



Version 5

User Manual

HiTrack was conceptualized and designed with invaluable assistance from a wide variety of dedicated professionals, including hospital-based newborn hearing screeners, audiologists and Early Hearing, Detection and Intervention program coordinators. Their knowledge and experience is evident throughout the software and is acknowledged with respect and appreciation.

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For support: Phone our Help Desk at 435.797.3584 or E-mail us at ncham.helpdesk@usu.edu

National Center for Hearing Assessment & Management (NCHAM)

Utah State University 2615 Old Main Hill -Logan, UT 84322 Tel: 435.797.3584

www.hitrack.org

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Introduction

One of the greatest challenges for any Early Hearing Detection and Intervention (EHDI) program is to ensure that all infants are screened for hearing loss and that those who do not pass receive appropriate and timely follow-up care. In response to hospital, regional, and national needs, NCHAM developed the HiTrack data management system which is now being used in hundreds of hospitals across the United States. Program coordinators operating or monitoring hospital-based screening programs have discovered that a computer-based patient information system contributes significantly to program success. HiTrack can support any screening program using otoacoustic emissions (OAEs) or automated auditory brainstem responses (ABRs) to screen infants for hearing loss.

This User Manual

This hyperlinked User Manual will help you configure HiTrack and become familiar with its functions. The first topics covered are [Facility Settings](#), [User Settings](#) and [Tracking Features](#). Following these sections are some [common](#) data entry procedures to compare to your data collection environment. These sections provide step by step scenarios showing where HiTrack can make your program most effective. The next sections cover configuration most commonly done by [Program Coordinators](#). Lastly, the appendices provide reference [information for reports](#) and other HiTrack functions.

Clicking on a [blue underlined link](#) inside this document will scroll the page down to a related section.

Icon Legend

Below are explanations for icons that are used in this manual:



Answers for Commonly Asked Questions



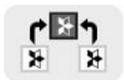
Caution Scenario. EHDI Program Managers/Administrators and the HiTrack Help Desk should be consulted about this topic.



Essential information.



Feature has related Notifications available in HiTrack



Topic pertains to Distributed Databases only.

This manual does not cover software installation. Please refer to the HiTrack 5 Installation Guide for system requirements and installation instructions.



Hearing Screening Protocols

Most programs use either a single or two-stage protocol to conduct their hearing screening.

A Two Stage screening protocol is designed to screen the baby with inexpensive and efficient technology (for example, OAE) while the baby is at the hospital. This stage of screening is called Inpatient screening because the mother has not left the hospital. If the baby is not screened or the outcome of the Inpatient screening is not satisfactory, the hospital then makes appointments to have the mom and baby come back for Outpatient screening with a more advanced technology (i.e., automated ABR).



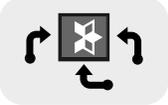
Single Stage screening protocols are also becoming more popular as Automated ABR screening becomes more cost effective. In this protocol infants who do not pass Inpatient screening are referred directly for [diagnostic evaluation](#).

Data Management

The HiTrack 5 series represents the cutting-edge of EHDI Data Management. The HiTrack 5 database is built around a dynamic framework to provide the logic needed for managing the complex requirements of EHDI tracking and follow-up. HiTrack offers a task-oriented user interface and is designed for maximum flexibility and provides the versatility of being able to securely access EHDI data from any computer connected to the internet.

State or Regional Reporting

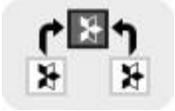
If you will be reporting your data to a central EHDI coordinator please contact them for instructions on how you will be using HiTrack. There are two common Database Layouts that can be used with HiTrack:

<p>Centralized</p> 	<p>In this layout a single Central database is maintained at the state or region and it is shared with each of the facilities in the area of responsibility. Web browsers are often used to access Centralized databases.</p> <p>This is the most commonly used layout.</p> <p>HiTrack provides advanced settings to enable data management features for a Centralized layout. Please review this setting with the HiTrack Help Desk.</p>
<p>Distributed</p> 	<p>In this layout each facility in your region or state has their own separate fully functional database dedicated to their own HiTrack data.</p> <p>A separate, internal use only, database is maintained at the state or region. The EHDI coordinator maintaining this database will populate their database by collecting Data Export files from each facility in their area of responsibility. They will typically set a schedule for how often (e.g. once a week) the facilities will sent their files.</p> <p>In this configuration Statewide or regional Program Information lists, such as physicians, facilities and audiologists are often provided for import into</p>

	<p>the facility databases. This ensures that records in the Central database contain unique and synchronized Program Information entries.</p> <p>This is referred to as a Distributed layout because the Central database is distributed across all of the separate facility databases.</p>
--	---

Some states or regions may decide to combine these layouts. For example the central coordinator may collect Data Export files from each hospital and also share their database with clinic offices using the web user interface.

There are a few additional tasks required if you maintain your own database in a Distributed database layout. In this manual these tasks will be noted with a "Distributed" icon. These tasks can be omitted if you do not report your data to a central EHDI coordinator or if you are part of a Centralized database with HiTrack's web browser access.



Buttons and Icons

Below are some common buttons and icons in HiTrack. Hovering the mouse over features in HiTrack will often give additional information.



The HiTrack menu button will allow you to navigate to different features within HiTrack.



Action button. The lightning bolt is a common action button within HiTrack.

Click this to complete an action on the current screen such as generating letters or to proceed with processing data in HiTrack.



Add button. Choose this to add an item to the list you are on.



Delete button.



Back to Baby list button. This button is available on Baby Chart pages, Merge, Reports, Communication Hub and System.



Enable Filter button. This button allows you to narrow down lists in HiTrack. The filter button is shaded purple when active.



Dashboard Launcher button. This is used in Reports and System to organize HiTrack's features.



Wrench button. This button opens configuration settings for the current page.



Select All button. Use this to select all choices in a group of options,



Unselect All button. Use this to deselect all choices from a group of options.



Information button. Use this to see information about the current screen.



Preview button. This is often shown as an in-between step of a larger process where you can see your changes before saving.



Print button. This generates a new printer friendly view of the current screen.



More details button. Clicking this button opens a new section for additional information on the current page.



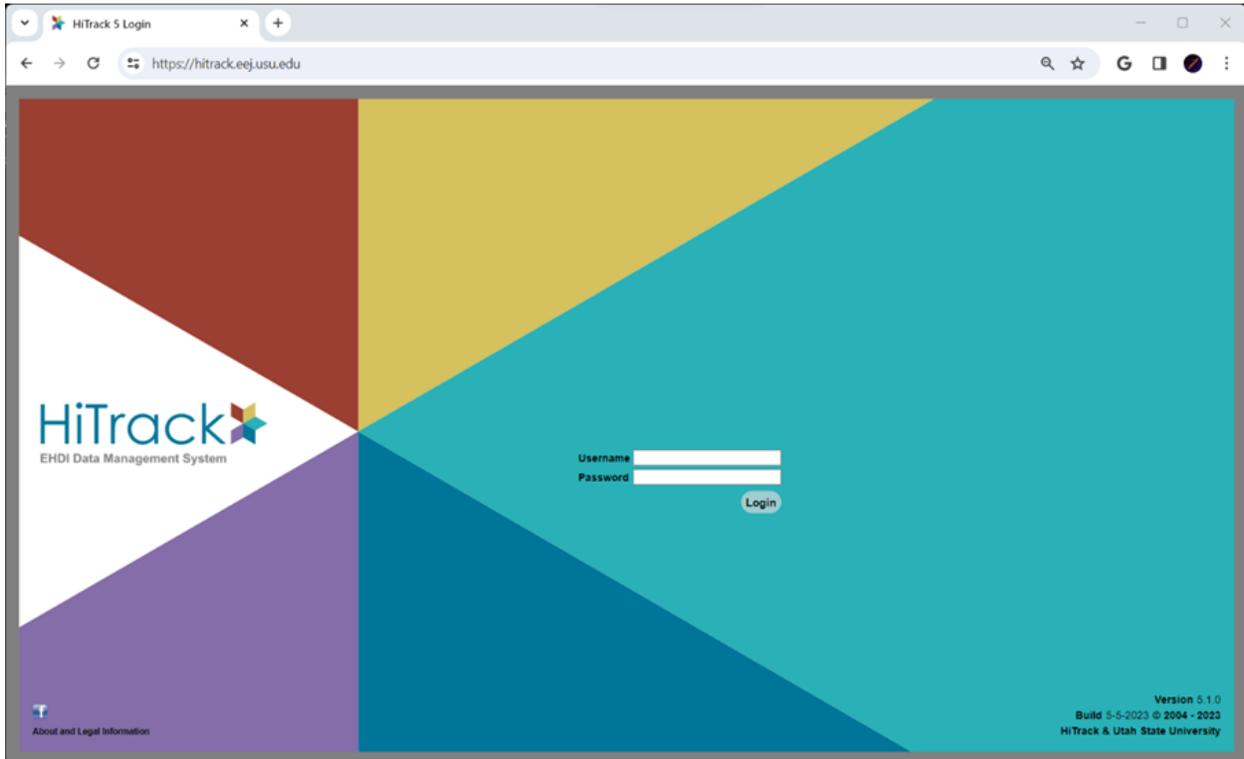
Save button. Used to confirm certain settings and save data entries.

HiTrack Login

To use HiTrack 5 an active username and password are required. These user accounts are managed by a state or regional coordinator when accessing a Centralized HiTrack.

Log in using the following steps:

1. Enter the Username and Password. Passwords are case sensitive.



2. Click on the Login button to begin your session.

The HiTrack URL can be added as a bookmark or favorite in your web browser to make it easy to return to HiTrack later.



Although HiTrack 5 is web-based application please do not use a web search (google) to find your HiTrack login page. HiTrack Login pages for other regions may show up in search results and you will not be able to sign into those pages. If you don't have a site-specific HiTrack URL please contact your program coordinator.

User Interface Layout

The user interface is made up of the following sections:

The screenshot shows the HiTrack web application interface. At the top, there is a navigation bar with 'Appointments Today' and 'Notifications 33'. Below this, the 'Running Facility Selector' is set to 'Realistic Medical Center'. The main content area displays a table of 'All Records 41' for a specific user, 'Craig, Jim'. The table columns include Baby Name, Medical ID, Birthdate, Inpatient status, IP Date, Outpatient status, OP Date, Action, Sex, Nursery, and Birth Facility. A 'Baby Chart' callout points to the left sidebar, which contains a 'Communication Hub' and a 'Record Overview' menu. A 'HiTrack Menu' callout points to the top right corner. A 'Quick Add Area' callout points to the bottom left of the table, which includes buttons for 'Quick', 'Notes', 'Screening', 'Tracking', 'Contact Effort', and 'Recommended Actions'. A 'Work Area' callout points to the table itself. An 'Action Buttons' callout points to the bottom right of the table, which includes icons for refresh, delete, print, and add.

Callouts in the image:

- Baby Chart
- Running Facility Selector
- HiTrack Menu
- Quick Add Area
- Work Area
- Action Buttons

At the top of each screen is the running Facility or Facility Group and can be changed at any time. The currently selected Facility or Facility Group determines which babies you will see, which Letters will be generated and which [Settings](#) are being used.

“Assigned To Me” is a special entry in the running Facility choices that allows you to see baby records that are [assigned to users](#) regardless of which facility they belong to.

Please contact the [Help Desk](#) if HiTrack does not display properly or parts of the page seem to overlap. In most cases this can be addressed with display settings or browser zoom options.

HiTrack Menu

The HiTrack Menu  is located at the top right of every screen in HiTrack and provides easy access to HiTrack's features.

There are several different options in this menu:

Merge

Merge: HiTrack can import data from screening equipment software, hospital data systems and other HiTrack databases. This option opens the merge tools used to import data from these sources.

Reports

Reports: HiTrack provides reports to monitor hearing screening and evaluation performance. This option opens the last used Report.

Communication Hub

Communication Hub: HiTrack generates letters for parents and health care providers and allows documentation of contact efforts. This menu opens the list of pending letters waiting to be printed and allows you to create new letters or reprint old letters.

System

System: HiTrack features powerful tools to help manage your EHDI data. This option opens settings management screens organized into helpful sections to allow customization and administration of HiTrack.

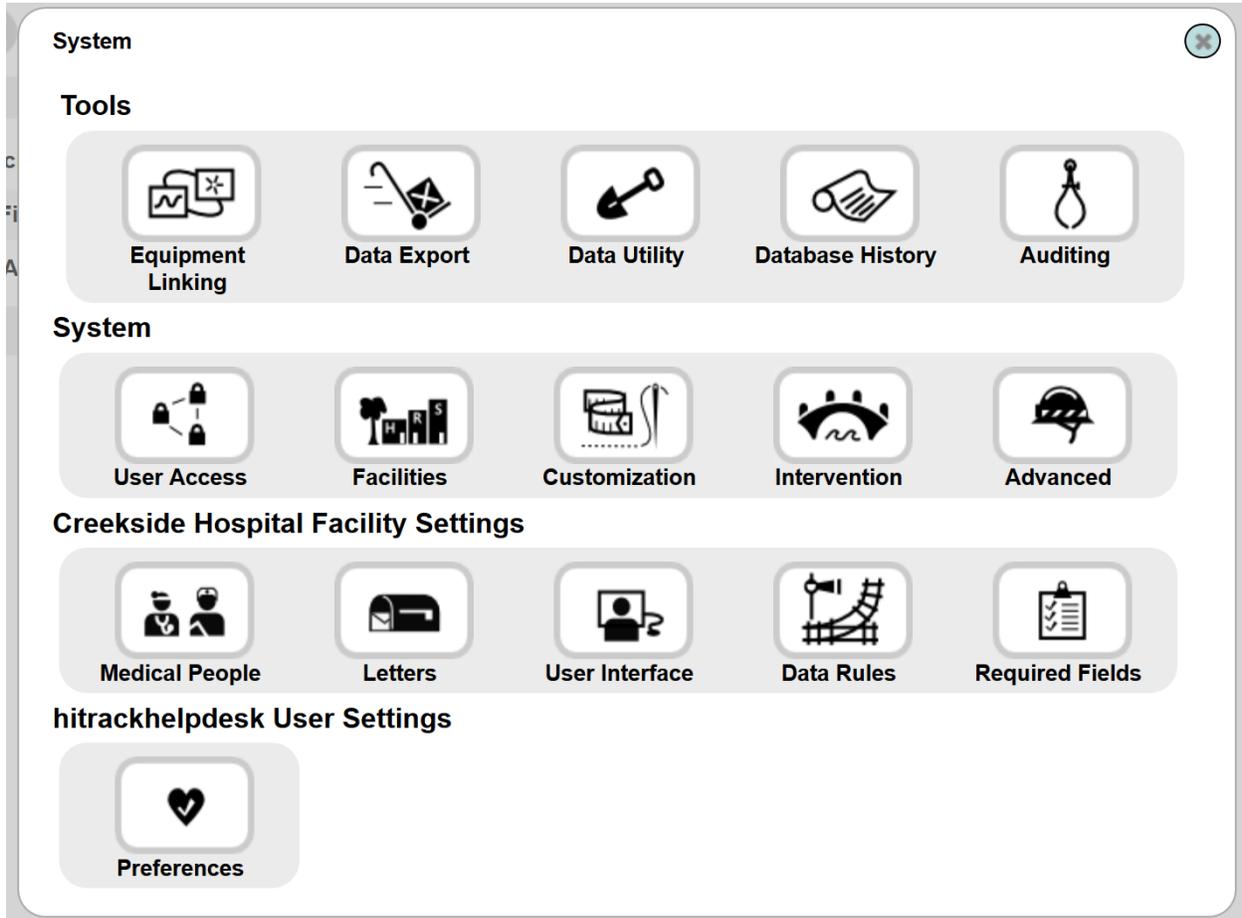
Log Out

Log out: This button will log a user out of HiTrack and return the Login screen.

In most cases each HiTrack session will time out after 20 minutes of inactivity to help protect private health data. If this occurs users should simply log back in to the system.

System Menu

The System Menu provides access to several important settings. Clicking the System option under the HiTrack Menu will open to a default page with two buttons: The Back to Baby List icon  and the System dashboard . Clicking on the dashboard will open the menu below:



The screenshot shows a dashboard titled "System" with a close button in the top right corner. The dashboard is organized into four main categories, each with a set of icons and labels:

- Tools:** Equipment Linking, Data Export, Data Utility, Database History, Auditing.
- System:** User Access, Facilities, Customization, Intervention, Advanced.
- Creekside Hospital Facility Settings:** Medical People, Letters, User Interface, Data Rules, Required Fields.
- hitrackhelpdesk User Settings:** Preferences.

System features are grouped into four different categories, Tools, System, Facility Specific Settings and User Specific Settings. Not all System features are available to all User Groups.

 HiTrack will remember which dashboard item was used last and start on that page when you return to System in the future.

Facility Specific Settings

The setting categories listed below your Facility or Facility Group name on the System dashboard allow you to customize features for your Facility or Facility Group. Medical People, Facilities and picklists related to your HiTrack installation are referred to as HiTrack Program Information.

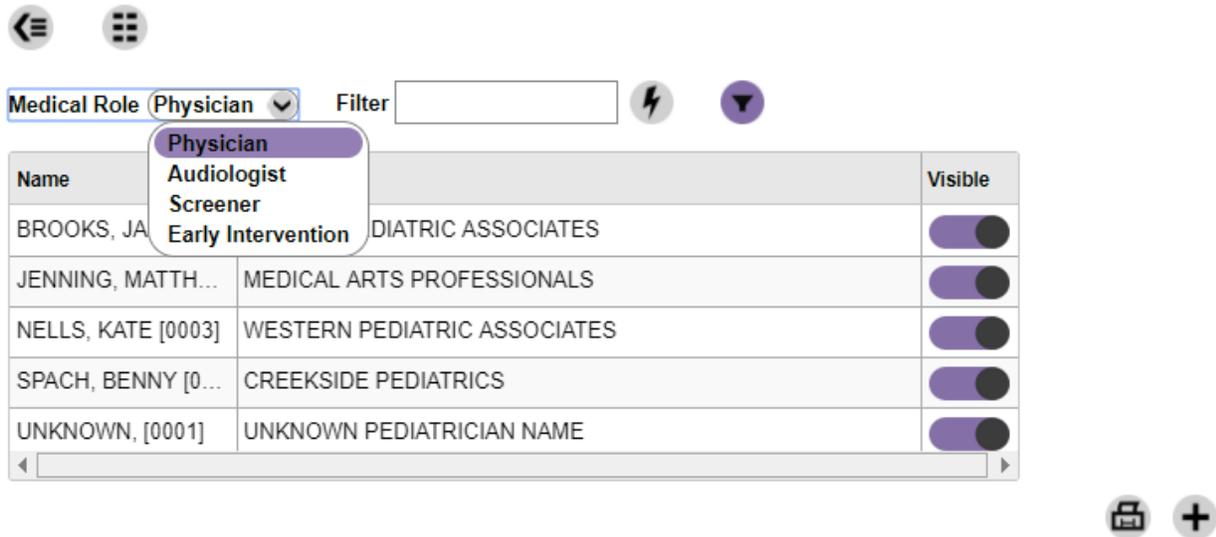
Medical People

The Medical People list allows you to add physicians, audiologists, screeners and Early Intervention personnel for a specific Facility or Facility Group. Each data entry screen allows for fully detailed contact information.

If you will be sending letters to Physicians and Early Intervention you should enter detailed address information so it can be included in the letters.

The Facility Assignment list at the bottom of the Medical Person data entry screen allows you to decide which facilities will see this person on their data entry lists. When adding a medical person to a Facility Group they are automatically assigned to all Facilities within the Group.

Retired or inactive personnel can be removed from new data entry choices by using the "Visible"/"Show" option  in the off position. This allows you to keep your historical data intact while streamlining data entry for new records.



