



Silhouette v4

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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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, covering the installation and initial configuration of both SilhouetteCentral and SilhouetteConnect.
- The Silhouette Clinical User's Guide, covering the clinical features for clinical users.

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

- SilhouetteCentral version 4.22.
- SilhouetteConnect version 4.22.
- SilhouetteStar 2 software version 1.10.
- SilhouetteLite version 1.13.
- SilhouetteLite+ version 1.13.

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. 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 is a web-based application and central storage, enabling users to review, report, securely share, and analyze the wound data collected using SilhouetteCentral, SilhouetteConnect, SilhouetteStar, SilhouetteLite+, and SilhouetteLite devices and applications. SilhouetteCentral can collect images directly with a SilhouetteStar 2 scanner or using built-in cameras on mobile devices.

SilhouetteCentral has four main interfaces:

- 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, roles, data fields, 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 federated identity provider (e.g. AD FS).



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, 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:

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- 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 only 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.

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- 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 |
|--------------------------|--|
| 2D Imaging Feature | <p>The 2D Imaging Feature enables the capture of images using mobile device built-in cameras. The use of reference stickers allows 2D planimetry measurements to be made from the captured images.</p> <p>Available for limited geographic markets in SilhouetteCentral v4.14 and above.</p> |
| 3D Imaging Feature | <p>The 3D Imaging Feature enables the capture of images using mobile device built-in cameras. The use of reference stickers allows 3D measurements to be made from the captured images.</p> <p>Available for limited geographic markets in SilhouetteCentral v4.15 and above.</p> |
| Assessment Email Actions | <p>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.</p> <p>Available for SilhouetteCentral v4.3 and above.</p> |
| Clinical Data Export | <p>The Clinical Data Export feature for SilhouetteCentral enables assessment data to be exported into comma separated values (CSV) format.</p> <p>Available for SilhouetteCentral v4.4 and above.</p> |
| Dashboard Feature | <p>The Dashboard feature for SilhouetteCentral enables configurable dashboards that can display a wide range of metrics and visualizations.</p> |
| Home User Access | <p>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.</p> <p>Available for SilhouetteCentral v4.10 and above.</p> |
| Patient Barcode Feature | <p>The patient barcode feature allows searching for a patient within Silhouette by scanning a barcode containing a patient identifier.</p> |

| Feature Name | Feature Description |
|----------------------------------|--|
| Silhouette Integration Interface | <p>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.</p> <p>This feature is required to enable Orders workflows within Silhouette.</p> <p>Available for SilhouetteCentral v4.7 and above.</p> |
| Source List Feature | <p>The source list feature in Silhouette allows curated tabular data to be imported and then used within clinical data as a data source for selection lists. When referenced in the clinical notes the user can search for and select an item from the list quickly, the selected item stored and processed as normal within the notes.</p> |
| SSO Integration | <p>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.</p> <p>Available for SilhouetteTokenService v4.11 and above.</p> |

SilhouetteConnect Licensed Features

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

| Feature Name | Feature Description |
|----------------------|--|
| 2D Imaging Feature | <p>The 2D Imaging feature for SilhouetteConnect enables capturing 2D images using the webcam of the device. Measurements of area, length, and perimeter can be calculated if a suitable green reference sticker is placed on the body surface beside the feature of interest during image capture.</p> |
| 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](#)



[Imaging in Silhouette](#)



[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.

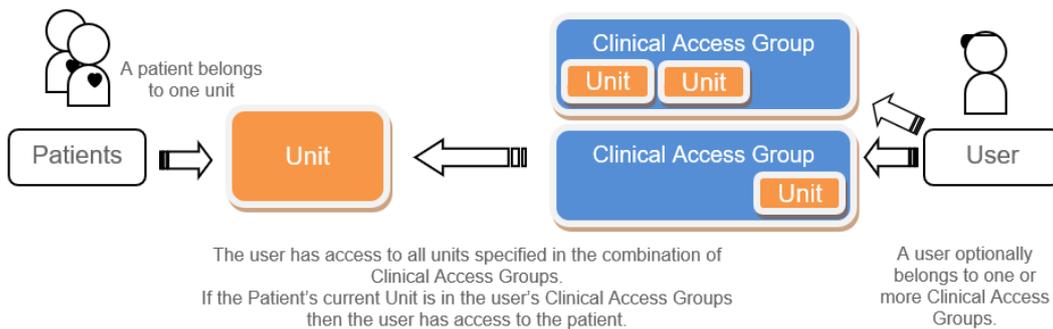
A Unit can represent a clinical site, a facilities, a ward, a clinic, or a class of patient record (e.g. VIP).

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).

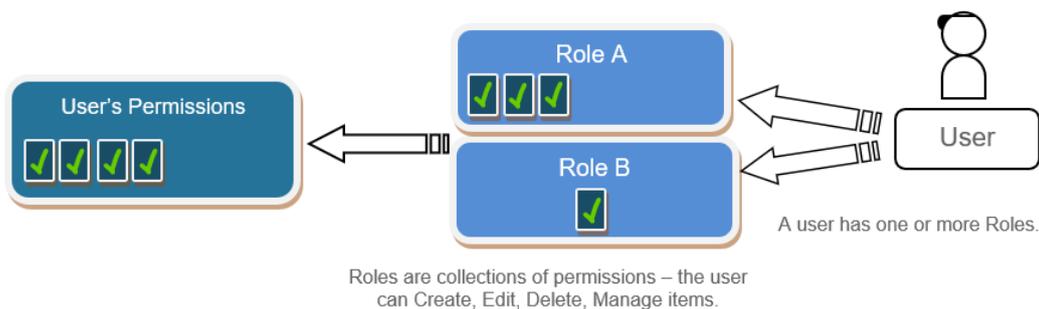
- A Clinical User can be assigned to one or more Clinical Data Access Groups. A Clinical Data Access Group defines the patient data the user will be able to see by listing a set of Silhouette Units, see [Units in Silhouette](#).



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.

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.

- 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.

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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 contract 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.

Assessment Filtering

Assessments can be filtered by two categories on the Add Assessments wizard. The two filter categories are Wound and Patient assessment.

Selecting wound or patient, filters the list of assessments by assessment type to show only the corresponding assessments.

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).

Imaging in Silhouette

A key feature of Silhouette is the ability to use imaging as an integral part of your wound and skin assessment documentation.

Images are captured directly into a patient record and stay with that record in Silhouette. Images are used in patient or wound assessments using image capture fields, which gives them context and a purpose within the assessment, linking them to a wound and other notes.

Images that support measurements (2D or 3D) can have wound outlines added to them and rulers applied to them to generate wound dimensions.

- 2D measurement capable imaging allows measurement of area, perimeter, length, and width.
- 3D measurement capable imaging allows for higher accuracy measurement area, perimeter, length, width, depth, and volume.

Silhouette offers a range of imaging options that suit different care settings and user needs. Each imaging method has its own strengths. A brief description of each imaging type is provided below with more details provided in the Clinical User's Guide and in the Silhouette v4 System Specification documentation.

Secure image capture.

- Allows images to be captured using a phone or tablet camera directly to your instance of SilhouetteCentral.
- Allows JPEG file upload from desktops and laptops.
- Is the only imaging option available to home users.
- Captures images directly into an assessment for a very simple workflow.
- Available when using SilhouetteCentral.
- The images captured provide no measurement capability.

SilhouetteLite iOS® app.

- Simple imaging available to anyone using an Apple iPhone or iPad with your instance of SilhouetteCentral.
- Provides a simple imaging workflow with offline support when the network is not always available.
- The images captured provide no measurement capability.

SilhouetteLite+ iOS app with the SilhouetteLite+ sensor.

- 2D measurement capable imaging available to anyone using an Apple iPhone or iPad with your instance of SilhouetteCentral.
- Provides a simple imaging workflow with offline support when the network is not always available.
- 2D measurements are enabled by the contact-less SilhouetteLite+ sensor attached to the iPhone or iPad.

2D/3D imaging in SilhouetteCentral.

- 2D/3D measurement capable imaging available to anyone using a compatible mobile device with a built-in camera and carrying a set of reference stickers.

- Reference stickers are off-the-shelf green dots. See the [Sourcing a Reference Sticker](#) topic for the requirements for the reference sticker.
- Image multiple wounds one after the other, loading images to the patient portfolio for use in assessments at a later time.
- Load images directly to your instance of SilhouetteCentral. A network connection to SilhouetteCentral is required at the time of capture.
- 2D/3D measurements are enabled by placing a reference sticker on the patient's skin near the wound or region of interest.



Reference stickers are placed on healthy skin near the wound. Reference stickers are off-the-shelf non-sterile items that are used once and then disposed of. Care should be taken in the design of imaging protocols and training to prevent cross-contamination and to assess any risk of infection.

SilhouetteStar imaging.

- 3D measurement capable imaging using specifically designed wound care SilhouetteStar scanners from ARANZ medical.
- 3MP or 5MP options.
- Options for wireless (WiFi) operation to load images directly into your instance of SilhouetteCentral.
- Wired (USB) operation with SilhouetteConnect, providing offline support when the network is not always available.
- LED lighting to provide consistent lighting.
- Range guidance to provide consistent framing.
- Options for offline with USB connections with SilhouetteConnect
- Image multiple wounds one after the other, loading images to the patient portfolio for use in assessments at a later time.

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 subsequently edited before a **Sync** is performed, 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, 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, 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.

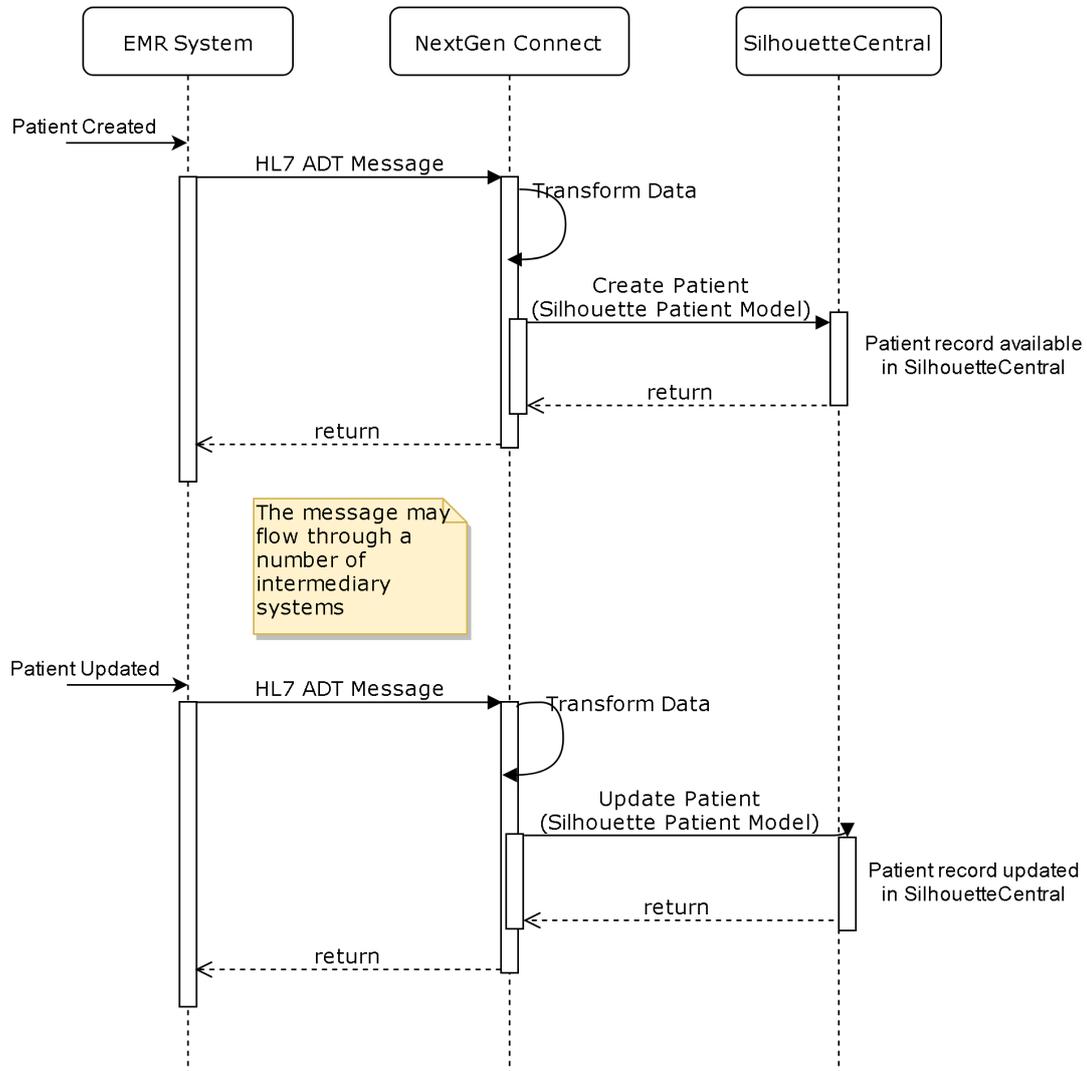
Integration is separated into two main categories:

- 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](#).

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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:

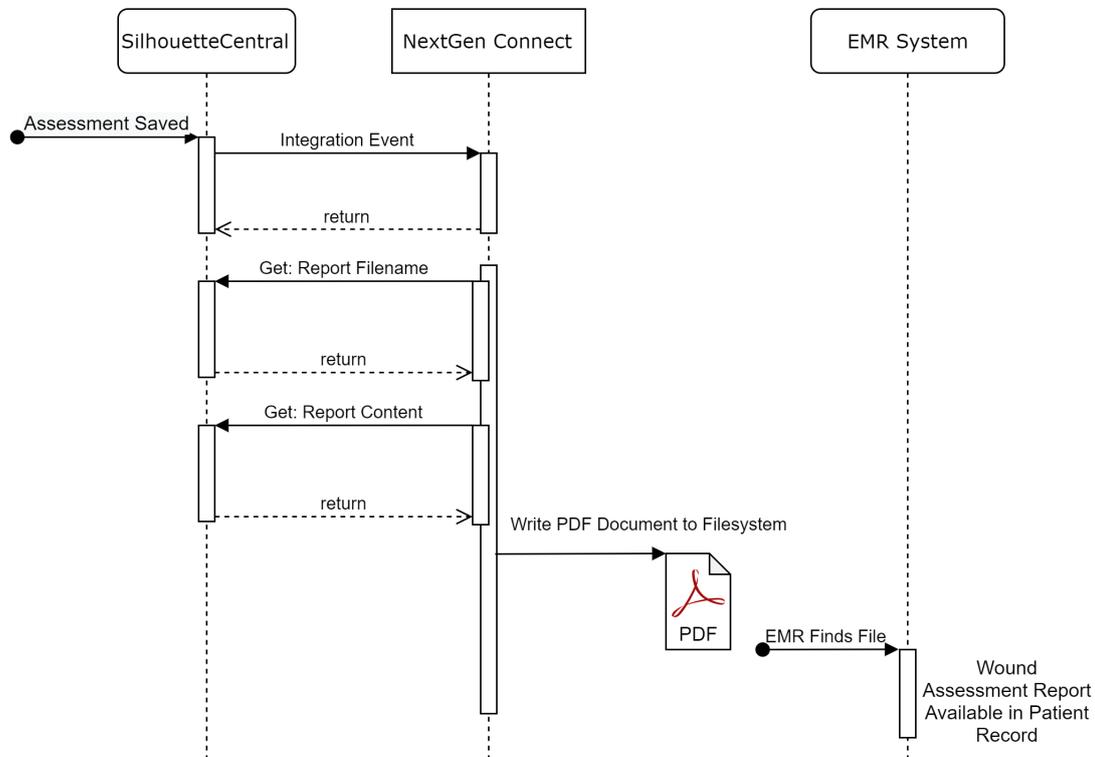
- Patient create / update / delete / merge
- Encounter create / update
- Order create / update

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 a reverse proxy with SSL 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](#)

