ASCEND CV® Administration
Quick Start Guide

Version 2.6

Table of Contents

About this Guide

This Guide introduces the ASCEND CV® administration interface, including

- Managing system operation

- Managing patients and providers

- System configuration

In addition to reviewing this Guide, you should review the following documentation:

- The *ASCEND CV Reporting Quick Start Guide*, which describes the ASCEND CV reporting interface.

- Your reporting modules' *Quick Start Guides*

    Echo Quick Start Guide
    Vascular Quick Start Guide
    Nuclear Quick Start Guide
    Cath Quick Start Guide
    EP Quick Start Guide

    which describe in detail how to use the clinical reporting interface to prepare clinical reports.

- There are also video training libraries available on ASCEND HIT's ASCEND CV training web site covering the following reporting modules:

    Cardiac Catheterization
    CT Angiography
    Echocardiography
    Electrophysiology
    Nuclear Cardiology
    Vascular

- Documentation for the worklist interface that you will use to select a study for reporting.

- Documentation for the image review interface that you will use to review the images associated with a study.

ASCEND CV supports both **lab administrator** and **system administrator** roles and this document covers the administrative functions that can be performed by each.

ASCEND CV Lab Administration

Lab administration, also sometimes referred to as Super User credentials, includes the ability to:

- reconcile/recreate cases

- create new cases or studies

- reopen signed studies

- view the audit log

- view and terminate user sessions

- assign studies to technologists, physicians, and practices, for a specific facility and one or more reporting modules

ASCEND CV System Administration

System administration includes the ability to:

- perform all ASCEND CV system configuration functions – including administration of users, participant lists, knowledge bases, and universal service ID mappings

- And it also includes most all of the capabilities granted to a lab administrator; except for re-opening signed studies for amendment or addendum (unless otherwise explicitly granted).

Proper Application Server System Administration

Site staff are responsible for system administration of the entire ASCEND CV server environment, including system monitoring and backup/restore of the ASCEND CV and ASCEND Analytics databases. Consult the *ASCEND CV IT Guidelines* document for more information on these tasks.

ASCEND CV Administration Interface
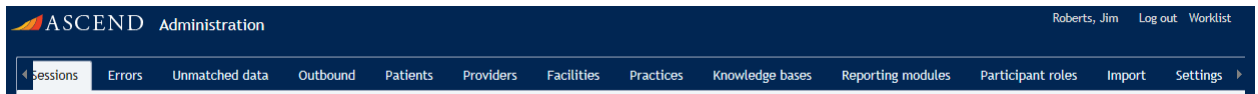
To open the ASCEND CV administration interface:

- Use Microsoft Internet Explorer to navigate to your institution's ASCEND CV application.

- Enter your ASCEND CV **User name** and **Password**.

- Click the **Admin** button in the upper right-hand corner of the ASCEND CV worklist interface.
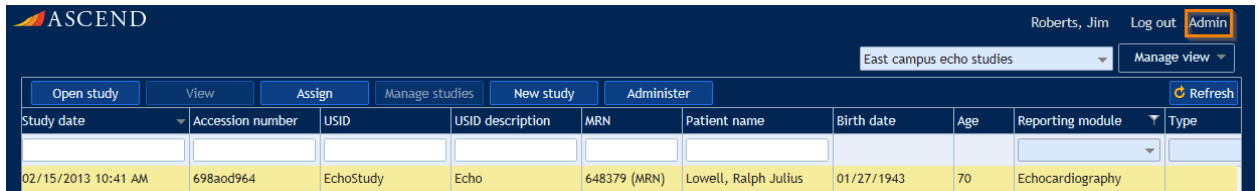
Administration interface tab bar

The ASCEND CV administration interface consists of a set of tabs. Clicking a tab displays the associated interface for managing or configuring the ASCEND CV system.

A **system administrator** will see all the administrative tabs available in the ASCEND CV administrative interface, as follows:

While a **lab administrator** (that is <u>not</u> also a system administrator) will have access to a subset of administrative tabs and capabilities available in the ASCEND CV administrative interface, as follows:

Depending on the width of your browser window, you may not be able to see all of the tabs at once. Should this occur, a pair of arrows will appear on the ends of the tab bar
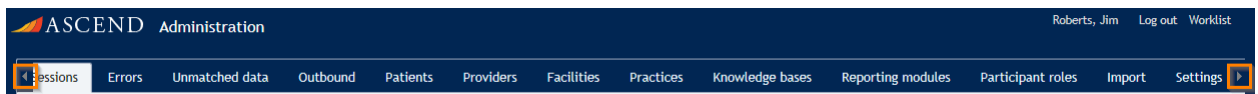
Clicking these arrows scrolls the tab bar left/right to reveal the additional tabs:

Managing System Operation

Sessions tab

The **Sessions** tab lists the active reporting sessions (user name, IP address of workstation that user is logged into, idle time).

User	User name	Location	Idle (m:s)	
Roberts, Jim	jroberts	44.14.12.44	0:00	Terminate

Clicking the **Terminate** button forces the selected reporting session to close. Note that users will be automatically logged out and their report session closed after the **Inactivity logout period** (idle time) specified on the **Settings** tab.

Errors tab

The **Errors** tab lists orders that could <u>not</u> be automatically processed because of missing, incomplete, or incorrect study/patient information. The example below shows an order with an unrecognized Universal Service ID and another order with an unrecognized facility name. These fields are used to determine the reporting module for a study and are required in order to process an order.

Date/time	Error	Patient name	Accession number	MRN	Knowledge base	Status	Responsible physician
2/13/2013 9:40 AM	Unknown or missing Universal Service ID: "Cardio"	Carson, Mitchell	12453	3162935		Pending order	
9/5/2013 4:58 PM	Unknown or missing facility: "West Campus2"	Becker, Thomas M, JR...	1110287968abc	1366354	Cath	Pending order	

(Administer | Clear filters | Refresh)

Selecting an order from the list and clicking the **Administer** button displays a form for editing the selected order.