Medical Role (Physician) Filter  

Name	Medical Role	Facility	Visible
BROOKS, JA	Physician	DIATRIC ASSOCIATES	
JENNING, MATTH...	Audiologist	MEDICAL ARTS PROFESSIONALS	
NELLS, KATE [0003]	Screener	WESTERN PEDIATRIC ASSOCIATES	
SPACH, BENNY [0...	Early Intervention	CREEKSIDE PEDIATRICS	
UNKNOWN, [0001]		UNKNOWN PEDIATRICIAN NAME	

Use the Medical Role drop down to choose between lists of Physicians, Audiologists, Screeners and Early Intervention Providers. Click the add button  at the bottom to add a new entry.



Medical Person - Physician

Last Name Address Phone
 First Name Ph2
 Middle Name Email
 Organization City/State/Zip County

Code Show  Birthdate  Language 
 Title/Suffix ID Race  Gender 
 Education  Ethnicity  Deceased

Facilities   

<input type="checkbox"/>	Creekside Hospital
<input type="checkbox"/>	Logan Regional Hospital
<input type="checkbox"/>	Mountain View Medical Center
<input type="checkbox"/>	The Best Clinic
<input type="checkbox"/>	UNKNOWN
<input type="checkbox"/>	Z HT35 Conv.
<input type="checkbox"/>	*All Facilities

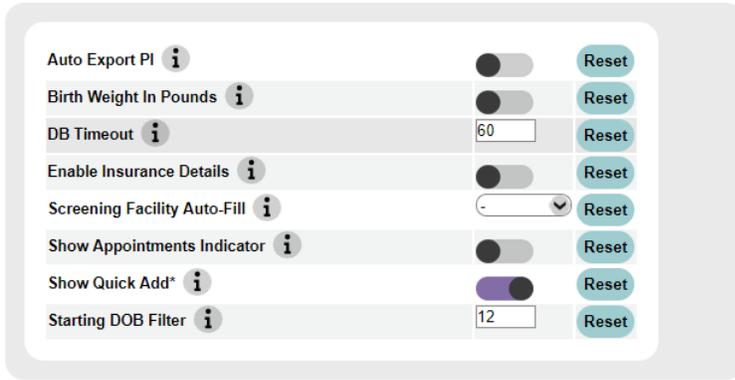
To make a medical group organization entry (not specific to an individual person), put that name in the “Organization” field and leave the last and first name fields blank.

HiTrack will notify you if the entry appears to be a duplicate of an existing medical person. Click the check button to save your changes.

The "Usage" feature (controlled by a specific Access Right) can be used on existing entries to replace duplicates by first selecting a Medical Person from the list. This feature also enables a Delete option if an entry is not being used.

User Interface Settings

These various settings control how HiTrack functions for the running Facility or Facility Group. Click the info button **i** next to a setting to learn more about it. To make a change toggle the setting on or off, type a number or choose an option from the drop down menu for each item. The change will be saved automatically. Click Reset to use the HiTrack default.

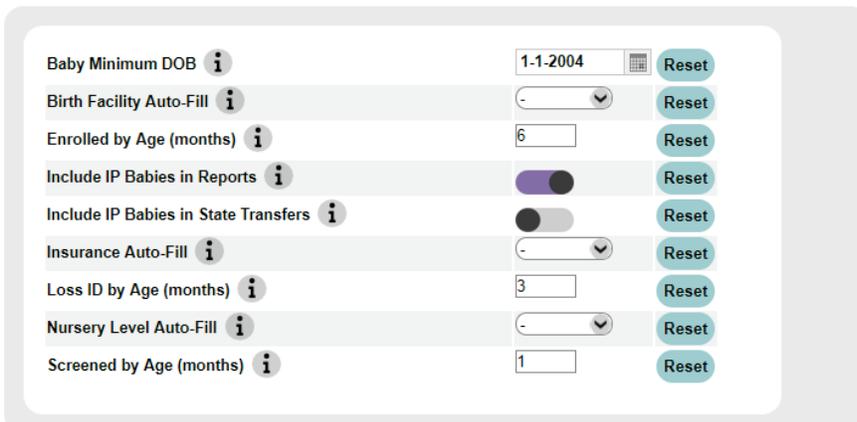


A screenshot of the 'User Interface Settings' panel. It contains eight rows of settings, each with an info icon (i), a control element, and a 'Reset' button. The settings are: 'Auto Export PI' (toggle off), 'Birth Weight In Pounds' (toggle off), 'DB Timeout' (text input '60'), 'Enable Insurance Details' (toggle off), 'Screening Facility Auto-Fill' (dropdown menu), 'Show Appointments Indicator' (toggle off), 'Show Quick Add*' (toggle on), and 'Starting DOB Filter' (text input '12').

Auto Export PI i	<input type="checkbox"/>	Reset
Birth Weight In Pounds i	<input type="checkbox"/>	Reset
DB Timeout i	<input type="text" value="60"/>	Reset
Enable Insurance Details i	<input type="checkbox"/>	Reset
Screening Facility Auto-Fill i	<input type="text" value="-"/>	Reset
Show Appointments Indicator i	<input type="checkbox"/>	Reset
Show Quick Add* i	<input checked="" type="checkbox"/>	Reset
Starting DOB Filter i	<input type="text" value="12"/>	Reset

Data Rules

This section allows users to control various tracking and report rules used in HiTrack.



A screenshot of the 'Data Rules' panel. It contains eight rows of settings, each with an info icon (i), a control element, and a 'Reset' button. The settings are: 'Baby Minimum DOB' (calendar icon, text input '1-1-2004'), 'Birth Facility Auto-Fill' (dropdown menu), 'Enrolled by Age (months)' (text input '6'), 'Include IP Babies in Reports' (toggle on), 'Include IP Babies in State Transfers' (toggle off), 'Insurance Auto-Fill' (dropdown menu), 'Loss ID by Age (months)' (text input '3'), 'Nursery Level Auto-Fill' (dropdown menu), and 'Screened by Age (months)' (text input '1').

Baby Minimum DOB i	<input type="text" value="1-1-2004"/>	Reset
Birth Facility Auto-Fill i	<input type="text" value="-"/>	Reset
Enrolled by Age (months) i	<input type="text" value="6"/>	Reset
Include IP Babies in Reports i	<input checked="" type="checkbox"/>	Reset
Include IP Babies in State Transfers i	<input type="checkbox"/>	Reset
Insurance Auto-Fill i	<input type="text" value="-"/>	Reset
Loss ID by Age (months) i	<input type="text" value="3"/>	Reset
Nursery Level Auto-Fill i	<input type="text" value="-"/>	Reset
Screened by Age (months) i	<input type="text" value="1"/>	Reset

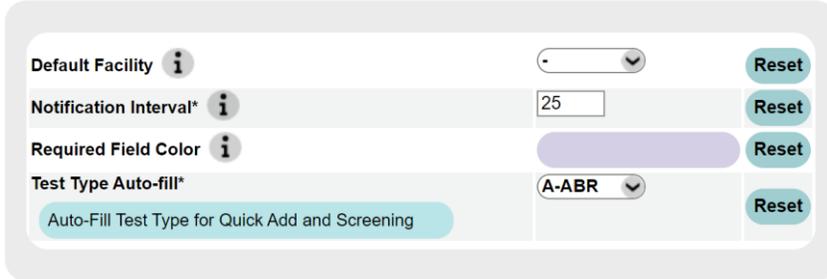


When you change your running Facility or Facility Group HiTrack will load in settings for these two sections based on the new Facility or Facility Group.

User Preferences

User Preferences allows users to change the default facility, required field color and test type auto-fill for your logged in User.

 HiTrack will return to the last facility used if a default facility is not set.



The screenshot shows a 'User Preferences' form with the following fields and controls:

- Default Facility**: A dropdown menu with a small 'i' icon and a 'Reset' button.
- Notification Interval***: A text input field containing the number '25', with a small 'i' icon and a 'Reset' button.
- Required Field Color**: A color selection field showing a purple swatch, with a small 'i' icon and a 'Reset' button.
- Test Type Auto-fill***: A dropdown menu with 'A-ABR' selected, with a 'Reset' button.

Below the 'Test Type Auto-fill*' field, there is a light blue button labeled 'Auto-Fill Test Type for Quick Add and Screening'.

If your facility enters baby demographics and screening data manually, the Auto-Fill settings can simplify data entry. For example, if your hospital uses a hand-held A-ABR device you may want to set A-ABR as an auto-fill for Test Type. This feature reduces the number of fields that you and your staff need to fill in by hand.

Tracking Features Overview

Baby Chart

When a baby name is selected from HiTrack's baby list, the baby chart will open with their information displayed on the left. An empty circle next to a section means that historical entries exist for that section. A filled circle next to a section indicates a noteworthy tracking condition. In this case shown below a filled circle is shown next to Communication Hub because there are pending Letters to print.

Garcia, Maria
12/5/2023 55696
Need Evaluation Appt.
In Progress
EVALUATION IN PROCESS. 12/07/23
Milestones: 0/-/-

All Records **Action Needed**

Baby Name

- Miller, Jessie
- Johnson, Kyle
- Garcia, Maria**
- Williams, Steven
- Jones, Jill
- Wilson, Tom
- Davis, Sam
- Rodriguez, Mario
- Campbell, Adam
- Lee, Charlie

Communication Hub
Diagnostic Referral (...)
Diagnostic Referral (...)
Phone: 555-5432

Record Overview
Demographics

- Screening
- Tracking
- Transfer
- Risks
- Hearing Status
- Diagnostics
- Amplification
- Services
- Recommended Actions
- Lab Testing
- Attachments

Baby Chart

Baby List

The Baby List is the heart of HiTrack and is a launching point for baby tracking.

The screenshot shows the Baby List interface. At the top, there are four filter tiles: 'All Records' (selected), 'Action Needed', 'No Action', and 'Transfers'. To the right, there are 'Additional Filters' for 'DOB' with a date range from 8-1-2019 to 8-12-2020, a 'Reset' button, and a 'Text Search Box'. Below these is a table of baby records. A callout box labeled 'Auto Filter Indicator' points to a purple triangle icon in the 'Inpatient' column of the table.

Baby Name	Medical ID	Birthdate	Inpatient	IP Date	Outpatient	OP Date	A
Baxter, Mercy	78382181	10-1-2019	Passed	10-13-2019			N
Bonner, Fanny	20395823	1-13-2020	Referred	6-3-2020	Broken Appt.		N
Buscinski, David	4672384	10-13-2019	Passed	10-13-2019			F
Cable Car, Rideonly	23623423	4-1-2020	Transferred Out	4-11-2020			N
Carbonne, Dayta	020CARB	4-9-2020	No IP Scrn->Eval	4-10-2			
Chu, Aaron	4628194	10-13-2019	Passed	10-13-2			
Ferrary, Vivtee	12094812	2-15-2020	Referred	3-1-2020	Referred	3-29-2020	N
Four, Fives	44445555	10-1-2019	Referred	10-24-2019	Broken Appt.		N
Four, Ounces	444444	11-4-2019	Missed	11-11-2019	Referred	4-6-2020	N
Jacksom, Jose	47217163	10-11-2019	Passed	10-13-2019			F

This list of babies is generated based on a specified range of birthdates and the current Facility or Facility Group. Additional columns may be viewed using the scroll bar (not shown) at the bottom of the list.

The "Refresh" button  will appear when filter criteria has changed and indicates the list should be reloaded to see the new output.

Filter Tiles

HiTrack organizes your EHDI data to help you track the progress of babies. This is done by categorizing babies into tiles representing what they *need next* in the flow of follow-up. At the broadest level baby records are either considered "Complete" with no further action needed or "In Progress" with on-going recommendations.



Clicking on these tiles will generate lists of babies organized by what they need next according to the protocol setting for your facility.

Action Needed Filter

Moresen Otis
10/2/2019 12:00 AM
6844832
Need Outpatient Appt. In Progress
Milestones: <<<

Baby Name	Medical ID	Birthdate
Seven, Eights	77777788888	10-1-2019
Four, Fives	44445555	10-1-2019
Baxter, Mercy	78382181	10-1-2019
Moresen, Otis	6844832	10-2-2019
Gobenz, Ella	3561874	10-13-2019
Nine, Two	92222222	10-16-2019
Test, Baby G	365879	11-14-2019
one, seven	7077070707	12-7-2019
Transfer, Into Realistic	12312962	12-29-2019
Norb, Threenay	1029831029	1-13-2020

The babies under this tile need tracking attention.

These could be babies who haven't been screened yet or babies who do not yet have a conclusive outcome. It could also include babies who have an upcoming appointment or milestone.

The [Two-Stage Automated Pass/Manual Non-Pass](#) protocol includes the following options under Action Needed:

Inpatient Screening	<i>(Shows all babies in Inpatient subcategories)</i>
Need Inpatient Screening	Babies yet to be screened.
Incomplete Inpatient Screening	Babies in process of being screening waiting to be reviewed and manually moved to the next action.
Outpatient Screening	<i>(Shows all babies in Outpatient subcategories)</i>
Need Outpatient Appt.	Babies who have finished Inpatient screening without passing.
Need Outpatient Screening	Babies with appointments for Outpatient Screening and babies who have not passed Outpatient screening that need to be finished.
Evaluation	<i>(Shows all babies in Evaluation subcategories)</i>
Need Evaluation Appointment	Babies needing appointments for diagnostic or other evaluation.
Need Evaluation	Babies with appointments for evaluation.
Risk Monitoring	Babies who've passed screening but are being monitored because of Risk Indicators.
Needs Intervention	Babies that need Early Intervention.
Need to Locate	Babies with invalid contact information who need follow-up.

No Action Filter

After screening most babies will need no further action. Infants who do not need further action are categorized into the following actions:

Complete	
Passed Screening	Babies that passed Inpatient or Outpatient Screening.
Evaluation Stopped	Babies that have completed evaluation and need no further follow-up. e.g. Normal Hearing records.
Not Evaluated	
Contacted but Unresponsive	This matches the CDC category for documenting why a baby did not receive a hearing evaluation.
Unable to Contact	(see above)
No Eval. – Medical Reasons	(see above)
No Services	
Contacted but Unresponsive	This matches the CDC category for documenting why a baby did not receive Early Intervention services.
Unable to Contact	(see above)
Transferred Out	<p>Babies that have been transferred out of your facility.</p> <p>The "Transfers" Baby List folder includes a read only view of babies that have transferred out of your Facility that are being listed under a different facility. In Centralized databases (see Advanced Settings) the total number of infants shown in this folder may be more than the number of infants at your facility.</p> 
Refused	Babies whose parents have refused screening or evaluation. The tracking record will retain the last action that was recommended.
Discontinued	Babies whose tracking has been discontinued. The tracking record will retain the last action that was recommended.
Deceased	Babies who have died during any part of the tracking process. The tracking record will retain the last action that was recommended.

All Records

The "All Records" option at the top left of the main screen gives you easy access to a complete, unfiltered view of the Baby List.

Sorting

The baby list may be sorted by clicking on the desired column name at the top of the list. By clicking on the arrow at the right of the column name, you are given sorting options, such as whether to sort them in ascending or descending order.

Additional Filters

By clicking on the filter icon , you can narrow your search using Result, Milestones, Probable Duplicates, Notes, "In Baby Basket" and other advanced filter options. Custom saved criteria can also be selected here. Choose "None" to return to basic filtering.

Column Auto-Filters provide additional flexibility for arranging your data in the Baby List by allowing column specific filtering that is similar to spreadsheet filtering. Note that columns with more than 200 unique items have reduced auto-filtering choices.

Diagnostic Result Filters

HiTrack's Baby List provides four diagnostic filters to help ensure accurate follow-up and documentation. Three of them are mutually exclusive and one of them is not.

The first three filter options are based on Hearing Status entries. If any Hearing Status entries have been made a baby will be included in one of these three baby list result filters:

Loss Confirmed	Hearing Status with a type and degree of hearing loss specified. Confirmed Date must be entered.
Normal Confirmed	Hearing Status with "N/A No Loss" entered. Confirmed Date must be entered for both ears.
Unconfirmed	Hearing Status entered with a blank Confirmed Date

These options are mutually exclusive; a baby will only show once for one of these three filter categories if hearing status is entered.

The fourth diagnostic-related filter is "Has Diagnostics". This filter is not mutually exclusive. A baby will be included in this filter if they have any of the Diagnostics entries. This means that babies shown in this filter could have any possible screening or evaluation outcome, including Pass Screening, Unconfirmed Confirmed hearing and others.

Although in some jurisdictions it may be preferable to have diagnostics entered in conjunction with a baby's hearing status, it is not a requirement in HiTrack.



"How can I find records that are missing documentation of diagnosis?" While using the Has Diagnostic filter refer to the Messages area in the Chart area to see what their Hearing Status outcome is. This will help you see records that may need additional documentation.

Required Fields Baby List Filter

This filter limits the list to only show records with blank required fields. To enable this filter choose the funnel icon on the baby list and select the “Required Fields” tile. Reload the list to see the new filter results.

When using this filter keep in mind:

Completing data entry so that there are no blank required fields will remove a baby from the list.
--

The Advanced System-wide Required Fields override will affect which babies are in the list. If enabled, the system wide required fields will be used to filter instead of the ones from the current running facility.

Changing the current Facility could change what babies are shown if the different facility has different required fields.



“How can I find records that are missing demographics?” While using the Has Required Fields filter refer to the Demographics area in the Chart area to see what fields might be missing.

Returning to the Baby List

After reviewing a baby record or working in another part of HiTrack you can return to the last Baby List by clicking on the Return to Baby List icon at the top of the screen.



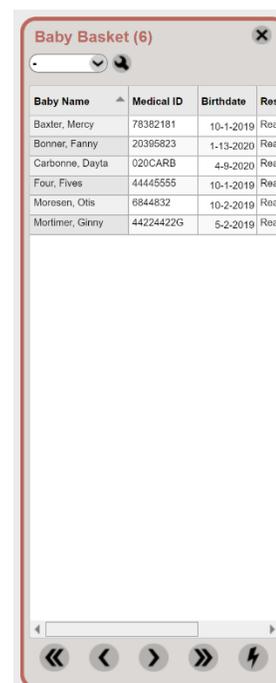
Baby Baskets

The Baby Basket is a feature that allows customized work lists to be built and provides management features for multiple records in single steps. It can be activated by clicking on the red bar at the right of any screen in HiTrack.

Babies can be added to the current basket by highlighting a baby row from the list and then using the  icon at the bottom of the Baby Basket. Babies can be added to the basket from the Flow Chart and any of the Interactive Report lists.

The arrows located beneath the Basket list are used to add or remove babies. The button with double arrows pointing to the left clears the Baby Basket. The button with double arrows pointing to the right adds all babies from the current Baby List to the Baby Basket. The buttons with single arrows will add or remove the currently selected baby.

The Baby Basket is also a good way to park baby records that need additional data entry or review. Later, after their data entry is done, the baby can be removed from the Basket.



Baby Name	Medical ID	Birthdate	Res
Baxter, Mercy	78382181	10-1-2019	Real
Bonner, Fanny	20395823	1-13-2020	Real
Carbonne, Dayta	020CARB	4-9-2020	Real
Four, Fives	44445555	10-1-2019	Real
Moresen, Otis	6844832	10-2-2019	Real
Mortimer, Ginny	44224422G	5-2-2019	Real

Basket Actions

Once there are babies in the basket HiTrack provides a variety of actions that can be activated by clicking the action button .

Individual Diagnostic Report will generate a summary report for each baby in the Basket combined into one PDF.

Add Note/Custom Field allows a common note to be added for each baby in the Basket using just one step.

Create Unencrypted XML File will create an unencrypted XML file based on the information of the babies in the Baby Basket.

