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No

Contact

Item	Variable	Data Type	Properties
Home Phone	contact_home_phone	Text <ul style="list-style-type: none"> • Max Length: 50 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Mobile Phone	contact_mobile_phone	Text <ul style="list-style-type: none"> • Max Length: 50 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Work Phone	contact_work_phone	Text <ul style="list-style-type: none"> • Max Length: 50 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No

Patient discharge

Details

Item	Variable	Data Type	Properties
Reason	admission_status	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Discharged • Lost to follow-up • Deceased 		

Item	Variable	Data Type	Properties
Comments	discharge_comments	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Assessment of lower limb function

Right

Item	Variable	Data Type	Properties
Warmth	lower_limb_assessment_warmth_right_leg	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Cold • Cool • Warm • Hot 		
Venous signs	lower_limb_assessment_venous_signs_right_leg	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Varicose veins • Atrophie blanche • Eczema • Lipodermatosclerosis • Hemosiderin staining 		
Calf muscle effectiveness	lower_limb_assessment_calf_muscle_effectiveness_right	Boolean	Active Yes Required No Visible Yes Persistent No

Item	Variable	Data Type	Properties
Arterial signs	lower_limb_assessment_arterial_signs_right_leg	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Hairless • Shiny • Capillary refill > 3 seconds • Dependent rubor • Atrophic nails • Cyanosis 		
Pulses palpable	lower_limb_assessment_pulses_palpable_right	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Dorsalis pedis • Posterior tibial 		
Dorsalis pedis pressure	lower_limb_assessment_dorsalis_pedis_pressure_right	Decimal	Active Yes Required No Visible Yes Persistent No
Posterior tibial pressure	lower_limb_assessment_posterior_tibial_pressure_right	Decimal	Active Yes Required No Visible Yes Persistent No
Brachial pressure	lower_limb_assessment_brachial_pressure_right	Decimal	Active Yes Required No Visible Yes Persistent No

Item	Variable	Data Type	Properties
Pulse signal	lower_limb_assessment_pulse_signal_right	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Monophasic • Biphasic • Triphasic 		
ABPI result	lower_limb_assessment_abpi_result_right	Decimal	Active Yes Required No Visible Yes Persistent No
Toe pressure	lower_limb_assessment_toe_pressure_right	Decimal	Active Yes Required No Visible Yes Persistent No
TBPI	lower_limb_assessment_tbpi_right	Decimal	Active Yes Required No Visible Yes Persistent No
Thinnest ankle	lower_limb_assessment_thinnest_ankle_right	Decimal (cm)	Active Yes Required No Visible Yes Persistent No
Widest calf	lower_limb_assessment_widest_calf_right	Decimal (cm)	Active Yes Required No Visible Yes Persistent No

Ambulation

Item	Variable	Data Type	Properties
Ambulation	lower_limb_assessment_ambulation	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Independent - no aid or assistance • Independent with mobility aid or assistance • Chair bound • Bed bound 		
Client report of walking duration (minutes)	lower_limb_assessment_client_report_of_walking_duration_minutes	Decimal	Active Yes Required No Visible Yes Persistent No

Left

Item	Variable	Data Type	Properties
Warmth	lower_limb_assessment_warmth_left_leg	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Cold • Cool • Warm • Hot 		

Item	Variable	Data Type	Properties
Venous signs	lower_limb_assessment_venous_signs_left_leg	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Varicose veins • Atrophie blanche • Eczema • Lipodermatosclerosis • Hemosiderin staining 		
Calf muscle effectiveness	lower_limb_assessment_calf_muscle_effectiveness_left	Boolean	Active Yes Required No Visible Yes Persistent No
Arterial signs	lower_limb_assessment_arterial_signs_left_leg	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Hairless • Shiny • Capillary refill > 3 seconds • Dependent rubor • Atrophic nails • Cyanosis 		
Pulses palpable	lower_limb_assessment_pulses_palpable_left	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Dorsalis pedis • Posterior tibial 		

Item	Variable	Data Type	Properties	
Dorsalis pedis pressure	lower_limb_assessment_ dorsalis_pedis_pressure_left	Decimal	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
Posterior tibial pressure	lower_limb_assessment_ posterior_tibial_pressure_left	Decimal	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
Brachial pressure	lower_limb_assessment_ brachial_pressure_left	Decimal	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
Pulse signal	lower_limb_assessment_ pulse_signal_left	List (multiple selection)	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
	<ul style="list-style-type: none"> • Monophasic • Biphasic • Triphasic 			
ABPI result	lower_limb_assessment_abpi_ result_left	Decimal	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
Toe pressure	lower_limb_assessment_toe_ pressure_left	Decimal	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
TBPI	lower_limb_assessment_tbpi_ left	Decimal	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No

Item	Variable	Data Type	Properties
Thinnest ankle	lower_limb_assessment_thinnest_ankle_left	Decimal (cm)	Active Yes Required No Visible Yes Persistent No
Widest calf	lower_limb_assessment_widest_calf_left	Decimal (cm)	Active Yes Required No Visible Yes Persistent No

Comments

Item	Variable	Data Type	Properties
Comments	lower_limb_assessment_comments	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Visit Assessment

Vital signs

Item	Variable	Data Type	Properties
Weight	vital_signs_weight	Decimal (kg)	Active Yes Required No Visible Yes Persistent No
Height	vital_signs_height	Decimal (cm)	Active Yes Required No Visible Yes Persistent No
Pulse rate	vital_signs_pulse_rate	Decimal (/min)	Active Yes Required No Visible Yes Persistent No

154 • Related Pain (Non-Wound)

Item	Variable	Data Type	Properties
Respiration rate	vital_signs_respiration_rate	Decimal (/min)	Active Yes Required No Visible Yes Persistent No
Blood pressure, systolic	vital_signs_blood_pressure_systolic	Decimal (mmHg)	Active Yes Required No Visible Yes Persistent No
Blood pressure, diastolic	vital_signs_blood_pressure_diastolic	Decimal (mmHg)	Active Yes Required No Visible Yes Persistent No
Temperature	vital_signs_temperature	Decimal (°C)	Active Yes Required No Visible Yes Persistent No
Blood glucose level	vital_signs_blood_glucose_level	Decimal (mmol/L)	Active Yes Required No Visible Yes Persistent No