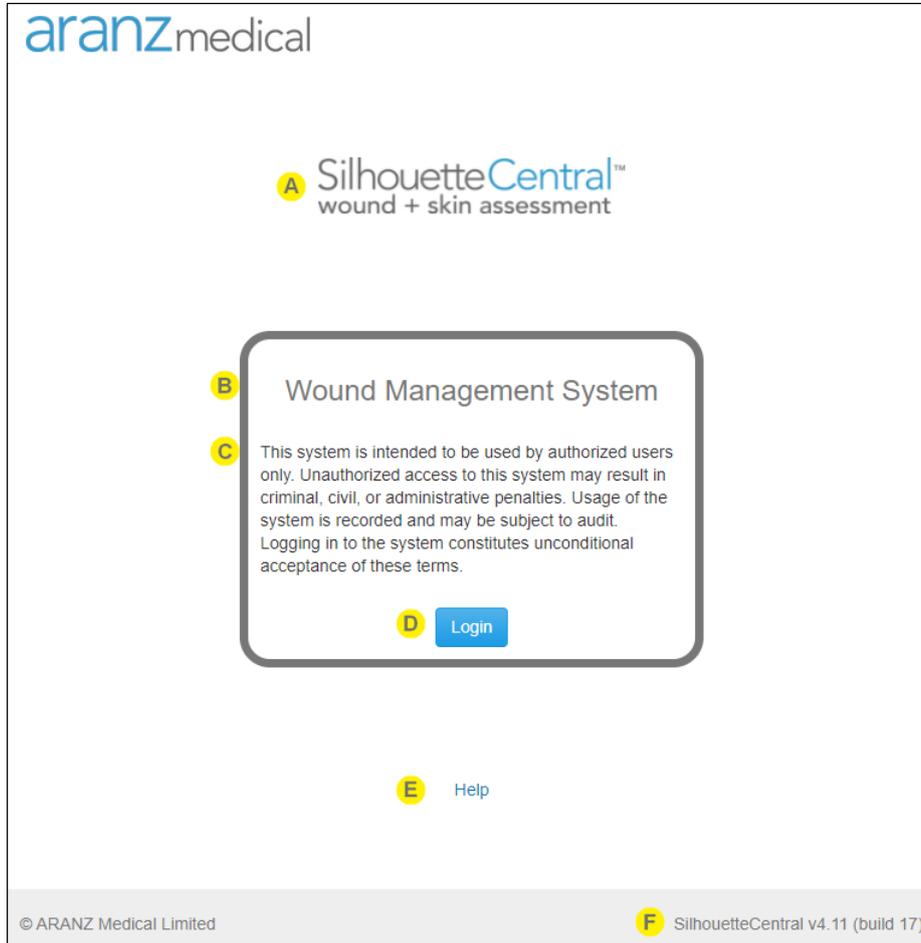


[Ending Your Silhouette Session](#)

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, you will see the patient search screen. If you need to start a new user session in SilhouetteCentral, you will see the unauthenticated landing page.



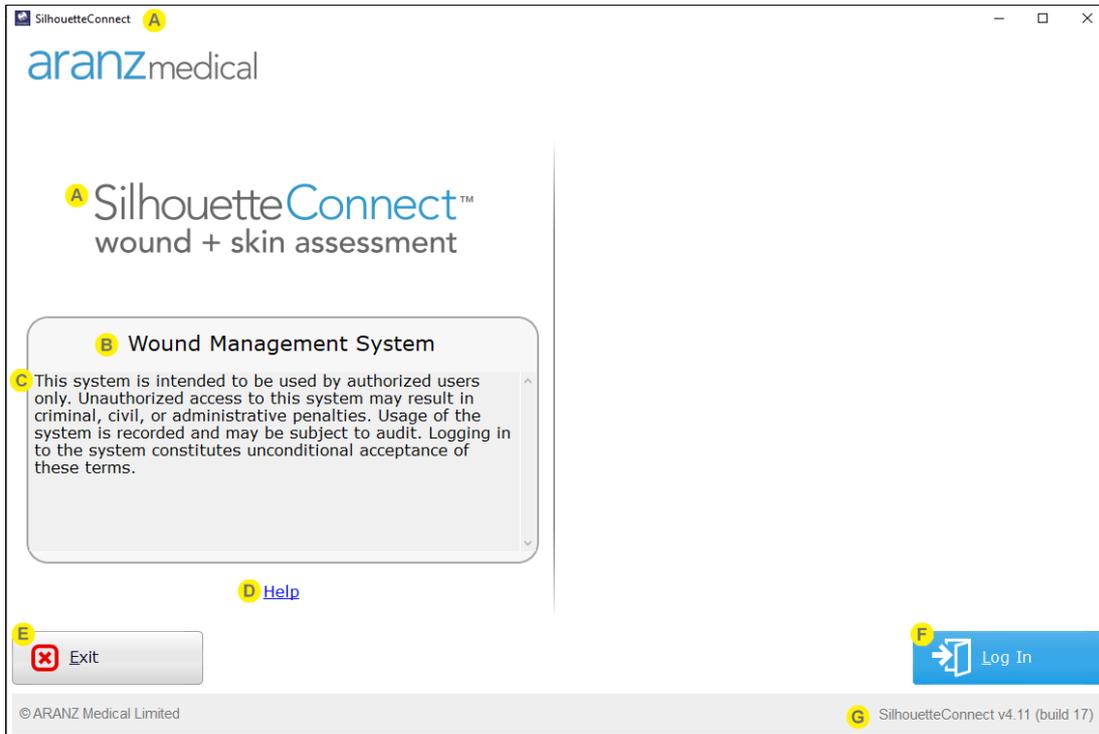
- A** The SilhouetteCentral word mark is shown to help you confirm you are accessing SilhouetteCentral rather than SilhouetteConnect.
- B** The system identification is shown as configured by the system administrator. Use this to confirm that you are accessing the correct system or instance (e.g. training 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, 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, 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.

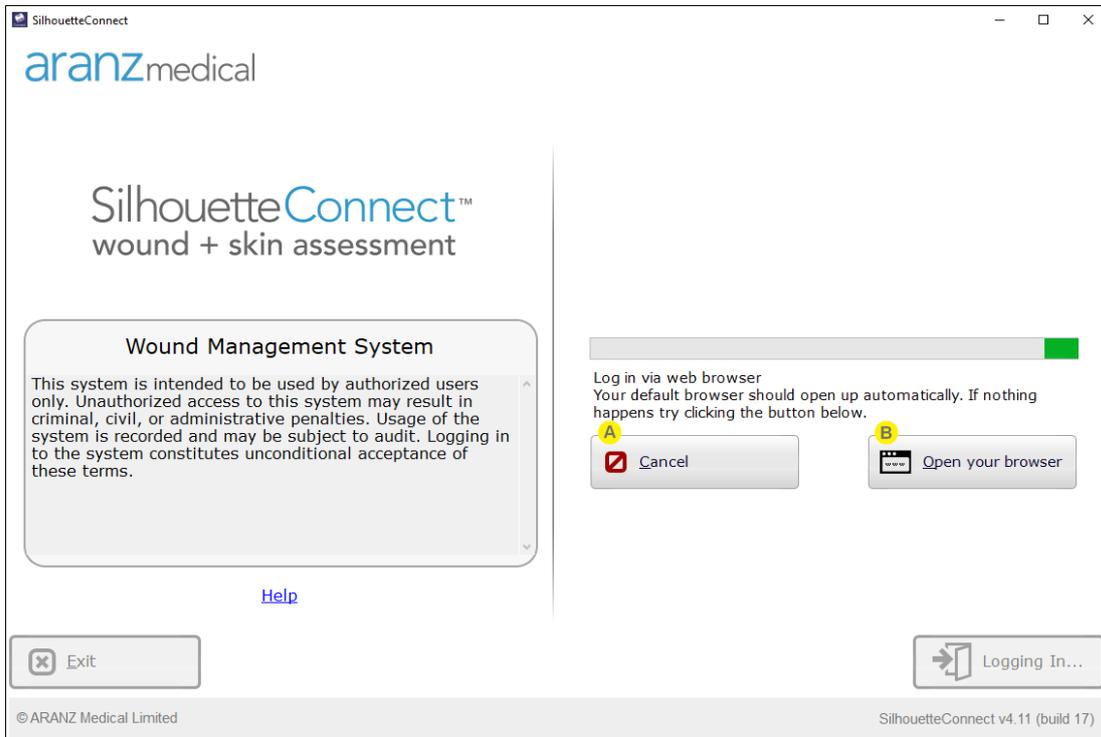
SilhouetteConnect Web Browser Login

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, 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), close the web browser, cancel the request from SilhouetteConnect, and 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.

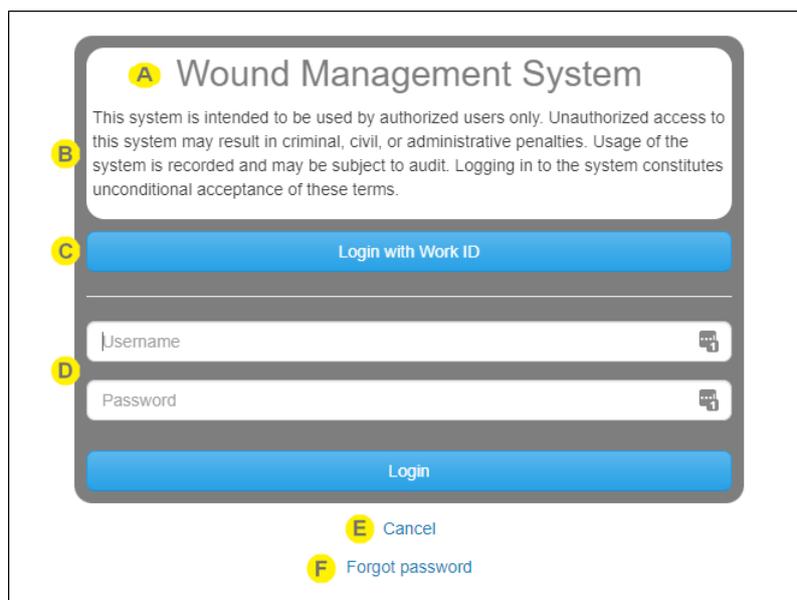
- [The Silhouette Login Screen](#)
- [Access Denied Screen](#)
- [Changing Passwords](#)
- [Recovering a Forgotten Password](#)

The Silhouette Login Screen

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

If there is only a single SSO option configured, 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, Logout from SilhouetteCentral and 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.

D If login with Silhouette local accounts is enabled, 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.

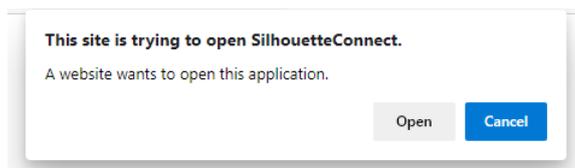
Forgot password emails are only available for Silhouette local accounts, not for user accounts provisioned through SSO authentication providers.

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 users 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:

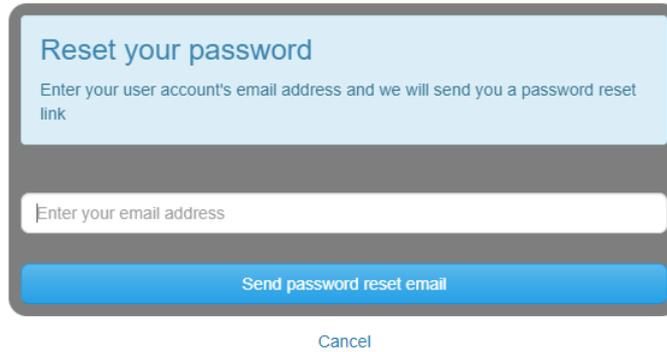
- The SilhouetteCentral system is configured to send emails using a valid SMTP Email sending service.
- The system administrator has enabled the password reset feature.
- Your email address is listed with your Silhouette user account.

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

42 • Recovering a Forgotten Password

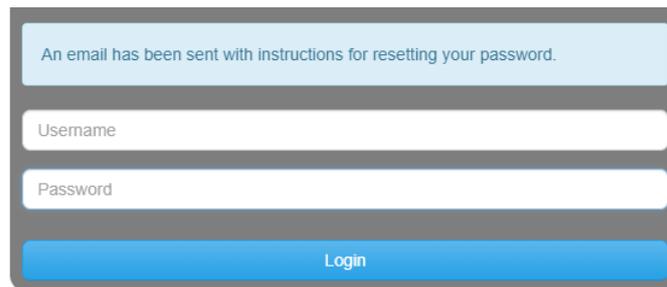
If you have forgotten your password, select the "Forgot Password" link on the login screen (see help topic [The Silhouette Login Screen](#)).

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.



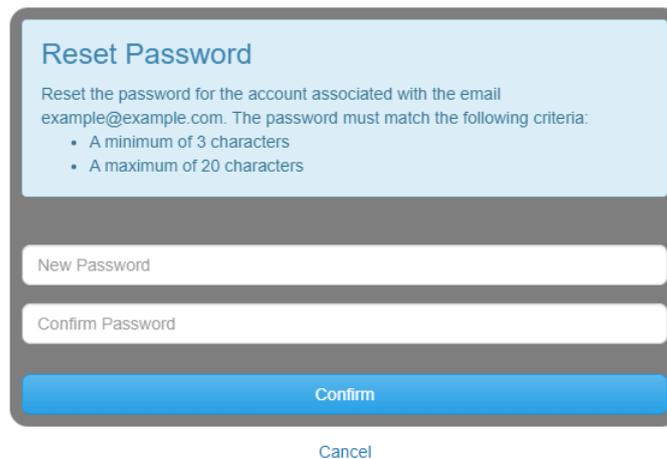
The screenshot shows a form titled "Reset your password" with a light blue header. Below the title, it says "Enter your user account's email address and we will send you a password reset link". There is a text input field with the placeholder "Enter your email address". Below the input field is a blue 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.



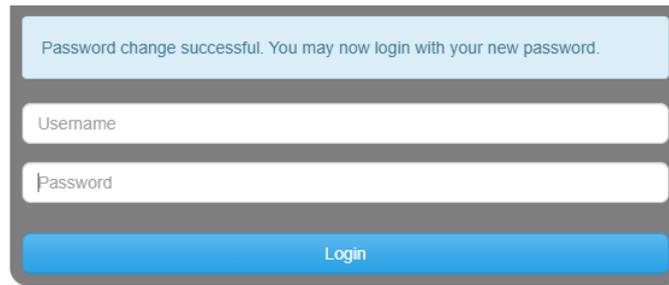
The screenshot shows a confirmation message in a light blue box: "An email has been sent with instructions for resetting your password." Below the message are two text input fields labeled "Username" and "Password". At the bottom is a blue button labeled "Login".

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.



The screenshot shows a form titled "Reset Password" with a light blue header. Below the title, it says "Reset the password for the account associated with the email example@example.com. The password must match the following criteria:" followed by a bulleted list: "A minimum of 3 characters" and "A maximum of 20 characters". There are two text input fields labeled "New Password" and "Confirm Password". Below the input fields is a blue button labeled "Confirm". Below the button is a "Cancel" link.

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.