Administer - Order editor

Admission
Account number: 10041889
Arrival date/time: 08/13/2012 12:21 PM
Admission: Observation

Patient
Head, Lisa
MRN: 3332356
DOB: 08/17/1975
Edit patient
Change patient

Order
Accession number: 267dps568
Study instance ID:
Placer order number: 36099144
Ordered date/time: 09/07/2012 09:40 AM
Universal service ID: VascularStudy [Vascular]
Urgency:
External ID:
Order status: Order is completed
Order canceled reason:
Facility: West Campus

Case
Lab discharge date/time:
Location performed:
Procedure room:
Encounter MRN: 3332355

Study
Start date/time:
Stop date/time:

Providers
Referring physician: Abrahams, Tim A, MD
Ordering physician: Abrahams, Tim A, MD
Consulting physician: Worthington, Mark T, MD (00100 ...
Edit providers

Cancel order | Reset study | Save | Cancel

The patient information associated with the order can be edited by clicking the **Edit patient** button. Refer to the *Patient tab* section of this Guide for more information on editing patient data, including required fields (**!**) and medical record numbers (MRN).

Administer - Order editor: Patient demographics

Head, Lisa

Field	Value
Salutation	
First name	Lisa
Middle name	
Last name	Head
Family suffix	
Professional suffix	
Address 1	603 THUNDER DR
Address 2	
City	PRESCOTT
State / province	
Zip / postal code	863035088
Country	
Email	
Business #	
Home #	(603)400-500
Fax #	
Birth date	08/17/1975
Birth gender	Female
Ethnicity	Unknown
Race	White
Marital status	Married
Primary language	English

SSN: 184389676
MPI:
Universal record #:

- ☐ Foreign health insurance
- ☐ Indian health service
- ☐ Medicaid
- ☐ Medicare
- ☐ Military health care
- ☐ No health insurance
- ☐ Private health insurance
- ☐ State specific health care plan

Death indicator:
Death date/time:

Assigning authority	Type	ID
MRN	MRN	3332356
East campus	MRN	5443322

New   Delete

Ok   Cancel

If the patient data in an order is incomplete and the patient already exists in the ASCEND CV database, you can use the existing patient data to complete the order by clicking the **Change patient** button and selecting the patient from the displayed list of patients.

Note that the patient list is filtered using the text in the **Search** filter ("Ha" in the example below).

You can change this filter by typing in a different name or deleting the search text.

Selecting a patient from the list and clicking the **OK** button changes the patient data in the order to match the selected patient.

When you have completed correcting the missing or incorrect order information, click the **Save** button on the **Administer** form to save your changes. The edited order will then be resubmitted for automatic processing. Note that the edited order may be displayed on the **Errors** tab for a brief time until it is processed. Use the ⟳ Refresh button on the **Errors** tab to refresh the list of incomplete/incorrect orders.

If the order was sent or created by mistake, use the **Cancel order** button on the **Administer** form to cancel the order.

Unmatched data tab
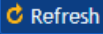
The **Unmatched data** tab lists data sets from clinical devices that have not been automatically matched with a study (or manually matched using the procedure described below). This typically occurs because an imported data set has incomplete or incorrect study/patient identifiers that do not match the study/patient identifiers for the associated study (e.g., study accession number, DICOM study instance UID, patient last name, first initial, date of birth, medical record number).

Selecting an imported data set from the list and clicking the **Edit** button displays a form for editing the selected data set's study/patient identifiers.

Correct the incomplete or incorrect information and click the **Save** button to save your changes. The edited data set will then be resubmitted for automatic processing. Note that the edited data set may be displayed on the **Unmatched data** tab for a brief time until it is processed. Use the ⟳ Refresh button on the **Unmatched data** tab to refresh the list of unmatched data sets.

Alternatively, you can manually match the selected data set to a study by selecting a study from the **Available** studies list and clicking the **Assign** button. You will then be asked to confirm this assignment.

Finally, you can delete the selected data set – to remove a duplicate data set, for example – by clicking the **Delete** button.

Outbound tab

The **Outbound** tab lists the data transfers that ASCEND CV sends to various external systems.

Resubmit	Terminate							↻ Refresh
Event date/time ▼	External system	Event type	Patient	Accession #	Type	Status	Next attempt	Description
▦						Filters ▼	▦	
02/03/2015 3:00 PM	CardioAnalytics	Confirm	Radke, Phill	989898		Processing	02/03/2015 3:05 PM	
02/03/2015 2:58 PM	HIS	Confirm	Liebliches, Herz M	1110287968	Diagnostic	Processing	02/03/2015 3:03 PM	
02/03/2015 2:58 PM	CardioAnalytics	Confirm	Liebliches, Herz M	1110287968	Diagnostic	Processing	02/03/2015 3:03 PM	

Routine data transfers include the following:

- When a study is opened or closed, ASCEND CV may notify the Hospital Information System (HIS).

- When a study is signed, ASCEND CV may transfer data to

    o The ASCEND CardioAnalytics database

    o The Hospital Information System (HIS)

    o Cedaron CardiacCare

Precisely which data transfers are made – and when – depends on the configuration of the ASCEND CV system and on the type of study being processed.

By default, the **Outbound** tab lists data transfers with the following statuses:

- *Processing*: ASCEND CV is attempting to complete the data transfer. If the external system does <u>not</u> return a response within the **Processing interval** on the **Settings** tab (available only to an ASCEND CV System Administrator), then ASCEND will attempt to retry the transfer after waiting for the time interval specified as the **Reattempt interval** (the default interval is 300 seconds).

Outbound	
Reattempt interval (seconds)	300
Processing interval (seconds)*	60
Number of reattempts	5

ASCEND CV will retry up to the **Number of reattempts** setting, until a response is received or if none received leave it as a failed attempt with no further reattempts scheduled.
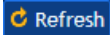
- *Failed*: The external system returned an error or did not respond. If there was no response then retries will be attempted up to the **Number of reattempts** setting. Any error returned is listed in the **Description** field.

The **Status** filter can be used to list additional data transfers:

- *Successful:* The data transfer completed successfully.