Related Pain (Non-Wound)

Item	Variable	Data Type	Properties
Location	related_pain_nonwound_location	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Scale (0-10)	related_pain_nonwound_scale_010	Integer <ul style="list-style-type: none"> • Interval: 1 • Range: 0 to 10 	Active Yes Required No Visible Yes Persistent No

Item	Variable	Data Type	Properties
Occurrence	related_pain_nonwound_occurrence	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • At dressing change • Night pain • On walking • On elevation • Dependent • Other 		
Comments	related_pain_nonwound_comments	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Edema

Item	Variable	Data Type	Properties
Pitting	edema_pitting	Boolean	Active Yes Required No Visible Yes Persistent No
Location (right)	edema_location_right	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Toes • Foot • Gaiter • Above gaiter • Knee • Thigh 		

Item	Variable	Data Type	Properties
Location (left)	edema_location_left	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Toes • Foot • Gaiter • Above gaiter • Knee • Thigh 		
Location: Other	edema_location_other	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Comments	edema_comments	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Factors Affecting Healing

Item	Variable	Data Type	Properties
Impaired sensation (left)	factors_affecting_healing_impaired_sensation_left	Boolean	Active Yes Required No Visible Yes Persistent No
Impaired sensation (right)	factors_affecting_healing_impaired_sensation_right	Boolean	Active Yes Required No Visible Yes Persistent No

Item	Variable	Data Type	Properties
Braden outcome	factors_affecting_healing_ braden_outcome	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Low risk • Mod risk • High risk • Very high risk 		
PURA outcome	factors_affecting_healing_ pura_outcome	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Low risk • Mod risk • High risk • Very high risk 		
Nutritional Risk screen	factors_affecting_healing_ nutritional_risk_screen	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Obvious underweight-frailty • Unintentional weight loss • Reduced appetite or food and fluid intake • Mouth teeth problems • Swallowing problems • Follows a special diet • Needs assistance to shop for food • Needs assistance to prepare food • Needs assistance to feed self • Obvious overweight affecting life quality • Unintentional weight gain 		

Item	Variable	Data Type	Properties
BMI outcome	factors_affecting_healing_ bmi_outcome	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Underweight (<18.5) • Normal (18.5 - 24.9) • Overweight (25 - 29.9) • Obese (>30) 		

Wound Assessment

Images

Item	Variable	Data Type	Properties
Wound Images	images_wound_images	Image Capture	Active Yes Required No Visible Yes
	Trace images screen is enabled.		

Details

Item	Variable	Data Type	Properties
Etiology	wound_history_etiology	List (single selection)	Active Yes Required No Visible Yes Persistent Yes
	<ul style="list-style-type: none"> • Pressure Ulcer: Stage 1 • Pressure Ulcer: Stage 2 • Pressure Ulcer: Stage 3 • Pressure Ulcer: Stage 4 • Pressure Ulcer: Unstageable (dressing/device) • Pressure Ulcer: Unstageable (eschar/slough) • Deep Tissue Injury • Venous Ulcer • Arterial insufficiency • Mixed Venous/Arterial • Diabetic • Neuropathic: Non-diabetic • Surgical: Closed • Surgical: Full thickness • Surgical: Partial thickness • Surgical: Dehiscence • Drainage Device • Trauma: Full thickness • Trauma: Partial thickness • Trauma: Superficial • Skin tear: Category 1 • Skin tear: Category 2a • Skin tear: Category 2b • Skin tear: Category 3 • Burn: Superficial thickness • Burn: Partial thickness • Burn: Full thickness • Cancerous: Fungating lesion • Cancerous: Ulcerating lesion • Cancerous: Other • Skin graft • Donor site • Pilonidal wound 		

Item	Variable	Data Type	Properties	
Wound Margins	wound_margins_sloping	List (multiple selection)	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
	<ul style="list-style-type: none"> • Sloping • Punched out • Rolled • Everted • Undermining • Sinus • Inflamed 			
Surrounding Skin	surrounding_skin_tissue_paper_skin	List (multiple selection)	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
	<ul style="list-style-type: none"> • 'Tissue paper' skin • Peri-wound edema • Macerated • Erythema • Inflammation • Pustules • Eczema • Dry/scaly • Healthy 			
Signs of Critical Colonization or Infection	signs_of_critical_colonization_or_infection_cellulitis	List (multiple selection)	Active	Yes
			Required	No
			Visible	Yes
			Persistent	No
	<ul style="list-style-type: none"> • Cellulitis • Suppuration • Lymphangitis • Sepsis • Bacteremia • Granulation changes • Exudate increase • Increase/new pain • Impaired/delayed healing • Wound breakdown/new slough 			

Item	Variable	Data Type	Properties
Exudate Volume	exudate_volume	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • None • Low • Moderate • High 		
Exudate Type	exudate_type	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Serous • Serosanguineous • Sanguineous • Purulent 		

Wound Pain

Item	Variable	Data Type	Properties
Frequency	wound_pain_frequency	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Absent • Intermittent • Continuous 		

Item	Variable	Data Type	Properties
Nature of pain	wound_pain_nature_of_pain	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Throbbing • Shooting • Stabbing • Sharp • Cramping • Gnawing • Hot/burning • Aching • Heavy • Tender • Splitting • Tiring/exhausting • Sickening • Fearful • Cruel/punishing • Other 		
Current interventions	wound_pain_current_interventions	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Pharmacological • Non-pharmacological • Dressing/removal technique • Other 		
At dressing change (0-10)	wound_pain_at_dressing_change_010	Integer <ul style="list-style-type: none"> • Interval: 1 • Range: 0 to 10 	Active Yes Required No Visible Yes Persistent No
Night pain (0-10)	wound_pain_night_pain_010	Integer <ul style="list-style-type: none"> • Interval: 1 • Range: 0 to 10 	Active Yes Required No Visible Yes Persistent No