Assign Physician assigns the specified physician to all babies in the Baby Basket.

Request Letter requests the specified letter for all babies in the Baby Basket.

Add Recommended Action will add the specified recommended action to all babies in the Baby Basket.

Change Tracking Folder will move all babies in the Baby Basket to a chosen folder. To use this option all babies in the Baby Basket must be in the same tracking folder and have the same Protocol.

Delete All will delete all babies in the current Baby Basket permanently from the system. This action should be used with caution and is controlled by its own [Access Right](#).

Get Medical IDs will bring up a list of all medical IDs for the babies in the Baby Basket, each one being separated by a comma.

Export CSV allows this list of babies to be exported to a file compatible with Excel.

Contact Effort allows the documentation of contact efforts for a basket of babies. This is useful for when a staff member has just emailed or sent a phone text message to a group of parents.

Assign to User allows this list of babies to be assigned to a specific HiTrack User.

Copy Basket to User copies this list of babies into a new basket for a specific HiTrack User. This feature will ask for a new basket name and give the option of assigning the babies to the receiving user if they do not already have access.



Filtering the Baby List Using the Current Baby Basket

The HiTrack Reports and Baby List can both be filtered to only include babies from the current Baby Basket. This is especially useful when a customized basket of babies has been built. To see a Baby List that only contains the babies from the basket use the “In Baby Basket” filter:

Note that all of the other Baby List filters (Facility, Birth Date, etc.) will be also applied so if all of the expected basket babies are not seen the other criteria may need to be cleared.

To filter a HiTrack Report by the current Basket use the Advanced Criteria tool to include “In Baby Basket – Yes”:

As with the Baby List filter – review your other filter criteria if you see fewer records than you expect.

Multiple Baby Baskets

To create additional Baby Baskets click on the wrench icon  to open up the Basket Management page. From here Baskets can be created, renamed or deleted. Deleting a Basket does not affect the baby records that were in the Basket.



Only the currently selected Basket is considered for “In Baby Basket” filters on the Baby List and in Reports.

Basket Navigation

While in a Baby-related screen double clicking a baby in the basket will reload the current screen for the newly selected baby if that baby is also in the current baby list.

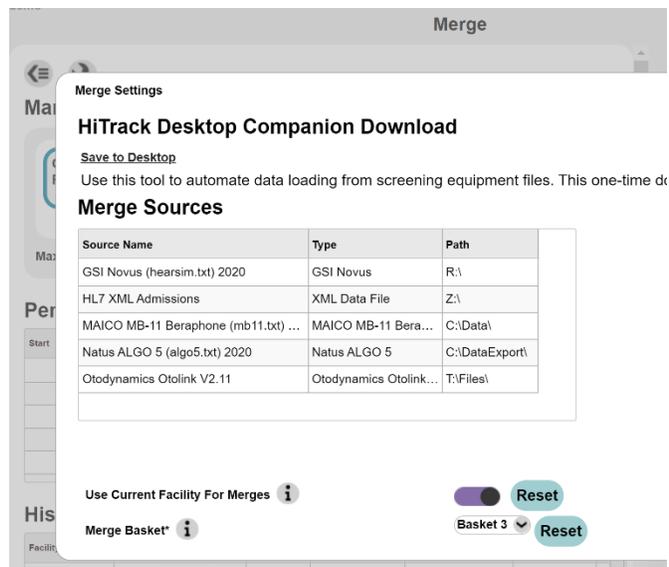
While outside of a Baby-related screen (Merge, Reports, etc.) double clicking on a baby in the basket will show their Record Overview page.

The Merge Basket

A setting on Merge Setting page called “Merge Basket” allows users to choose a Baby Basket for HiTrack automatically keep track of the latest merge. This is an easy way to be able to refer to babies that were just brought into the system. The default basket (“-”) cannot be used for the Merge Basket.



The contents of whichever basket you **choose will be emptied** each time you start a new merge.



Record Browsing Basket

When a Baby Basket is selected for this setting HiTrack will automatically add each baby to this basket when the details of their record are viewed. This is a helpful way to keep a list of active babies handy.

Shared Baby Baskets

Shared Baby Basket baskets let multiple users interact with the same customized list of babies. The ability to add or remove babies from a shared basket is determined by the original user sharing the basket.

The “Baby Basket Shared – Allow” Access Right controls the availability of the sharing feature. Users *receiving* baskets are not required to have this Access Right.



Note: This feature is different than the “Copy Basket” feature.

Selecting Users to Share With

When sharing a basket HiTrack provides a list of users that have the same facilities as the logged in user. Users at multiple facilities will see all users known to all the facilities they are known to.

Shared Baby Basket Maintenance

New additional columns on the Baby Basket Settings grid have been added to make sharing easier; the owner of each basket, the number of shared users and the date the basket was shared are all shown.

Users with the "Baby Basket Shared - Allow" Access Right begin the sharing process by choosing a basket and then choosing users to share with. Entering the first 3 characters of the username will start the search for users.

The “Users Can Add Babies” and “Users Can Delete Babies” options allow the basket owner to control whether other users can add or remove from their shared basket.

Advanced Assignment

The “Assign” button can be used to share babies with users that might not have access to the Facilities where the babies current show in HiTrack. This is most likely used for Non-Facility logins that need access to individual babies without needing full access to all of the babies listed in HiTrack Facilities. The “Assign” button only assigns the babies that are currently in the basket – it does not share babies added later.

Security and Facility Access

HiTrack Access Rights and Facility access are still in force for the babies shared in Baby Baskets. Babies will not be automatically included if the recipient users do not have access to one of the Facilities they are known to. The “Assign” button should be used in cases where recipients might not have access to related HiTrack Facilities. This will grant access to the babies in the basket at the time of assignment in the user's "Assigned To Me Facility" if they don't already have access. 

The Baby Basket Action buttons will show up for all baskets, including shared baskets, based on the Access Rights in their User Group.

Removing Users from Shared Baskets

The user who shared the basket can edit sharing to remove any or all users at any time. Users for whom baskets have been shared with can click the “Leave Shared Basket” button to remove it from their list.

Collecting Screening Information using only HiTrack

This section describes how the Inpatient and Outpatient options are used when your screening equipment has little or no data collection capabilities (such as handheld devices). If you use a different type of screening equipment software, please refer to the section that describes [collecting screening information using screening equipment software](#).

The steps below will cover how to enter basic demographic data on babies who need to be screened, add screening results and finish completed records. Baby records should generally remain in the Inpatient Tracking categories until screening is completed or the infant is discharged.

Facility Protocol Setting

When using HiTrack to enter screening results from a hand-held device you will need to use one of the following Protocols: "Two-Stage Automated Pass/Manual Non-Pass", "Two-Stage Manual", "Two-Stage Dual Equipment Auto-Pass Only" or "Single-Stage Dual Equipment Auto-Pass Only" [See Facility set up](#) and [protocol descriptions](#) for more information.



Procedure Overview:

For Inpatient Screening you will use the "Need Inpatient Screening" baby list filter and then refer to the "Inpatient" column before starting your screening procedures.

Step 1: Creating baby records. The screener or data entry clerk creates a new record for each infant born or transferred into the facility by entering basic infant demographic information after clicking on the add **+** button.

Step 2: Printing a list of babies to be screened. The screener prints a list showing all babies to be screened. The screener then manually records screening results on the printed list. If screening is performed where the screening software is located, the screener does not need to print a list; results can be entered directly into HiTrack as explained in Step 3.

Step 3: Entering screening results and finishing screening records. The screener adds screening results to a baby's record. The screener "finishes" an infant record indicating that the screening has been completed successfully or that the infant has been discharged from the hospital by using the Tracking section. Infants should remain on the Action Needed list until they pass the screening or are discharged.

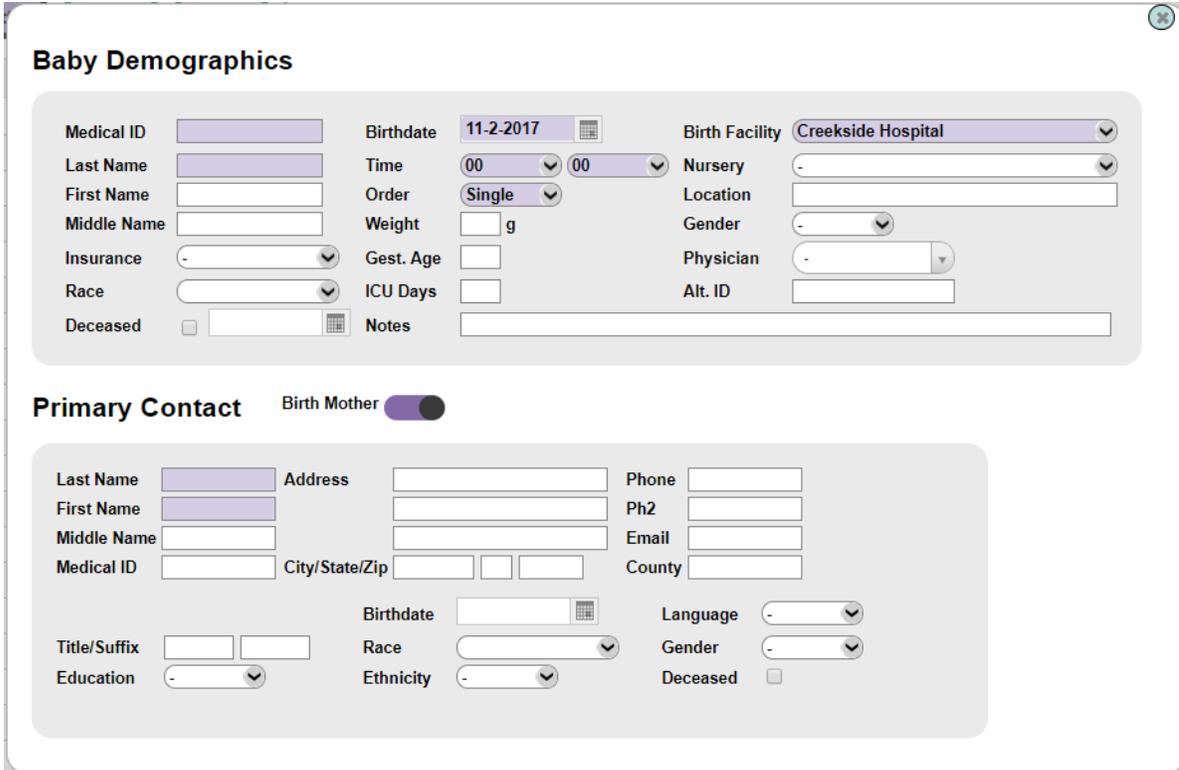
Step 4: Entering outpatient screening results in a Two-Stage Protocol. When an infant returns for Outpatient screening, the screener locates the baby record on the Needing Outpatient list and updates it with Outpatient results. The updated record is then "finished".

Step 1: Creating baby records

For every infant born or transferred into your program, you must create a new child record. To make entries click in a field or press the Tab key to move forward or press Shift-Tab to move backward between fields.

To add a new baby record:

- 1 Click on the add button  at the bottom of the [Baby List](#).
 - A blank Demographics screen is shown.



- 2 Enter the baby's information in the appropriate fields. Colored fields indicate mandatory data.
 -

The data field drop-down menus offer preset options that standardize data entry. Some fields might be auto-filled. If the auto-filled information is incorrect, simply enter the information for the blank fields.

- 3 Enter the Primary Contact's information in the appropriate fields
 - If the Primary Contact is someone other than the birth mother (e.g., foster or adoptive parent) uncheck the "Birth Mother" box. (To add more contacts return to "Contacts" after saving.)

- 4 Click the save button  at the bottom right of the screen

The Baby List is shown with your new baby highlighted. This baby's Chart will be shown on the left.



To enter notes:

1. If the baby Chart is not shown on the left select the baby from the Baby List.
2. If the baby has any previous notes, they will show up in the bottom of the baby's Chart.
3. Click on the baby's "Notes / All" link and click  to begin a new note at the bottom of the Notes list.
4. Click the save button  at the bottom of the list.
5. This note will now appear on the baby's Chart



To enter additional contacts:

1. If the baby Chart is not shown on the left select the baby from the Baby List.
2. Click on the "Communication Hub" option in the baby's Chart
3. A list of all contact roles is shown.
4. Click on the add button **+**.

A blank Person Demographics screen is shown under the current contacts

Darrell, Tisha

Contact	Role	Entered Date	Remove
Darrell, Sylare	Primary Contact	11/2/2017	
Darrell, Sylare	Birth Mother	11/2/2017	

Add Contact

Last Name Address Phone
 First Name Ph2
 Middle Name Email
 Medical ID City/State/Zip County

 Title/Suffix Birthdate Language
 Education Race Gender
 Ethnicity Deceased

Roles

Other Contact

5. Enter the contacts information in the appropriate fields and select appropriate contact role types from the checkboxes below the demographics fields. Colored fields indicate mandatory data.

Select "Primary Contact" (in addition to any other roles you select) if this is the person that should receive mail and contact for this baby.

6. Click the save button at the bottom right of the screen.

Selecting Risk Indicators:

1. If the baby Chart is not shown on the left select the baby from the Baby List.
2. Click on "Risks " from the Baby Chart

A blank Risk Indicator list is shown.

 **JCIH 2007**

Response	Indicator	Risk Notes
  	Caregiver concern	
  	Family history	
  	Neonatal intensive care	
  	In utero infections	
  	Cranio-facial anomalies	
  	Physical findings	
  	Syndromes	
  	Neurodegenerative disorders	
  	Culture-positive postnatal infections	
  	Head trauma	
  	Chemotherapy	

3. Using the +,-, and ? symbols to indicate if the specific risk criteria are present.
4. To enter a Risk Indicator not listed in the JCIH 2007 list, select the ellipsis  next to the save button  to enter in a note explaining the indicator.
5. Click the save button  in the bottom right.

Step 2: Printing a list of infants to be screened

After you create infant records in Screening, you can print a list of all infants and the respective screening actions required. This list includes the infants whose records you entered today, as well as those entered previously who have not yet passed the screening. Carry this printout with you to record screening outcomes.

If you have direct access to the screening software while conducting screening, you can conduct the screening and enter results directly in the screening software as explained in Step 3.

To print a list of babies needing action:

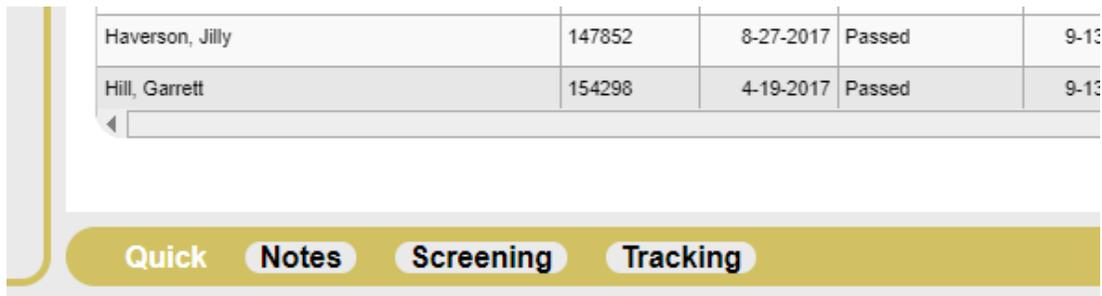
1. Verify that you are on the "Needs Inpatient Screening" list (shown above the baby list filter criteria.)
2. Sort the list in a way that is helpful for your screening staff by clicking on the header column for "Baby Name", "Medical ID" or "Birth Date". A second click will reverse the sort order.
3. Click on the print list button  at the bottom of the Baby List to see a preview and then print when your printer is ready.

Step 3: Entering screening results and finishing screening records

At the end of a screening session you should enter the screening results for all the infants you have screened.

To enter screening results:

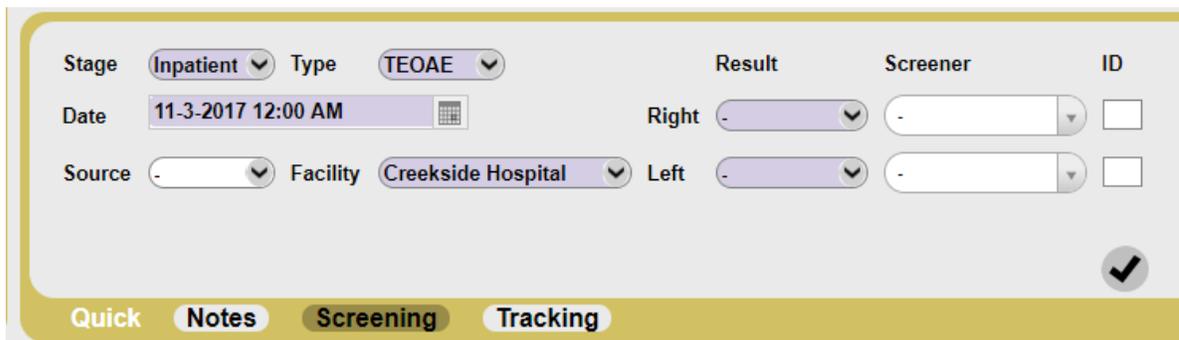
- 1 If the baby Chart is not shown on the left select the baby from the Baby List.



Haverson, Jilly	147852	8-27-2017	Passed	9-13
Hill, Garrett	154298	4-19-2017	Passed	9-13

Below the table is a navigation bar with buttons: Quick, Notes, Screening, Tracking.

Choose Screening in the Quick Add area to start a new entry for the selected baby. You will then see these fields:



Stage: Type: Result: Screener: ID:

Date: Right:

Source: Facility: Left:

Quick Add buttons: Quick, Notes, Screening, Tracking. A checkmark icon is visible in the bottom right corner.

- 2 Enter screening results for the selected baby. If your hand-held device provides a test ID or number you may enter it into the "ID" column.
(Go directly to the "Tracking" for infants who were not screened.)
- 3 If screening has been completed for this baby click on the "Tracking" button.
Possible actions will be shown.

The screenshot shows a mobile application interface with a yellow header. On the left, there is a 'Current Status' section with the text 'Need Inpatient Screening'. To the right, there is a 'Suggested Actions' section with a downward-pointing arrow icon. Below the 'Current Status' section is a 'Possible Action' list with three items: 'Finish IP with Pass' (with a checkbox), 'Outpatient Results entered for Child w/no IP Results', and 'Missed Inpatient'. At the bottom of the screen, there is a yellow navigation bar with four buttons: 'Quick', 'Notes', 'Screening', and 'Tracking'.

- 4 Use the Possible Action list to pick the appropriate next action for this baby. The available options in this list will change depending on what has been entered for the record. For example if no results are entered the "Missed" option will be shown.
- 5 Add a short note explaining reason of the outcome if needed.
- 6 Click on the save button  to the right.
This baby will no longer be shown as needing Inpatient Screening.

Step 4: Entering Outpatient screening results in a Two-Stage Protocol

To enter in Outpatient screening results select "Outpatient Screening" Baby List Filter

To enter outpatient screening results:

1. If the baby Chart is not shown on the left select the baby from the Baby List.
2. Enter screening results for the selected baby in the fields on the "Screening" Quick Add area. If your hand-held device provides a test ID or number you may enter it into the "ID" column.
3. If screening has been completed for this baby or the baby was not screened click on the "Tracking" button.

Possible Actions will be shown.



The screenshot shows a software interface with a yellow header bar. On the left, under 'Current Status', it says 'Need Outpatient Appt.'. To the right is 'Suggested Actions' with a dropdown arrow. Below this is a 'Possible Action' section with a scrollable list containing three items: 'Finish OP with Pass & Risk Monitoring', 'Outpatient Pass exists for baby (Auto)', and 'Refer for Evaluation (Auto)'. At the bottom of the interface is a navigation bar with buttons for 'Quick', 'Notes', 'Screening', 'Tracking', and 'Recommendations'. The 'Tracking' button is highlighted with a dark background.