Username

Password

Login

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

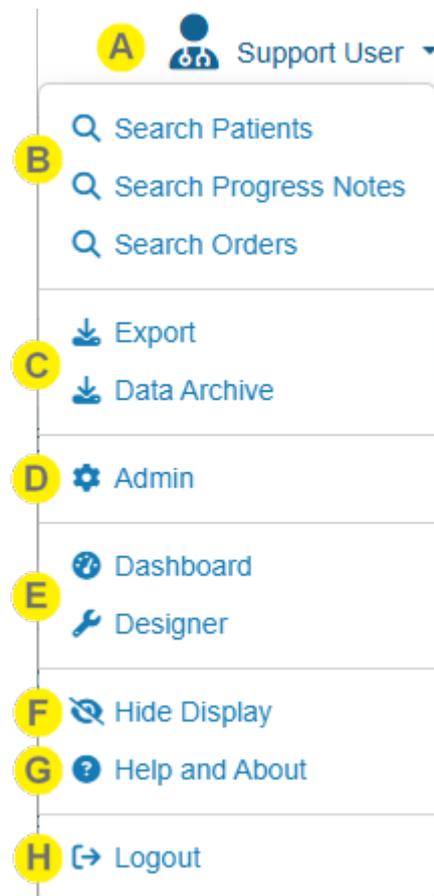
The basics of navigating within Silhouette are described in the following topics:

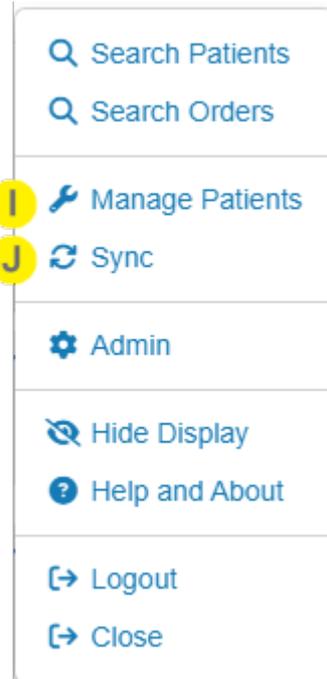
- [Application Menu](#)
- [Identifying Patients](#)
- [Searching and Selecting Patients](#)
- [Patient Banner and Sidebar](#)
- [Capturing Wound Images with SilhouetteStar](#)

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.

- A** Select your name in the top right of the application to show the Application Menu.
- B** Select the **Search Patients** option at any time to return to the patient search screen.
Select the **Search Progress Notes** option to search any progress notes in the system.
If the Silhouette system is configured to support integration with orders, the **Search Orders** option will also be available. Select **Search Orders** to search for an order.
- C** **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.
- D** **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.
- E** **Dashboard**
Takes you to the dashboards configured by ARANZ Support through the designer.
Designer
Link that takes you to the dashboard creator Stimulsoft used to create charts and graphs based on the data within Silhouette Central.

F**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.

G**Help**

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

H**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.

I**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.

J**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, Patient ID or by barcode. 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.

The search box also includes a scanning a patient tag. To do this click on the barcode icon in the search

box . This opens a scanning window on screen to scan the tag. Having the tag in frame, will automatically scan the tag and search for the patient in Silhouette Central.

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 patient navigation menu or sidebar is displayed on the left.

A breadcrumb is shown to help you follow where you are in the patient record.

The screenshot displays the patient record interface for a patient with ID 89 6F08542F-247E. The patient banner at the top shows the patient ID, name, and date of birth (1964-05-21, 61 years old). The sidebar on the left contains navigation options: Overview (D), Details (E), Investigation History (IH), Medical History (MH), Medication (Med), Allergies (AL), Orders (F), Messages (G), Progress Notes, Home Users Access (H), and Wounds (I). The Wounds section lists three active wounds: A: Left Forearm, Circumferential; 001L; B: Left Breast, Nipple; 002Lor; and C: Scalp, Posterior; 003Lo. The main content area shows a body diagram with callouts A, B, and C pointing to the left forearm, left breast, and scalp, respectively. The breadcrumb at the top indicates the current location is 'Patient'.

- 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.

The banner also contains buttons to allow actions (creating, editing, exporting, and administering data) to be completed according to your permissions.

- The main action button is the most common action expected for a novice user on the current screen.
- The **Actions** sub-menu provides access to other available actions.
- The camera icon opens the image **Portfolio**, containing the unassigned captured images and the SilhouetteStar connection information.

C The sidebar can be collapsed or expanded. In small screens the sidebar is shown as a menu.

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 Select **Messages** to view active or acknowledged messages.

I Select **Home User Access** to manage home users and access PIN.

H The list of wounds is shown in the sidebar, grouped by active and inactive status.

- Select a wound from the list, or from the mannequin, to open the associated Wound Overview.
- New wounds are created by selecting the **+ Wound** button from the **Action** sub-menu or from the mannequin.

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 with SilhouetteStar



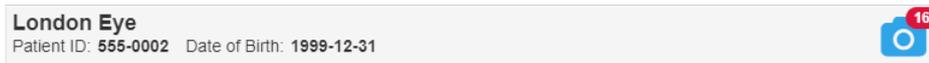
To get more comprehensive help with the Clinical UI in Silhouette, please see the Clinical User's Guide.

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.



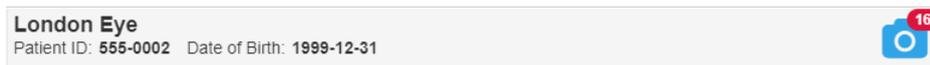
The portfolio dialog provides a message indicating that the device is connected and is ready to capture images.

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,, 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, the device will disconnect 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, 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, 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, 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.



Created

The date and time the export was requested.



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.



Export Type

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



Filter

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



If there is an action available for the export, 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, 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 |
| System Notes |
| Units |
| Report Templates |
| System |
| Organization Settings |
| 2D/3D Imaging |
| SilhouetteStar 2 |
| License |
| Email Configuration |
| Anatomical Sites |
| Silhouette Configuration |
| Default Shortlist Criteria |

Silhouette settings and user accounts are controlled through the administration interface in 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. The sidebar is displayed above the content on small screens 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](#)
- [System Notes](#)
- [Unit Administration](#)
- [Report Templates](#)

System

- [Organization Settings](#)
- [2D/3D Imaging](#)
- [SilhouetteStar 2](#)
- [License](#)
- [Email Configuration](#)
- [Anatomical Sites](#)
- [Silhouette Configuration](#)
- [Default Shortlist Criteria](#)



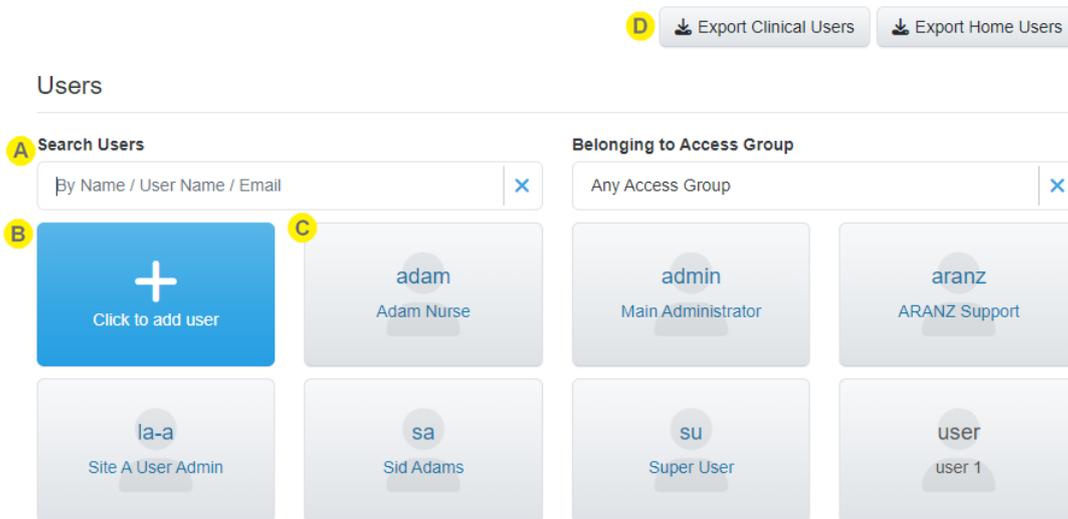
The **Profile**, **Preferences**, and **Personal Shortlist Criteria** topics are covered in the Clinical User's Guide.

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.

D**Export buttons**

Select the export button to download a CSV file of all the clinical or home users in the system.

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, 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 |
| admin | Enabled | Silhouette Local User |
| Role(s) | Access Group(s) | |
| Admin | All Access | |
| First Name | Middle Name | |
| Main | - | |
| Last Name | Medical Credentials | Phone Number |
| Administrator | - | - |
| Email Address | Last Email Queued | |
| admin.nurse@example.com | - | |
| 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, 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.

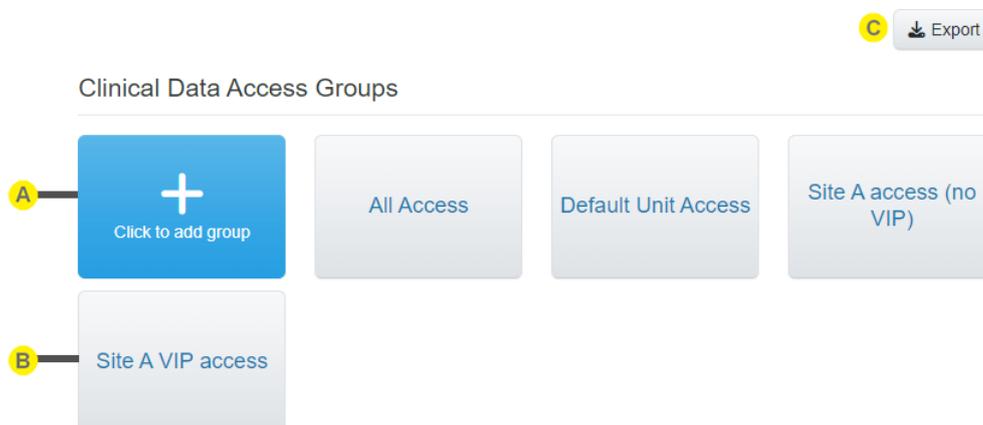
- C** Select **Delete** to delete a user. A confirmation prompt is presented before the user is deleted. A user can be disabled instead of deleted by selecting **Edit** and changing the **Status** field. The **Status** drop-down controls if a user can log in to Silhouette. A user is able to log in when 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. 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.](#)

C

Export button

Select the **Export** button to download a CSV file containing all the clinical data access groups configured in the system. The CSV file can make it easier to review settings across many groups at once.

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, 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 dialog box titled "For The Following Units". It contains a list of units with corresponding "Yes" and "No" buttons. A bracket labeled 'A' groups the "All And Future Units" row. A bracket labeled 'B' groups the "East Hospital - Ward A" 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, the clinical data access group 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

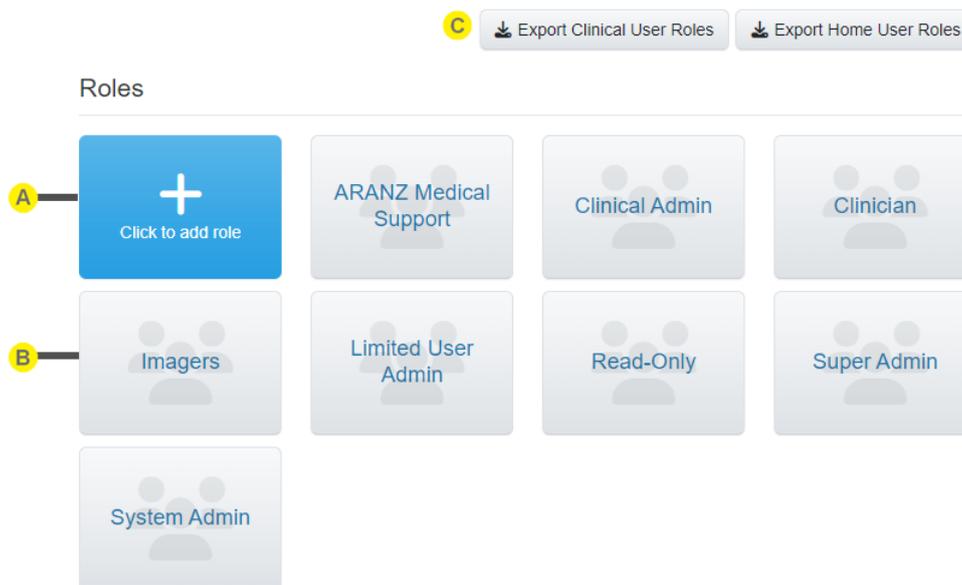
Select the Close button to go back to the [Clinical Data Access Groups](#) screen.

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.](#)

C

Export buttons

Select the export button to download a CSV file of all the clinical or home user roles.

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.

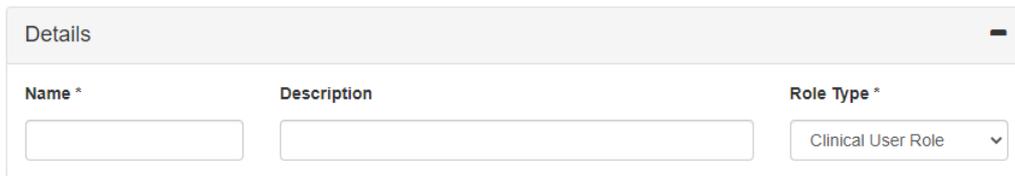
The Save and Cancel buttons are at the bottom of the screen.

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**.

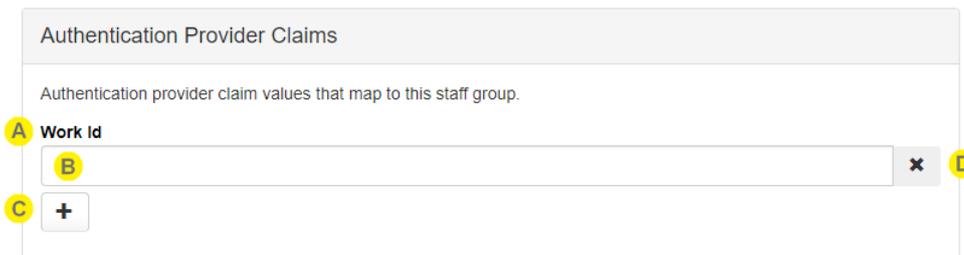
Authentication Provider Claims

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. The text input field has a yellow circle 'A' next to it, a yellow circle 'B' inside it, and a yellow circle 'D' next to the clear button. The plus sign button has a yellow circle 'C' next to it.

Role 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 create or modify patient data. Access to view clinical data is controlled by a user's selected Clinical Data Access Group(s).

Clinical Data Permissions

A Can Create Patient

Yes
 No

B Can Edit Patient

Yes
 No

C Can Delete Patient

Yes
 No

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.

A Can Connect SilhouetteStar using WiFi

Yes
 No

B Can Capture Mobile 2D Images

Yes
 No

C Can Capture Mobile 3D Images

Yes
 No

A Can Connect SilhouetteStar using WiFi

Controls if users assigned to this role generate and see the connection barcode in the patient's image portfolio, enabling a SilhouetteStar 2 scanner to connect to SilhouetteCentral using WiFi.

- B Can Capture Mobile 2D Images**
Controls if users assigned to this role can capture 2D images using SilhouetteCentral.
This permission is only applicable if the SilhouetteCentral license has the 2D Imaging Feature enabled.
- C Can Capture Mobile 3D Images**
Controls if users assigned to this role can capture 3D images using SilhouetteCentral.
This permission is only applicable if the SilhouetteCentral license has the 3D Imaging Feature enabled.

A Can Create Assessment

SilhouetteLite Assessment x Admission Assessment x Discharge Assessment x Lower Limb Assessment x
Visit Assessment x Wound Assessment x Search

B Can Edit Assessment Yes No

C Can Create Report Yes No

D Can Export Data Yes No

E Can Delete Assessment Yes No

F Can Trace Image Yes No

G Can Sign Assessment Yes No

H Can Replicate Image Yes No

- A 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.
- B Can Edit Assessment**
Controls if users assigned to this role can edit assessments. Editing assessments includes the ability to add or remove images.
- C Can Create Report**
Controls if users assigned to this role can create reports for assessments.
- D 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.

E Can Delete Assessment
Controls if users assigned to this role can delete assessments.

F Can Trace Image
Controls if users assigned to this role can add, edit, and delete tracings (outlines and rulers) on a captured image.