Item	Variable	Data Type	Properties
On walking (0-10)	wound_pain_on_walking_010	Integer <ul style="list-style-type: none"> Interval: 1 Range: 0 to 10 	Active Yes Required No Visible Yes Persistent No
On elevation (0-10)	wound_pain_on_elevation_010	Integer <ul style="list-style-type: none"> Interval: 1 Range: 0 to 10 	Active Yes Required No Visible Yes Persistent No
Dependent (0-10)	wound_pain_dependent_010	Integer <ul style="list-style-type: none"> Interval: 1 Range: 0 to 10 	Active Yes Required No Visible Yes Persistent No
Other (0-10)	wound_pain_other_010	Integer <ul style="list-style-type: none"> Interval: 1 Range: 0 to 10 	Active Yes Required No Visible Yes Persistent No
Comments	wound_pain_other_description	Text <ul style="list-style-type: none"> Max Length: 255 Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Comments

Item	Variable	Data Type	Properties
Comments	assessment_comments	Text <ul style="list-style-type: none"> Max Length: 255 Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Investigation History

Investigation History

Item	Variable	Data Type	Properties
Diagnostic	investigation_history_diagnostic	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Venous duplex • Arterial duplex • Angiogram • X-ray 		
Pathology	investigation_history_pathology	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Wound biopsy • Hb • Thyroid function • Albumin • Creatinine • HbA1c • FBC 		
Comments	investigation_history_comments	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Medical History

Medical History

Item	Variable	Data Type	Properties
Current conditions	medical_history_current_conditions	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Diabetes • Cardiac condition • Anemia • COAD • Rheumatoid arthritis • Autoimmune disorder • Hepatic failure • Malignancy • Peripheral vascular disease • Neurological disorder • Inflammatory bowel disease • Renal disease • Other 		
Contributing factors	medical_history_contributing_factors	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Reduced mobility • Pressure • Shearing • Friction • Impaired sensation • Edema • Nutritional factors • Obesity • Radiotherapy • Smoking • Venous hypertension • Ischemia • Other 		

Item	Variable	Data Type	Properties
Smoking History	smoking_history	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • Smoker • Past smoker • Never smoked 		
Current cigarette consumption	current_cigarette_consumption	List (single selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • 1-10 per day • 11-20 per day • 21 or more per day 		
Past medical history	medical_history_past_medical_history	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No
Comments	medical_history_comments	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Medication

Medication

Item	Variable	Data Type	Properties
Medicines	medication_medicines	List (multiple selection)	Active Yes Required No Visible Yes Persistent No
	<ul style="list-style-type: none"> • NSAIDS • Cytotoxics • Anti-coagulants • Beta blockers • Immune suppressants • Steroids • Antibiotics • Other 		
Comments	medication_comments	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: Yes 	Active Yes Required No Visible Yes Persistent No

Sensitivities

Item	Variable	Data Type	Properties
Medicines	medication_sensitivities_medicines	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Dressings and adhesives	medication_sensitivities_dressings_and_adhesives	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No
Other	medication_sensitivities_other	Text <ul style="list-style-type: none"> • Max Length: 255 • Multi-Line: No 	Active Yes Required No Visible Yes Persistent No

Appendix E: Order and Encounter Notes Definitions

Silhouette can record any piece of data from an incoming order message using configurable notes in either the encounter or the order.

The default set of Order and Encounter notes are included in this appendix for convenience, however, an up-to-date representation of the notes can be downloaded from SilhouetteCentral using the **Integration Definitions** on the **Silhouette Configuration** page in the Admin section of the application.

Order Notes

The default order notes set is not configurable and notes cannot be disabled as they are used to provide order functionality within Silhouette. Additional order notes can be added by contacting ARANZ Medical Support.

The default order notes have variable names assigned so that they can be referenced in conditional expressions and they are listed in the table below.

Item	Properties	
Order Number	Data type	Text (Single Line)
	Variable	order_orderid
	Integration Identifier	Yes
Scheduled Date	Data type	Date
	Variable	order_scheduleddate
	Integration Identifier	No
Status	Data type	Single Select List
	Variable	order_status
	Integration Identifier	No
	List Lookup Items:	
	• Active	
	• Completed	
Description	Data type	Text (Multi Line)
	Variable	order_description
	Integration Identifier	No
Maximum Assessment Count	Data type	Integer
	Variable	order_maxassessments
	Integration Identifier	No

Encounter Notes

The encounter notes are configurable by ARANZ Medical Support.

Item	Properties	
Facility	Data type	Single Select Lookup
	Variable	encounter_facility
	Integration Identifier	No
	Default list lookup items: <ul style="list-style-type: none"> <li data-bbox="517 488 647 517">• Facility A <li data-bbox="517 539 647 568">• Facility B 	
Account Number	Data type	Text (Single Line)
	Variable	encounter_encounter_id
	Integration Identifier	Yes

Appendix F: Clinical Data Export Format

When exporting clinical data into Comma Separated Values (CSV) documents the export includes the following sets of columns. All values in the CSV file output are surrounded by double quote marks (") to allow for text that contains commas (,), line breaks and other special characters.

The output files are UTF-8 encoded and use Windows style line ends.

The sets of columns are generally included in the order they are listed below.

ISO 8601 Date and Time Format

Many of the observation dates listed in the export are in a ISO 8601 compatible format, which includes the time in 24hr time and the timezone offset. For example, the assessment date *2018-05-29T10:05:25+12* means the assessment was taken on the 29th May 2018 at 10:05 AM in a timezone that is offset +12 hours from universal coordinated time.

Silhouette Identifiers

The data export does not include the Silhouette identifier columns in a default configuration. Silhouette identifiers are only included in the data export if the organizational setting **Include identifiers in CSV exports** is enabled.

The Silhouette identifiers columns can be useful to retain an identifier that is not modified by data changes within Silhouette.

For example, if the patient's name is updated then a new export will have the updated patient name. Rows in the old and new exports can be confirmed as the same patient using the PatientId column.

Column Name	Example Data	Description
PatientId	b24ce1f3-2aef-4fab-8d35-1afc85a31a80	A unique identifier used to identify the patient within Silhouette.
AssessmentId	b24ce1f3-2aef-4fab-8d35-1afc85a31a80	A unique identifier used to identify the assessment within Silhouette. This field is left empty for wound data exports where the row does not have an associated assessment.
WoundId	b24ce1f3-2aef-4fab-8d35-1afc85a31a80	A unique identifier used to identify the wound within Silhouette. This field is left empty for data exports of patient level assessments.
AnatomyId	b24ce1f3-2aef-4fab-8d35-1afc85a31a80	A unique identifier used to identify the anatomical site selected for the wound within Silhouette. This field is left empty for data exports of patient level assessments.
UnitId	b24ce1f3-2aef-4fab-8d35-1afc85a31a80	A unique identifier used to identify the unit selected for the patient within Silhouette.