- *Terminated:* The data transfer was <u>manually</u> terminated using the **Terminate** button. ASCEND CV will <u>not</u> automatically retry terminated data transfers.

You can use the **Resubmit** button to resend (or restart) a Failed or Terminated data transfer.

Note that new data transfers will <u>not</u> update the list displayed on the **Outbound** tab. Use the ↻ Refresh button to manually update the list of data transfers.
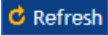
Audit log tab

The **Audit log** tab lists events related to the use of the ASCEND CV system, including:

- User logins and logouts

- Starting and ending of reporting sessions

- Opening, reviewing, and editing of studies

- Changes to study status, including study creation ("New"), "In-progress", "To be read", "Signed", and "Amended"

- Changes to participant roles

- Reviewing of patient data records

- Importing of data from external systems/devices

- Resetting of studies

- Creation of a new ASCEND CV user account

- Addition or modification/editing of a provider

- Reporting Knowledge Base (KB) configuration set as active

By default, the audit log is

- Sorted in descending order based on date/time (most recent first). You can sort and filter the log using the heading (top row) and filter (second row) controls. See the *Sorting and filtering lists* section of this Guide.

- Displayed in pages of 50 events each. You can select which page to display and the page size using the controls at the bottom of the log.

Note that new audited events will <u>not</u> update the list displayed on the **Outbound** tab. Use the [C Refresh] button to manually refresh the audit log contents.

Clicking the **Export** button saves a copy of the audit log in comma-delimited (.csv) form on your computer. Note that the export operation may take several minutes.

Managing Patients and Providers

Patients tab

The **Patients** tab is used to edit the patient data stored in the ASCEND CV database.

Search:	
Carson, Mitchell	12/25/1947
Carter, Stuart, Sr.	12/23/1957
Chamberlin, Charles R	06/21/1956
Howse, Milford Linton	03/29/1932
Liebliches, Herz M	09/19/1953
Lowell, Ralph Julius	01/27/1943
Norris, Steve Avery	06/25/1949
Radke, Phill	06/29/1940
Rains, Mya Shawna	09/25/1952
Roesch, Peter	08/17/1975
Simpson, Homer Jay	01/01/1956
Simpson, Marge	12/12/1956
Smith, Michael	10/25/1992
Styles, Hilary Harding	08/05/2002
New	

You can filter the patient list by entering a portion of a name in the **Search** box.

Selecting a patient from the list displays a form for editing information about the selected patient. Note that this patient data record is shared by <u>all</u> the ASCEND CV studies for the patient. Changing this data will <u>not</u> change any signed reports but will change the data on any open studies for the patient (now and into the future).

ASCEND CV supports the use of multiple medical record numbers (MRN) per patient, where each medical record number has an associated **Assigning authority** and **ID**. These MRNs are edited using the designated subform.

Clicking the **New** button below the patient list

displays a form for entering a new patient.

The fields marked with a red **!** are required and must be specified. Note that you must specify at least <u>one</u> patient identifier – social security number (SSN), master patient index number (MPI), universal record number, or medical record number (MRN).

When you have finished editing an existing or new patient record, you <u>must</u> click the **Save** button to save the edited patient data to the ASCEND CV database.

Providers tab

The **Providers** tab is used to edit the medical personnel data stored in the ASCEND CV database.
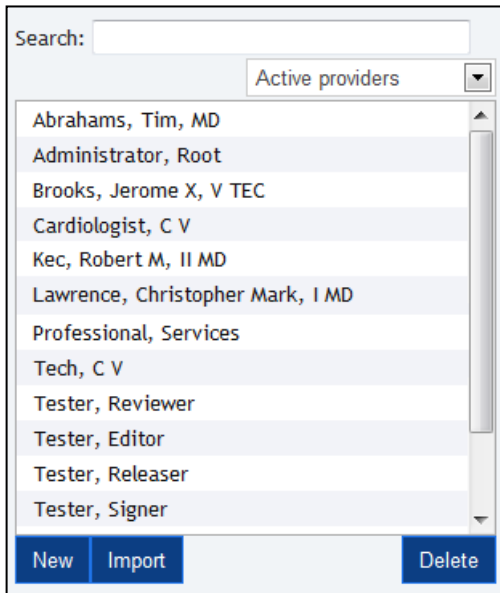
You can filter the provider list by entering a portion of a name in the **Search** box or by selecting the type of participant from the filter list:
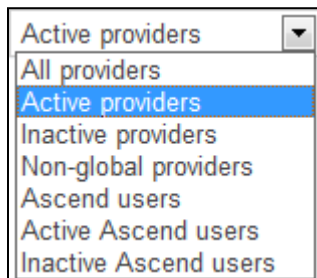
Active: Provider is marked as "Active" in the ASCEND CV database. Inactive providers will <u>not</u> be displayed in the participant lists in the ASCEND CV reporting interface but will be retained in the ASCEND CV database.

Global: Provider is marked for display in the participant lists in the ASCEND CV reporting interface. Non-global providers are typically the result of manual entry of a provider for a study (see *Merging duplicate providers* below) and are <u>not</u> displayed in the participant lists in the ASCEND CV reporting interface but will be retained in the ASCEND CV database.

ASCEND user: Provider is a user of the ASCEND CV system; as opposed to someone who may be listed as a provider on a clinical report, but who will <u>not</u> use ASCEND CV. One can also filter on either active or inactive ASCEND users.

Selecting a provider from the provider list displays a form for editing information about the selected provider. Note that this provider data record is shared by all the ASCEND CV studies referencing the provider.

The **Participant roles** form specifies the facilities, reporting modules, and participant roles associated with the selected participant. In the example above, "Christopher Cardiologist" is specified as being a physician who reads adult and pediatric echocardiography studies at the East Campus facility. When an East Campus echocardiography study is opened in the ASCEND CV reporting interface, the **Participant** list for the **Responsible physician** role will include "Christopher Cardiologist" as one of the choices.

The **Practice** field specifies the clinical practice to which the provider belongs and the **Signature image** field stores an electronic copy of the provider's written signature. This information will be used by the ASCEND CV reporting interface when generating clinical reports signed by the provider.