G Can Sign Assessment
Controls if a user assigned to this role can sign Assessments

H Can Replicate Image
Controls if a user assigned to this role can replicate an image in an assesement.

| | | | |
|-----------------------------------|---|---------------------------|---|
| A Can Create Wound | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | B Can Edit Wound | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| C Can Delete Wound | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | D Can Set Baseline | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| E Can Create Progress Note | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |

A Can Create Wound
Controls if users assigned to this role can create wounds.

B Can Edit Wound
Controls if users assigned to this role can edit wounds.

C Can Delete Wound
Controls if users assigned to this role can delete wounds.

D Can Set Baseline
Controls if users assigned to this role can set the baseline for a wound.

E Can Create Progress Note
Controls if users assigned to this role can create Progress Notes

| | | | |
|---------------------------------------|---|---|---|
| A Can Link Assessment to Order | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | B Can Unlink Assessment from Order | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| C Can Complete Order | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | |

A 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 | B Can View Dashboards |
| Yes | Yes |
| C Can Use Dashboards | |
| All and future Dashboards | |

**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, they must rely on the automatic synchronization of patients with orders to get data on to their SilhouetteConnect instance.

**Can View Dashboards**

Controls if users assigned to this role are able to view dashboards in SilhouetteCentral.

This permission is only applicable if the SilhouetteCentral license has the Dashboard feature enabled.

**Can Use Dashboards**

Controls which dashboards a user that is assigned to this role can view.

This permission is only applicable if the SilhouetteCentral license has the Dashboard feature enabled.

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**, the **Admin > Patient Notes**, the **Admin > System Notes**, and the **Admin > Report Template** 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.

E**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, 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



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 a role named 'Imagers'. At the top right, there are three buttons: 'Delete' (labeled A), 'Edit' (labeled B), and 'Close' (labeled C). Below these buttons are several sections:

- Details:** A table with columns 'Name *', 'Description', and 'Role Type *'. The row shows 'Imagers', 'A role for imagers', and 'Clinical User Role'.
- Authentication Provider Claims:** A section titled 'Authentication provider claim values.' containing a list item 'Work ID' with the value 'APP_SILHOUETTE_Imagers'.
- Clinical Data Permissions:** A table with columns 'Can Create Patient' and 'Can Edit Patient'. Both are set to 'No'. Below it is a 'Can Delete Patient' section, also set to 'No'.
- Silhouette Permissions:** A section titled 'Can Manage Patients' set to 'No'.
- Administrator Permissions:** A section partially visible at the bottom.

A

Delete

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

A group with users assigned to 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

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.

Email List Details

A Name *

B Description

Recipients: 2 of 100 (adding 0, removing 0)

C Search Users

D Belonging to Group

E

Recipients | Non Recipients

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

Add All

Remove All

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.

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.

The order of the assessment definitions in the list is the order that they are shown when creating assessments in the new assessment dialog.

A
B
C

⬆️ Import
⬆️ Reorder
+ Create

Assessments

| | Name | Type | Description | Status E | Draft Modified F |
|---|---|--------------------|--|---|---|
| D | SilhouetteLite Assessment | Patient Assessment | Basic assessment performed by SilhouetteLite | Published | |
| | Admission Assessment | Patient Assessment | Patient admission | Published | Yes |
| | Discharge Assessment | Patient Assessment | Patient discharge | Published | |
| | Lower Limb Assessment | Patient Assessment | Assessment of lower limb function | Published | |
| | Visit Assessment | Patient Assessment | Visit Assessment | Published | |
| | Home Wound Assessment | Patient Assessment | A simple self-assessment for home users | Published | |
| | Wound Assessment | Wound Assessment | Wound Assessment | Published | |

A**Import button**

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

No matter which version was originally exported, it will always be imported as the draft version of the definition, and so will have to be published before it can be used in the system.

A newly imported Assessment is not be accessible to any users by default. [See Editing a Role](#) 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.

B**Reorder button**

Select the Reorder button to start editing the order of the assessment definitions in this list. In reorder mode, use the **Up** and **Down** arrow buttons to arrange the items in the desired order. Click the **Save** button to apply the changes.

C**Create button**

This creates a new assessment definition.

D**Assessment Definition List**

This shows the list of assessment definitions currently configured in Silhouette. Click the name to view further details.

E

The **Status** column can be one of three values:

Draft

This is when a new Assessment Definition has been created, but not yet published. It will not be able to be used to create new Assessments in Silhouette.

Published

Published Assessment Definitions are the ones that are able to be used to create new assessments in Silhouette.

Retired

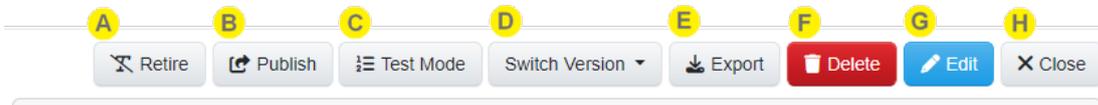
If a previously published Assessment Definition is no longer wanted it can be marked as retired. This will prevent users from creating new assessments using this definition. Existing assessments that have already been captured using will still be visible and editable in Silhouette.

F

The **Draft Modified** column indicates when changes have been made to the draft version of the Assessment Definition, but have not yet been published. These changes will not be visible in Silhouette until they are published.

Editing an Assessment Definition

To edit an assessment in Silhouette, in the **Admin > Assessments** screen, select the assessment from the list. This screen can be used to view all the different versions of an assessment definition, and the options available for each type of assessment version vary.



- A Retire**
Select the **Retire** button to retire the current active assessment definition. This action can only be performed on an active assessment definition, and when retired no new assessments of this type will be able to be created. Existing assessments captured with this assessment definition will still be visible and editable inside Silhouette.
- B Publish**
Select the **Publish** button to publish the draft assessment definition making it the active version that will be used for new assessments going forward. This button is only available when viewing a draft version of the assessment definition.
- C Test Mode**
Select **Test Mode** button to test out the current assessment definition in a test form. This allows trying out and verifying expressions and layout for the draft assessment definition before is published and made active.
- D Switch Version**
Use the **Switch Version** dropdown menu to choose which version of the assessment definition that is currently being viewed.
- E 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. This will export the version of the assessment definition that is current being viewed. When it is imported again, then it will always be imported as the draft version of the assessment definition.
- F Delete**
Select the **Delete** button to delete the assessment definition. This option is only available for draft assessment definitions that have never been published. If the definition has been published and is no longer wanted, then it should be marked as **Retired**.
- G Edit**
Select the **Edit** button and update the assessment definition as required. What can be changed depends on whether a draft or published version is being editing.
Once edited, select the **Save** button at the bottom of the screen to save the changes.

**Close**

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

Assessment Definition Details

The assessment details section shows the details for the assessment definition. All fields can be modified when editing the draft definition, however some, as noted below, can be changed for non-draft definitions.

**Assessment definition header**

This contains the details around which version of assessment definition is currently displayed. It is important to review this to verify changes are being performed on the correct version.

- The **Type** can be Wound Assessment or Patient Assessment.
- The **Version** will indicate which version number of the definition is currently showing. If it is the draft version it will also indicate whether or not it has been modified compared to the currently active version.
- The **Published** date will indicate the date that this definition version was published. The draft will show a dash as it has not been published.
- The **Retired** date will indicate the date that this definition version was retired. Usually this is due to a newer version being published.

**Name**

The **Name** is displayed to users when they create assessments and is displayed at the top of the assessment.

- C Description**
The **Description** is provided to show as additional detail to the user when they create the assessment.
- D 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.
- E Report template**
Choose the report template to use for this assessment definition. This can vary between different versions of the same assessment definition. This can be changed on already published assessment definitions.
- F Can Include in Progress Note**
This setting controls whether this assessment can be included in a Progress Note. It will be set to "No" by default and can be enabled.
- G Include All Notes in Report**
This setting controls whether notes with empty values are displayed in reports. It will be set to "Yes" by default and can be disabled. Can only be edited in Draft version and apply for all versions.
- H Integration Report Name Template**
This defines the template to use for the file name generation used by the integration engine. This can vary between different versions of the same assessment definition. This can be changed on already published assessment definitions. [See Appendix I: Template Macros](#)

Assessment Definition Chart Categories

The chart categories assigned to the assessment definition can be changed here on the details page. [See Chart Categories](#).

Timeline Summary

The timeline summary section allows configuring which chart item values are displayed on the Patient Overview timeline and the Assessment Overview timeline. The timeline summary section is edited independently to the rest of the page. Click the edit button to customize the timeline summary for the currently displayed assessment version. The timeline summary can be modified for all versions of the assessment definition, and so does not require a new version to be published to apply the changes to the current assessments.

Timeline Summary

A + Add Item to Summary

| Chart Category | Chart Item | Summary Label * C | |
|-----------------------|--------------|--------------------------|-----------------------|
| B Wound Images | Wound Images | Wound Images | ▲ ▼ – Remove D |

✓ Save ✕ Cancel

A

Add Item to Summary

Select **Add Item to Summary** to choose which chart items from the assessment definition are displayed as part of the timeline summary.

B

Chart Items

The chart items currently included in this timeline summary are shown as a list.

C

Summary Label

The **Summary Label** is used to label the chart item when displayed on the timeline summary. By default this is the same as the chart item name.

D

User the **Up** and **Down** buttons to re-order the items and the **Remove** button to remove the item from the timeline summary.



As the timeline summary configuration can vary between assessment definition versions, changes may have to be applied manually to each version to achieve desired result.

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.

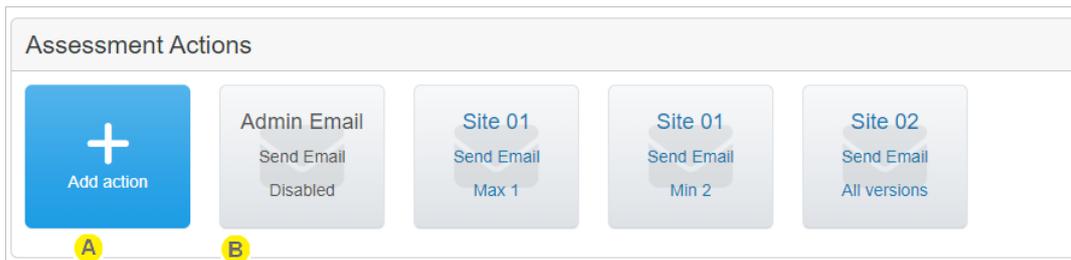
Assessment actions available in Silhouette 4.22 are:

92 • Editing an Assessment Action

- 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.

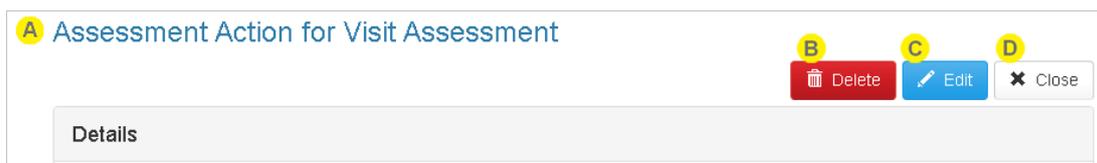
Disabled assessment actions are shown with gray titles and enabled assessment actions are shown with blue titles.

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

The tiles also indicate which versions of the assessment definition they will be triggered for. In the screenshot above the one with "Max 1" will only be triggered for version 1 of the assessment definition. The one with "Max 2" will not be triggered for version 1, but will be triggered for version 2 and later. The "All versions" one will be triggered for any assessment definition.

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
▼

Description C

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

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

Trigger

| | |
|--|--|
| Event * <input type="text" value=""/> | In Unit * <input type="text" value=""/> |
| Status <input type="text" value="Enabled"/> | |
| Minimum Definition Version <input type="text" value=""/> | Maximum Definition Version <input type="text" value=""/> |
| Condition <input type="text" value=""/> | |
| <input type="button" value="Validate"/> | |

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.
- **Assessment deleted**
 Actions including this event will trigger whenever a user deletes an assessment. This event is not available for **Send Email** action type.
- **Assessment signed**
 Actions including this event will trigger whenever a user deletes 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, 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.

C

Select the status for the assessment action. This can be one of:

- Enabled - The assessment action will be triggered.
- Disabled - This assessment action will not be triggered.
- Disabled (enable on next publish) - This assessment action will not be triggered. However once it is published it will be automatically set to enabled next time it is published.

D

The minimum and maximum definition versions limit the versions of the assessment definition that this action will be triggered for. Both values are inclusive. Typically they will be used when the differences between different versions of assessment would require either a different condition or a different report template to be used.

E

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, 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, 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 * A



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.

Informational Chart Item

This is an element within the assessments that can be configured by ARANZ support to provide context to an assessment or sections of the assessment. These elements can not be changed by a user.

There may be different text depending on what mode of the assessment is in so either view or edit mode which can be configured by the support team.

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.

The order of the patient notes in this list is the order that they are displayed in Silhouette. This includes the patient sidebar menu and assessment reports.

| Name D | Description | Status E | Draft Modified F |
|-----------------------|-----------------------|-----------------------|-------------------------------|
| Details | Patient Details | Published | Yes |
| Investigation History | Investigation History | Published | |
| Medical History | Medical History | Published | |
| Medication | Medication | Published | |

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 Reorder button
Select the Reorder button to start editing the order of the assessment definitions in this list. In reorder mode, use the **Up** and **Down** arrow buttons to arrange the items in the desired order. Click the **Save** button to apply the changes.

C Create button
This creates a new Patient Note

D Patient Note List
This shows the Patient Notes currently configured in Silhouette. Click the name to view further details.

- E** The **Status** column can be one of three values:
- | | |
|------------------|--|
| Draft | This is when a new Patient Note has been created, but not yet published. It will not be visible in Silhouette. |
| Published | Published Patient Notes are what is shown in Silhouette. |
| Retired | If a previously published Patient Note is no longer wanted it can be marked as retired which will remove it from Silhouette. |
- F** The **Draft Modified** column indicates when changes have been made to the draft version of the Patient Note, but have not yet been published. These changes will not be visible in Silhouette until they are published.

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 Retire**
Select the **Retire** button to retire the current active patient notes definition. This action can only be performed on an active definition, and when retired will no longer be visible in Silhouette. The Patient Details definition cannot be retired.
- B Publish**
Select the **Publish** button to publish the draft patient notes definition making it the active version that will be used when creating or editing patient notes going forward. This button is only available when viewing a draft version of the assessment definition.
- ? Existing data captured for the previous version will still be displayed with the version it was captured with. However if that is edited, then Silhouette will attempt to migrate the data to the new active version.**
- C Test Mode**
Select **Test Mode** button to test out the current assessment definition in a test form. This allows trying out and verifying expressions and layout for the draft patient notes definition before is published and made active.
- D Switch Version**
Use the **Switch Version** dropdown menu to choose which version of the patient notes definition that is currently being viewed.

E

Export

Select the **Export** button to download a zip file containing the patient notes definition. This file can then be imported into another Silhouette system (e.g. between a test and production system) or provided to ARANZ Medical for modification. This will export the version of the patient notes definition that is current being viewed. When it is imported again, then it will always be imported as the draft version of the patient notes definition.

F

Delete

Select the **Delete** button to delete the patient notes definition. This option is only available for draft assessment definitions that have never been published. If the definition has been published and is no longer wanted then it should be marked as **Retired**.

G

Edit

Select the **Edit** button and update the assessment definition as required. What can be changed depends on whether a draft or published version is being editing.

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

H

Close

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

Patient Notes Definition Details

The details section shows the details for the patient notes definition. All fields can be modified when editing the draft definition, however some, as noted below, can be changed for non-draft definitions.