These columns are included in the data export as the first set of columns, if they are enabled. The exception is the UnitId column, which is included just before the Unit column, wherever the Unit column appears in the patient information.

Observation Information

The observation information columns are a static set of columns with data about the assessment or observation being exported.

If the export is an assessment export the following columns are provided.

Column Name	Example Data	Description
Assessment Type	Wound Assessment	The name of the assessment type being exported.
Assessment Date	2018-05-29T10:05:25+12	The date and time of the assessment in an ISO 8601 format.
Assessment Time Zone	Auckland/Pacific	The time zone name from the IANA Time Zone Database associated to the Assessment Date column.

If the export is a wound export the following columns are provided.

Column Name	Example Data	Description
Observation Date	2018-05-29T10:05:25+12	The date and time recorded with the wound observation in an ISO 8601 format.
Observation Timezone	Auckland/Pacific	The time zone name from the IANA Time Zone Database associated to the Assessment Date column.

Wound Information

The wound information columns are a static set of columns with data about the wound. These columns are left empty if the export is exporting a patient level assessment.

Column Name	Example Data	Description
Wound Label	A	The label for the wound. The value is either a number or a letter, as defined in the Silhouette organizational settings.
Wound Anatomical Site	Left Foot, Heel	The anatomical site label for the wound as it appears in Silhouette.
Wound Auxiliary Text		The auxiliary text entered for the wound.

Column Name	Example Data	Description
Wound Baseline Date	2019-07-01T10:35:00+12	The date and time recorded as the wound baseline in a ISO 8601 compatible format. This may or may not be the same as the baseline measurement time. The baseline measurement for the wound is the first non-zero measurement recorded for the wound on or after this time stamp.
Wound Baseline Timezone	Pacific/Auckland	The time zone name from the IANA Time Zone Database associated to the Wound Baseline Date column.

Patient Notes

The patient notes columns are a dynamic set of columns, which include all the patient notes defined within Silhouette. The column names can be set in the notes configuration.

The values listed in the patient notes fields are the current values recorded with Silhouette, not the value of the patient note recorded at the time of the assessment being exported.

For example. When a patients name is updated in Silhouette and then an assessment export is performed, the export will show the updated patient name for all historical assessments.

The following table describes the columns that can appear in the data export based on the data types of the patient note fields.

Data Type	Example Value(s)	Description
Boolean	Yes No	Shows 'Yes' or 'No' if there is a selection made by the user. Shows an empty column value if no selection as been made for the corresponding note field.
Date	1950-11-30	Shows the date in the format YYYY-MM-DD.
Decimal	2.1	The value entered or selected by the user.
Integer	2	The value entered or selected by the user.
List	Item 1	The text of the look-up value selected by the user. Look-up values that have been made inactive will still show in the export where they were selected for historical assessments.
Multi-Select List	Item 1;Item 3	The semi-colon (;) separated list of the text from the selected items in the multi-select list. Look-up values that have been made inactive will still show in the export where they were selected in historical assessments.

Data Type	Example Value(s)	Description
Text	free text possibly with multiple lines	The text as entered in the notes fields. Note that the export is UTF-8 encoded and some characters that can be entered in to the web site may not appear as expected in the data export.
Unit	Site 1	The name of the Silhouette unit the patient is selected in. This is a special patient note field that is used in the standard Details patient notes and no where else.

Note fields that are set as not visible are still shown in the data export.

Note fields that are set as not active are not shown in the data export.

Wound State Notes

The wound state columns include all the notes defined for capture with wound state observations. The column names can be set in the notes configuration.

These columns exist in wound exports and wound assessment exports. They do not exist in patient assessment exports.

The data types for the wound state notes fields are described within the [Patient Notes](#) section.

Assessment Notes

The assessment notes columns include all the notes defined within the assessment type being exported. The column names can be set in the notes configuration.

The data types for the assessment notes fields are described within the [Patient Notes](#) section.

The assessment notes can also have image capture fields included. The following table shows the additional information included for an image capture field. The column name listed in the table below is appended to the image capture field name.

Data Type	Column Name	Description
Image Capture	Image Count	The number of images assigned to the image capture field.
Image Capture	Image with Outline Count	The number of images with wound outlines drawn. If an image has been tagged as having zero measurements then the outline count will be 0 for that image, but there will still be measurements reported (e.g. Area cm ² = 0).
Image Capture	Wound Fragment Count	The number of independent wound outlines drawn.
Image Capture	Area cm ²	The total area measurement for the image capture field. An empty value means there is no area measurement calculated for this assessment.

Data Type	Column Name	Description
Image Capture	Perimeter mm	The total perimeter measurement for the image capture field. An empty value means there is no perimeter measurement calculated for this assessment.
Image Capture	Island Count	The number of wound islands drawn.
Image Capture	Island Area cm ²	The total area for all the wound islands drawn. An empty value means there is no area measurement calculated for this assessment. If there is an area measurement and the island count is 0 then the Island Area will be 0.
Image Capture	Island Perimeter mm	The total perimeter for all the wound islands drawn. An empty value means there is no perimeter measurement calculated for this assessment.
Image Capture	Length mm	The calculated wound length. An empty value can mean that there is no wound outline or that there are more than one wound outlines.
Image Capture	Width mm	The calculated wound width. An empty value can mean that there is no wound outline or that there are more than one wound outlines.
Image Capture	Max Depth mm	The maximum depth for the wound. An empty value can mean that there is no wound outline or that there are more than one wound outlines.
Image Capture	Mean Depth mm	The mean depth for the wound. An empty value can mean that there is no wound outline or that there are more than one wound outlines.
Image Capture	Volume cm ³	The volume of the wound. An empty value can mean that there is no wound outline or that there are more than one wound outlines.
Image Capture	Ruler Count	The number of rulers drawn on the images.
Image Capture	Ruler Length mm	If there is a single ruler then this column contains the length of that ruler. If there are two (2) or more rulers then this column remains blank.