The **Ascend roles** form specifies the selected provider's user account settings and data access rights.

System administration rights:

- **None**: No system administrator access
- **System administrator**: Can access all the tabs of the ASCEND CV administration interface

Lab administration rights:

- **None**: No lab administrator access
- **Lab administrator**:
  - Can access the **Sessions**, **Errors**, **Unmatched data**, **Patients**, **Providers**, and **Audit** tabs of the ASCEND CV administration interface.
  - For specified facilities and reporting modules, can reopen signed studies for amendment and can access the **Admin** button on the ASCEND CV worklist interface.

Reporting rights: Assigned per facility and reporting module. Each choice inherits the rights of the choices above it (e.g., amenders can also sign, release, edit, and review).

- **None**: Cannot open studies or view reports
- **Reviewer**: Can view reports
- **Editor**: Can edit study data and clinical findings
- **Releaser**: Can release (sign) preliminary reports
- **Signer**: Can sign reports
- **Amender**: Can reopen signed studies for amendment

Note that all Lab administrators must be assigned *Editor* (or greater) reporting rights.

In the following example, user "Christopher Cardiologist" is assigned the following data access rights:

- No system administration rights
- No lab administration rights
- Can review all reports from all facilities and all reporting modules
- Can amend (and thus review, edit, and sign) East Campus adult and pediatric echocardiography studies

Clicking the **Change password** button changes the user's ASCEND CV password. Note that the ASCEND CV password is only used when a user logs into ASCEND CV directly via a Web browser. In many configurations, users log into their Hospital Information System (HIS) and that login is automatically transferred to ASCEND CV. The ASCEND CV password is not used in such configurations.
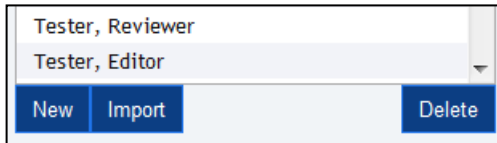
Checking the **User locked out** checkbox inactivates the user's ability to log into ASCEND CV. Note that setting will be set automatically should a user attempt to log on with an incorrect password 5 consecutive times. Unchecking the checkbox will restore the user's ability to log on.

Checking the **Force password change** checkbox will force the user to change the user's password the next time the user logs in.

Note that you <u>must</u> click the **Save** button to save the edited provider data to the ASCEND CV database.

Managing the list of providers

Clicking the **New** button below the provider list displays a form for entering a new provider.

The fields marked with a red **!** are required and must be specified.

Clicking the **Delete** button below the provider list deletes the selected provider; you are prompted to approve the deletion. Note that you can only delete providers who have <u>never</u> been associated with any studies. Alternatively, you can mark a provider as Inactive by unchecking the **Active** checkbox, which will stop the provider from being displayed in the participant lists in the ASCEND CV reporting interface.

Clicking the **Import** button below the provider list imports a comma-delimited (.csv) file of participants. The format for the CSV file is specified below:
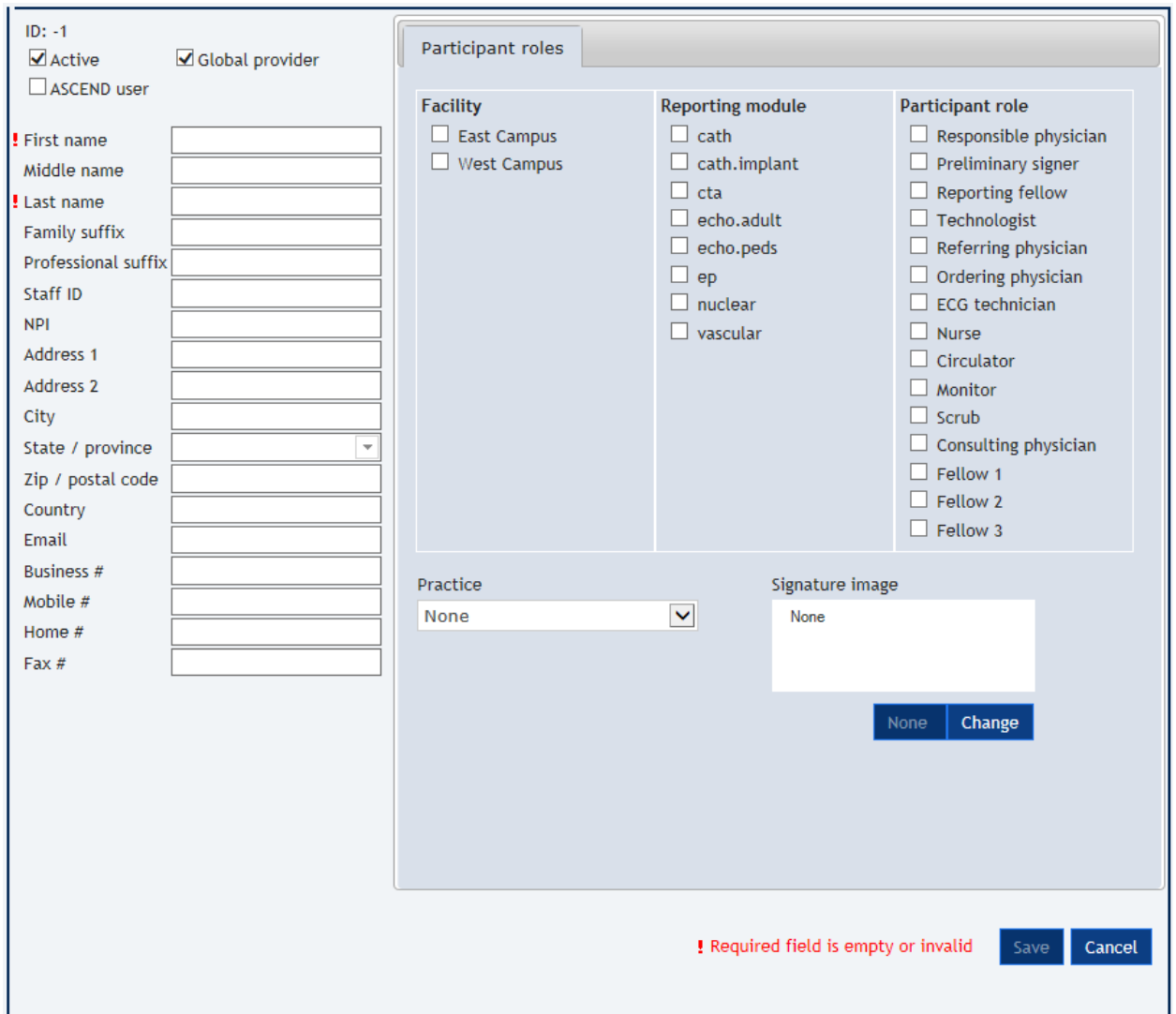
Note: if you are constructing the CSV in a spreadsheet application and exporting as a CSV you need not surround multi-valued columns with double-quotes.