Details

| | | | |
|----------------|----------------------|------------------|---|
| Type | Patient Notes | Published | - |
| Version | Draft (not modified) | Retired | - |

Changes made to the draft assessment definition have to be published before they can be used.

| | |
|--|---|
| <p>Name</p> <input type="text" value="Investigation History"/> | <p>Description</p> <input type="text" value="Investigation History"/> |
| <p>Abbreviation</p> <input type="text" value="IH"/> | <p>Can view within application</p> <div style="border: 1px solid #ccc; padding: 2px;">3 items selected</div> |
| <p>Can include in Progress Note</p> <div style="display: flex; justify-content: space-between; width: 100%;"> Yes No </div> | <p>Include All Notes in Report</p> <div style="display: flex; justify-content: space-between; width: 100%;"> Yes No </div> |

A**Assessment definition header**

This contains the details around which version of patient notes definition is currently displayed. It is important to review this to verify changes are being performed on the correct version.

- The **Type** will be Patient Notes.
- The **Version** will indicate which version number of the definition is currently showing. If it is the draft version it will also indicate whether or not it has been modified compared to the currently active version.
- The **Published** date will indicate the date that this definition version was published. The draft will show a dash as it has not been published.
- The **Retired** date will indicate the date that this definition version was retired. Usually this is due to a newer version being published.

B**Name**

The **Name** is displayed in the patient sidebar

C**Description**

The **Description** allows some text to help keep track of what the patient notes are for.

D**Abbreviation**

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.

E**Can view within application**

This 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.

F**Can Include in Progress Note**

This setting controls whether this patient note can be included in a Progress Note. It will be set to "No" by default and can be enabled. However for Patient Details, it's always set to "Yes" and cannot be edited.

G**Include All Notes in Report**

This setting controls whether notes with empty values are displayed in reports. It will be set to "Yes" by default and can be disabled. Can only be edited in Draft version and apply for all versions.

Patient Notes Definition Chart Categories

The chart categories assigned to the patient notes definition can be changed here on the details page. [See Chart Categories](#).

System Notes

The System Notes admin section shows the Encounter and Order System Notes.

The **System Notes** option is only available in SilhouetteCentral and requires the Orders functionality to be enabled.

| Name | Description | Status | Draft Modified |
|-----------|-------------|-----------|----------------|
| Encounter | Encounter | Published | |
| Order | Order | Published | |

A

Import button

Allows a System Notes definition zip file to be imported. Importing will update the draft version of the uploaded System Note.

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

B

System Notes List

Select the System Note name to view and edit the details.

C

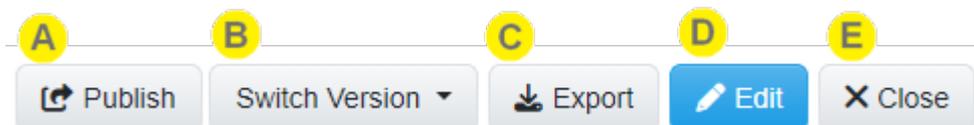
The **Status** will always show published for System Notes as these are required in Silhouette and cannot be retired.

D

The **Draft Modified** column indicates when changes have been made to the draft version of the System Note, but have not yet been published. These changes will not be visible in Silhouette until they are published.

Editing System Notes

To edit the System Notes setup in Silhouette, select the system note from the list of system notes in the **Admin > System Notes**.



- A Publish**
Select the **Publish** button to publish the draft definition making it the current active version which can be used going forward. This button is only available when viewing a draft version of the definition.
- B Switch Version**
Use the **Switch Version** dropdown menu to choose which version of the definition that is currently being viewed.
- C Export**
Select the **Export** button to download a zip file containing the system notes definition. The definition can then be imported into another Silhouette system (e.g. between a test and production system) or provided to ARANZ Medical for modification. This will export the version of the system note definition that is current being viewed. When it is imported again, then it will always be imported as the draft version of the system note definition.
- D Edit**
Select the **Edit** button and update the definition as required. This button is only available when viewing a draft version of the definition.
Once edited, select the **Save** button at the bottom of the screen to save the changes.
- E Close**
Select **Close** to go back to the [System Notes](#) screen.

System Note Details

The system note details section shows the details for the system definition.

Details

A **Type** System Notes **Published** -
Version Draft (not modified) **Retired** -

Changes made to the draft assessment definition have to be published before they can be used.

Name **B** **Description** **C**

Encounter Encounter

Include All Notes in Report **D**

Yes No

A

System note definition header

This contains the details around which version of assessment definition is currently displayed. It is important to review this to verify changes are being performed on the correct version.

- The **Type** will be System Notes
- The **Version** will indicate which version number of the definition is currently showing. If it is the draft version it will also indicate whether or not it has been modified compared to the currently active version.
- The **Published** date will indicate the date that this definition version was published. The draft will show a dash as it has not been published.
- The **Retired** date will indicate the date that this definition version was retired. Usually this is due to a newer version being published.

B

Name

Currently the **Name** given here is not displayed anywhere in Silhouette.

C

Description

The **Description** allows some text to help keep track of what the system notes are for.

D

Include All Notes in Report

This setting controls whether notes with empty values are displayed in reports. It will be set to "Yes" by default and can be disabled. Can only be edited in Draft version and apply for all versions.

System Notes Definition Chart Categories

The chart categories assigned to the system notes definition can be changed here on the details page. [See Chart Categories](#).

Chart Categories

There is a chart categories section on the assessment definition, patient notes definition and the system notes definition pages. The behavior for each of these pages should be identical. This section allows defining the chart categories that are assigned, and the order that they are included in the given definition.

Chart Categories

| Name A | Description B | Status C |
|---------------|----------------------|------------------------------|
| Wound State | | Published (2023-08-28 16:49) |
| Wound Images | | Published (2023-08-28 16:49) |
| Wound Details | | Published (2023-08-28 16:49) |
| Wound Pain | | Published (2023-08-28 16:49) |
| Comments | | Published (2023-08-28 16:49) |



Name

This is the name of the chart category. Selecting the name will navigate to the [See Chart Category Details](#)



Description

If the chart category has a description defined, then it will be shown here.



Status

The **Status** shows whether this is a draft chart category or a published one. If it has been published, then it will show the date that it has been published. There can be multiple versions of a chart category, and the date published will allow distinguishing which one is included.

Edit Chart Categories

When editing a draft version of the assessment definition, the patient notes definition, or the system notes definition

Chart Categories

+ Add Existing Chart Category **A**

| Name B | Description | Status | |
|---------------|-------------|--------|--|
| Wound State | | Draft | <input type="button" value="▲"/> <input type="button" value="▼"/> <input type="button" value="— Remove"/> C |
| Wound Images | | Draft | <input type="button" value="▲"/> <input type="button" value="▼"/> <input type="button" value="— Remove"/> |
| Wound Details | Details | Draft | <input type="button" value="▲"/> <input type="button" value="▼"/> <input type="button" value="— Remove"/> |
| Wound Pain | | Draft | <input type="button" value="▲"/> <input type="button" value="▼"/> <input type="button" value="— Remove"/> |
| Comments | | Draft | <input type="button" value="▲"/> <input type="button" value="▼"/> <input type="button" value="— Remove"/> |

B**Name**

The name is displayed as the section header in the clinical side of Silhouette.

C**Description**

The description allows some text to keep track of what this chart category is for.

D**Chart Items**

This is a list of the chart items that belong to this chart category. Basic details for each item are provided.

E

Use the **Up** and **Down** buttons to re-order the chart items and the **Remove** button to remove the chart item from this chart category.

Note that there is currently no way to add new chart items within the user interface. Contact ARANZ Medical Support for help with this.

F**Conditional Validations**

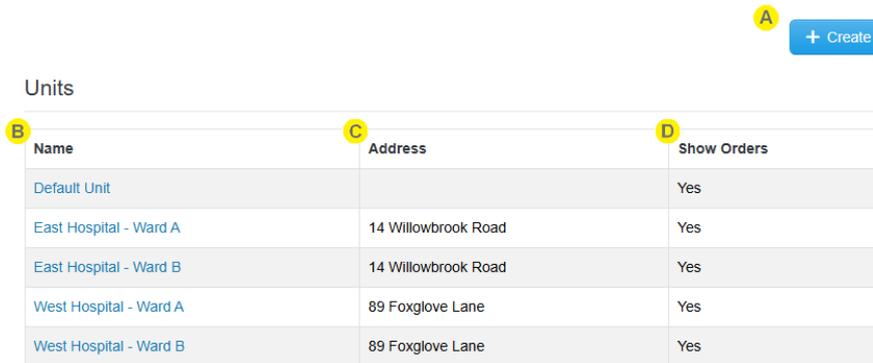
If the chart category contains any conditional validations, then these will be listed here. Similarly to the chart items these can be re-ordered or removed, but currently cannot be added or edited.

Contact ARANZ Medical Support for help with this.

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.



| Name | Address | Show Orders |
|------------------------|---------------------|-------------|
| Default Unit | | Yes |
| East Hospital - Ward A | 14 Willowbrook Road | Yes |
| East Hospital - Ward B | 14 Willowbrook Road | Yes |
| West Hospital - Ward A | 89 Foxglove Lane | Yes |
| West Hospital - Ward B | 89 Foxglove Lane | Yes |

A Create button

B Name

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

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

C Address

This field contains the **Address** of the Unit.

D Show Orders

This is the '**Show Orders**' field which is used to display orders for patients in that unit. This column is only present when orders are enabled [See Silhouette System Features](#)

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 'Details' form for a unit. At the top right of the form are three buttons: 'Delete' (labeled A), 'Edit' (labeled B), and 'Close' (labeled C). The form contains the following fields:

| Name | Address |
|------------------------|----------------|
| East Hospital - Ward B | 306 Union Blvd |
| Show Orders | |
| Yes | |

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.
- The **address** is displayed on the cover page of Progress Notes.
- **Show Orders** controls whether orders are shown for patients that are part of this unit. This setting is only present when orders are enabled [See Silhouette System Features](#)

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.

D

This field contains the **Address** of the Unit and can be edited using the **Edit** (B) button.

E

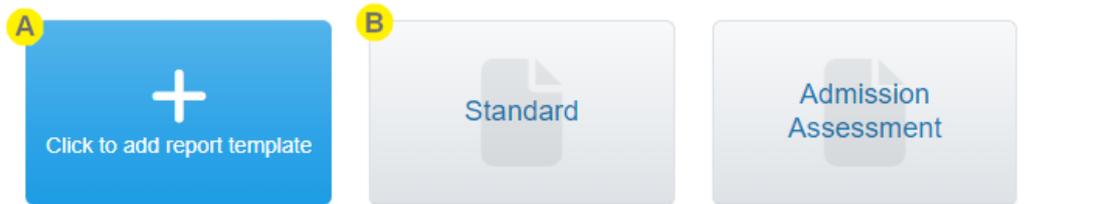
This is the '**Show Orders**' field which is used to display orders for patients in that unit; this can be toggled 'yes' or 'no'. If it is toggled 'no' then, you will not be able to see order on patient. If you toggled 'yes' you will be able to view orders associated to a patient for that specific unit.

Report Template Administration

Report templates are used for generating assessment reports. Report templates defined here can be assigned to the different assessment definitions.

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

Report Templates



- A Create button**
Select the create button to create a new report template.

- B Report template tile**
Select the tile for a report template to view and edit the template details [See Editing a Report Template](#)

Editing a Report Template



- A Download button**
Select the **Download** button to download a copy of the report template file. This can then be modified as required.

- B Delete button**
Select the **Delete** button to delete the selected report template. Report templates that are being used by an assessment definition cannot be deleted.

- C Edit button**
Select the **Edit** button to update the name and the template file as required.

- D** **Close button**
Select Close to go back to the [Report Templates](#) screen.

? The default "Standard" report template cannot be modified or deleted.

Report Template Details

Details

Name * **A**

Admission Assessment

B Update Template

C ✓ Save X Cancel

- A** **Name**
Provide a short but descriptive name to help identify the report template in a list.
- B** **Update Template button**
Select the **Update Template** button to upload a new report template file.
- C** **Save and Cancel buttons**
Select Save to save any changes, and Cancel to discard and changes.

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.

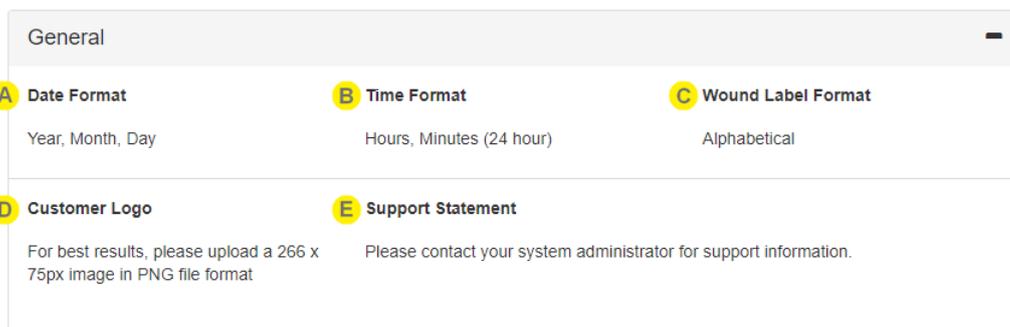
The organizational settings are separated into a number of panels, described in the following topics:

- [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 .



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.
- **North South East West Rectangle (North/South is Length).** Choosing this option means the length is the height of the image aligned rectangle drawn around the wound, and the width is the width of this rectangle.
- **North South East West Rectangle (East/West is Length)** Choosing this option means the length is the width of the image aligned rectangle drawn around the wound, and the width is the height of this 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.



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.

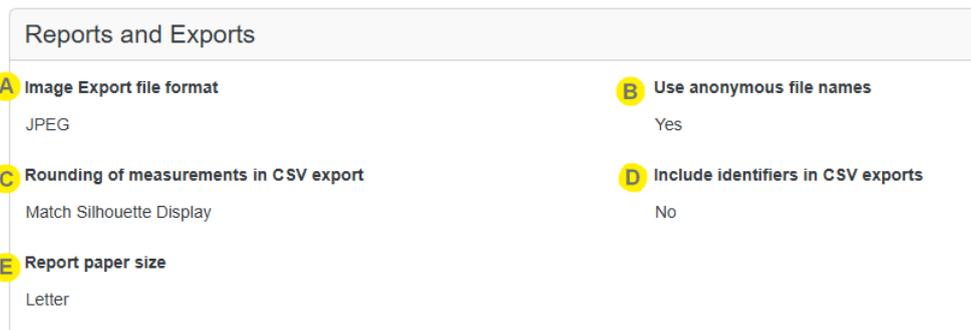
Changing these options does not cause the re-calculation of any existing measurements. However, if the user edits an existing image, the new calculations will be based on the latest settings.

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

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.

D

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.

E

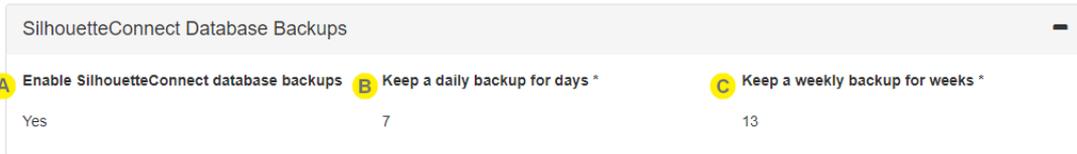
Report paper size

This specifies the size of the paper used when generating assessment reports, or progress notes from Silhouette.

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.

**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 datestamp 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 datestamp 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 datestamp recorded in the filename.

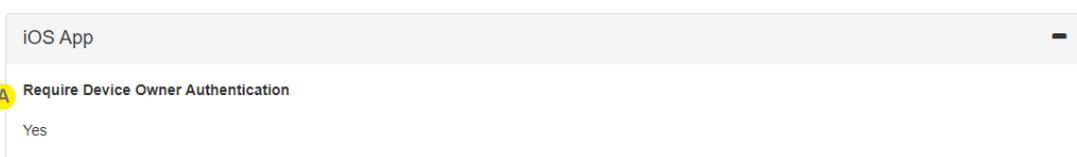
Range 0 to 30 weeks, with a default of 13 weeks.

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, 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.

2D/3D Imaging

The **2D/3D imaging** admin page allows you to change settings related to the SilhouetteCentral 2D/3D imaging feature. This page is only available if your SilhouetteCentral license has either the 2D or 3D Imaging Feature enabled.