Data Type	Column Name	Description
Image Capture	Is Baseline Area Measurement	True or False. True, if this assessment is the baseline area measurement for this wound. False, if this assessment is not the baseline area measurement for this wound.
Image Capture	Baseline Area Measurement Date	The date and time of the wounds baseline measurement assessment. This will be the same as the assessment date if Is Baseline Area Measurement column = True. This column is useful to calculate the days since baseline, giving context to the Area Reduction column.
Image Capture	Baseline Area Timezone	The time zone name from the IANA Time Zone Database associated to the Baseline Area Measurement Date column.
Image Capture	Area Reduction	The area reduction calculated for the assessment as a percentage to 1 dp. A blank value can mean that the area baseline measurement is after this assessment, there is no area baseline measurement for the wound or that there is no area measurement for this assessment.

Measurements will be omitted if there are no wound outlines. Measurements for some fields (e.g. Max Depth) may be omitted because the way the assessment is made or the capture device used doesn't support depth being calculated.

The measurement units used for the measurement columns is set by Silhouette organizational settings.

The number of decimal points included the data export is set by Silhouette organizational settings. The measurements can be exported as they appear in the Silhouette UI or set to a output as follows.

- Output to the nearest $1/10^{\text{th}}$ of a mm for linear measurements.
- Output to the nearest $1/10^{\text{th}}$ of a mm^2 for area measurements.
- Output to the nearest $1/10^{\text{th}}$ of a mm^3 for volume measurements.

Appendix G: Regular Expressions

Regular Expressions are patterns used to match character combinations in strings, for example a phone number or email address can be checked against a Regular Expression pattern.

Regular Expressions can be used in Silhouette to validate text field note entries. Users will not be able to enter values which do not conform to the specified Regular Expression pattern.

Regular Expressions use a definition language where characters have special meaning. There are many special characters, the ones used in the examples that follow are:

- Square brackets [], to specify the range of characters that are allowed.
- Curly brackets {}, to specify the number of times the previous pattern must match.
- Question mark ?, to specify the previous pattern must match 0 or 1 times.
- Carat ^, to specify the match must occur at the beginning of the string.
- Dollar sign \$, to specify the match must occur at the end of the string.
- Use of both ^ and \$ specifies that the whole input string must match the pattern.

Patient Identifier Examples for Silhouette

Example A

A 5 digit patient number would be written as:

- `^[0-9]{5}$`
- Values satisfying this regular expression include 12345 and 70319
- Values not satisfying this regular expression include A1234 and 123456

Example B

A 3 digit unit ID, a dash, then a 3 digit patient number would be written as:

- `^[0-9]{3}-[0-9]{3}$`
- Values satisfying this regular expression include 147-963 and 456-321

Example C

Two upper-case alphabetic character unit ID, then 4 digit patient number, optionally followed by a dash and free text would be written as:

- `^[A-Z]{2}[0-9]{4}-?`
- Values satisfying this regular expression include ZK1648 and VT7642-ABC

Example D

A three-digit unit ID, a dash, a patient number comprising 4, 5 or 6 numeric digits, and the last character being an upper-case A, B, or C to indicate three different study groups would be written as:

- `^[0-9]{3}-[0-9]{4,6}[ABC]{1}$`
- Values satisfying this regular expression include 010-01934A and 110-50012C

Through the simple use of regular expressions you can control the accuracy of information entered into a system and hence improve reliability and reduce errors.

Further reading and an interactive tutorial can be found here: <http://regexone.com/>

Other examples

- International phone numbers should begin with a plus “+” character – e.g. +64 for New Zealand.
- An email address should contain only one “@” character
- A bank account number should begin with a two-digit bank identification number
- A credit card number comprises four groups of four digits
- A financial amount can comprise numeric digits, decimal point, commas, and the dollar sign e.g. \$41,031.64
- A patient name comprising first name, optional middle name, and surname.

Using Regular Expressions the following types of structures can be specified:

- A character from a group of characters, e.g.:
 - A lower-case alphabetic character [a-z]
 - An upper-or-lower case alphabetic character [a-zA-Z]
 - A numeric digit [0-9]
 - Alphanumeric characters comprising lower-case alphabetic or numeric digits [0-9a-z]
 - Commonly occurring punctuation characters such as dash “-”, comma “,”, period “.”, brackets “[”, and braces “{”, etc.
- A character can occur a fixed number of times, e.g.:
Three characters which can be either a, b or c would be written as: `[abc]{3}`
- A single optional character is indicated by the question mark “?”, e.g.:
An optional uppercase alphabetic character would be written as: `[A-Z]?`
- 1 upper-case alphabetic or 2 numeric digits could be required using the special or operator “|”:
such as: `[A-Z]|[0-9]{2}`

Some real-world examples include:

- A credit card number - four groups of four digits separated by a dash:
`^[0-9]{4}-[0-9]{4}-[0-9]{4}-[0-9]{4}$`
- A New Zealand national phone number - a two digit area code in brackets, followed by three digits, then a dash, then four digits:

```
^\(0[1-9]\)[0-9]{3}-[0-9]{4}$
```

Things to Note

- The special treatment of the “(“ and “)” characters –these have special meaning within Regular Expression language so when they need to be used as normal characters this needs to be indicated. Preceding special characters with the “\” (“slash”) character tells the computer to treat the character as regular text - this is referred to as “escaping” a character. Other characters that may need escaping include “[“, “]”, even the slash itself requires escaping using a slash. “\”.
- The dash “-“ character generally doesn’t require escaping, although it does have special meaning when used to designate a character range within the square brackets. If a dash is used outside a character range statement then it will be interpreted as a normal character.
- If any part of the input matches the Regular Expression then the validation passes. If you wish to match the whole entry field then it is important to use the beginning of string “^” and end of string “\$” anchors.
- Regular Expressions can become very complex and testing them carefully to ensure they both accept and reject the correct input is important. It is also recommended to test the regular expressions on all applications used for data entry (i.e. SilhouetteCentral, SilhouetteLite, SilhouettteLite+, and SilhouetteConnect).

Appendix H: Conditional Expression Syntax

Conditional expressions are used in a number of different features within Silhouette, including validation expressions, visibility expressions and triggers for emails. Conditional expressions should always be written as a boolean expression, evaluating as either true or false.