4. If desired add a short note explaining reason of the outcome.
5. Click on the save button  to the right.

This baby will no longer be shown as needing Outpatient Screening.

Collecting Screening Information using Equipment Software

You can merge screening information into HiTrack electronically if your hearing screening program uses a screening system with compatible screening software. Other screening systems software changes frequently so please contact the screening manufacturer if there are additional questions beyond what is covered here in the manual.

Facility Protocol Setting

If you plan to manually review non-pass babies imported from an equipment file then you should use one of the following protocols: "Two-Stage Automated Pass/Manual Non-Pass", "Two-Stage Dual Equipment Auto-Pass Only" or "Single-Stage Dual Equipment Auto-Pass Only"

If you merge *completed* screening results from an equipment file then you should use one of the following protocols: "Two-Stage Automated", "Two-Stage Inpatient Automated", "Two-Stage Dual Equipment Automated" or "Single-Stage Dual Equipment Automated". [See Facility set up](#) and [protocol descriptions](#) for more information.



Facility Merge Sources

While configuring HiTrack for your facility you should have added [Merge Sources](#) for the screening equipment you use. Each file imported into HiTrack is referred to as a "Batch" of screening equipment information. After merging the file will be renamed with a time stamp to indicate that this file has been imported.

Matching Rules

In most cases Equipment merge files contain the newly collected screening data. However, in some scenarios, such as Outpatient follow-up screening, additional screening data may be collected. To account for this HiTrack looks for matches on Medical ID, birth date and last name. If this information does not completely match an existing infant record, the information is placed in the Pending Batches list. This allows the program coordinator to decide which field needs to be corrected and then merged into an existing record or added as a new infant record, as the case may be. (See [Appendix C](#) for complete explanations of matching criteria.)

Procedure Overview:

Step 1: Collecting Screening Information using equipment software. The screener uses the screening equipment software to enter baby demographic information and collect screening results. An "export" or "save" feature is used in the software to create an equipment file for HiTrack.

Step 2: Starting the Merge process. The screener or person in charge of tracking opens the Merge Companion and selects the Merge Source and begins the merge for this batch.

Step 3: Resolving any pending Merge batches. The screener or person in charge of tracking uses the Merge screen to fix invalid data or resolve questionable matches.

Step 1: Collecting Screening Information using Equipment Software

This step varies because each screening equipment software system works differently. Some equipment software provides complete demographic and screening fields while other equipment only allows for a handful of minimum required fields. Each equipment software system also writes the equipment file at different times during the screening. Please refer to the section describing data entry into [Equipment Manufacturer Software](#) for details about specific software packages that have been tested with HiTrack.

Step 2: Automatic Uploading Equipment Files using the Merge Companion

The HiTrack Merge Companion is a small tool that can be downloaded onto your computer to automate screening equipment file merges. (If you are not able to use the Merge Companion please refer to the [manual uploading steps](#) below.)

Merge Companion must be [downloaded and configured](#) the first time you use it.

To merge an equipment file using the Merge Companion:

1. Double click on the Merge Companion icon from the Desktop (or wherever you saved it after downloading). The Merge Companion screen will be shown.
2. Select your equipment [Merge Source](#) from the drop down. Information about the selected merge source will be shown in the box.

If the equipment file cannot be found you will receive a message similar to:

```
Checking path C:\{path name}\  
File not found.  
Ready.
```

3. If the file is ready type in your HiTrack User password and click the action button.
If the file is not found it is possible that it was not yet created from the screening equipment software. Although the HiTrack Help Desk does not support any one specific equipment software they do have limited experience with several of them. Contact the [Help Desk](#) for troubleshooting ideas if your file cannot be located.
4. After clicking the action button the equipment file will be uploaded and the merge process will begin. After the processing completes the equipment file on your computer will be automatically renamed to indicate that the file has been processed.
5. Any pending merge batches should be resolved by logging into the Web Companion and clicking on the Merge icon from the toolbar.

Step 3: Resolving any pending Merge batches

When a batch needs manual resolution HiTrack keeps the batch in the Pending Data list on the Merge page. These batches are temporary and can be deleted by using the "Clear" button.

Pending Merge Data

Start	Source	Records	Errors	Clear	
4-12-2018 2:07 PM	IHS device 332 : Import Complete	3	0		
5-25-2018 4:08 PM	ALGO 6 Women's Center : Import Complete	2	0		
6-19-2018 2:10 PM	Well Baby 1 MB11 : Import Complete	12	0		



1. Select a pending batch from the "Pending Merge Data" box on the Merge screen if it does not open automatically.
2. Baby records shaded blue either (a) have data entry problems or (b) are part of a questionable match. After you click on a baby the Merge Item Resolution screen is shown.
- 3a. A single column of fields is shown when invalid entries need to be corrected. Invalid birth dates and birth weights must be resolved. Blank or invalid deceased dates also require manual resolution. Click on the field to make a correction and click on "Save" to retain the changes.

- 3b. Two records are presented side by side for questionable matches. The Existing infant on the left is the record already in HiTrack and the Incoming infant is the record loaded from the current batch. The Merged Record shows you the completed infant record based on the checked 'Use Incoming' column.

The Merge Item Resolution screen is shown:

Pending Merge Data 1

4816
Macaw
Rosita
5/1/2003

Combine With Macaw Rosita 5/1/2003 12:00:00 AM last name: Macaw , 92.86 %

Field	Existing	Incoming	Use Incoming	Combined Record
IDNumber	4816	4816	<input type="checkbox"/>	4816
last name	Macaw	Macaw	<input type="checkbox"/>	Macaw
first name	Rosita	Rosita	<input type="checkbox"/>	Rosita
birth datetime	5/1/2003 12:00:00 AM	5/1/2003 12:00:00 AM	<input type="checkbox"/>	5/1/2003 12:00:00 AM
multiple			<input type="checkbox"/>	
birth order			<input type="checkbox"/>	
birthing facility id	Mountain View Medical Center	Mountain View Medical Center	<input type="checkbox"/>	Mountain View Medical Center
gender	F	F	<input type="checkbox"/>	F
brn			<input type="checkbox"/>	
deceased	N	N	<input type="checkbox"/>	N
weight			<input type="checkbox"/>	
total days in any nicu			<input type="checkbox"/>	
gestation period			<input type="checkbox"/>	
nursery level code			<input type="checkbox"/>	
current location			<input type="checkbox"/>	

Attention Needed

+ -

There are three possible actions to take for possible matches: "Combine with existing record" , "Add as New Record"  or "Delete Imported Record" .

Use "Combine with existing record"  when the records are for the same baby.

Use "Add as a New Record"  when the record from the current batch is not the same baby shown on the right.

Use "Delete Imported Record"  to discard the record from the current batch.

After choosing an action, the Merge will process your request and show the Merge Results screen.

4. Click the "Resume Merge"  button to process invalid data corrections or to continue merging this batch again.

Collecting Diagnostic Hearing Information

HiTrack provides a few different ways to collect diagnostic hearing evaluation information:

The Hearing Evaluation Submission Form – “Add Only” submission entries.	This feature does not provide access to HiTrack’s existing records, rather it allows audiologists to submit diagnostic data to be reviewed and matched later by program coordinators.
HiTrack data entry as a Non-Facility User using the Diagnostic link.	This feature gives role based access to HiTrack data using the Non-Facility User feature. With this method, audiologists are allowed to access HiTrack with only the feature-specific rights needed to do their work. Audiologists can use the search feature to find existing records in HiTrack if they provide sufficient matching criteria and attest to data access authorization. Otherwise only the baby records assigned to their user account will be available.

Hearing Evaluation Submission Form Set up and IT Configuration

HiTrack’s Hearing Evaluation Submission Form is a single web based form that allows diagnostic data to be submitted by audiologist clinics without HiTrack access. This form submits diagnostic data to the HiTrack Pending Merge list by authenticating the audiologist’s name, state code and facility name. As the submissions are collected on HiTrack’s Pending Merge list they can be reviewed for completeness and then automatically merged with the permanent HiTrack data or discarded.

A new [Facility](#) and associated [Merge Source](#) entry must be added to HiTrack by the state HiTrack user to collect the data. The Facility should be named “Diagnostic Submissions Data”. The new Merge Source should be given a name and use the type “Clinic Data Source”.

Once these items are added to HiTrack’s system, Web Server IT staff are required to update a configuration file on the web server with the IDs of this new Facility and Merge Source.

Submission Form Matching Rules and Required Fields

A new set of matching rules is used to compare diagnostic submissions to existing HiTrack records. See below:

<i>Field</i>	<i>Required and Note</i>
Patient ID/Medical ID	Required. A state-wide unique identifier should be used here when available. Otherwise, the audiologist’s local patient ID should be used here.
Child Last and First Name	Required and used to match.
Child DOB	Required and used to match.

Contact Last and First Name	Required and used to match.
Contact DOB	Required and used to match.
Contact Phone	Required and used to match.
Contact Zip	Required and used to match.
Child's Birth Facility	Required. Must match a HiTrack Facility name.
Audiologist Name and Code	Required. Both must match HiTrack's name entered in Medical People.
Diagnostic Facility	Required. Must match a HiTrack Facility name.

As with HiTrack's [other match rules](#), incoming records that match a majority of fields are automatically combined. Partial matches are left in the Pending List and records with no matches are added as new records in HiTrack. These new unmatched records will show in the Baby List under the new "Diagnostic Submissions Data" facility as records without screening results and can be manually matched to existing records at any time.

Submission Form Audiologist Onboarding Process

Below is a suggested process of introducing new audiologists to the HiTrack Hearing Evaluation Submission Form.

1. Determine if the audiologist is capable and willing to submit relevant HiTrack diagnostic data.
2. Verify their related entries in HiTrack:
 - Check that their name is spelled and entered correctly in HiTrack's Medical Person Edit screen.
 - Check that their clinic/facility/site name is entered correctly in HiTrack's Facility List
3. Provide authentication details in an email and/or phone call (see suggested text below):
 - The HiTrack Web URL (similar to)
 "https://[yourstate.gov]/Webforms/[SubmitHearingEvaluation.aspx](#)" Suggest that they bookmark this site after opening it the first time.
 - Their State Audiologist Code from the Medical Person Edit screen. Create a new code for them if they do not already have one.
 - The list of HiTrack Facilities to use to enter in for Birth Facilities and Diagnostic Facility. This can be generated by saving the Facilities list to an Excel file.
4. Arrange with them to submit a test record that can be discarded from your Pending List after successful submission.
5. Arrange for periodic follow-up with them about their data quality.

Submission Form Suggested Audiologist Welcome Message

Below is a message that could be sent to welcome new Audiologists to HiTrack's Hearing Evaluation Submission form.

Dear Audiologist,

As you may know, our state uses an EDHI data management system called HiTrack to track and maintain early child hearing results and diagnosis. HiTrack enables offsite audiologists such as yourself, to submit hearing evaluations for patients you see to the state department of health.

We hope that this form will allow us to replace the FAX forms that are currently in place.

Types of data collected by HiTrack's Hearing Evaluation Submission form:

- Degree, Type and Configuration of hearing loss
- Diagnostic ABR and OAE tests
- Tympanometry tests
- Behavioral tests
- A short note

To use this feature you will need:

- A State Issued HiTrack Audiologist Code
- The HiTrack Facility List
- A web browser configured to link to:
[https://\[yourstate.gov\]/Webforms/SubmitHearingEvaluation.aspx](https://[yourstate.gov]/Webforms/SubmitHearingEvaluation.aspx)

Please feel free to contact me to learn more about setting up this form for you,

Thank You,

State EHDI Manager Staff

Submission Form Configuration

Please contact the [Help Desk](#) to enable this form.

Non-Facility Based HiTrack Access

Introduction

In most cases HiTrack patient record access centers on birth or screening Facilities. User accounts are assigned to the facility (or group of facilities) that they needed access to.

User accounts can also be created that are not tied to specific Facilities. These new types of user accounts have access to patient records they create themselves (if permitted), records that are assigned to them (by a HiTrack administrator) and existing records located using HiTrack's optional search feature described below.



Note that although this feature can be used by off-site audiologists it can also be used for other off-site medical professionals. Contact the [Help Desk](#) For additional information.

Access Rights

A new User Group should be created before granting Non-Facility user access. This gives HiTrack administrators the ability to limit access to certain portions of a patient record. Some of the patient record sections that can be controlled are:

	Demographics
	Hearing Screening
	Hearing Diagnostics
	Hearing Loss Risk indicators
	EI Enrollment
	Contacts
	Notes
	Custom Forms

For each section administrators can control if the user account:

	Can view section
	Can add new entries to the section and modify their own entries
	Can make changes to or delete existing entries in the section

Appendix G contains a complete [list of HiTrack 5 access rights](#).

Once the new User Group is created navigate to the [Add User](#) page to create Non-Facility user accounts. Choose the new User Group for each user and make a selection from the “Non-Facility Medical Person” drop down; in most cases choosing “*All Facilities” is the preferred option.

Non-Facility User System Wide Search Conditions

HiTrack's optional system-wide search tool allows Non-Facility user accounts to append new entries to existing records if they have been granted appropriate access rights. HiTrack Administrators enable this tool by adding "System Wide Search – Allow" to User Groups.

If the search tool is enabled for a User Group it will allow those users locate patient records that are already in HiTrack by matching criteria on these fields, listed in order of importance:

- Baby Birth Date (required)
- Birth Facility (entry required even if unsure)
- Baby Sex (required)
- Contact Last Name
- Contact Birth Date
- Baby First Name
- Contact Zip Code
- Contact First Name
- Baby Last Name
- Birth Order
- Contact Phone Number
- Baby Medical ID
- Baby Alt. ID

HiTrack uses advanced searching to match data coming from different places. Names, zip codes and phone numbers are compared without symbols. (This means that "(123)-456" and "123456" are considered equal and matching.) Dates are matched without the "time" component and Medical IDs are matched without leading zeros.

Once a match is located the Non-Facility user must attest that they have sufficient permission to view the related private health data and validate with their license number before gaining access to the record. After validation occurs they will be allowed access to sections of the patient record based on the User Group rights configured by the HiTrack administrator. The "Baby Record Search Result" notification will occur when a match is found this way.

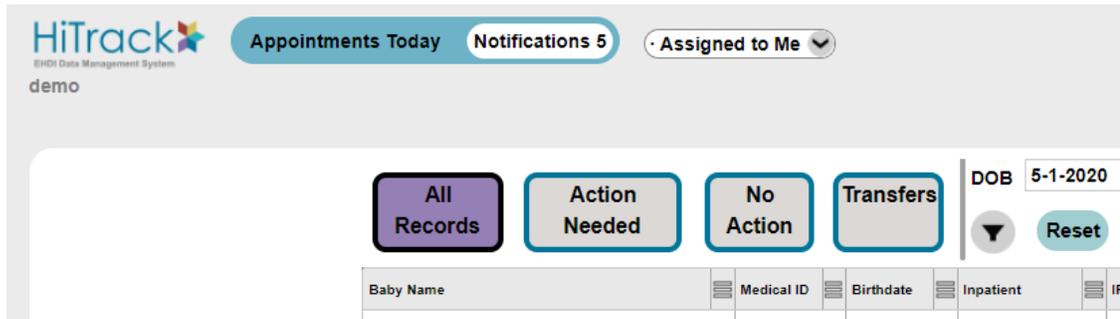


The new patient info can be added to HiTrack if no matches are found (and the user is in a User Group that allows new records.) The HiTrack Notification "Baby Manual Add" will notify administrators when new records are added this way.

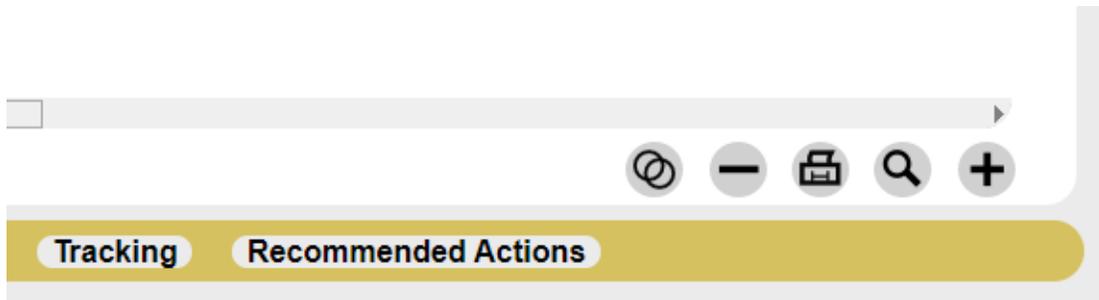
System Wide Search Steps

This feature helps to find records that aren't already in the user's baby list.

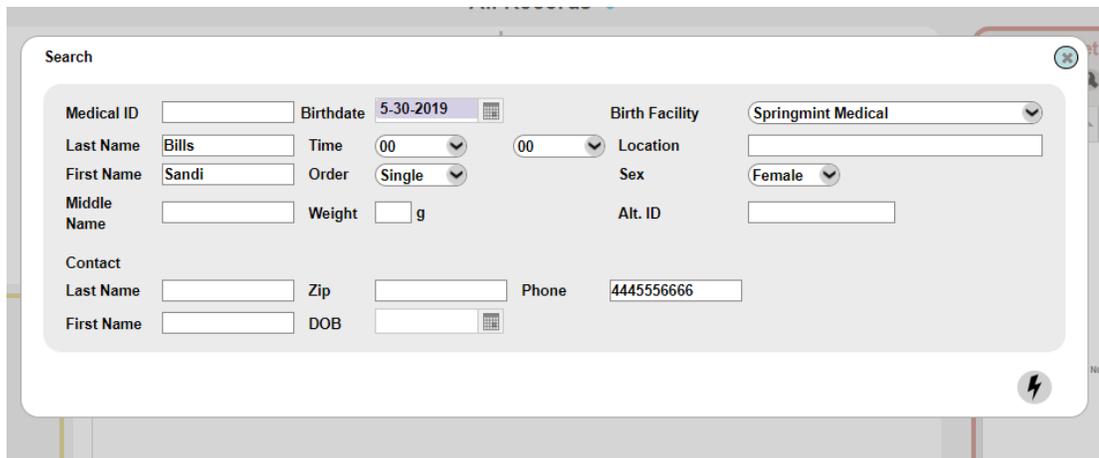
1. To begin a search change the current facility selection to "Assigned to Me". If the current User's Group has the "System Wide Search – Allow" access right HiTrack will display a search icon  in the lower right of the list.



2. Clicking the magnifying glass search icon at the bottom of the list opens a form with Baby Demographics search fields.



After entering a date of birth and other field values click on the Action button to start your search. Note - Birthdate and Sex are important matching fields.



3. If no matching babies are discovered the following message will be shown:

Search

Medical ID Birthdate Birth Facility

Last Name Time Location

First Name Order Sex

Middle Name Weight g Alt. ID

Contact

Last Name Zip Phone

First Name DOB

No matching records were found for this information. Either this record is new to the system or some information was incorrectly entered. Please review your entries and try again or choose to create a new record.

[Reset](#) [Add As New Record](#)

Users have the choice here to decide to add this entry as a new record if they have the appropriate access right in their User Group.

- 4, If there are possible matches HiTrack will display the following form asking for attestation of authorization and validation of their license ID number. In this case a match was found because the mothers name was added as search criteria.

(If a matching baby is found but they are already assigned to the user a notification message will be shown.)