2D/3D imaging requires placing reference stickers on the patient's healthy skin near a wound. Silhouette uses the reference sticker to apply real world scale to the model it creates of the image. The placement and use of reference stickers is discussed in the Clinical User's Guide. A guide to administering reference sticker definitions is given below.

See the topic [Sourcing a Reference Sticker](#) for a guide on how to choose a suitable off-the-shelf reference sticker.

A Edit

General

| | | | |
|----------|--|---|----|
| B | Allow SilhouetteCentral 2D/3D imaging in non-mobile browsers | | No |
| C | 3D Imaging JPEG File Removal Enabled | Remove 3D Imaging JPEG Files After (days) | 90 |
| | 3D Imaging Output File Removal Enabled | Remove 3D Imaging Output Files After (days) | 7 |

Surface Modeling Service Connection

| | | | | |
|----------|--|--------------------------------------|--|--------------------|
| D | Service URL | https://ssm.silhouettecentral.com | Service app registration API scope | api://ssm/.default |
| | SilhouetteCentral app registration Client ID | 4c2dd60f-3596-400a-87b6-309b966673ec | Storage Container Name | tuallfkm |
| | Authority URL (Azure AD token endpoint) | | | |
| | https://login.microsoftonline.com/1dcd6353-224c-419f-884d-d648ce341a30/oauth2/v2.0/token | | | |
| | Active Authentication Certificate - Authorized | | | |
| | Thumbprint: 5B421C05498C46517C2E9D282F43F88497A6C12A | | | |
| | Subject: CN=TUALLFKM, CN=4c2dd60f-3596-400a-87b6-309b966673ec, DC=nz, DC=aranz, DC=bliss | | | |
| | Issued On: 2023-08-28 | | | |
| | Expiry: 2024-08-28 | | | |
| | Pending Authentication Certificate | | | |
| | - | | | |
| E | <input type="button" value="New Certificate"/> | | <input type="button" value="Test Connection"/> | |

Reference Stickers

| | | | | | |
|----------|--|----------|--|---|---|
| F | <div style="background-color: #007bff; color: white; width: 40px; height: 40px; margin: 0 auto; display: flex; align-items: center; justify-content: center;">+</div> <p style="font-size: 0.8em; margin-top: 5px;">Click to add</p> | G | <div style="background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> <p style="font-size: 0.8em; margin: 0;">1/2" Fluro Green</p> <p style="font-size: 0.7em; margin: 0;">12.7 mm</p> <p style="font-size: 0.7em; margin: 0; color: #007bff;">Default</p> </div> | <div style="background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> <p style="font-size: 0.8em; margin: 0;">14mm Green Triarc</p> <p style="font-size: 0.7em; margin: 0;">14 mm</p> </div> | <div style="background-color: #e0e0e0; padding: 5px; border: 1px solid #ccc;"> <p style="font-size: 0.8em; margin: 0;">Avery DMC14FG</p> <p style="font-size: 0.7em; margin: 0;">14 mm</p> </div> |
|----------|--|----------|--|---|---|



Select **Edit** to change the settings on this page. Once you select **Edit** the list of reference stickers will be hidden and the other settings on the page are editable.

Save and **Cancel** buttons become available on the page to allow you to either save or cancel your changes.

B**Allow SilhouetteCentral 2D/3D imaging in non-mobile browsers**

This setting controls if the 2D or 3D imaging buttons are available in desktop and laptop web browser variants or only in mobile device web browser variants.

By default, this setting is set to No, and the imaging buttons are only available in web browsers designed for use with tablets and smart phones. The 2D/3D imaging feature is designed for use with mobile device web browsers, which open the device camera when the capture button is pressed to allow images to be taken directly into Silhouette, bypassing device storage and gallery features.

Select Yes for this setting to show the 2D/3D imaging button in non-mobile web browser variants as well. In non-mobile web browsers, the imaging capture button opens a file selection dialog and allows the user to select and upload a JPEG format image. This requires that they have captured the image using a different camera or application and saved the image on the file system as a JPEG image at a quality of at least 5MP.

Examples of mobile web browser variants are:

- Safari on iPhones or iPads
- Google Chrome on Android phones

Examples of non-mobile web browser variants are:

- Google Chrome on Microsoft Windows OS
- Safari on Apple MacOS®
- Microsoft Edge on Microsoft Windows OS

A list of supported web browsers is available from the ARANZ medical website (www.aranzmedical.com) in the Silhouette v4 System Specifications.

The ARANZ Medical instructions for use do not cover the use of 2D/3D imaging from non-mobile web browsers.

Allowing users to select image files captured by other devices is useful for testing and evaluating the solution.



Enabling this option for use in clinical environments requires that you evaluate the imaging devices you wish to use and write your own instructions for capturing images, transferring them to disk, selecting them from the disk, and then removing them from any intermediate storage.

C

Controls the lifecycle of auxiliary data generated by the Surface Modeling Service. Once the initial 3D processing is completed neither the output files nor the image files are required for viewing/measuring a 3D image in Silhouette.

Enabling removing the jpeg files will remove the jpeg images that are no longer required for viewing or measuring (images 2 to 5 of the 3Dcapture sequence).

Enabling removing of output files will remove log files generated during the processing after the specified number of days.

D

The settings required for connecting to the Surface Modeling Service. These settings will be provided by ARANZ Medical.

- E** Generate a new pending authentication certificate. Once the certificate is generated it will need to be sent to ARANZ Medical to authorize the connection to the Surface Modeling Service.
- F** Select the **click to add** button to add a new reference sticker definition, see the [Creating a Reference Sticker](#) topic.
- G** A list of reference stickers that are already configured in the system is shown on the page. Each tile shows the short description, the size of the reference sticker, and which reference sticker is configured as the default one. Inactive or old reference sticker definitions are shown in gray text, active ones are shown in blue text.
By default, there are no reference stickers defined in the system. The first one created is automatically set as the default.
The default reference sticker is the one selected by default when a user starts using 2D/3D imaging. The user can choose any of the active reference stickers when imaging and that becomes their personal default, which they can see and change in the **Admin > Preferences** page.
Select a tile to view the details of a reference sticker, set it as default, mark it as inactive, edit it, or delete it. See the [Viewing and Editing a Reference Sticker](#) topic.

Sourcing a Reference Sticker

If you are using the 2D imaging feature, a reference sticker is an important part of the imaging. A reference sticker is placed on a patient's healthy skin near the wound or region of interest. Once imaging is complete the reference sticker is removed and disposed of.

When sourcing a reference sticker the following requirements must be met:

- The reference sticker shall be a circular sticker, with a diameter in the range of 10 - 20 mm.
- The reference sticker shall be a uniform green color, preferably a neon / fluorescent green.
- The reference sticker shall have removable adhesive, as opposed to permanent or strong adhesive.
- The reference sticker shall have good availability and be easy to purchase.

It is recommended to seek advice from the end users and other parties before deciding on an option for a reference sticker. Some considerations you will need to evaluate are:

- The infection control procedures required around the use and storage of reference stickers. Off-the-shelf reference stickers are not sterile items. Even though they do not need to be placed in a wound there are likely to still be infection risks to consider and mitigate through procedures or considerations around packaging and handling of the stickers.
- If your patient cohort is likely to have fragile or sensitive skin, or you are concerned about reaction to sticker adhesive, you may want to combine the reference sticker with some medical tape. You can use something more familiar on the skin by first placing the medical tape on the skin and then placing the reference sticker on the medical tape.
- Imaging patients will use at least one reference sticker per patient, possibly more if there are more than one

region to image. Talking with end users to determine how they will stock and carry the reference stickers may have an effect on your sourcing decision.



If you are operating over multiple facilities or regions you may determine that there are different reference stickers that meet your different needs.

The Silhouette system supports more than one active reference sticker, allowing end users to choose the one they use as their personal default selection.

It is recommended you source a small set of reference stickers first and give them a test in the expected usage environment to determine they will be detected by the 2D imaging feature and that they will suit the end users imaging and infection control procedures. ARANZ Medical have tested a number of off-the-shelf reference stickers (listed below), however, it is not a requirement to choose one of the stickers on the list.

- Chromalabel - Removable Round, 1/2" Fluorescent Green Dot Sticker(CAL03754)
- Chromalabel - Removable Round, 3/4" Fluorescent Green Dot Sticker(CAL03746)
- Triarc Medical - 14mm Rad Green (RGD14)
- Triarc Medical - 14mm Green (GRD14)

Creating a Reference Sticker

A reference sticker is used for 2D imaging and are off-the-shelf green dot stickers between 10 and 20 mm.

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

- A Diameter (mm) ***: A text input field.
- B Default**: A radio button set with 'No' selected.
- C Short Description ***: A text input field.
- D Status**: A radio button set with 'Active' selected.
- E Brand ***: A text input field.
- F Supplier Description**: A large text area.
- G Purchasing Details**: A large text area.
- H Save**: A blue button with a checkmark icon.
- I Cancel**: A grey button with an 'X' icon.

A

Diameter (mm)

Record the Diameter in millimeters of the reference sticker to the nearest 2 decimal places. Measure and record the diameter as accurately as possible.

Common sizes are:

- 1/2" (12.7 mm)
- 14 mm
- 3/4" (19.05 mm)

Once saved, the recorded diameter cannot be changed.

The Diameter can be set between 10 and 20 mm.

B

Default

Always shows No for new reference stickers. To set the new reference sticker as the system default, select it from the reference sticker list once it has been created.

The first reference sticker created in the system is automatically set as the system default reference sticker once it is saved.

C

Short Description

Enter a description of the reference sticker to help users identify it.

The **Short Description** is shown to the user to help them identify which reference sticker they are using, typically during the image capture sequence, and in lists where they can select which reference sticker they have.

The **Short Description** can be up to 20 characters or less (including spaces).

D

Status

Always shows as Active for new reference stickers. This means that new reference stickers are made available to clinical users for selection as soon as they are saved.

To mark the new reference sticker as inactive (unavailable to clinical users), select it from the reference sticker list once it has been created.

E

Brand

Enter the brand name details of the sticker. This information is required to help identify what the sticker is.

F

Supplier Description

Enter the details (or a reference to the details) of the supplier used to supply the reference sticker. As reference stickers are consumables you will need to purchase new supplies at some point. Having a reference to the supplier can help make sure that process is easy.

G

Purchasing Details

List down any notes that help with the process of purchasing the reference sticker for your organization.

H

Select **Save** to save the new reference sticker.

New reference stickers are saved as active (available for clinical users to select when they are imaging).

The first reference sticker created in the system is automatically set as the default reference sticker for the system.

I

Select **Cancel** to close the screen without saving the new reference sticker.

Viewing and Editing a Reference Sticker

Selecting a reference sticker tile from the [2D/3D Imaging](#) page shows the reference sticker details screen.

| Details | |
|---|---------------------------|
| Diameter (mm) | Default |
| 12.7 | No |
| Short Description | Status |
| 1/2" Fluro Green | Active |
| Brand | |
| Chromalabel | |
| Supplier Description | Purchasing Details |
| Chromalabel https://www.chromalabel.com/collections/removable-dots-labels/products/1-2-inch-removable-circle-labels-1000-box?variant=12502919748 | - |
| Order Code: CAL03754 | |

- A** Select the **Make Default** button to set this reference sticker as the system default. The **Make Default** button is only available if this reference sticker is not already set as the default reference sticker. The system default reference sticker is the one selected automatically for new and existing users when imaging. Each user has a personal default reference sticker, which is set if they select a different sticker while imaging or by editing their preferences in the **Admin > Preferences** screen. They can also use their **Preferences** screen to reset their default reference sticker back to be the system default.
- B** Select the **Delete** button to delete this reference sticker definition. The Delete button is only available if this reference sticker hasn't already been used for an image capture. Once the reference sticker has been used during image capture then you cannot delete the reference sticker, however you can edit the reference sticker and change the status to inactive.
- C** Select **Edit** to edit the details recorded for the reference sticker. Editing is similar to [Creating a Reference Sticker](#). Once editing, **Save** and **Cancel** buttons are made available to either save changes made or cancel editing. When editing, the **Diameter (mm)** field cannot be modified. If a mistake is made in entering the Diameter, create a new reference sticker and either delete the existing one or make it inactive.

D

Select **Close** to close the reference sticker details page and return to the [2D/3D Imaging](#) page.

E

Details

The details list the details recorded when the reference sticker was created, see the [Creating a Reference Sticker](#) topic.

F

Status

Reference stickers can be either Active or Inactive. Stickers are created as Active and can be set to Inactive by editing the reference sticker details.

Active reference sticker definitions are available to clinical users to select and use during the image capture sequence or in their **Admin > Preferences** screen.

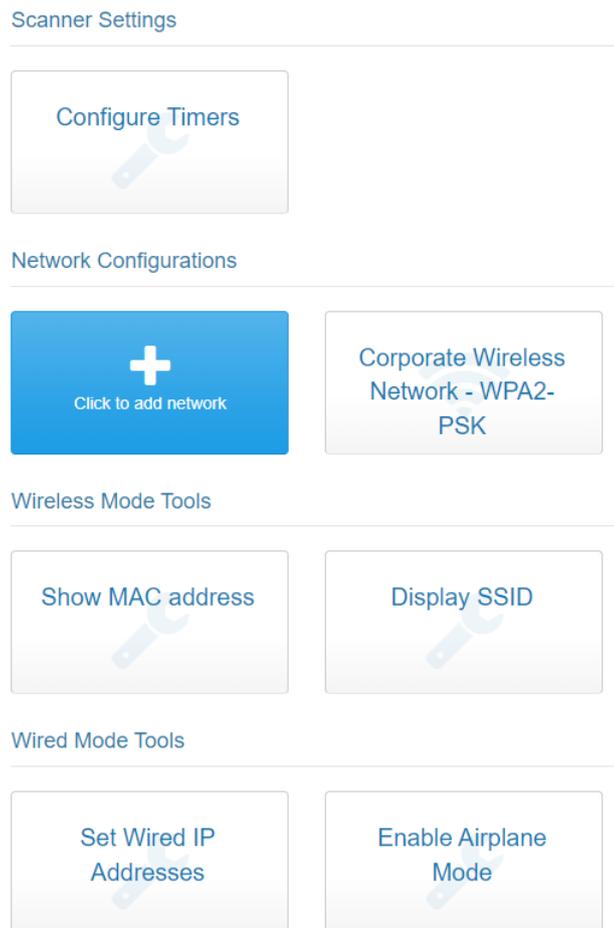
Inactive reference sticker definitions are not available to clinical users to select. If a user has already selected the sticker as their preference, they will still be allowed to use the inactive reference sticker definition until they change it again. This is to allow them to use the stock they have on hand of the old sticker before getting stock of the new sticker.

The default reference sticker cannot be set as inactive.

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. 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.

The SilhouetteStar 2 will show that the reconnection failed if the previous web browser session has ended or the tab been closed. The user can scan a new connection barcode to reconnect the scanner.

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.

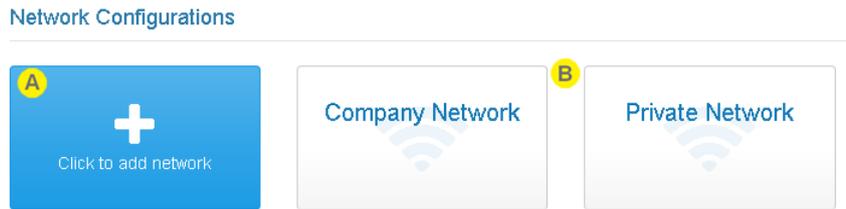
The SilhouetteStar 2 does not store images or associated patient details in storage within the scanner so if the images cannot be uploaded prior to the device going to sleep and eventually turning off, then any un-transferred images are not able to be recovered.

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.



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.

Details

Name *

Network Type *

Network SSID *

Network Password *

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.

Details

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](#).