It is recommended to test conditional expressions on all target applications to ensure they provide consistent outcomes, e.g. test a visibility expression on SilhouetteCentral Web App, SilhouetteLite+ iOS App and PDF assessment reports.

Conditional expressions can refer to any notes item that has been assigned a variable name. Variable name references are case sensitive.

As well as referring to variables, conditional expressions can contain constant values. Numbers must be written in decimal notation and text must be enclosed in single quotes, and boolean values are true or false e.g.

```
braden_score > 5
temperature <= 32.75
approval_status == 'undecided'
wound_state_recurring == true
```

As demonstrated in the previous sample expressions, it is possible to compare two or more values in an expression. The following logical operators are available.

Operator	Description	Example Expression
<=	Less than or equal to	height <= 150
<	Less than	height < 145
>=	Greater than or equal to	weight >= 275
>	Greater than	temperature > 35
==	Equal to	smoking_history == 'never smoked'
!=	Not equal to	admission_status != 'admitted'
!	Negation	!edema_present
&&	And	impaired_sensation_left && impaired_sensation_right
	Or	palliative_care edema_present

Simple calculations can also be performed using the following mathematical operators

Operator	Description	Example Expression
+	Addition	left_area + right_area > 25
-	Subtraction	Initial - final > 14
*	Multiplication	length * width == 45
/	Division	volume / depth == area
%	Modulo	x % 5 == 1

There are also a number of functions available for use that can perform specialist operations:

Function	Description	Example Expressions
HasNoValue(x)	Returns true if variable 'x' does not contain a value. This is a convenience instead of having to write !HasValue(x)	HasNoValue(admission_status)
HasValue(x)	Returns true if variable 'x' contains a value. In other words it will return true if the user has recorded a value in the notes items within Silhouette. NOTE: The single argument to HasValue must be a name of a variable.	HasValue(admission_status)
IsNull(x, y)	Returns the value of variable 'x' if the user has recorded a value in the notes field within Silhouette, otherwise returns the value 'y'. NOTE: The first argument to IsNull must be the name of a variable.	IsNull(wound_pain, 0) > 5
ListContains(x, y)	Returns true if the multi-select list variable 'x' contains item 'y'. NOTE: The first argument to ListContains must be the name of a variable.	ListContains(contributing_factors, 'Shearing')
ListLength(x)	Returns the number of items selected in a multi-select list variable 'x'. NOTE: The single argument to ListLength must be the name of a variable.	ListLength(contributing_factors) > 2
ParseInt(x)	Converts a string into an integer value. Causes an error if the argument is not correctly formatted. This function is useful if comparing the value of a selected lookup item. The values are returned as strings and the ParseInt function must be used to convert them to integers.	ParseInt(variable_name) <= 5

Expressions are evaluated with standard precedence of operators. You can place sub-expressions in brackets, or parenthesis to alter the precedence if required.

Appendix I: Template Macros

Template macros allow a template string to include details retrieved from the data dynamically at run-time, e.g. a report filename can include data from the patient or assessment.

A macro is indicated by a set of curly braces in the general form *{Source,Path,Empty}*, where:

- *Source* describes the entity to retrieve the value from.
- *Path* defines exactly which value from the *Source* is desired to.
- *Empty* (optional) is used as a value to return if the macro value obtained is NULL or an empty string. If an *Empty* parameter is not provided then an empty string is returned.

The source and path macros available depend upon the context in which the format string will be utilized, e.g. a *wound* source makes sense in a filename template for a wound assessment but not for a patient assessment.

The *Source* and *Path* are case insensitive.

To be identified as a macro within a template string, the macro must have:

- Opening and closing curly braces.
- A *Source* value without leading or trailing space characters.
- A comma (,).
- A *Path* value without a leading space character.

Text in the string that does not meet the above pattern is treated as literal text, e.g. `{}` is treated as literal `{}` or `{source , path}` is treated as literal `{source , path}`.

Assessment Integration Filename Templates

The following macros are available for the assessment integration filename templates.

Source	Description				
System	Information associated with the SilhouetteCentral environment that is processing the request. <table border="1"> <thead> <tr> <th>Path</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Date</td> <td>The current date and time of the server processing the request.</td> </tr> </tbody> </table>	Path	Description	Date	The current date and time of the server processing the request.
Path	Description				
Date	The current date and time of the server processing the request.				
Assessment	Information associated with the assessment related to the current macro context. <table border="1"> <thead> <tr> <th>Path</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Date</td> <td>The date and time the assessment was originally created.</td> </tr> </tbody> </table>	Path	Description	Date	The date and time the assessment was originally created.
Path	Description				
Date	The date and time the assessment was originally created.				