- List of columns (fields):

    Active,IsGlobalProvider,GivenFirstName,MiddleName,FamilyLastName,FamilySuffix,Profession alSuffix,StaffID,Npi,Address1,Address2,City,State,ZipCode,Country,Email,BusinessPhoneNumbe r,MobilePhoneNumber,HomePhoneNumber,FaxNumber,Practice,Facilities,ReportingModules, Roles,Username,Password,LabAdministratorRights,ReportingRights,UserLockedOut,ForcePass wordChange,SystemAdministration

- The first row must contain the column headings.
- Columns FamilyLastName and GivenFirstName must be present (and non-empty) for each provider.
- If a provider is associated with more than one Facility, Reporting Module, or Role, separate the additional names in each column with commas and surround the list with double-quotes.
- The format for specifying the LabAdministratorRights and ReportingRights is

    [facility]:[reporting module]=[right]

where multiple rights must be separated by a comma and the list surrounded with double-quotes

    "[facility1]:[reporting module1]=[right1], [facility2]:[reporting module2]=[right2]"

Merging duplicate providers

Users of the ASCEND CV reporting interface may inadvertently introduce duplicate providers by typing in participant names rather than selecting participants from the participant lists.

To locate duplicate providers, filter the provider list to display **Non-global providers** ("C Cardiologist" in the example below).

Clicking the **Merge** button at the bottom of the participant form will display a form for merging the duplicate provider with the corresponding original (Global) provider, where the "merge" operation replaces all database references to the duplicate provider with references to the original provider, followed by deletion of the duplicate provider's database record. Note that signed reports will <u>not</u> be modified by this operation.

The **Search** box automatically contains the name of the duplicate provider ("C Cardiologist" in the example above). Selecting the original provider from the list ("Christopher Cardiologist" in the

example above) displays the differences between the duplicate provider's record (left) and the original provider's record (right).

Clicking the **Merge** button replaces the duplicate provider with the original (Global) provider; you will be asked to confirm this action. In the example above, merging will replace the database record for "C Cardiologist" with the database record for "Christopher Cardiologist".

System Configuration

System configuration can only be performed by a user assigned the system administrator role. A lab administrator that is not also a system administrator cannot perform these remaining system configuration operations.

Participant roles tab

The **Participant roles** tab is used to edit the set of clinical roles that can be referenced in the ASCEND CV reporting interface, including adding (**New**) participant roles and deleting (**Delete**) roles that you have added. For each role, you must specify the name of the role (**Label**) and the name of the associated XML data element (**Read-only element**). The roles shown in gray are built into ASCEND CV and cannot be edited.

Note that this is a <u>global</u> set of roles that covers all reporting modules and all facilities. You can select which participant roles will be used with a specific reporting module at a specific facility using the **Facilities** tab. In addition, inclusion of a new participant role on reports may require report configuration and importing of a participant role from clinical device data; and that this may also require system or device interface configuration.

You <u>must</u> click the **Save** button to save the edited participant roles data to the ASCEND CV database.

Reporting modules tab

An institution purchases a set of **reporting modules** that support structured reporting for a defined set of study types – for example, the adult echocardiography reporting module (**echo.adult**) supports structured reporting for adult transthoracic, transesophageal, and stress echocardiography studies.

The **Reporting modules** tab is used to associate Universal Service IDs with reporting modules. For each Universal Service ID (USID), you specify

- The **USID** text string that identifies the type of study. The USID is specified by your Hospital Information System (HIS) and sent to ASCEND CV as part of the HL7 ORM order for a study.

- The **Label** for the USID that will be displayed in ASCEND CV (in place of the USID text string).

- The **Reporting module** associated with the USID.

Universal service identifiers		
USID ⬍	**Label** ⬍	**Reporting module** ▲
CathStudy	Cath	cath ▾
CORONARYANGIO38	Coronary angio	cath ▾
LHCWLVGRAMCOR137	Cath	cath ▾
STENTSINGLEVE218	Stent	cath ▾
CathImplantStudy	Cath	cath.implant ▾
CTAStudy	CTA	cta ▾
CardiacEchoca20	TEE	echo.adult ▾
Echo2DandMmod48	Echo 2D & MM	echo.adult ▾
EchoStudy	Echo	echo.adult ▾
EchoTransthor54	TTE	echo.adult ▾
ExerciseStres67	Stress	echo.adult ▾
Pharmacologic158	Pharmacologic stress	echo.adult ▾
PediatricEchoStudy	Echo peds	echo.peds ▾
EPStudy	EP	ep ▾
INSERTDUALLEA109	EP	ep ▾
NuclearStudy	Nuclear	nuclear ▾
VascularStudy	Vascular	vascular ▾

New   Import

In addition to adding (**New**), deleting (**Delete**), and editing Universal Service IDs, you can click the **Import** button to import a comma-delimited (.csv) file of USIDs. The format for the CSV file is specified below:

- List of columns (fields): USID, Label, ReportingModule.

- The first row must contain the column headings.

- All columns must be present and non-empty for each USID.

Finally, the **Reporting modules** tab is used to specify the label for a reporting module that will be displayed in ASCEND CV (in place of the reporting module ID).