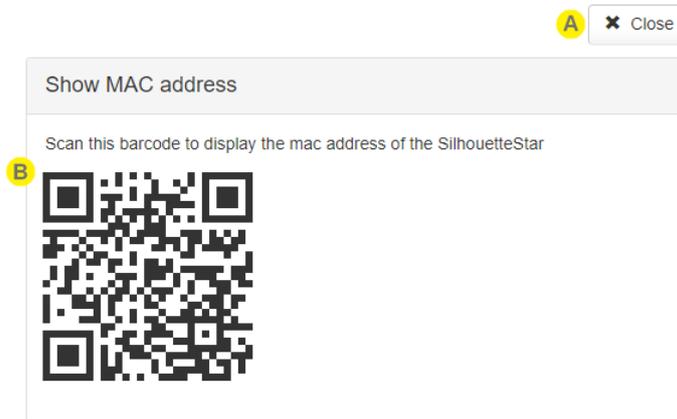
To delete the network, use the **Delete** button.

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.

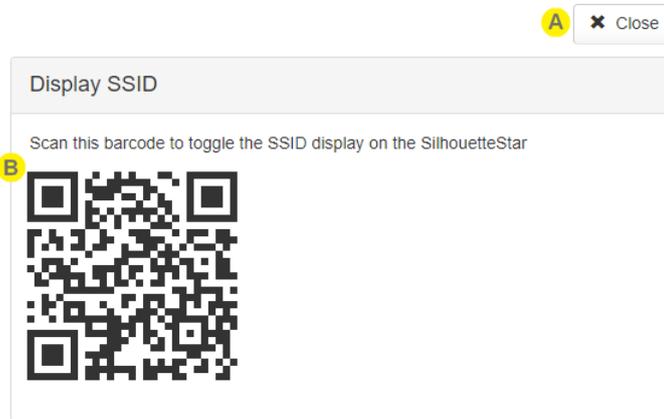


The SilhouetteStar 2 tool barcodes can be printed, or downloaded as images and emailed. This is helpful if you need to give them to Silhouette users without access to the settings screens to scan them for diagnostic or setup purposes.

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

E

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 *

Generate QR Code

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 can 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.

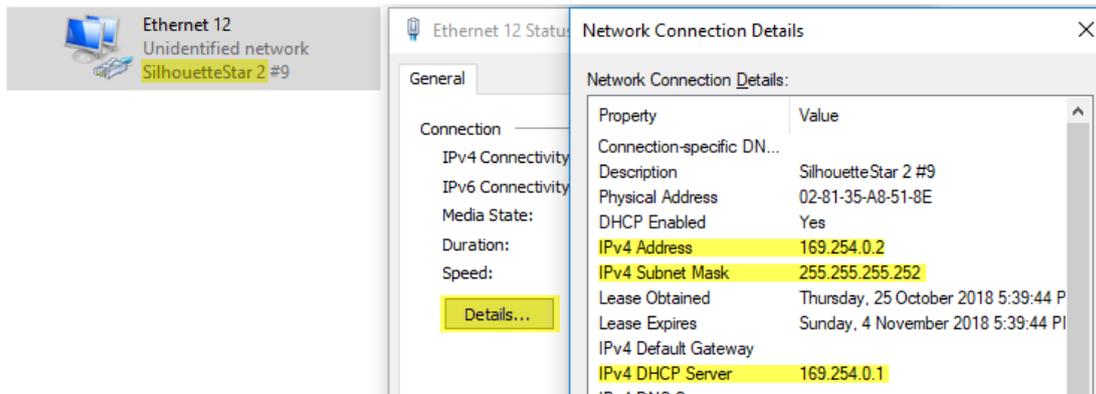


The SilhouetteStar 2 tool QR codes can be printed, or downloaded as images and emailed. This is helpful if you need to give them to Silhouette users without access to the settings screens to scan them for diagnostic or setup purposes.

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.

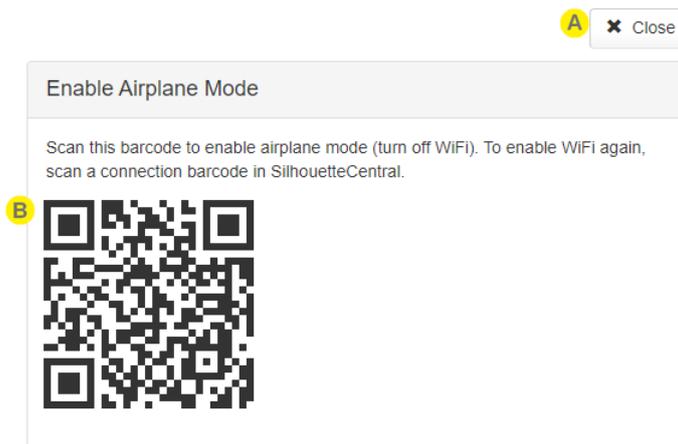


SilhouetteStar 2 Wired Mode Tools - Enable Airplane Mode

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.

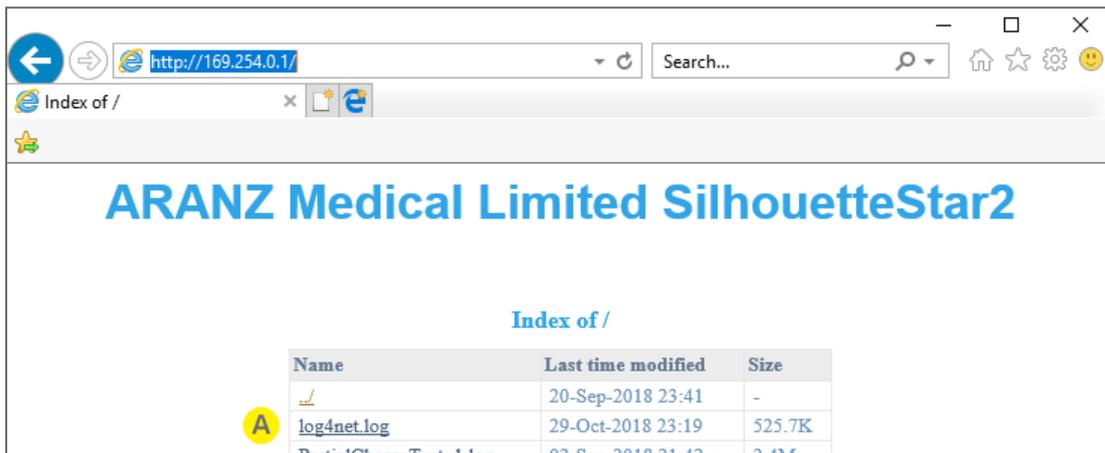
Retrieving SilhouetteStar 2 Device Logs

The SilhouetteStar 2 device keeps software logs. The logs 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.



A

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, 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.

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 the SMTP Configuration page. At the top right, there is a blue 'Edit' button with a pencil icon, labeled 'A'. The configuration form is titled 'Configuration' and contains the following fields:

| | | | |
|----------------------|--------------------------------|----------------------|------------------|
| B Sender * | it@org.com | C SMTP Host * | smtp.mailgun.org |
| D User Name * | postmaster@sandbox.mailgun.org | E Password * | - |
| F SMTP Port * | 587 | G SSL | Yes |
| H Enabled | 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. 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.
- The Home User template asks the user to request a copy of your privacy statement. You may want to include a link to it instead.
- 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, the welcome email is a good place to include these (or a link to them).

| Welcome Email | |
|---|--|
| Clinical User Email Subject * Welcome to Silhouette | Clinical User Email Template DefaultClinicalTemplate.cshhtml |
| Home User Email Subject * Welcome to Silhouette | Home User Email Template DefaultHomeTemplate.cshhtml |



Email Subjects

The email subject line for any welcome emails sent from Silhouette.

If the Home User Access feature is enabled, there are separate email subject configuration for the Clinical vs. the Home users.



Email Templates

The email template dictates what is included in the body of the welcome emails.

If the Home User Access feature is enabled, there are separate email template for the Clinical vs. the Home users.

In read-only 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 SilhouetteTokenService 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 |



Email Subject

The email subject line for password reset emails sent from Silhouette.



Password Reset Email Template

The email template dictates what is included in the body of the password reset emails.

In read-only 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.

Surface Modeling Service Certificate Reminder

The Surface Modeling Service certificate reminder email can be configured from this screen. It is used to alert administrators that the service certificate is expiring.

| Surface Modelling Service Certificate Reminder | |
|--|---|
| A Certificate Expiring Email Subject | B Certificate Expiring Email Template |
| Surface Modeling Service authentication certificate about to expire4 | DefaultExpiringCertificateEmailTemplate.cshhtml |
| C Certificate Expired Email Subject | D Certificate Expired Email Template |
| Surface Modeling Service authentication certificate has expired5 | DefaultExpiredCertificateEmailTemplate.cshhtml |

A

Certificate Expiring Email Subject

Defines the subject line for the email warning that the certificate is going to expire.

B

Certificate Expiring Email Template

Template used to standardise the content of the email in line with organisational requirements.

C

Certificate Expired Email Subject

Defines the subject line for the expired certificate email

D

Certificate Expired Email Template

Template used to standardise the content of the email in line with organisational requirements for expired emails.

Email System Statistics

At the bottom of the Email Configuration page, there is a section showing the performance of the email system.

A Silhouette Email Dashboard

| | |
|------------------|--------------------|
| Emails Sent 3 | System Events 3 |
|------------------|--------------------|

B Current Email Queue Statistics

Number of days to show statistics for: **C**

| | | | |
|---------------------|-----------------------------|--------------------|------------------------|
| Pending Emails 0 | Emails Pending Retries 0 | Failed Emails 0 | Successful Emails 3 |
|---------------------|-----------------------------|--------------------|------------------------|

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.

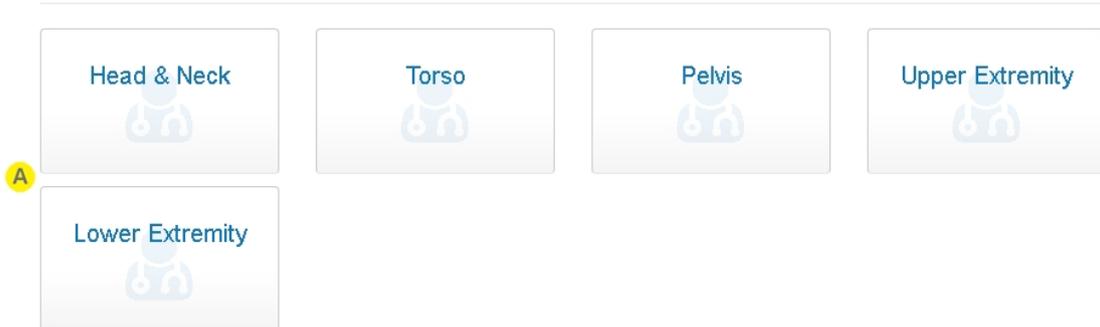


The Anatomical Sites page does not allow the editing of the anatomical site hierarchy. To modify the anatomical site hierarchy used in Silhouette please contact support@aranzmedical.com.

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

A 
B 

| 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"/> |

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.

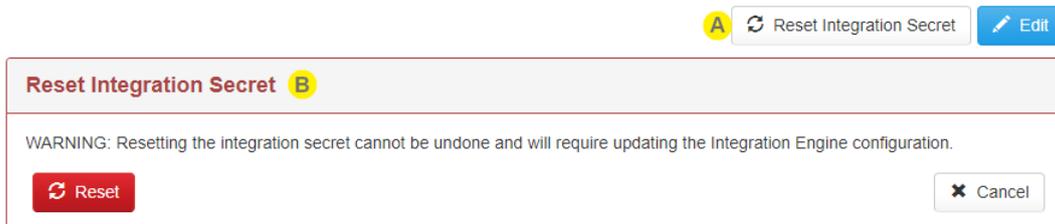
- Select **Save** and apply all configuration changes.
- Select **Cancel** to discard changes.

If the SilhouetteCentral license has the Silhouette Integration Interface feature enabled, there are two additional buttons:

- **Reset Integration Secret** - see the help topic [Integration Client Secret](#).
- **Integration Definitions** - selecting this button will download a zip file of the integration definitions. [See Integration Definitions](#).

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.

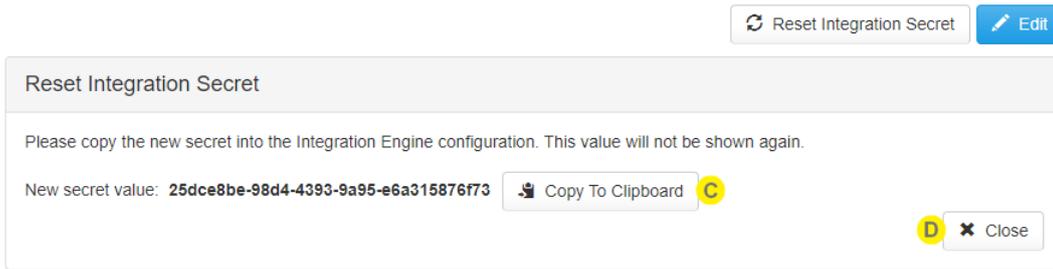


- A** Select **Reset Integration Secret** to reset or set the integration client secret. You will see a confirmation warning before the reset take place.

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.

Integration Definitions

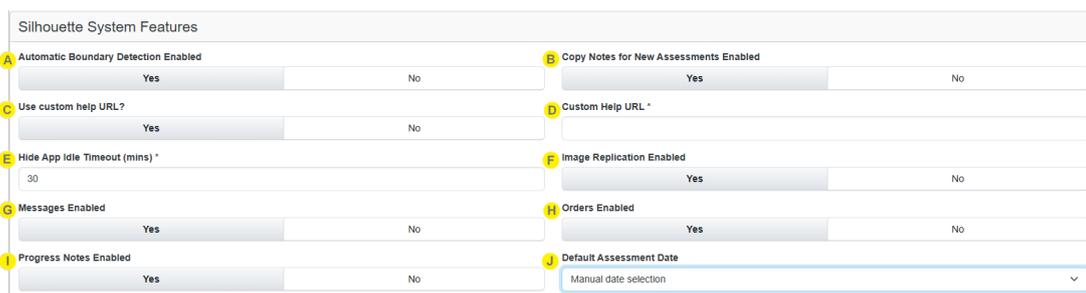
The integration definitions are downloaded from the [Silhouette Configuration](#) page as a zip file. The XML data models included in this zip file are used in the integration engine when mapping external data formats into the Silhouette data models.

There is an integration model for each version of each endpoint on the Silhouette Integration Interface and a folder for each assessment definition which contains all versions for that assessment definition. The Silhouette integration interface expects that incoming data conforms to the appropriate Silhouette Integration Model.

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**Copy Notes for New Assessment Enabled**

Selecting **Yes** allows the user to choose notes from a recent assessment (within the same day) when creating a new wound assessment.

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, 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.

F**Image Replication Enabled**

Selecting **Yes** allows a user to replicate an image to another chart category within the same note group. To make use of this feature, an assessment definition must contain multiple image capture chart items within a chart category. This will need to be configured by a member of ARANZ Medical Support.

G**Messages Enabled**

Selecting **Yes** enables the messages feature including:

- Messages on the patient sidebar.
- Screen to see the list of messages.
- Screen to see the details of a message.

Selecting **No** disables the messages feature in Silhouette.

This setting is not available in SilhouetteConnect.

H**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.

This setting is not available in SilhouetteConnect.

I**Progress Notes Enabled**

Selecting **Yes** enables the Progress Notes feature including:

- Progress Notes search.
- Progress Notes on the patient sidebar.
- Screen to see the list of Progress Notes.
- Screen to create new Progress Notes.

Selecting **No** disables the Progress Notes feature in Silhouette.

This setting is not available in SilhouetteConnect.

J**Default Assessment Date**

There are three choice which sets the populated date for the assessment.

These can be:

Today with Current Time: When creating an assessment, the form defaults the assessment's date and time to the creation date.

Today (no time): If this setting is chosen, the assessment is created with the creation date only.