Source	Description												
Wound	<p>Information associated with the wound related to the current macro context.</p> <table border="1"> <thead> <tr> <th>Path</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Label</td> <td>The wound index / label e.g. "A" or "1".</td> </tr> <tr> <td>AnatomicalSite</td> <td> <p>A description of the anatomical site the wound is associated with.</p> <p>The Anatomical Site description as it shows in the UI and the Anatomical Site code configured in Silhouette are both made available to the integration engine.</p> </td> </tr> </tbody> </table>	Path	Description	Label	The wound index / label e.g. "A" or "1".	AnatomicalSite	<p>A description of the anatomical site the wound is associated with.</p> <p>The Anatomical Site description as it shows in the UI and the Anatomical Site code configured in Silhouette are both made available to the integration engine.</p>						
Path	Description												
Label	The wound index / label e.g. "A" or "1".												
AnatomicalSite	<p>A description of the anatomical site the wound is associated with.</p> <p>The Anatomical Site description as it shows in the UI and the Anatomical Site code configured in Silhouette are both made available to the integration engine.</p>												
Order	<p>Information associated with an order related to the current macro context.</p> <p>Typically the macro context is related to an order through the assessment. There can be zero, one or many orders linked to an assessment. When there are no orders linked then the macros return empty strings and when there are many orders linked, the macros return data based on the last order linked.</p> <table border="1"> <thead> <tr> <th>Path</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>orderid</td> <td>The order id field.</td> </tr> <tr> <td>status</td> <td>The status of the order, either <i>Active</i> or <i>Completed</i>.</td> </tr> <tr> <td>scheduleddate</td> <td>The scheduled date and time of the order in UTC and ISO 8601 compliant format, e.g. 2016-03-10T19_43_00Z.</td> </tr> <tr> <td>description</td> <td>The description of the order in Silhouette.</td> </tr> <tr> <td>maxassessments</td> <td>The maximum assessments configured for the order within Silhouette.</td> </tr> </tbody> </table> <p>All other order and encounter notes are accessible via the <i>Notes</i> source, see Appendix E: Order and Encounter Notes Definitions.</p>	Path	Description	orderid	The order id field.	status	The status of the order, either <i>Active</i> or <i>Completed</i> .	scheduleddate	The scheduled date and time of the order in UTC and ISO 8601 compliant format, e.g. 2016-03-10T19_43_00Z.	description	The description of the order in Silhouette.	maxassessments	The maximum assessments configured for the order within Silhouette.
Path	Description												
orderid	The order id field.												
status	The status of the order, either <i>Active</i> or <i>Completed</i> .												
scheduleddate	The scheduled date and time of the order in UTC and ISO 8601 compliant format, e.g. 2016-03-10T19_43_00Z.												
description	The description of the order in Silhouette.												
maxassessments	The maximum assessments configured for the order within Silhouette.												
Notes	<p>Provides access to all patient information and assessment notes recorded for the patient and assessment currently being processed.</p> <p>'Path' should be of a valid variable associated with a notes field and the current value for that notes field will be returned. The variables for the default set of notes are listed in Appendix C: Wound State Definitions and Appendix D: Notes Definitions.</p> <p>If a Single Select List note variable is requested, both the lookup text and the lookup code are made available to the integration engine.</p> <p>If an unknown variable name is requested an empty string will be returned.</p>												

The date and time formats produced by Silhouette in the Assessment Integration Filename Templates are ISO 8601 formats, specifically:

- 'yyyy-MM-ddTHH:mm:ssZ' for date and time values.
- 'yyyy-MM-dd' for date values.

The integration engine can transform the format to meet the required output.

Examples:

- {notes,details_patient_id} returns the Patient Id.
- {wound,label} returns the wound label, 'A'.
- {assessment,date} returns the date of the assessment, e.g. 2000-01-03T19:30:22+5.
- {notes,details_unit} returns the current unit for the patient.
- {Wound,AnatomicalSite} returns the anatomical site as seen in Silhouette, including the auxiliary text.
- {Notes,details_date_of_birth} returns the patients date of birth, e.g. 1988-01-14.
- {Notes,details_is_female} returns the patients gender, e.g. Male.
- {System,Date} returns the current date and time on the SilhouetteCentral server, e.g. 2019-10-19T07:30:02+13.
- {order,orderid} returns the orderId for the last order linked to the assessment.
- {notes,encounter_encounter_id} returns the encounter account number for the last order linked to the assessment.

Reports and Exports Filename Templates

The following macros can be used in the reports and exports **Filename Templates** organizational settings.

Source	Description				
System	Information associated with the SilhouetteCentral environment that is processing the request.				
	<table border="1"> <thead> <tr> <th>Path</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Date</td> <td>The current date and time of the server processing the request.</td> </tr> </tbody> </table>	Path	Description	Date	The current date and time of the server processing the request.
Path	Description				
Date	The current date and time of the server processing the request.				

Source	Description																																
Patient	<p>Information associated with the patient related to the current macro context (e.g. the patient relating to the PDF assessment report being generated).</p> <table border="1" data-bbox="359 365 1406 1332"> <thead> <tr> <th data-bbox="359 365 694 398">Path</th> <th data-bbox="694 365 1406 398">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 421 694 454">PatientId</td> <td data-bbox="694 421 1406 454">The main Silhouette domain identifier used for the patient.</td> </tr> <tr> <td data-bbox="359 477 694 510">FirstName</td> <td data-bbox="694 477 1406 510">The patient's first name.</td> </tr> <tr> <td data-bbox="359 533 694 566">MiddleName</td> <td data-bbox="694 533 1406 566">The patient's middle name.</td> </tr> <tr> <td data-bbox="359 589 694 622">LastName</td> <td data-bbox="694 589 1406 622">The patient's last name.</td> </tr> <tr> <td data-bbox="359 645 694 678">DateOfBirth</td> <td data-bbox="694 645 1406 678">The patient's date of birth.</td> </tr> <tr> <td data-bbox="359 701 694 734">Unit</td> <td data-bbox="694 701 1406 734">The name of the unit the patient is currently assigned to.</td> </tr> <tr> <td data-bbox="359 757 694 790">Street</td> <td data-bbox="694 757 1406 790">The street component of the patient's address.</td> </tr> <tr> <td data-bbox="359 813 694 846">Suburb</td> <td data-bbox="694 813 1406 846">The suburb component of the patient's address.</td> </tr> <tr> <td data-bbox="359 869 694 902">City</td> <td data-bbox="694 869 1406 902">The city component of the patient's address.</td> </tr> <tr> <td data-bbox="359 925 694 958">State</td> <td data-bbox="694 925 1406 958">The state component of the patient's address.</td> </tr> <tr> <td data-bbox="359 981 694 1014">Postcode</td> <td data-bbox="694 981 1406 1014">The postcode component of the patient's address.</td> </tr> <tr> <td data-bbox="359 1037 694 1070">Country</td> <td data-bbox="694 1037 1406 1070">The country component of the patient's address.</td> </tr> <tr> <td data-bbox="359 1093 694 1126">WorkPhone</td> <td data-bbox="694 1093 1406 1126">The patient's work phone contact number.</td> </tr> <tr> <td data-bbox="359 1149 694 1182">HomePhone</td> <td data-bbox="694 1149 1406 1182">The patient's home phone contact number.</td> </tr> <tr> <td data-bbox="359 1205 694 1238">MobilePhone</td> <td data-bbox="694 1205 1406 1238">The patient's mobile phone contact number.</td> </tr> </tbody> </table> <p>All other patient notes are accessible via the <i>Notes</i> source.</p>	Path	Description	PatientId	The main Silhouette domain identifier used for the patient.	FirstName	The patient's first name.	MiddleName	The patient's middle name.	LastName	The patient's last name.	DateOfBirth	The patient's date of birth.	Unit	The name of the unit the patient is currently assigned to.	Street	The street component of the patient's address.	Suburb	The suburb component of the patient's address.	City	The city component of the patient's address.	State	The state component of the patient's address.	Postcode	The postcode component of the patient's address.	Country	The country component of the patient's address.	WorkPhone	The patient's work phone contact number.	HomePhone	The patient's home phone contact number.	MobilePhone	The patient's mobile phone contact number.
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Assessment	<p>Information associated with the assessment related to the current macro context (e.g. the assessment relating to the PDF assessment report being generated).</p> <table border="1" data-bbox="359 1491 1406 1581"> <thead> <tr> <th data-bbox="359 1491 694 1525">Path</th> <th data-bbox="694 1491 1406 1525">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 1547 694 1581">Date</td> <td data-bbox="694 1547 1406 1581">The date and time the assessment was originally created.</td> </tr> </tbody> </table>	Path	Description	Date	The date and time the assessment was originally created.																												
Path	Description																																
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Source	Description						
Wound	<p>Information associated with the wound related to the current macro context (e.g. the wound relating to the PDF assessment report being generated).</p> <table border="1"> <thead> <tr> <th>Path</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Label</td> <td>The wound index / label e.g. "A" or "1".</td> </tr> <tr> <td>AnatomicalSite</td> <td> <p>A description of the anatomical site the wound is associated with.</p> <p>The Anatomical Site description as it shows in the UI and the Anatomical Site code configured in Silhouette are both made available to the integration engine.</p> </td> </tr> </tbody> </table>	Path	Description	Label	The wound index / label e.g. "A" or "1".	AnatomicalSite	<p>A description of the anatomical site the wound is associated with.</p> <p>The Anatomical Site description as it shows in the UI and the Anatomical Site code configured in Silhouette are both made available to the integration engine.</p>
Path	Description						
Label	The wound index / label e.g. "A" or "1".						
AnatomicalSite	<p>A description of the anatomical site the wound is associated with.</p> <p>The Anatomical Site description as it shows in the UI and the Anatomical Site code configured in Silhouette are both made available to the integration engine.</p>						
Notes	<p>Provides access to all patient information and assessment notes recorded for the patient and assessment currently being processed.</p> <p>'Path' should be of a valid variable associated with a notes field and the current value for that notes field will be returned. The variables for the default set of notes are listed in Appendix C: Wound State Definitions and Appendix D: Notes Definitions.</p> <p>If a Single Select List note variable is requested, both the lookup text and the lookup code are made available to the integration engine.</p> <p>If an unknown variable name is requested an empty string will be returned.</p>						