Search

Medical ID Birthdate Birth Facility

Last Name Time Location

First Name Order Sex

Middle Name Weight g Alt. ID

Contact

Last Name Zip Phone

First Name DOB

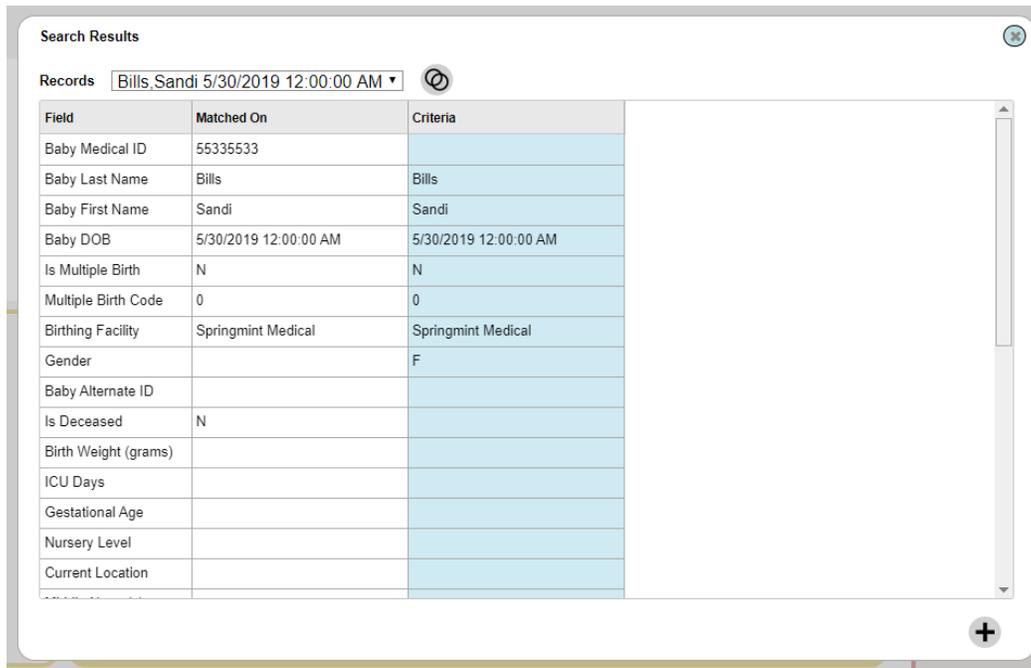
Possible matches for this information have been found in HiTrack. Read, Accept and Sign the terms below with your license number to review them. Choose to start a new record if you cannot agree to the terms below.

By clicking Accept below I attest that I have authorization and medical reason to access and modify this patient record information. I understand that my activities in HiTrack may be logged for later review.

Agree Signed:

[Reset](#) [Add As New Record](#) [Review Match](#)

5. After successful authorization the following candidate selection screen will be shown.



The screenshot shows a 'Search Results' window with a table of candidate data. The table has three columns: 'Field', 'Matched On', and 'Criteria'. The data rows are as follows:

Field	Matched On	Criteria
Baby Medical ID	55335533	
Baby Last Name	Bills	Bills
Baby First Name	Sandi	Sandi
Baby DOB	5/30/2019 12:00:00 AM	5/30/2019 12:00:00 AM
Is Multiple Birth	N	N
Multiple Birth Code	0	0
Birth Facility	Springmint Medical	Springmint Medical
Gender		F
Baby Alternate ID		
Is Deceased	N	
Birth Weight (grams)		
ICU Days		
Gestational Age		
Nursery Level		
Current Location		

This page allows the user to review the data for the possible matches. The drop down in the top left can be used to view different candidates if multiple matches exist. The add button icon can be used if the user determines that this is not an appropriate match. The combine merge button can be used if the selected candidate is a match. This record will be added to the current users “Assigned to Me” list and they will have access to the record based on their other Access Rights, e.g. If they have Diagnostics “Add” they can now add diagnostics to this existing record.

Non-Facility User Monitoring

HiTrack provides several quality-assurance features to aid in data collection monitoring:

- Notifications
 - Baby Record Search
 - Baby Manual Add
- Record Change Log
- Record View Log (if enabled)
- User Activity Watch
- Change User visible in Demographics and Advanced Details
- User Change/Submission Subscriptions
- Login History



Non-Facility Based Audiologist Onboarding

The onboarding process for Non-Facility Users will be very similar to the [process suggested for the Submission Form](#) except that they will need to have a specific HiTrack User name and password given to them and they will need a different URL for HiTrack. For their access these users will go to your HiTrack URL (e.g. “https://yourstate.hitrack.gov”) and then use the normal HiTrack Login page. They will not need to go to a specific Submission Form page URL.

Managing Screening and Tracking Data

HiTrack provides the tools and features you need to manage your hearing screening and tracking data. This section describes common tasks that apply these tools and features effectively.

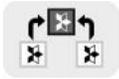
Tracking Tasks

As discussed in the [Tracking System Overview](#) the Baby Chart and Baby List allow you to manage your baby HiTrack data. The following sections will discuss common tracking tasks in detail.



Tracking tasks start at different times depending on your tracking role. State or regional users interact with HiTrack at different times than hospital users.

Some common tracking roles include:

Hospital users	Tracking Tasks begin after screeners have collected screening information and merged or entered it into HiTrack
State or regional users who collect data from multiple HiTrack databases in their state or region. 	Tracking Tasks begin after the hospital Data Export files have been merged into their state or regional HiTrack system.
State or regional users who maintain data from multiple hospitals in a single, centralized database .	Tracking Tasks begin after screeners have collected screening information and merged or entered it into HiTrack. Data Export files do not need to be merged for state/regional users providing Centralized database layouts.

Contact the [HiTrack Help Desk](#) for additional information about tracking roles.

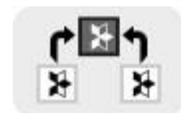
Procedure Overview:

Step 1: Updating baby records. Records for babies who do not pass screening are updated with additional screening results, demographics and recommendations. All in-progress records are finished and moved to the next action folder in the Baby Chart.

Step 2: Generating Letters. Letters are printed to communicate screening results to parents (or preferred contacts) and physicians so that follow-up appointments can be arranged.

Step 3: Reporting Tracking Effectiveness. Reports are generated as needed to evaluate follow-up success, Refer rates and other tracking measurements.

Step 4: Transferred Data to a Central Database (optional). This step creates an encrypted transfer file (ETF) for you to report your HiTrack data to a state or regional coordinator. This is only required for [Distributed](#) state or regional databases.



Tracking Tasks - Step 1: Updating baby records

Updating baby records is an important daily tracking task. Babies who referred from screening can be located by using the Need Evaluation option which provides a quick list of babies that need appointments for diagnostic evaluation or other issues.

After a baby has been selected from the Baby List their chart is shown to the left.

Baby Chart

The Baby Chart provides access to information specific to the selected baby. Relevant key information, such as contact information, risk indicator alerts and pending letters notifications also appear on the Chart providing you with on-demand assistance with your tasks.

An empty circle next to a chart section indicates that there are entries in this section.

A filled circle next to a chart section indicates a noteworthy condition that may require user attention.

Below the baby name and tracking actions you will see information about Hearing Status, Contact information and Milestone achievements.

The Notes section at the bottom of the chart displays a short preview of the three most recent notes about the selected baby.

Use a single click on the Baby List to show the Chart for a baby.

Erhartt
Jayla
9/13/2017 1:37 AM
162587
Need Outpatient Appt.
In Progress
Milestones: -/-

● **Communication Hub**
Outpatient Broken Ap...
Outpatient Broken Ap...
Phone: 999-555-1111

Record Overview
Demographics
Screening
Tracking
Transfer
○ Risks
Hearing Status
Diagnostics
Amplification
EI Services
● Recommended Actions
Lab Testing
Attachments

Notes
Mom said call in a fe...
All

Record Overview

Record overview provides a summary of baby data and links to obtain more detailed information.

Click in the heading to see more detailed information for any part of the overview.

Record Overview Timeline

Demographics	Screening 3	Diagnostics 0
Name Carter, Abigail Medical ID 246532 Birthdate 6-14-2017 Gender Action Passed Screening Nursery Responsible Facility Creekside Hospital Birth Facility Creekside Hospital Source Facility Creekside Hospital Primary Contact Carter, Michelle	IP Head Pass 9-13-2017 TEO... IP Left Pass 9-13-2017 TEO... IP Right Pass 9-13-2017 TEO...	
Contact 1	Hearing Status 0	Risks 0
Carter, Michelle Primary Contact		
Tracking 2	Letters 2	EI Services 0
Complete Status 9-13-2017 Finish IP with Pass 9-13-2017	Inpatient Pass (Physician) 10-17-2017 Inpatient Pass (PC) 10-17-2017	
Transfer 0	Notes 0	Amplification 0

Timeline

Record overview also provides access to a baby's Timeline of events. Clicking on the Timeline icon in the top right of the overview will switch you to a separate screen where you view the date and time that each action was performed. You may also print this list if you wish.



“How can I see everything that has happened in this record?” Timeline view is a helpful tracking tool because it provides access to each baby's Change Log and Match History. These two historical records are important tracking tools because most hearing screening programs merge their data from other sources such as equipment software or other HiTrack systems. These features let you see changes that other users make during these processes.

The following Baby fields are maintained in the Change Log:

Medical ID	gender
birth date	middle names
last name	alternate id
first name	deceased (Y/N)
test result edit	test result delete

The following Person/Contact fields are maintained in the Change Log:

last name	gender
first name	address
last name	phone
middle names	deceased (Y/N)

The Change Log entries displayed in the following format:

Edit:	The name of the field that was changed.
Prior Value:	This is the previous value for this field. Empty brackets mean that the value was empty (null) prior to being edited.
Prior change date:	This date in parentheses is the last time this was changed before this change.
New Value:	The new value of this field.
Date:	The date the field was changed

A baby's Match History is also provided in Timeline view. A match history entry is recorded each time a record is combined or matched by HiTrack's [Merge process](#). These entries follow the following format:

Matched: Match confidence score #	This will be blank for Combined records, however for merged records it is a score calculated using the number of matching fields.
User Match: Yes/No	This indicates whether or not HT automatically matched this record. A "Y" value will be shown if this match was done with the Combine feature or if this record was matched by hand during the merge process.
User	The user who combined or matched the records
Incoming	This shows the HT ID# from the discarded record for technical purposes only.
Date:	This is the date the match or combine occurred.



Classifications are another noteworthy item included in Timeline view. [Classifications](#) are calculated for each baby at each stage and represent how they are counted on reports. They are also used as criteria for generating letters.

Demographics

The Demographics link in the baby's Chart provides specific demographic data for a baby and their primary contact.

The screenshot shows a web-based form titled "Baby Demographics" and "Primary Contact". The "Baby Demographics" section includes fields for Medical ID (162587), Birthdate (9-13-2017), Birth Facility (Creekside Hospital), Last Name (Earnheart), Time (01:37), Nursery, First Name (Jayla), Order (Single), Location, Middle Name, Weight, Gender, Insurance, Gest. Age, Physician, Race, ICU Days, Alt. ID, Deceased checkbox, and Notes. The "Primary Contact" section includes fields for Last Name (Earnheart), Address, Phone, First Name (Kaylee), Ph2, Middle Name, Email, Medical ID, City/State/Zip, County, Title/Suffix, Birthdate, Language, Education, Race, Gender, Ethnicity, and Deceased checkbox. A timestamp "Changed by demo on 10-31-2017 5:06 PM" is visible at the bottom of the Primary Contact section.

A new short note entry may be entered in the Notes section in the Baby Demographics portion of this screen. After saving this note can be seen with the other notes for this baby.

Colored fields indicate mandatory data. Click on a field or press the Tab key (to move forward) or press Shift-Tab (to move backward) to select a field.

To update a baby record:

1. Enter the appropriate values into the fields shown.
 -  A drop-down field marked with a pad-lock icon indicates that this record is using [Program Information](#) that is [retired](#) or not available to your Facility. To choose a different entry click on the pad-lock to unlock the drop-down. Leave the pad-lock enabled to keep the previous entry.
2. Click the "Save"  button to retain your changes.

The Change Log is automatically updated when identifying fields are modified.

Screening

The Screening link on the Chart is where hearing screening information may be reviewed and entered for a baby.

To update screening results:

1. Click on the "Screening" link from the Chart for this baby.

The Screening screen is shown.

The screenshot shows the 'History' section with a table of screening results and the 'Most Conclusive Results' section with a table of the most recent results. The 'History' table has columns for Test Date, Type, Ear, Result, Screener, and Facility. The 'Most Conclusive Results' table has columns for Method, Result, Type, and Date. There are also icons for printing and adding new results, and a button to 'Override MCRs'.

Test Date	Type	Ear	Result	Screener	Facility	S
11-30-2017	A-ABR	Right	Refer	Labarca, Nicole	Alabaster Regional	In
11-30-2017	A-ABR	Left	Pass	Labarca, Nicole	Alabaster Regional	In
11-30-2017	A-ABR	Right	Refer	Labarca, Nicole	Alabaster Regional	In
12-1-2017	A-ABR	Right	Refer	Zentgraf, Jennifer	Alabaster Regional	In

Method	Result	Type	Date
IP Right	Refer	A-ABR	12-1-2017
IP Left	Pass	A-ABR	11-30-2017
IP Head	Refer	A-ABR	12-1-2017

This screen is separated into two areas. The top area shows your history and lets you add or modify screening results. The Bottom area shows the current Most Conclusive Results.

2. Add a new result by selecting the add button at the bottom of the History section. Colored fields are mandatory.

To edit an existing result click on the result in the History list. This will activate the top area and allow you to change fields for this existing entry.

3. Click the save button to save your changes. Click the garbage can to delete the selected entry.
4. Click the "Save changes" button at the bottom right of the history list.

Under rare circumstances you or an audiologist may want to override HiTrack's Most Conclusive Result rules. Use the "Override MCRs" button to hand-select results to be used for head results and ear results for each stage.

Tracking

The Tracking link will display the following screen.

The screenshot shows a mobile application interface for tracking a baby. On the left is a sidebar with a 'Tracked By 1' indicator and a dropdown menu showing 'Alabaster Regional'. The main content area is titled 'Suggested Actions' and displays the current status as 'Need Outpatient Appt.'. Below this, it prompts the user to 'To advance this baby select an action below' and provides a table of possible actions.

Possible Action	Destination State
Need to Locate Child	Need to Locate
OP Appointment made	Outpatient Scheduled
Recall for Inpatient Screening	Need Inpatient Screening
Evaluate w/o Outpatient	Need Evaluation Appt.

History

Item	Entered Date	User
Finish IP with Pass (Passed Screening) : Finish IP with Pass (Passed Screening)	12-6-2017 9:29 AM	marymcadams
Status: Complete - Passed Screening	12-6-2017 4:29 PM	marymcadams
Non-Pass IP Results need Outpatient after Passing (Need Outpatient Appt.) : Non-P...	6-15-2018 2:46 PM	benniencj
Status: In Progress - Need Outpatient Appt.	6-15-2018 2:46 PM	benniencj

Reset Tracking and Transitions History

Display Tracking and Transitions Only



Tracking Actions

This tab will allow you to advance a baby record from one tracking action to another. The top grid gives a list of suggested actions for a baby based on the protocol being used. Additional actions can be used by deactivating the Suggested Actions filter. (You will see these same actions when using the Quick Add "Finish" feature on the Baby List.)

Some possible Inpatient actions for the [Two-Stage Automated Pass/Manual Non-Pass](#) protocol are:

Finish IP without Passing	The baby was screened but the results were inconclusive or incomplete.
Refer for Outpatient	The baby was screened but the pass criteria was not met for one or both ears; refer for further screening.
Missed Inpatient Screening	The baby was not screened before the mother and child were discharged from the hospital.
Evaluate w/o Screening	No further screening was done because the baby was referred directly for Audiological evaluation.

Refer for Intervention	The baby has completed evaluation and will be monitored as enrollment activities take place.
------------------------	--

The list of suggested possible actions will automatically change as screening information is entered. The protocol being used at your facility will also determine what actions are available. You may override the choices at any time for special circumstances by deselecting this option.

The bottom grid provides a history of actions that have occurred for the selected baby. For record keeping purposes you may edit the explanation field by selecting a history row and then clicking the "Edit" button.

Communication Hub - Contacts

To add additional contacts:

1. Click on the "Contacts" tab within the Communication Hub feature
A list of all contact roles is shown on the right.
2. Click on "Add" 
A blank Person Demographics screen is shown.

Add Contact

Last Name	<input type="text"/>	Address	<input type="text"/>	Phone	<input type="text"/>
First Name	<input type="text"/>		<input type="text"/>	Ph2	<input type="text"/>
Middle Name	<input type="text"/>		<input type="text"/>	Email	<input type="text"/>
Medical ID	<input type="text"/>	City/State/Zip	<input type="text"/> <input type="text"/> <input type="text"/>	County	<input type="text"/>
Title/Suffix	<input type="text"/> <input type="text"/>	Birthdate	<input type="text"/> 	Language	<input type="text"/>
Education	<input type="text"/>	Race	<input type="text"/>	Gender	<input type="text"/>
Ethnicity	<input type="text"/>	Deceased	<input type="checkbox"/>		
Roles	<input type="text"/>				
	<input type="text"/>				

3. Enter the contacts information in the appropriate fields and select appropriate contact role types from the checkboxes below the demographics fields. Colored fields indicate mandatory data.
Select "Primary Contact" (in addition to any other roles you select) if this is the person that should receive mail and contact for this baby.

4. Click the "Save"  button at the bottom of the screen.

Note: HiTrack will create a Notification when contacts with special roles are created. These include: Adoptive Parent, Intervention Office, Responsible School District, State Custody, Gestational Carrier, Service Provider, Foster Parent.



Transfer

The transfer link can be used to transfer a baby to another facility within the system. An option is also available to transfer the baby out of the system.

Transfer history entries can be added, edited and deleted. HiTrack also allows you to determine the Responsible Facility transferred out of your Facility. If changes to Transfer history suggest that the baby should have a different Responsible facility, HiTrack will pre-select the Responsible facility drop-down and indicate to the user to save the change.



Risks

Selecting the Risks link will display a list of risk indicators for a baby. You can use the +, -, and ? buttons to indicate whether a baby has any of the risks shown here. A history of risk indicators may also be accessed from this screen.

Hearing Status

If this section is blank a pop-up will appear when this link is selected allowing you to quickly enter in the baby's hearing states for each ear.

The Hearing Status Most Conclusive Outcomes are an important tracking tool for babies receiving evaluation because they determine how this baby is seen on reports.

To record hearing status

You must have Audiologists entered in for your facility to begin entering hearing status.

- 1 Click on the "Hearing Status" link on the Baby Chart for this baby.
 - The add Hearing Status screen is shown.

2. For each ear or sound field enter in appropriate values. HiTrack has been designed based on audiological research to not allow incorrect combinations of Type and Degree of Loss. To record Normal Hearing use Degree: "None (Normal Hearing)".

It is important to enter the date of loss Confirmation so that HiTrack can correctly report this baby on Reports. Confer with your audiologists to decide when a loss is considered confirmed.

3. Click the "Save"  button at the bottom of the screen.



4. After saving HiTrack requires that you select Most Conclusive Outcomes. This is especially important for babies with multiple historical status entries.

Choose a status entry for each ear and click "Save Changes" to retain your Outcome choices.



If you report to the CDC please note that the [CDC Survey](#) reports both on the first and current Most Conclusive Outcomes selected in Hearing Status.

Diagnostics

The Diagnostics link provides a quick add screen for entering Hearing Status, DxABR, OAE, Tympanometry and Behavioral results all in one step.



Diagnostics details are for documentation purposes only. A filter for "Has Diagnostics" is available as an Advanced Find filter on the Baby List but there are no reports in HiTrack that use diagnostic details as filtering criteria.

The one exception to this is the CDC Extract report. The CDC asks for dates and outcomes of diagnostic details so these details are reporting in the anonymized CSV file created by HiTrack.