Manual date selection: This setting does not set a default assessment date. As this field is mandatory on the form, a user must set the assessment date manually.

Search Configuration

Search

A Execute Search Automatically

Yes
No

B Patient Barcode Regular Expression Enabled

Yes
No

C Patient Barcode Regex Pattern *

D Patient Barcode Regex Replacement

- A Execute Search Automatically**
 Selecting **Yes** will automatically execute the search for Patients, Orders, and Progress Notes on page load, without the need to click on the **Search** button.
- B Patient Barcode Regular Expression Enabled**
 This setting is only available when the License contains the Patient Barcode Feature. When Silhouette has this licensed feature, the patient search bar will allow searching by scanning a barcode containing the patient identifier.
 Selecting **Yes** will enable the string found in the barcode to be transformed using the provided regular expression prior to the search being performed. When set to **No** the exact string specified in the barcode will be used to perform the search.
- C Patient Barcode Regex Pattern**
 The pattern is the string of which all matches in the original barcode content will be replaced by the replacement string.
- D Patient Barcode Regex Replacement**
 This is the string that will replace all instances of the pattern in the original barcode content. When not specified, an empty string will be used as the replacement.

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.aranz.nz | 9999 |
| D Authentication Type | |
| Basic | |
| User Name | Password |
| admin | - |
| E Patient Event | F Patient Event Unit Filter |
| Patient created, Patient updated, Patient deleted, Patient merged | East Hospital - Ward A |
| G Progress Note Event | H Progress Note Event Unit Filter |
| Progress note signed | East Hospital - Ward B edited, East Hospital - Ward A |

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.

E Patient Event

Select the patient operations that will trigger the generation of a Silhouette Integration Event. The options are:

- **Patient created**- An Integration Event will be queued and sent when a new patient is created.
- **Patient updated**- An Integration Event will be queued and sent when any attributes are modified and saved in Patient Details section.
- **Patient deleted** - An Integration Event will be queued and sent when a patient is deleted.
- **Patient merged** - An Integration Event will be queued and sent when two patients are merged.

F Patient Event Unit Filter

This drop-down list is used to specify whether the Patient Event applies only to patients in specific units.

- Select **All and future units** to cause the events to trigger for all patients (i.e. no unit filter).
- Select one or more specific units from the list to restrict the Patient Event to only trigger on patients currently assigned to those units. If a new unit is defined in Silhouette, assessment actions with a specific **Patient Event Unit Filter** 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 patient was actually created or modified.

G Progress Note Event

Select the Progress Note operations that will trigger the generation of a Silhouette Integration Event. The options are:

- **Progress note signed**- An Integration Event will be queued and sent when a progress note is signed.

H Progress Note Event Unit Filter

This drop-down list is used to specify whether the Progress Note Event applies only to patients in specific units.

- Select **All and future units** to cause the events to trigger for all patients (i.e. no unit filter).
- Select one or more specific units from the list to restrict the Progress Note Event to only trigger on progress notes for patients currently assigned to those units. If a new unit is defined in Silhouette, assessment actions with a specific **Progress Note Event Unit Filter** 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 progress note was actually created or modified.

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 |



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.

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) *

48

C SilhouetteCentral Idle Session Termination Enabled

Yes
 No

D SilhouetteCentral Idle Session Timeout (mins) *

5

E System Identification *

AML Staging

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, 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, 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, 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, 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, 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, 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.

Silhouette Configuration Synchronization

Synchronization

From this section, you can setup customized synchronization setting for the Silhouette applications.

This includes

- custom messaging to alert users that an upgrade is required
- the download policy for:
 - inactive wounds images
 - baseline images
 - pinned & non-pinned patients images within a specified day range

Note: Any image can be downloaded manually, whether on an active or inactive wound.

| Synchronization | |
|--|--|
| A Custom Message for SilhouetteConnect Upgrade Enabled | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| B SilhouetteConnect Upgrade Required Message | <input type="text" value="Please upgrade to the latest version."/> |
| C Download Images for Inactive Wounds | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| D Always Download Baseline Images | <input checked="" type="radio"/> Yes <input type="radio"/> No |
| E Download Images for Non-Pinned Patients Within (days) * | <input type="text" value="30"/> |
| F Download Images for Pinned Patients Within (days) * | <input type="text" value="90"/> |

- A** This field allows an administrator to add a custom message which appears in Silhouette Connect as a dialog box that needs to be acknowledged. It will appear in place of a standard message if enabled. To create a custom message, set the selector for **Custom Message for SilhouetteConnect Upgrade Enabled** to **Yes**.
- B** This is the text box that will appear where you can enter a message with a character limit of 500.
- C** This setting will enable the images for inactive wounds to be downloaded automatically if set to **Yes** within a defined time limit outlined in rows E and F in this table.
- D** This setting will enable baseline images to be downloaded automatically if set to **Yes** within a defined limit outlined in rows E and F in this table.

E

This setting allows you to set a limit for the number of days where images for a non-pinned patient will be downloaded.

Depending on previous settings, this can include baseline images and inactive wounds.

In the example screenshot, where the date of assessment is within 30 days of the current date the images on that assessment will be downloaded automatically by the synchronization process. Outside of this limit, you have to download the files manually.

Files that have been downloaded automatically will not be removed when they fall outside the day limit .

F

For pinned patients, the settings behave in the same manner as non-pinned patients, allowing you to set separate policies. In the screenshot above, pinned patients where the assessment is within 90 days of the current date the images are automatically downloaded.

Depending on previous settings, this can include baseline images and inactive wounds.

Files that have been downloaded automatically will not be removed when they fall outside the day limit.

Calculated Fields Configuration

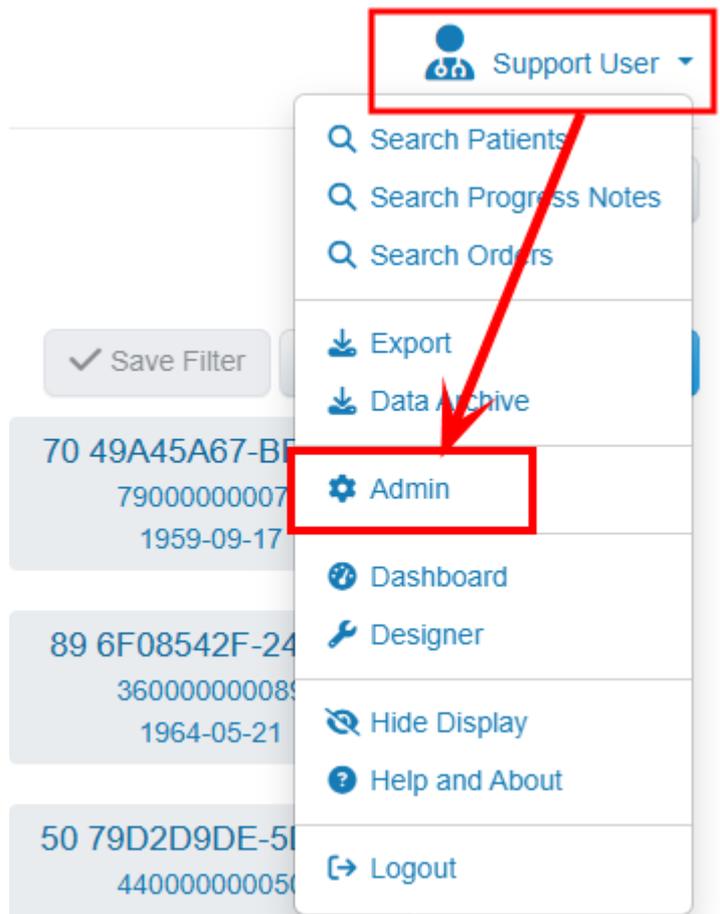
Calculated fields are used where 2 or more fields create an output based on a background formula or map numerical inputs to meaningful text labels. For instance, a value of '1' on a rating scale could be assigned the category 'Low', while a '5' would be assigned 'High'.

Using the example of Body Mass Index (BMI) which conforms to the formula:

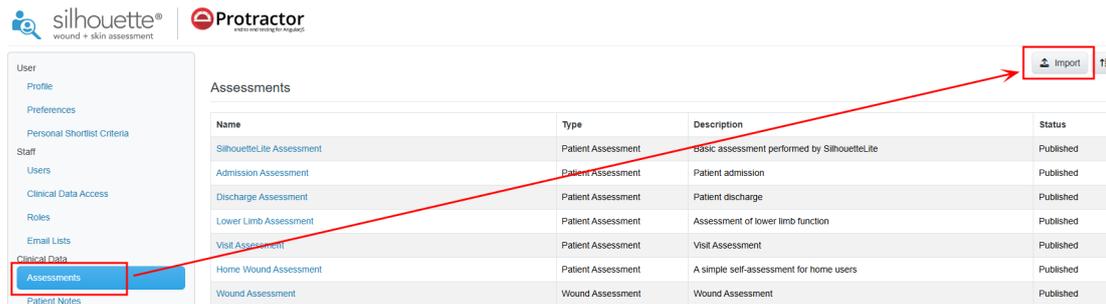
$$BMI = weight/height^2$$

The process of adding a new calculated field is as follows:

1. Gather requirements for the calculated field.
 - a. Ensure the underlying formula is correct and accurate
 - b. Establish the list of variables
2. Commission the ARANZ Medical Limited team to create the HTML assessment type using the formula and variables to create the calculated field.
3. Once the zip file is completed, have it on your machine ready for upload into Silhouette Central
4. Navigate and log into Silhouette Central as an administrator
5. Click **Support User > Admin > Assessments > Click Import**



6. Open the Zipped XML File you want to load in dialog box
7. You should get a note saying 'Success! The assessment has been successfully loaded as a draft.'



8. Open the draft Calculated field
9. Make any changes you need to on the form.
10. Click the **Publish** button to release the form for use in assessments.



Default Shortlist Criteria

The default shortlist criteria sets the default criteria used to include patient records in the shortlist filter, which is used to set the patients records made available offline in Silhouette Client applications. The patient shortlist can also be used to limit the set of results provided in the SilhouetteCentral and SilhouetteConnect patient search.

The default shortlist criteria can be overridden by each user in their own Personal Shortlist Criteria admin page.

Shortlist Criteria

The shortlist filter will return patients that matches any of the following criteria:

- Patients pinned by the user (not filtered by units selected in the personalized shortlist).
- Patients moved to their current unit within the number of days specified in the shortlist criteria (filtered by units selected in the personalized shortlist).
- Patients viewed by the user within the number of days specified in the shortlist criteria (filtered by units selected in the personalized shortlist).

Default Shortlist Criteria Configuration

Default Patient Shortlist Criteria

A Pin Expiry (days) *

B Viewed Within Period Enabled

Yes
 No

Viewed Within Period (days) *

C Assigned to Unit Enabled

Yes
 No

Assigned to Unit (days) *

A

Pin Expiry (days)

Patients pinned by users will be automatically unpinned after the given number of days.

B

Viewed Within Period (days)

Include patients viewed by the user within the given number of days. This setting can be enabled or disabled.

C

Assigned to Unit (days)

Include patients that have been moved to their current unit within the given number of days. Users can specify which units they are interested in in their personal shortlist criteria. This setting can be enabled or disabled.

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 4.22 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 |

192 • 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"> <li style="width: 50%;">• Wound biopsy <li style="width: 50%;">• Creatinine <li style="width: 50%;">• Hb <li style="width: 50%;">• HbA1c <li style="width: 50%;">• Thyroid function <li style="width: 50%;">• FBC <li style="width: 50%;">• Albumin | | |
| 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"> • Facility A • 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, 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, 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, this column contains the length of that ruler. If there are two (2) or more rulers, 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 1/10th of a mm for linear measurements.
- Output to the nearest 1/10th of a mm² for area measurements.
- Output to the nearest 1/10th of a mm³ 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, it will be interpreted as a normal character.
- If any part of the input matches the Regular Expression, the validation passes. If you wish to match the whole entry field, 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. 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. If the value of 'x' is not a string containing an integer value, then -2147483648 will be returned. | ParseInt(variable_name) <= 5 |

| Function | Description | Example Expressions |
|--|---|---|
| IsAnatomicalSite(group, grossDivision, region) | Returns true if the current anatomical site matches the supplied parameters, otherwise false. The parameters passed to this function must match what is shown in the anatomical sites table . group parameter is required. grossDivision and region parameters are optional. | IsAnatomicalSite('Torso') IsAnatomicalSite('Torso', 'Thorax', 'Axilla') |
| IsHandedness(hand) | Returns true if the current anatomical site matches the handedness specified. If the anatomical site does not have a handedness defined then this will return false. | IsHandedness('Left') |
| Min(a,b) | Returns the minimum value out of the provided inputs ('a' and 'b'). The function can take up to 5 numerical values or variables that return numerical values. If any of the values is null or not a numerical value, then the function will prevent the expression from being evaluated. | Min(variable_1, variable_2) Min(variable_1, variable_2, variable_3, variable_4) |
| Max(a,b) | Returns the maximum value out of the provided inputs ('a' and 'b'). The function can take up to 5 numerical values or variables that return numerical values. If any of the values is null or not a numerical value, then the function will prevent the expression from being evaluated. | Max(variable_1, variable_2) Max(variable_1, 10) Max(variable_1, variable_2, variable_3, variable_4) |

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, 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.

222 • Reports and Exports Filename Templates

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"> <thead> <tr> <th data-bbox="384 365 703 398">Path</th> <th data-bbox="703 365 1431 398">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="384 421 703 454">PatientId</td> <td data-bbox="703 421 1431 454">The main Silhouette domain identifier used for the patient.</td> </tr> <tr> <td data-bbox="384 477 703 510">FirstName</td> <td data-bbox="703 477 1431 510">The patient's first name.</td> </tr> <tr> <td data-bbox="384 533 703 566">MiddleName</td> <td data-bbox="703 533 1431 566">The patient's middle name.</td> </tr> <tr> <td data-bbox="384 589 703 622">LastName</td> <td data-bbox="703 589 1431 622">The patient's last name.</td> </tr> <tr> <td data-bbox="384 645 703 678">DateOfBirth</td> <td data-bbox="703 645 1431 678">The patient's date of birth.</td> </tr> <tr> <td data-bbox="384 701 703 734">Unit</td> <td data-bbox="703 701 1431 734">The name of the unit the patient is currently assigned to.</td> </tr> <tr> <td data-bbox="384 757 703 790">Street</td> <td data-bbox="703 757 1431 790">The street component of the patient's address.</td> </tr> <tr> <td data-bbox="384 813 703 846">Suburb</td> <td data-bbox="703 813 1431 846">The suburb component of the patient's address.</td> </tr> <tr> <td data-bbox="384 869 703 902">City</td> <td data-bbox="703 869 1431 902">The city component of the patient's address.</td> </tr> <tr> <td data-bbox="384 925 703 958">State</td> <td data-bbox="703 925 1431 958">The state component of the patient's address.</td> </tr> <tr> <td data-bbox="384 981 703 1014">Postcode</td> <td data-bbox="703 981 1431 1014">The postcode component of the patient's address.</td> </tr> <tr> <td data-bbox="384 1037 703 1070">Country</td> <td data-bbox="703 1037 1431 1070">The country component of the patient's address.</td> </tr> <tr> <td data-bbox="384 1093 703 1126">WorkPhone</td> <td data-bbox="703 1093 1431 1126">The patient's work phone contact number.</td> </tr> <tr> <td data-bbox="384 1149 703 1182">HomePhone</td> <td data-bbox="703 1149 1431 1182">The patient's home phone contact number.</td> </tr> <tr> <td data-bbox="384 1205 703 1238">MobilePhone</td> <td data-bbox="703 1205 1431 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. |
| 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. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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"> <thead> <tr> <th data-bbox="384 1491 703 1525">Path</th> <th data-bbox="703 1491 1431 1525">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="384 1547 703 1581">Date</td> <td data-bbox="703 1547 1431 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 (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, 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. |