Note that you <u>must</u> click the **Save** button to save the edited reporting module data to the ASCEND CV database.

Knowledge bases tab

A **knowledge base (KB)** defines the clinical content, reporting interface layout, and report layout used in structured reporting. At any point in time, ASCEND CV will have multiple versions of each knowledge base. One version is identified as **Active**, meaning that it will be used with all new studies. The remaining versions are retained because once a study is started with a given version of a knowledge base, that version will automatically be used any time the study is opened for reporting (or amendment).

The **Knowledge bases** tab is used to download knowledge bases from the knowledge base editor (KB editor) and to select which version of a knowledge base should be Active at a given point in time.

Selecting a knowledge base from the list on the left, displays the available versions of that knowledge base on the right. Clicking the **Set as Active** button marks the selected version as being the Active version, downloading it from the KB editor, if necessary.

In the example below, the **ASCEND adult echo** knowledge base is identified as having a new version available for download from the KB editor (version 4.1.89 c0.6).

Selecting this version and clicking **Set as Active** will download this version from the KB editor and mark it as Active (note that the download process may take a minute).

You can return to an older version of a knowledge base (e.g., 4.1.89 c0.5 in the example above) by selecting that version in the right column and clicking the **Set as Active** button.

Facilities tab

The **Facilities** tab is used to edit the information about a facility stored in the ASCEND CV database, where a "facility" may denote a hospital, a clinic, or a laboratory depending on your system configuration.

Selecting a facility from the list displays a form for editing information about the selected facility.

ASCEND CV supports multiple Medical Record Numbers (MRN) for each patient and uses the facility's **MRN Authority** to determine which patient Medical Record Number to display for studies associated with that facility. In the example above, the MRN Authority is "East" indicating that the MRNs for the East Campus facility will be displayed when reporting on studies associated with that facility.

Also, note that there can be more than one Facility identifier communicated in HL7 orders or other data imports that map to the "East Campus" facility in ASCEND CV. In this example three facility identifiers are aliases for "East Campus".

When you are done editing the information about a facility, you <u>must</u> click the **Save** button to save the edited facility data to the ASCEND CV database.

The panel on the right lists the set of reporting modules for the selected facility and allows you to specify the knowledge base, report headers, workflow settings, and participant roles for each reporting module at that facility. In the example below, the settings on the **echo.adult** row are applied to the adult echocardiography reporting module at the **East Campus** facility.

Module	Knowledge base	Header	Settings	Participant role
cath	ASCEND Cath	Edit	Edit	Edit
cath.implant	ASCEND Cath impl	Edit	Edit	Edit
cta	ASCEND CTA	Edit	Edit	Edit
echo.adult	ASCEND Adult ech	Edit	Edit	Edit
echo.peds	ASCEND Peds ech	Edit	Edit	Edit
ep	ASCEND EP	Edit	Edit	Edit
nuclear	ASCEND Nuclear	Edit	Edit	Edit
vascular	ASCEND Vascular	Edit	Edit	Edit

Selecting the knowledge base

Each reporting module at the selected facility must be assigned a **knowledge base**.

cta		Edit	Edit	Edit
echo.adult	ASCEND Adult echo	Edit	Edit	Edit

In most cases, the same knowledge base is used by <u>all</u> facilities, resulting in a common reporting experience across facilities. In some cases, an individual facility may use a different knowledge base to support significant variations in reporting requirements at that facility.

Configuring report headers and customizing the preliminary banner

Clicking an **Edit** button in the **Header** column displays a form for editing the report header for the corresponding reporting module (at the selected facility).

These settings allow multiple facilities to share the same knowledge base for a reporting module (including report layout), while allowing each facility to specify its own version of

- The **Report header** that appears at the top of a report, which typically includes information about the facility (e.g., name, address, and phone numbers) formatted as an HTML table.

- The **set of images** used in the report header (e.g., hospital, facility, accreditation logos). Clicking the **Change** button next to an image uploads an image file (.jpg, .png, .gif) from your computer.

- The **Print header/footer** that appears on locally-printed copies of a report, which typically includes information about the patient (e.g., name, MRN), study (e.g., date/time, facility), and the printing task (e.g., user printing report, print date/time).

- The **Preliminary banner** that allows a user to modify ASCEND CV's default preliminary banner and mini banner text, as well as add additional preliminary other text.

Clicking the **Preview** button displays a preview of the selected header. When you are done editing the header information, you <u>must</u> click the **Save** button to save this information to the ASCEND CV database.

Clicking the **Preliminary banner** allows the customization of the preliminary banner, additional text under the banner, and the mini banner visible just above the signature block. For example, entering the following and then clicking the **Save** button

provides a preview of how the they will appear on a preliminary report before confirming the **Save** or **Cancel**ing the operation:

Configuring reporting workflows

Clicking an **Edit** button in the **Settings** column displays a form for configuring the *Amendment*, *Overread*, and *Preliminary Report* reporting workflows for the corresponding reporting module (at the selected facility).

When a user amends a study in ASCEND CV – opening the Amendment dialog, the required workflow can be tailored above such that the user:

- Can be required to enter a reason for the amendment. Note that this information is stored in ASCEND CV's audit log but is <u>not</u> displayed on the report.

- Can re-open the study in the clinical reporting interface to add missing findings, delete incorrect findings, and modify findings (if not, the user is limited to entering an addendum to the report).

- Must specify an addendum, even when editing findings.

The **Study state** subform is used to specify whether the reporting module supports the following workflows:

- **To be read:** Allows initiation of the report by a technologist or other staff member. The report must then be read by a fellow or other physician and signed by the responsible physician.

- **For overread**: Allows creation of an initial report by a fellow or other staff member. The report must then be overread (reviewed and edited) and signed by the responsible physician.

- **Preliminary**: Allows creation of a preliminary report by a fellow or other staff member. The preliminary report is sent to the Hospital Information System (HIS). The report must then be reviewed, edited, and the final report signed by the responsible physician. The banner displayed on a preliminary report can also be customized as described in the previous section.