To add Diagnostics feature first fill in the top section that asks for Audiologist, Test Date, Facility and Test Stage. Next, fill in diagnostic details for each of the areas in the bottom. If you do not use an area use the click arrow on the left to hide that section.



Saving your entries then displays histories for DxABR, OAE, Tympanometry, and Behavioral and also allows you to manage these details.

A baby's Individual Diagnostic Report can also be created from this screen. This report summarizes this baby's complete HiTrack record in a clean, printable format suitable for sharing with supporting organizations.

Amplification

The Amplification link is where information may be entered regarding a baby's hearing devices.

Services

There are three data entry screens in HiTrack that affect Early Intervention tracking and [reporting](#): Recommended Actions, Services and Tracking. Links to each of these options can be found in the baby chart.

To enter an EI Referral, select [Recommended Actions](#) from the baby chart and choose Early Intervention Referral as the action type.

To enter Early Intervention Enrollment details, including cases of Parent Opt Out, Out of Jurisdiction or Monitoring services, use the "Services" link on the baby Chart. From this screen use the add button at the bottom to make a new entry.



To enter a new EI Enrollment

1. Select a record and then choose “Services” from the Baby Chart
With EI Services selected choose **+** to enter a new enrollment.

Services 0

Garcia, Maria
12/5/2023 55696
Need Evaluation Appt.
In Progress
CONFIRMED LOSS: 12/13/23
Milestones: 0/0+

● Communication Hub
Diagnostic Referral (...)
Diagnostic Referral (...)
Phone: 555-5432

Record Overview
Demographics
● Screening
Tracking
Transfer
Risks
● Hearing Status
○ Diagnostics
Amplification
Services
● Recommended Actions
Lab Testing
Attachments

Enrollment

Status	Enrolled By	Date	Age...	Service Type	Occurrence	Exit Date	Pri...	Acti
No data to display								

Baby considered eligible to receive Part C (Federal) services.
Unknown

Enter new enrollment

2.

Add Enrollment Entry

Status: Pending
Service Type: IFSP
Enrolled With: 3rd, Provider
Date: 12-13-2023
Private Enrollment (Non-Part C):
First Contact Date: 12-13-2023
Activities:
Occurrence: 4 time(s) per month
Duration: 1
Exit Date:
Exit Reason:

Select the program and date of Enrollment or non-enrollment status.

Use the slider option to indicate Non-Part C/private enrollment.

After saving a baby's enrollment entry you should indicate their eligibility by selecting an option from the drop down at the bottom left of the EI Services History. Yes, No and Unknown are the available choices.

To indicate that EI Follow-up should be discontinued on a baby, use the Tracking link in the baby chart and then choose Discontinued from the unfiltered Suggested Actions list.

Only provide Exit Date if the baby was previously enrolled in services.

To enter a new Intervention Session

1. Select a record and then choose "Services" from the Baby Chart

Choose **+** to enter a new session.

Intervention Session 0

Date	Type	Person Conducting Session	Location	Session Nu...	Dev Scrn Co...	Entry Count
No data to display						

Enter new intervention session

2. Initial intake sessions will default with three detail sections, but this can be overridden by the user. Click the “x” by the session detail to discard it. Choose a new section topic using the drop down (not show) at the bottom.

The screenshot shows the 'Add Intervention Session Entry' form. At the top, it has fields for Date (1-3-2024), Session Number (1), Type (Initial), and Location. Below these are 'Conducted By' and 'Topic' (Examples Given) with an 'x' to remove it. The 'Activity' field contains 'Parents were provided examples'. A 'Check in with Family' section has an 'x' and an activity 'Father was happy to show us around and introduced us to the children'. A third detail section is titled 'Developmental Screening' and lists categories: Gross Motor, Fine Motor, Language, Cognitive, Personal-Social, Self-Help Skill, and Regulatory/Sensory. The text in this section reads 'Sensory screening was performed and the passed'. At the bottom left is a 'Select New Field' dropdown, and at the bottom right is a checkmark icon.

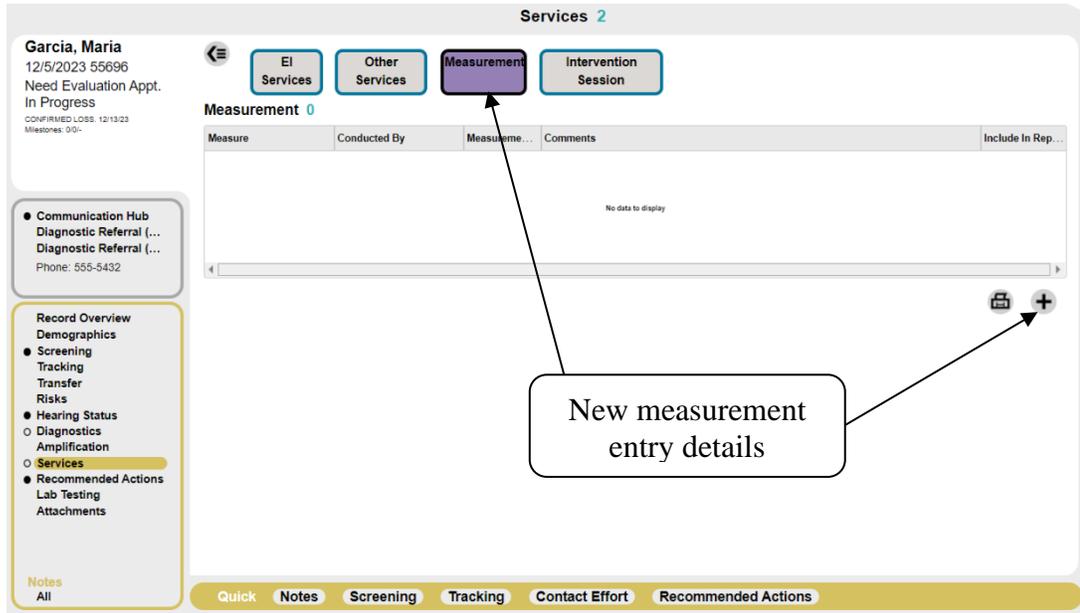
3. Additional sessions can be added and different details can be recorded as shown.

This screenshot shows the 'Add Intervention Session Entry' form for Session Number 2 on 1-5-2024, with Location set to 'Home'. The 'Topic' is 'New Auditory Behavior' with an 'x' to remove it. The 'Activity' is 'Hearing Inspection'. The detail section contains the text 'We observed that the child turned his head when the door closed.' A callout box labeled 'New intervention session details' has arrows pointing to the 'Topic', 'Activity', and 'Detail' fields. The 'Developmental Screening' list is also visible. At the bottom left is a 'Select New Field' dropdown, and at the bottom right is a checkmark icon.

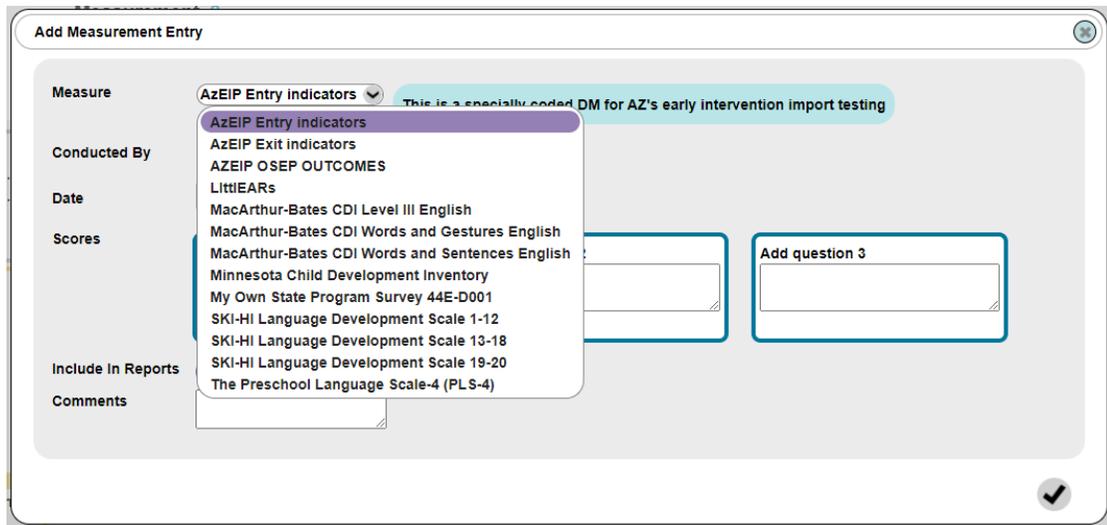
To collect Measures of Language Outcomes

1. Select a record and then choose “Services” from the Baby Chart

From a baby’s Services Page choose Measurement section then the add button **+** to start a new entry.



2. Choose the Measure you want to enter from the list.



3. Enter in the date and score outcomes. Click the Save Button ✓.

Add Measurement Entry

Measure: The Preschool Language Scale-4 (PLS-4) × The Preschool Language Scale-4 (PLS-4)

Conducted By: -

Date: 1-1-2024 × Timeliness: On time

Scores:

- Auditory Comprehension: 52
- Expressive Communication: 51
- Total Communication: 51

Include In Reports:

Comments:



4. HiTrack will maintain a history of the outcomes for later review.

Services 3

Garcia, Maria
12/5/2023 55696
Need Evaluation Appt.
In Progress
CONFIRMED LOSS: 12/13/23
Milestones: 0/0

Navigation: EI Services, Other Services, **Measurement**, Intervention Session

Measurement 1

Measure	Conducted By	Measureme...	Comments	Include In Rep...
The Preschool Language Sc...		1-1-2024		Y

Communication Hub
Diagnostic Referral (...)
Diagnostic Referral (...)
Phone: 555-5432

Record Overview
Demographics
● Screening
Tracking
Transfer
Risks
● Hearing Status
○ Diagnostics
Amplification
○ Services
● Recommended Acti...
Lab Testing
Attachments

Notes
All

Quick Notes Screening Tracking Contact Effort Recommended Actions

Letters and Contact Efforts

The Communication Hub at the top of Chart shows the pending letters for selected baby and allows you to request a specific letter. This link also provides access to the list of documented contacts and letter history for the selected baby.

For more information on letters see [Step 2: Generating Letters](#).

Recommended Actions

The Recommendation system in HiTrack works with the Baby List to automatically create "To Do" lists. For example, babies who do not pass Inpatient screening are moved to the "Need Outpatient Appointment" list. As you enter scheduled recommendations for Outpatient Screening, babies will be automatically moved to "Outpatient Scheduled" list. When parents return with their baby for Outpatient screening their records can be easily located in the "Outpatient Scheduled" list.

This scheduling feature also applies to the Need Evaluation list.

HiTrack will automatically list suggested recommended actions in the yellow Quick Add area for babies on the "Needing Appointment" lists. Clicking on one of these shortcuts takes you to an "Add Recommendation" screen.

To enter a suggested recommendation

1. Click on the Recommended Actions link in the Quick Add area for this baby. Add Recommendation Screen is shown.

The screenshot shows a form titled "Add Recommended Action Entry". The form is organized into several sections:

- Action:** A dropdown menu with "Needs Outpatient Screening" selected.
- Location:** A dropdown menu with a hyphen "-" selected.
- Target Appt:** A field with "1 Months Old" and a date picker showing "12-19-2017".
- Confirmed Appt:** A field with a date picker.
- Responsible Party:** A dropdown menu with a hyphen "-" selected.
- Contact Method:** A dropdown menu with "Unspecified" selected.
- Status:** A dropdown menu with "Scheduled" selected.
- Recommended By:** A dropdown menu with a hyphen "-" selected.
- Notes:** A large text area for entering notes.
- Outcome:** A dropdown menu at the bottom left.
- On:** A date field showing "6-19-2018".

The form has a close button (X) in the top right corner and a checkmark button in the bottom right corner.

Target Appt: The optimal date of completion for this action. For common recommendations the target date is prefilled for you.

Confirmed Appt: The date of an actual appointment for this action.

Instead of Target Date and Confirmed Date, Target Age and Confirmed Age can be used. This option is chosen when a user wants to specify the optimal age of completion for an action.

Status: Pick a status for this action. "Referral Made" can be used for actions that are carried out by a supporting organization.

Notes: Explain briefly the reason or the details of this action.

Responsible Party: This is the person or organization that is responsible for carrying out this action.

Recommended By: This is the person who requested that this action occur.

Recommended On: This is the date the recommendation was made.

2. Select appropriate values for each field.
3. Click "Save"  at the bottom of this screen. A message may be displayed if this recommendation affects where the baby is listed in the baby lists.

Other Important Recommendations

The "Early Intervention Referral" recommendation is important because it affects the [CDC Survey report](#). The "Total Referred for EI" count is based on the number of babies with this recommendation. Recommended On is used to report Referral Date.

Notes

To enter additional notes:

1. Click on the Notes link at the bottom of the baby chart.
This baby's Note history is shown. If no notes are present, click the add  button.
2. Type in your note. The date and time are automatically stored with each note entry.
Custom fields are also entered on this screen. Use the "Type: " drop-down to select from your predefined list of custom fields.



Tracking Tasks - Step 2: Generating Letters

Letters should be generated when you have finished reviewing the screening records. All baby records that need further screening or evaluation should be finished using the Tracking feature. Contact information should also be provided for these records.

To generate letters:

1. Click on the "Communication Hub" option from the HiTrack Menu.

The Facility/Facility Group pending letter list will be shown. (If there are no pending letters it may be that Letter Settings are not configured.)

The baby, recipient, letter title and current screening outcomes are shown in columns on this list. Clicking on a column header will sort the list.

2. From this list you can review which letters will be generated. For Letters you do not wish to print select the "Never" print option. Use the shortcut buttons at the bottom of the screen to reset the print options for the whole list.

The "Tidy Outbox" button opens a small window that summarizes the various pending types of communication types and their status. For each type you can see the type of communication and whether appropriate contact information is available.

Never - This button is a shortcut to mark all communication of this type to Never Print. Note that this shortcut only changes the status for the Outbox – it does not permanently remove letters until the "Process" action button is clicked.

Show - This option opens the outbox pre-filtered for this specific type and status of communication. If desired this targeted list of Letters can be processed immediately after using this feature.

Later - This button is a shortcut to mark all communication of this type to Print Later. Note that this shortcut only changes the status for the Outbox – it does not permanently delay letters until the "Process" action button is clicked.

Add to Basket - This option adds babies to the basket that are represented by this specific type and status of communication. This is especially useful for creating work lists of records that lack contact information such as address, email or fax.

3. Click the "Process" button in the lower right when you are ready to continue.
If your outbox included Secure Messages or Faxes these items will be sent electronically and they will not be included in the file for printing unless their email address or Fax number is blank. Printable letters will be generated for contacts with blank email addresses or fax numbers in this scenario.
Your word processor will open this batch of Letters for your review.
Use "File" and "Print" to send the letters to your printer.
4. After printing, close your word processor and return to HiTrack.
HiTrack will prompt you asking "Did the letters print successfully?"
5. If there was a paper jam or some other printing problem click "No". This leaves the letters in the list so you can reprocess them when you are ready.

The Letters Reload button and date entry gives you the opportunity to override the date logic that detects new possible for letters. In most cases the default date can be used.

The Letter History tab provides a list of all of the letters sent by HiTrack. Use the date filters at the top of the screen to help narrow down the list of letters. Use the Resend button to send an exact copy of the letters that were originally sent. To manually generate a new letter with updated content use the Letter Request feature from the Letters link on a baby's Chart.

The Letter History tab will also indicate letters that were queued up but not printed. These are letters that were selected to never print and can be noted by looking for blank Printed On dates.



In some cases the letter text will be missing from letters in Letter History. This scenario happens for patient records that have been merged in from older HiTrack databases or when a letter is removed from the Pending Letter list without being processed. New letter content is generated for that baby's letter if these letters are selected to be resent.

Pending Letters and Letter History for individual babies can also be accessed by using the Communication Hub link on the baby Chart.

Tracking Tasks - Step 3: Generating Reports

Program Coordinators should periodically use the HiTrack Reports to review the performance of their programs.

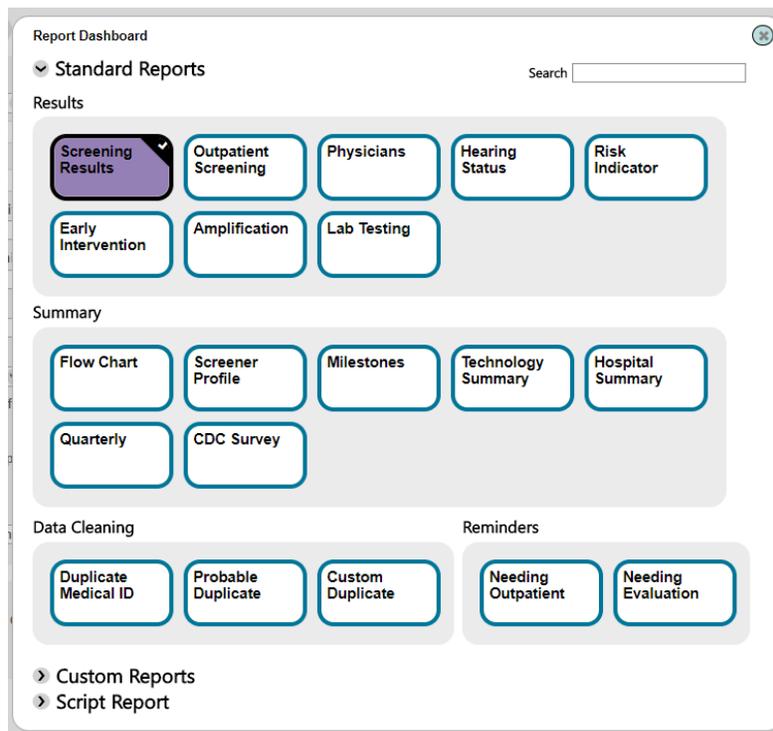
HiTrack's Reports are designed to provide statistics for Single and Two Stage protocols. The numbers reported as "Go directly to Evaluation without Outpatient Screening" (sometimes shown as "No OP - > Eval/Dx") account for non-Pass babies in Single Stage protocols on the Outpatient section of reports.

Reports Dashboard

Open Reports from the HiTrack Menu. Reports are divided into three different sections: Standard reports, Custom Reports and Script Report. Please refer to Appendix A for an in-depth description of each report.



To navigate to other reports, use the dashboard button  to see a categorized list of all Reports. HiTrack will remember the report you last generated.



General Filtering Options

Most reports in HiTrack can be filtered using the following criteria:

Date	Reports can be filtered by Birth date, Screening date or Enter Date. "Enter Date" is the date when the baby record was hand entered or merged into the HiTrack database. This date does not change and is not the same as the last change date. Open ended birth ranges can be used by un-checking the checkboxes to the left of the date entry boxes.
Location	Birth Facility, Inpatient Screening Site, and Nursery are selectable as location filters. Facility and Nursery Groups filters can be used to combine different sets of infants for reporting.
Technology	Many of the reports allow filtering by the Technology used in screening. This allows program coordinators to show babies who were screened with only a specific technology or who were screened with both.  This helps answer the question: "How can I report screening effectiveness by technology?"

These three filter options can be used in any combination to create a targeted report.



HiTrack will remember each report's latest criteria so remember to review the previously used filters when running reports for different purposes.

Contact information can be included on reports that provide lists of babies.

Each report has its own relevant filter options in addition to the general filter options. [Appendix A](#) describes these options in detail for each report.

Available Reports

The "Reports" option from the menu in HiTrack 5 provides access to the following reports:

Click on a report link listed below for detailed report usage and criteria.