The date and time formats produced by Silhouette in the Report and Export Filename Templates are in the format YYYY-mm-DD_HH_MM_SS by default. The date format can be modified by specifying a format parameter for the path, e.g. {Patient,DateOfBirth:format=yyyy-MM-dd}.

The format string parameter can be any valid format string understood by Microsoft .NET's System.DateTime class. For further information refer to Microsoft's documentation for [Standard Date and Time Format Strings](#) or [Custom Date and Time Format Strings](#).

Examples:

- {Patient,PatientId} returns the Patient Id.
- {wound,label} returns the wound label, 'A'.
- {assessment,date} returns the date of the assessment, e.g. 2000-01-03_19_30_22.
- {Patient,Unit} returns the current unit for the patient.
- {Wound,AnatomicalSite} returns the anatomical site as seen in Silhouette, including the auxiliary text.
- {Patient,DateOfBirth:format=yyyy-MM-dd} returns the patients date of birth, e.g. 1988-01-14.
- {Notes,details_is_female} returns the patients gender, e.g. Male.
- {System,Date} returns the current date and time on the SilhouetteCentral server, e.g. 2019-10-19_07_30_02.

Appendix J: Email Templates

The email template uses the ASP.NET Razor View Engine to form an HTML email and can access the data model of Silhouette to include data from the assessment into the body of the email. The email template files are provided as `.cshtml` files.

These files generally start with a `@model` statement which tells Silhouette which data model to load.

Contact your ARANZ Medical representative for support in creating custom Email templates.

Silhouette Assessment Emails

The data model used in the Assessment Email template is `Silhouette.Email.Template.Models.Assessment`.

This data model is complex and comprehensive, providing access to:

- Assessment data.
- Wound data
- Patient data
- Order data
- Encounter data

The exact model structure is not documented here. Contact your ARANZ Medical representative for support in creating custom Email templates.



Consider patient information data privacy when creating email templates to be sent from Silhouette. If any personal data is included in the email template then you need to consider any data privacy issues, including processing by email sending providers and email recipient systems.

Silhouette Welcome Emails

The data model used in the Welcome Email templates is `Silhouette.Email.Template.Models.User`. The table below describes the contents of the model which can be used in the Welcome Email templates.

Model Element	Description
FirstName	The first name of the user.
LastName	The last name of the user.
EmailAddress	The Email address of the user.
UserName	The Silhouette user name allocated to the user.
Silhouette.SilhouetteCentralUrl	The base URL of SilhouetteCentral. Use this to provides a link in the Email to the SilhouetteCentral instance.

Model Element	Description
Silhouette.SilhouetteConnectDownloadUrl	Provides a URL to download the SilhouetteConnect installer for the instance of SilhouetteCentral generating the email. Use this to provide clinical users with a SilhouetteConnect download that is bootstrapped with the same licensing client code as SilhouetteCentral and the configuration to sync to the SilhouetteCentral instance.
Silhouette.SilhouetteHelpUrl	Provides a URL to the Silhouette help files hosted by ARANZ Medical.

Silhouette Password Reset Emails

The data model used in the Password Reset templates is `Silhouette.Email.Template.Models.PasswordReset`. The table below describes the contents of the model, which can be used in the Password Reset Email templates.

Model Element	Description
FirstName	The first name of the user.
LastName	The last name of the user.
Name	A concatenation of FirstName and LastName.
EmailAddress	The Email address of the user.
UserName	The Silhouette user name allocated to the user.
ResetLink	The link the user can use to reset their password.
CancelLink	The link the user can use to explicitly cancel the password reset request and invalidate the password reset link.
ExpirationMinutes	How long, in minutes, before the reset link will expire.