Currently, <u>only</u> in the case of the Catheterization reporting module, an additional configuration setting is available that indicates whether only a single physician or two physician split diagnostic and interventional reporting workflows should be available:

The **Report** subform sets the default layout for secondary capture key images that are attached to a report, either full width or side-by-side.

There is also a **General** settings subform containing a setting that allows users working within this reporting module for the selected facility to disable or enable the ability of a user opening a study for edit to force close another user's session where the same study is already open for edit.

See the *ASCEND CV Reporting Quick Start Guide* for more details regarding these reporting workflows. When you are done editing these workflow settings, you <u>must</u> click the **Save** button to save this information to the ASCEND CV database.

Configuring participant roles

Clicking an **Edit** button in the **Participants roles** column displays a form for configuring which of the global participant roles (**Participant roles** tab) are supported by the corresponding reporting module (at the selected facility).

For each participant role, you can specify the following:

- **Import:** When checked indicates that for all device data imports where a provider filling that participant role (e.g. Responsible physician) is provided he or she will be imported into the study in ASCEND CV.

- **Display in report:** When checked indicates that the provider filling that roll will be listed in the header of the ASCEND CV report labelled as specified by the **Label** column.

- **Show in participant list**: Specifies whether the role should be displayed in participant lists in the ASCEND CV reporting interface and, if so, the text **Label** to display.

- **Required for confirm**: Specifies whether the provider filling the role should be identified before a report is signed (a !marker will be displayed in the ASCEND CV reporting interface if the role is not filled). Roles associated with the signing of reports (e.g., Responsible physician, Preliminary signer) are automatically filled with the signing user when a report is signed (Required = Automatic).

There is also another checkbox to indicate whether practices shall be listed and selectable in the participant list.

When you are done editing the participant roles, you <u>must</u> click the **Save** button to save this information to the ASCEND CV database.

Practices tab

The **Practices** tab is used to edit the information about a physician practice stored in the ASCEND CV database. Selecting a practice from the list displays a form for editing information about the selected practice.

Use the checkboxes to select the **Facilities** and **Reporting modules** associated with the practice.

Clicking an **Edit** button in the **Letter header** column displays a form for editing the referral letter header for a reporting module (for the selected practice), including

- The **header** that appears at the top of a referral letter, which typically includes information about the practice (e.g., name, address, phone numbers) formatted as an HTML table.

- The **set of images** used in the letter header (e.g., practice and accreditation logos). Clicking the **Change** button next to an image uploads an image file (.jpg, .png, .gif) from your computer.

These settings allow multiple practices to share the same knowledge base for a reporting module (including referral letter layout) while allowing each practice to specify its own referral letter header.

When you are done editing the information about a practice, you <u>must</u> click the **Save** button to save the edited practice data to the ASCEND CV database.

Settings tab

The **Settings** tab is used to edit the following system settings:

- **Reports**: Whether to generate PDF versions of reports that are confirmed or signed. This would normally be on unless running in a test environment.

- **Prior study import**: Number of prior studies for a patient to import for measurement trending and for prior study carry-forward.

- **Imports**: The interval in milliseconds before a data import that fails to get matched and imported into an existing study is re-attempted.

- **Signing**: Whether or not to allow a physician to sign a study when certain required information has not been specified:

    o Required report findings
    o Pending (unprocessed) imports
    o Required participants
    o Required study details
    o Pending (unprocessed) secondary-capture images

  and whether a confirmation dialog should be displayed on signing.

- **Sessions**: How long to allow a session to be inactive before logging it out automatically (in minutes)

- **Passwords**: How often to force passwords to be changed (in days) and the minimum number of characters, letters, numbers and special characters in a password.

- **KB Editor**: URL and login information for accessing the knowledge base editor. This information is provided at system installation.

- **System**:

    o Whether to display a "Test System" notice. When checked also allows "Test-ready" KBs to be downloaded from the KBEditor on the Knowledge bases tab.

    o The date format to use in the ASCEND CV interface.

       Note: There are corresponding date format dependencies in the reporting module KBs that are configured by ASCEND clinical support specialists in a manner specific to a customer site. The entire configuration process for consistent date formats across ASCEND CV and the various structured reporting modules is described separately in the document "*ASCEND CV - Date Format Configuration*".

- **Outbound**:

    o The time interval to wait between attempts after a failure to transfer data to external systems.

    o The time interval to wait for an external system to process one successful data transfer for a study before sending another transfer for the same study.

    o The number of re-attempts on a failed transfer of data to an external system

    o The multiplicative base used to calculate the interval before the next attempt. By default this is set to the value 2, to indicate the amount of time is doubled between each successive attempt.

- **Database Maintenance**:

    o Whether orders received by ASCEND CV that were in error should be automatically deleted and if so after how many days – defaulted to yes and 30 days.

    o Whether device data imports that fail to match a study in ASCEND CV should be automatically deleted and if so after how many days – defaulted to yes and 30 days.

    o Whether device data imports associated with a signed study in ASCEND CV should be automatically deleted and if so after how many days – defaulted to yes and 90 days.

    o Whether logged application exceptions should be automatically deleted and if so after how many days – defaulted to yes and 60 days.

    o Whether outbound transmissions from ASCEND CV should be automatically deleted and if so after how many days – defaulted to yes and 180 days.

- **CardioAnalytics**: The database connection string to the ASCEND CardioAnalytics database

When you are done editing these system settings, you <u>must</u> click the **Save** button to save them to the ASCEND CV database. Note that some system settings (marked with an *) will not take effect until the ASCEND CV system is restarted.

Setting	Value
Reports	
Generate PDFs of reports	☐
Prior study import	
Number of prior studies to import	5
Imports	
Interval before reattempting a failed import (ms)	600000
Signing	
Allow sign with missing required findings	☑
Allow sign with missing required imports	☑
Allow sign with missing required participants	☑
Allow sign with missing required study items	☑
Allow sign with missing required images	☑
Require confirmation on signing	☑
Sessions	
Inactivity logout period (min)*	10
Passwords	
Password change period (days)	30
Minimum password length (characters)	6
Minimum letters in password	1
Minimum numbers in password	1
Minimum special characters in password	1
KB Editor	

Import tab

The **Import** tab is used to specify the information systems and clinical devices that provide data imports to ASCEND CV, when imports from a system/device should be automatically imported into a study, and how conflicting data items from multiple systems/devices should be resolved.