Amplification Report	Report amplification history for babies
CDC Data Report	A report providing CDC survey data
CDC Extract	A report provided an anonymized CDC iEHDI data csv file.
Duplicate Medical ID	Report babies with matching Medical ID
Probable Duplicate	Report babies with matching DOB and last name
Custom Duplicate	Report babies on a variety of matching field combinations
Early Intervention Report	Report Early Intervention information for babies.
Hearing Status Report	Report babies whose hearing status has been evaluated.
Scheduled Follow-up Report	Report babies who have outstanding recommendations, including appointments for diagnostic evaluation.
Needing Outpatient Report	Report babies that need Outpatient Screening.
Outpatient Screening Report	Report babies with Outpatient results.
Physicians Report	Report babies grouped by Primary Care Provider
Risk Indicator Report	Report babies with risk indicators.
Screener Profile Report	Report screener response rates
Screening Results Report	Report screening results for babies.
Flow Chart	Generates a visual flow of screening and evaluation
Hospital Summary	Reports screening and evaluation statistics by hospital
Quarterly Report	Reports screening and evaluation statistics by quarter for hospitals
Technology Summary	Reports screening outcomes by equipment technology
User Activity Report	Reports the activity of other users. Configuration details can be found in <i>Tools: Auditing</i>

<u>Milestones Report</u>	Reports program timeliness for the CDC 1/3/6 timelines
<u>Custom Reports</u>	Create printable baby lists with user-specified columns and criteria

To generate a program summary report:

1. Click on the yellow "Reports" option from the Sprocket menu and click the dashboard grid button to view a list of available reports.
2. See the "Summary Reports" option that has a list of reports within it in the middle of the options.
Select the type of Summary report using the small list in the upper left.
3. Enter your filter criteria
4. Select a grouping option.
Grouping the data as a single report shows all babies for the selection criteria on one report page. When grouped by Birth facility or IP Screening Site the total list of babies are divided into different counts based on where they were born or where they were screened. Note that changing the grouping options does not change the total number of babies included; it only affects how they are shown.
5. Click the "Generate" button.
A progress bar is shown until the report is generated.
After generating, a new window is opened containing a print preview of the report.
6. To review the report page use the left and right wedge arrows on the toolbar.
7. When you are done reviewing and printing, you may close the report with the X in the top right of the window.
Reports open in other windows or tabs may be left open for side by side comparison.

To generate a baby listing report:

1. Click on the yellow "Reports" option from the Sprocket menu and click the dashboard grid button to view a list of available reports.
2. Select a report from the list (excluding the "Summary Reports" entry) and click the "Select" button below.
The report selection criteria screen is shown.
In most cases the general criteria is listed in a column on the left and the report specific criteria is listed on the right.
3. Specify report criteria and click the "Generate" button.
After generating a new window is opened containing a print preview of the report.
4. To review the report page use the left and right wedge arrows on the toolbar.
5. When you are done reviewing and printing you may close the report with the X in the top right of the window.

Report Advanced Criteria

Most Reports in HiTrack can be filtered using the [Advanced Criteria](#) feature.

Printing and Exporting Reports

Once a report preview window has been opened you print the report or save the PDF to your computer.

Please contact the [HiTrack Help Desk](#) if you would like help exporting a report in a different format.

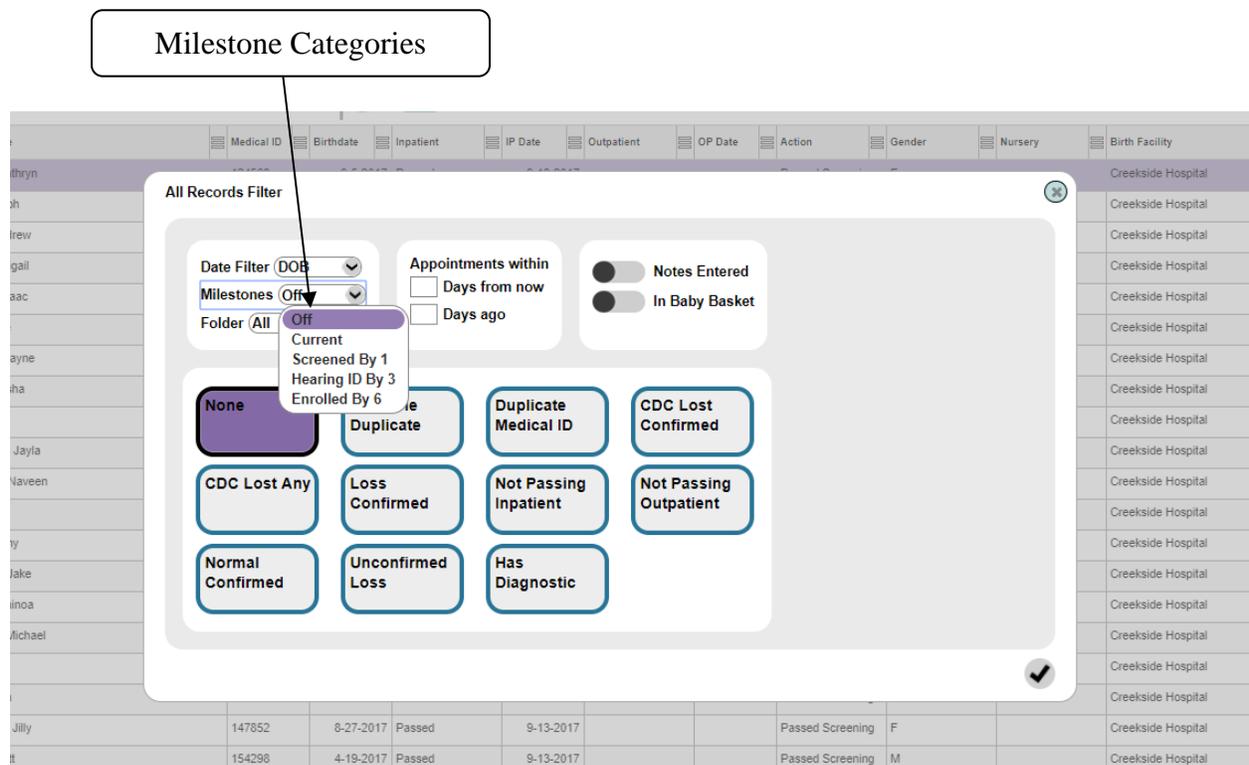
Milestones

The Milestone feature enables you to easily identify infants who are nearing or who have missed the CDC recommended dates for hearing screening (before 1 month), loss identification (before 3 months), and intervention (before 6 months).

Two features in HiTrack give you Milestone information, the Milestone Baby List and the Milestone Summary report.

To turn on the baby list milestone option, select the filter  then choose your option in the milestone dropdown. The drop-down box allows you to select which milestone category to display. After selecting the milestone category, click the check button  to view the results in the baby list. Note that three new columns will be added to the baby list view. A column for the baby milestone, the target date and the status of the milestone.

Milestone Categories



Medical ID	Birthdate	Inpatient	IP Date	Outpatient	OP Date	Action	Gender	Nursery	Birth Facility
thryn									Creekside Hospital
sh									Creekside Hospital
irew									Creekside Hospital
gall									Creekside Hospital
aac									Creekside Hospital
ayne									Creekside Hospital
ha									Creekside Hospital
Jayla									Creekside Hospital
Naveen									Creekside Hospital
ty									Creekside Hospital
Jake									Creekside Hospital
iinoa									Creekside Hospital
Michael									Creekside Hospital
Jilly	147852	8-27-2017	Passed	9-13-2017		Passed Screening	F		Creekside Hospital
it	154298	4-19-2017	Passed	9-13-2017		Passed Screening	M		Creekside Hospital

The [Milestone Summary Report](#) is another powerful tracking tool. Please refer to the Report Criteria section in this document for information about this report.

Merge

Overview

Click on the red Merge button in the HiTrack Menu to open the Merge page.

Incoming baby data that requires attention will be listed in the “Pending Merge Data” list.



Pending Merge Data

Start	Source	Records	Errors	Clear	
4-12-2018 2:07 PM	IHS device 332 : Import Complete	3	0		
5-25-2018 4:08 PM	ALGO 6 Women's Center : Import Complete	2	0		
6-19-2018 2:10 PM	Well Baby 1 MB11 : Import Complete	12	0		



Technical details can be found by clicking on the Errors column cells if importing errors occurred while loading a merge file. Pending batches can be discarded using the Clear button.

Merge history is shown at the bottom of the screen. Detailed merge reports can be seen by clicking the desired history row in the list.

History

Facility	Start	Duration	Babies Added	Babies Updated	Total Added	Total Updated	Status	Source
Mountain View Medical Center	11-16-2017 4:58 PM	2s	0	13	33	68	Manual Matches Pending	biologic (2).bt in
Mountain View Medical Center	11-16-2017 4:56 PM	3s	1	13	40	68	Merge Completed	biologic (2).bt in
Mountain View Medical Center	11-16-2017 4:55 PM	2s	0	10	35	65	Merge Completed	biologic (2).bt in
Mountain View Medical Center	11-16-2017 4:54 PM	3s	0	10	35	65	Merge Completed	biologic (2).bt in
Mountain View Medical Center	11-16-2017 4:53 PM	3s	7	0	67	27	Merge Completed	biologic (2).bt in

Learn about the steps for merging screening equipment data in the [Tracking Tasks](#) section of this manual.

Although only individual Facilities have Merge Settings and Merge Sources, Facility Groups can be used to start new merges and to navigate pending batches.



A Notification is generated when a large merge completes.

Manually Uploading Equipment Files to HiTrack

Merge files can be manually uploaded to HiTrack without any additional tools or downloads. This is a useful option for users that do not use a Microsoft Windows computer or who have IT download restrictions.

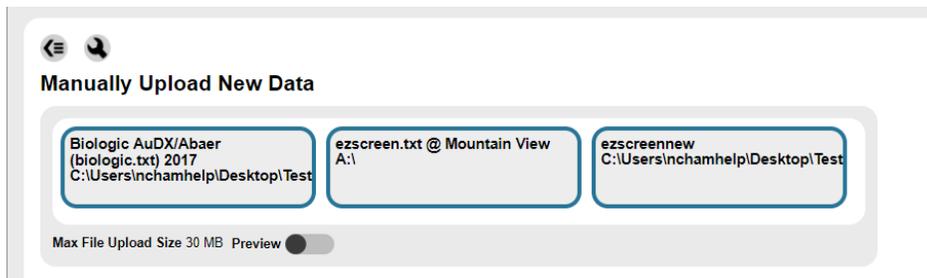


The **disadvantage** of manual upload is that you must manually rename or move the equipment file on your computer after the merge completes. If you do not rename or move the merged file the screening equipment software may append future screenings to the file you already merged. This causes duplicated results in Baby Screening History.

Please contact the [Help Desk](#) for more information about the [automated upload tool](#).

To manually upload and merge an equipment file:

1. Click on the red Merge option from the menu. Select the merge source you want from the list of “Manually Upload New Data” sources.



2. After selecting the merge source a Windows Explorer box will help you locate a file to upload.

3

Click the "Merge" button to begin the merge process after uploading.

A progress window will show while HiTrack processes the file.



4. After the merge completes you should rename or move your equipment file.
5. HiTrack’s Merge history will be updated. If any data requires manual attention you will be prompted on screen to make the corrections.

Tools

HiTrack's Tools are available in the HiTrack Menu under System.



Equipment Linking

This feature is used to access the Export [Program Information](#) option. Click the lightning bolt to generate downloadable equipment linking files.

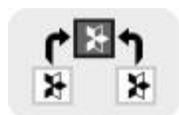
Data Export

This tool allows you to export either XML or TXT files of HiTrack data for use in other data systems.

Informational messages related to data export will be shown in the upper left of this page. In most cases these messages are related to records being left out of data export: Inpatient babies, records still in pending Merge batches and records inaccessible due to limited Access Rights.

Type	Transfer Date	Records	# Rows	Start Date	End Date	User
No data to display						

Select a date range for the data to be exported and choose the button labeled with the export format that is needed.



HiTrack Data Exports are primarily used when transferring data to another separate HiTrack database in a Distributed configuration.

A history of prior data exports can also be reviewed.

Additional Data Export options are available in the downloadable HiTrack Merge Companion tool.

Data Utility

This tool can be used to apply custom data modifications for HiTrack under the direction of the HiTrack Help Desk.

Database History

This feature generates a list of database changes for technical reference.

Auditing

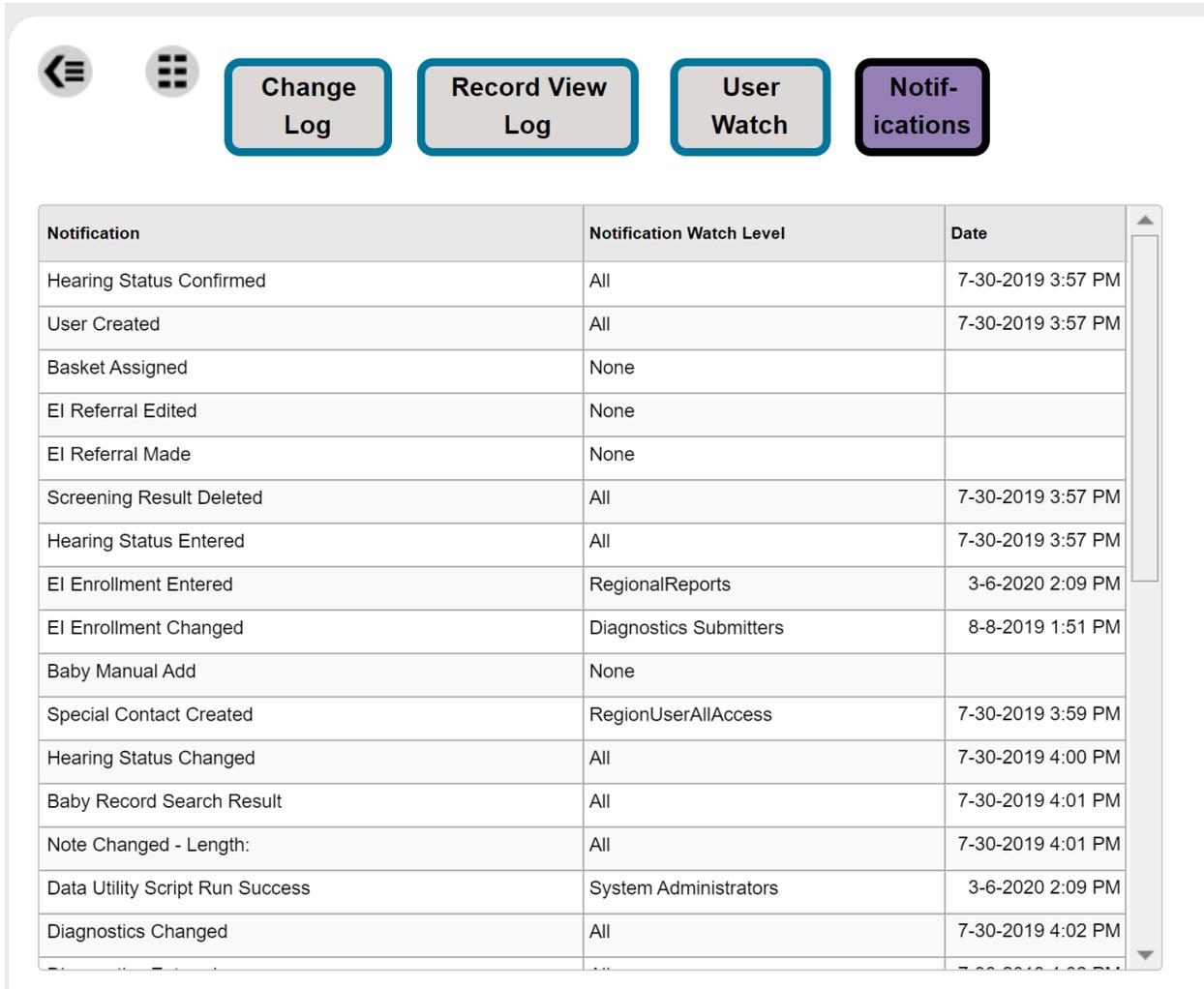
This feature generates Change Log or Record View Log for a given date range. Click the action button  to begin.

The User Watch feature is also configured in Auditing. This feature allows administrative personnel to view the activity details of other users in their Facility or Facility Group. This is useful when collecting data from authorized off-site medical professionals.

While in Auditing, click 'User Watch' at the top of the page. Select the users you would like to watch and then press the Save Button  on the bottom right. To view the activity of these users, navigate to Reports and request the 'User Activity Report.'

Notification Watch Levels

This auditing feature allows you to control what types of notifications you receive from HiTrack. Learn more about this feature under the [Notifications](#) section below.



Notification	Notification Watch Level	Date
Hearing Status Confirmed	All	7-30-2019 3:57 PM
User Created	All	7-30-2019 3:57 PM
Basket Assigned	None	
EI Referral Edited	None	
EI Referral Made	None	
Screening Result Deleted	All	7-30-2019 3:57 PM
Hearing Status Entered	All	7-30-2019 3:57 PM
EI Enrollment Entered	RegionalReports	3-6-2020 2:09 PM
EI Enrollment Changed	Diagnostics Submitters	8-8-2019 1:51 PM
Baby Manual Add	None	
Special Contact Created	RegionUserAllAccess	7-30-2019 3:59 PM
Hearing Status Changed	All	7-30-2019 4:00 PM
Baby Record Search Result	All	7-30-2019 4:01 PM
Note Changed - Length:	All	7-30-2019 4:01 PM
Data Utility Script Run Success	System Administrators	3-6-2020 2:09 PM
Diagnostics Changed	All	7-30-2019 4:02 PM



For these notifications to be active Notifications must be turned on (per user) and each user must be in a group that allows Notification Watch.

Program Coordinator Settings

As part of their regular duties Program Coordinators will often need to revise system settings in HiTrack. Access [System](#) settings by clicking the System option from the HiTrack Menu.



User Access

Each person accessing HiTrack needs a user account. Clicking on User Access opens a page with three tiles: Users, User Group and Facility Group.

Users

The Users tile shows a filterable list of active users. User Group, Expiration Date, Status and recent activity are shown in columns for each user. Other columns allow managers to delete, change passwords and see an informational report for each user.

To edit a user click on their name in the list.



Username	Group	Expiration Date	Active	Delete	Change Password	Info
demo	System Administrators	11/27/2050 12:00:00 AM	Y			

Every user has access to their own entry listed under User Access. This allows them to change their password and see an informational report about their account.

Privacy Protection Account Auto-Expiration

Users who have not logged into HiTrack within the last six months will have their account automatically deactivated the next time they log into HiTrack. An Administrator can override this by activating their account again. This feature gives data managers the opportunity to ensure proper privacy safeguards are in use for all HiTrack users.

Once notified or contacted by the user themselves, a System Administrator can use the User Maintenance page to change the user's status back to be "active" and override the auto-expiration.

Two-Factor Authentication

HiTrack can be configured to require Two-Factor authentication for all logins to the system. Once enabled this feature requires a unique six character login code on every login. This temporary six character code is emailed to the registered email address in that Users demographics in System. Program Coordinators must ensure that each HiTrack User has an email address entered before this setting is configured.



This configuration requires both one-time and on-going server IT support. Contact the HiTrack Help Desk to begin the configuration process. The HiTrack Help Desk will work with your server IT to enable this feature and configure important email settings on the web server.

User Password Self Reset

When this feature is configured users will see a Reset Password button if their username and password are not correct on the HiTrack web application login page. Clicking on the button will send an expiring one-time-use password code to their HiTrack User email address.

If an invalid username is entered or if that user does not have an email address in their HiTrack User page a message similar to: “No user email configured. Please contact your HiTrack administrator to reset your password.”

Password Self Reset is only available on the login page to HiTrack the web application. It is not available in the Merge Companion tool.