The **Sources** table lists the set of information systems (e.g., HL7 ORM and ADT messages) and clinical devices (e.g., ultrasound system, stress ECG cart, physiologic system) from which to import data.

ID	Label	Automatic import
GE_CARDIOLAB	GE CardioLab EP	Prior to opening
GE_CASE	GE Case	Prior to opening
GE_MAC-LAB	GE Mac-Lab Hemo	Prior to opening
GE_MAC-LAB_REPORT	GE Mac-Lab Hemo Report	Prior to signing
HL7_ORM	HIS	Prior to opening
HL7_ADT	HIS	Prior to opening
MERGE_HEMO	Merge Hemo	Prior to opening
MERGE_HEMO_REPORT	Merge Hemo Report	Prior to signing
MORTARA_XSCRIBE	Mortara XScribe	Prior to opening
PARKS_SC	Parks Secondary Capture	Prior to signing
PARKS_VASCULAR_SR	Parks Vascular	Prior to opening
QUINTON_QSTRESS	Quinton Q-Stress	Prior to opening
TOMTEC_SC	Secondary Capture	Prior to signing
SENSIS_HEMO	Sensis Hemo	Prior to opening
SENSIS_HEMO_REPORT	Sensis Hemo Report	Prior to signing
TOMTEC_ECHO_SR	TomTec DICOM Echo	Prior to signing
TOMTEC_VASCULAR_SR	TomTec DICOM Vascular	Prior to signing
UNETIXS_SC	Unetixs Secondary Capture	Prior to signing
UNETIXS_VASCULAR_SR	Unetixs Vascular	Prior to opening

You can specify

- The **Label** for the system/device that will be displayed in ASCEND CV.

- When an **Automatic import** of system/device data into a study should take place:

    o **Prior to opening**: Data will be automatically imported <u>only</u> when a study is "New" (i.e., only when the study has <u>not</u> yet been opened for reporting).

    o **Prior to signing**: Data will be automatically imported at any time prior to the signing of a study.

    o **Never**: Data will never be automatically imported; but must be imported manually by an ASCEND CV user utilizing the data button in the user interface. See the *ASCEND CV Reporting Quick Start Guide* for more details.

The **Data prioritization** table lists each ASCEND CV data field that can be imported and specifies the relative priority of an import into that data field from each system/device, where a data value from a higher priority system/device will take precedence over a data value from a lower priority system/device.

In the example below, patient birth dates from HL7 ORM and ADT messages are assigned priority 3 and are higher priority than the devices with priority 1.

Data prioritization					
Data field	HL7_ORM	HL7_ADT	TOMTEC_ECHO_SR	TOMTEC_VASCULAR_SR	MORTARA_XSCRIBE
Patient - BirthDate	3	3	1	1	1

Given the following sequence of imports

|	
HL7 ORM	1955-01-01
HL7 ADT	1955-06-29
TOMTEC	1955-01-01

the HL7 ADT value will replace the HL7 ORM value (both have priority=3) but the TOMTEC value will <u>not</u> replace the HL7 ADT value, yielding a birth date of 1955-06-29.

When you are done editing these import settings, you <u>must</u> click the **Save** button to save them to the ASCEND CV database.

Sorting and filtering lists

You can sort and filter the **Errors**, **Unmatched data imports**, **Available studies**, and **Audit log** lists to meet your needs:

- Each list can be **sorted by column entry**. Mousing over a column heading displays a down arrow. Clicking the down arrow displays a list of sort options.
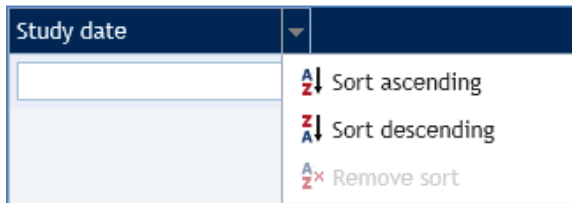

The sorted column will display an arrow icon to indicate that it is being sorted.

- Each list can be **filtered by column entry**. Entering text/numbers in a text/numeric column's filter box (below the column heading) displays <u>only</u> those studies that contain the specified text/numbers in the specified field (the studies that contain "Abr" in *Responsible physician* column in the example below).
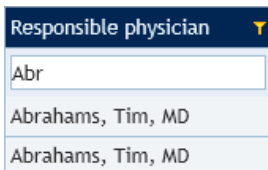

Columns with predefined options can be filtered by selecting one or more choices from the associated filter list. Note that, after selecting choices, you may need to click somewhere else on the list to close the filter list.
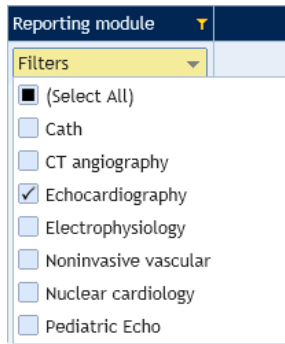
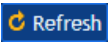In either case, the filtered column will display a funnel icon to indicate that it is being filtered.

Clicking the **Clear filters** button will clear all filters.

The **columns can be reordered**. To reposition a column in the list, drag its column heading (*Study status* in the example below) to a new location and drop it.
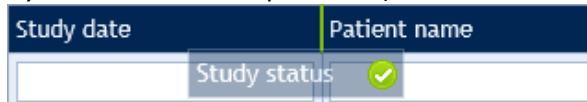
- The **column widths can be adjusted**. To narrow/widen a column, grab its column divider (the dotted line in the example below) and drag it left/right.
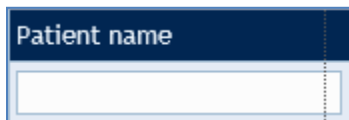
Clicking the button will refresh the list.

ASCEND

801 Warrenville Road
Suite 200
Lisle, Illinois 60532
(844) 413-2610
information@ascendhit.com