This configuration requires both one-time and on-going server IT support. Contact the HiTrack Help Desk to begin the configuration process. The HiTrack Help Desk will work with your server IT to enable this feature and configure important email settings on the web server.

User Login Notifications

HiTrack can be configured to notify program coordinators when a user has repeated failed logins and also when a user is locked out of the system.



Password Strength

The default password strength requirements are listed below. Passwords must:

1. Not contain HiTrack user name.
2. Be at least 8 characters in length.
3. Contain at least 3 of the 4 following categories:
 - 1 English lowercase characters (a through z)
 - 1 English uppercase characters (A through Z)
 - 1 Base 10 digits (0 through 9)
 - 1 Non-alphanumeric characters (for example, !, \$, #, %)

Please contact the [HiTrack Help Desk](#) if you need stronger password rules in your jurisdiction.

Facility User Management

The “Users” column on the Facilities page manages user Facility User assignment as an alternative to managing Facilities by user. This feature is available at the far-right column on the Facility list in System and controls which users have access to baby records in this Facility.

Show	Protocol	Zip	Location	Users
<input checked="" type="checkbox"/>	Single-Stage Dual Equipment Automated	00101	LP	...
<input checked="" type="checkbox"/>	Single-Stage Dual Equipment Auto-Pass Only			...
<input checked="" type="checkbox"/>	Two-Stage Automated Pass/Manual Non-Pass			...
<input checked="" type="checkbox"/>	Two-Stage Automated			...

Click the  to open the user assignment list. At the top of the grid the standard buttons determine which rows show and clearing or selecting all.



The count shows a list of how many users are assigned to the facility. The funnel icon provides a filter showing only those users at the selected facility. The other two icons on the right can be used to select all or none of the users.

The checkbox in the bottom right will save the changes made to this list.

New User Procedure Overview:

To add a new user:

1. Click on the add button **+** below the list.

The Add User screen is shown.

The screenshot shows the 'User Maintenance' interface. On the left, there are input fields for 'Username' (demo), 'Password', 'Confirm Password', 'Account Expiration' (with a calendar icon), 'Active' (toggle), 'User Group' (Data Entry Staff), and 'Non-Facility User Medical Person List'. On the right, there is a 'Facility Usage' section with a list of facilities and their corresponding toggle switches. The facilities listed are: Clearlake District Medical, Creekside Hospital, Elm Sandia, Home Birth, Jaina's Awesome Hospital, Knoxville Birth Center, Logan Regional Hospital, MMC Generated, and Mountain View Medical Center. A 'Facility Group' dropdown is located at the bottom right.

2. Enter in a user name and password. Select an expiration date in the future using the dropdown to the right of the date field.

Select a User Group that provides an appropriate level of access for this person. (described in more detail below)

Using the selections in the Facility Access list, identify the Facilities to be accessed by this person. If this user will not be associated with a specific facility use the Non-Facility User Medical Person List to determine which Medical Person lists they will have access to. Non-Facility Users must either have baby records assigned to them or be allowed to use the advanced search criteria to access existing records.

HiTrack requires strong passwords and will automatically indicate when a strong password is entered. See below on what it looks like to have a strong or weak password.

Password

Confirm Password

Password Strength **Weak**

Password

Confirm Password

Password Strength **Strong**

3. Use the bottom of the page to fill in demographics:

The screenshot shows a user demographic form with the following fields and controls:

- Last Name: (highlighted in purple)
- Address:
- Phone:
- First Name: (highlighted in purple)
- Ph2:
- Middle Name:
- Email:
- Organization:
- City/State/Zip:
- County:
- Title/Suffix:
- Birthdate:
- Language:
- Education:
- Race:
- Gender:
- Ethnicity:
- Deceased:
- Require User to Change Password at Next Login:
- Find Person:
- Save button:

Use the “Find Person” drop down to automatically retrieve the demographics of a medical person already in the system or enter in values for the appropriate demographic fields for a new person.

Colored fields are required. You will not be able to save the user until all required fields have been filled in.



Enter a License ID # for [Non-Facility users](#) that will be searching for existing records.

4. Click the save button below the demographic fields to add this user.



“User Created” is a notification in available HiTrack.

User Groups

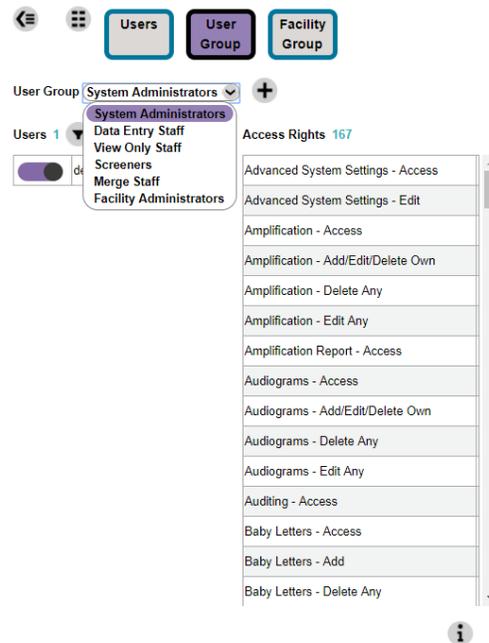
Access Rights allow administrators to control each user's access to specific features and the ability to make changes to data. User Groups are how Access Rights are assigned to users in HiTrack and play a



central role in protecting the privacy of patient data.

In most cases HiTrack offers four access rights for each baby data section:

Access	Allows access to the data in that section. This functions as “View Only” unless you add one of the other three Access Rights.
Add/Edit/Delete Own	User can add their own entries to that section. They can also edit and delete their own existing entries in that section.
Delete Any	Any existing record or detail can be deleted
Edit Any	Any existing record or detail can be edited



Access Rights also give control over each HiTrack Report, maintenance settings and tools within HiTrack. Please review the appendix for a complete list of [Access Rights](#).

Built in User Groups

<i>User Group</i>	<i>Explanation</i>
System Administrator	Allows access to all settings and features in HiTrack including System-wide User Maintenance.
Data Entry Staff	Grants the ability to enter basic data into HiTrack.
View Only Staff	Grants the ability to view data already in HiTrack but does not have rights to allow changes.
Screeners	Allows access to view and edit such areas as the baby notes, forms, demographics, facility, and tracking options.
Merge Staff	Allows access to all merge functions.
Facility Administrator	Allows access to Facility related Settings and features. Including: Facility User Maintenance (for Facilities already assigned to this User), Merge Sources, Letter Settings, Required Fields and other settings.

These standard User Groups have been built-in to provide starting points for program coordinators but they are not customizable. Coordinators should create new User Groups to address the special needs for their program.

Tracking Folders and Access Rights

HiTrack has four Access Rights that affect the amount of patient tracking information is shown for records within the system: Screening – Access, Diagnostics – Access, Services Access and “Tracking - Lost Clarification Folders”.

In addition to controlling which Record File Chart links are available these Access Rights also control whether Tracking Action and Status are shown for individual records. User Groups without related access rights will not be able to see the Tracking Action for babies in their lists if they are in tracking folders outside of their view.

Action Folder Visibility Levels

Screening – Access	Need Inpatient Screening
	Incomplete Inpatient Screening
	Need Inpatient OAE
	Need Inpatient A-ABR
	Outpatient Scheduled
	Need Outpatient Appt.
	Passed Screening
Diagnostics – Access	Need Evaluation Appt.
	Evaluation Scheduled
	Evaluation Stopped
Services – Access	Need Intervention
	Enrolled in Intervention
Tracking - Lost Clarification Folders	Contacted But Unresponsive for Evaluation
	Contacted But Unresponsive for Screening
	Contacted for EI But Unresponsive
	Follow-Up Discontinued
	No Eval. - Medical Reasons
	No Screening - Medical Reasons
	No Services - Medical Reasons
	PCP/ENT did not Refer for Evaluation

	Unable to Contact for EI
	Unable to Contact for Evaluation
	Unable to Contact for Screening

Data Entry Considerations

HiTrack will automatically move babies to new folders if they meet the required criteria within the system regardless of the access rights of the current user. Manual Tracking Options will be limited for users without the appropriate folder access rights. Limited users will be able to move a baby forward in the tracking steps if the record is currently in a folder they have access to. Babies outside of a user's allowed folders cannot be moved.

Facilities

The Facilities feature shows a filterable list of HiTrack Facilities. A Facility is defined as anywhere a baby is born, screened, diagnosed or where their medical procedures occur.

From this page each facility's name, contact, alternate ID, show status and protocol can be reviewed. Click the Show slider to enable or suppress a Facility for future data entry use.



Facility Name	Contact	Alt. ID	Show	Protocol
Clearlake District Medical			<input checked="" type="checkbox"/>	Two-Stage Automated
Creekside Hospital	Dyreson, Amy	002	<input checked="" type="checkbox"/>	Two-Stage Automated Pass/Manual Non-Pass
Elm Sandia	Jensen, Sharisse		<input checked="" type="checkbox"/>	Two-Stage Automated
Home Birth			<input checked="" type="checkbox"/>	Two-Stage Automated
Jaina's Awesome Hospital		12345	<input checked="" type="checkbox"/>	Two-Stage Automated
Knoxville Birth Center	Doe, Jane		<input checked="" type="checkbox"/>	Two-Stage Automated Pass/Manual Non-Pass
Logan Regional Hospital	Rollins, Evelyn	LRH	<input checked="" type="checkbox"/>	Two-Stage Automated Pass/Manual Non-Pass
Mountain View Medical Center	Gross, Clarissa	001	<input checked="" type="checkbox"/>	Two-Stage Automated Pass/Manual Non-Pass
Rolling Meadows Hospital			<input checked="" type="checkbox"/>	Two-Stage Dual Equipment Auto-Pass Only
Rosebloom Westinghouse General	Small, Grandie		<input checked="" type="checkbox"/>	Two-Stage Automated Pass/Manual Non-Pass
Sandia Metropolitan	Tudy, Rudy		<input checked="" type="checkbox"/>	Two-Stage Automated

Click on a facility's name to edit that specific facility as shown below.

Facility
✕

Advanced

Show

Type

Hospital

Protocol Used

Two-Stage Automated Pass/Manual Non-Pass

ID

✓

An [EHDI Protocol](#) must be set for each Facility. Based on the screening protocol, baby records are automatically placed into different options to help you track their hearing screening and evaluation

Listed below are the available protocols and typical usage information.

<i>Protocol</i>	<i>Use if...</i>
Two-Stage Automated Pass/Manual Non-Pass	Use this Protocol if you want to manually review Inpatient and Outpatient results for infants who have not Passed.
Two-Stage Automated	Use this Protocol if you merge completed Inpatient and Outpatient screening results from screening equipment or other HiTrack systems.
Two-Stage Manual	Use this Protocol if you want to manually review Inpatient and Outpatient results for all infants.
Two-Stage Inpatient Automated	Use this Protocol if you merge completed Inpatient screening results from screening equipment or other HiTrack systems, but want to review Outpatient screening results by hand.
Two-Stage Dual Equipment Auto-Pass Only	Use this Protocol if you want to require A-ABR tests for infants who did not pass OAE screening and keep an active list of infants who have not Passed. (Infants who do not Pass Outpatient must be finished by hand.)
Two-Stage Dual Equipment Automated.	Use this Protocol if you merge completed OAE and A-ABR Inpatient screening results from screening equipment. (Infants in Outpatient screening must be finished by hand.)
Single-Stage Dual Equipment Automated	Use this Protocol if you merge completed OAE and A-ABR Inpatient screening results from third-party screening equipment. Infants who do not pass screening will be recommended for evaluation.
Single-Stage Dual Equipment Auto-Pass Only	Use this Protocol if you want to require A-ABR tests for infants who did not pass OAE screening and keep an active list of infants who have not Passed. Infants who do not pass A-ABR screening will be recommended for evaluation.



This list helps answer the question “How should I configure HiTrack to match my programs screening protocol?”

Click the save button  to save your changes to a facility.

Facility Groups

HiTrack's Facility Group feature allows users to see babies from multiple facilities aggregated into single lists for ease of tracking and reporting. Use the Facility Group tile to view and manage Facility Groups.

Facility Group: All Facilities

Not In Use:

Facilities: 5

<input checked="" type="checkbox"/>	Creekside Hospital
<input checked="" type="checkbox"/>	Jaina's Awesome Clinic
<input checked="" type="checkbox"/>	Logan Regional Hospital
<input checked="" type="checkbox"/>	Mountain View Medical Center
<input checked="" type="checkbox"/>	UNKNOWN
<input type="checkbox"/>	Z HT35 Conv.

Users: 1

demo

New Facilities are not automatically included in Facility Groups. User access to Facility Groups must also be managed by administrators. 

Facility Groups have their own settings, including Letter Settings and other settings described in [Facility Specific Settings](#) below.

Merge Sources

Select the wrench  icon at the top of the Merge page to open Merge Settings.

Merge Settings 

HiTrack Desktop Companion Download

[Save to Desktop](#)

Use this tool to automate data loading from screening equipment files. This one-time download can be saved to your desktop for easy access.

Merge Sources

Source Name	Type	Path	Last Used La...
ALGO 6 Women's Center	Natus ALGO 6	C:\natus\	
IHS device 332	Intelligent Hearing Systems	c:\IHS 332\	
Well Baby 1 MB11	Maico MB-11 Beraphone	c:\MAICO WB1\	



Use Current Facility For Merges   **Reset**

Click the add button to add a new Merge Source for your Facility.

Merge Source Details

Type: 

Name:

Path: ID:

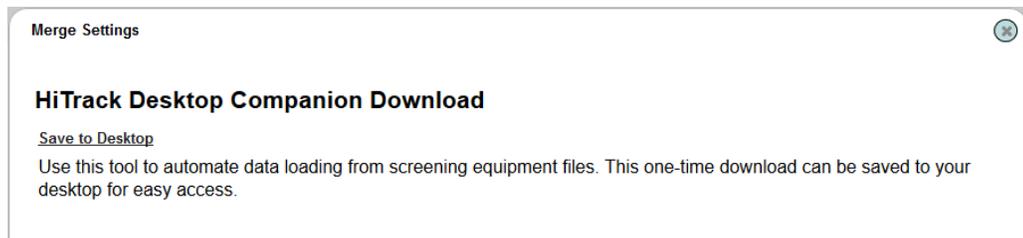
 

Click the check button to save your changes.

Configuring the Merge Companion Tool

To download and configure the Merge Companion (one time only):

1. Click on the red Merge option from the Sprocket menu to load the Merge page.
Select the Wrench  icon to open Merge Settings.



From this page you can download the Merge companion by clicking on the [Save to desktop](#) link with the Right mouse button and selecting "Save Target/Link as...".

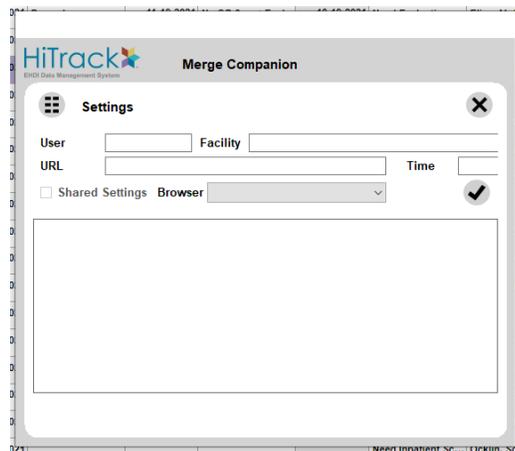
Download the exe file to your Desktop (or any other easy to remember folder location).

2. After downloading the Merge Companion exe locate the file from the Desktop and run it by double clicking on the icon.

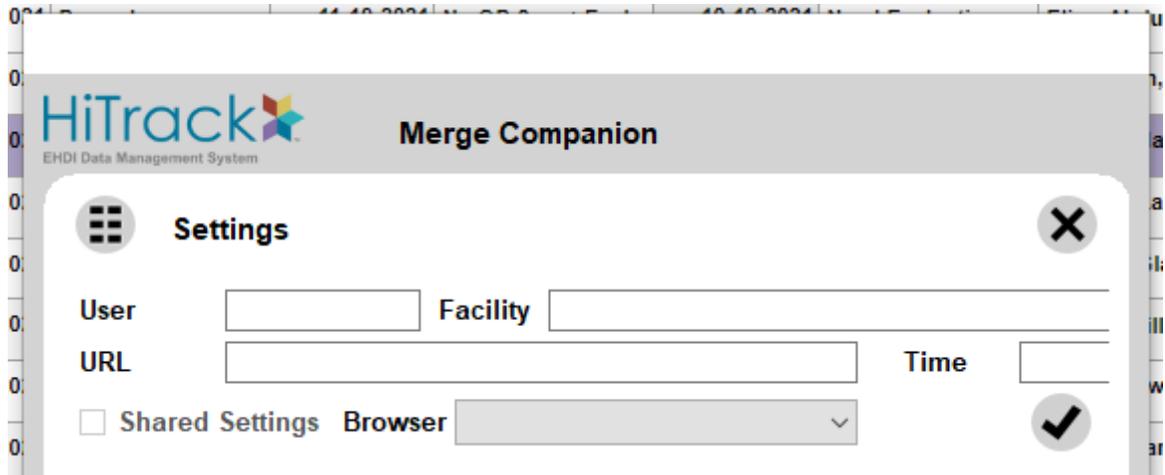


Moving or renaming the Merge Companion will reset the configuration.

The Merge Companion screen will be shown.



3. Click on the wrench  to open the configuration. The Configuration options will be shown.



Fill in the HiTrack User name, Facility and Web Service URL fields.

The URL is typically the same as your Web Companion site address followed by a "/". For example "https://yoursite.hitrack-data.org/". Please contact the [Help Desk](#) for assistance determining the correct URL.

4. Click on the Save  button. The Configuration Options will close and the Merge Companion will load your Facility's [Merge Sources](#).

The Merge Companion will save your configuration for next time and does not need to be downloaded or configured again.

External Links

To add an external link as criteria, press the add button **+** at the bottom right of the Data Rules system section. The following screen will appear allowing an external link to be added.

External Links



+

Required Fields

Each Facility or Facility Group uses this setting to indicate which fields are required for manual data entry entries. Some fields such as Baby Last Name, Contac Last Name and Contact First Name is always required.

Required Fields System-wide Override

The System Advanced Settings has a setting to specify an override option for required field rules. When this feature is set Required Fields from the individual facilities are ignored and the rules for the specified Facility Group will be used in every facility.

A system administrator configures this setting for the entire system. Facility administrators will no longer see “Required Fields” as a system menu for their facility after this configuration is done.

To configure this feature:

Choose or create a Facility Group that will be used for the required fields.
With this Facility Group selected as your running facility go to System – Required Fields.
Indicate which Required Fields you want enforced system wide and save your changes.
Go to System – Advanced and choose the running facility group as the selection under “Required Fields”.

When this feature is enabled changes to Required Fields for the Facility Group used in configuration will affect all HiTrack users. To disable this feature return to Advanced and choose the blank “-“ entry for the Required Fields section.

Letter Settings

Letter Settings can be configured by Facility or Facility Group. Click on the wrench  icon to open the Letter Settings under System in the HiTrack Menu.



Letter Settings are organized by three tiles: Settings, Contacts and Customization.

The first tile shows a list of Letters that can be activated. Many of HiTrack letters can be auto generated-based on each baby's screening results.

Inpatient Refer for Outpatient Scn (Physician)	<input checked="" type="checkbox"/>		
Inpatient Refer for Outpatient Scn (Primary Contact)	<input checked="" type="checkbox"/>		
Inpatient Refusal (Physician)	<input type="checkbox"/>		
Inpatient Refusal (Primary Contact)	<input type="checkbox"/>		
Letter Type 0	<input type="checkbox"/>		
Locate/Contact Attempt (Physician)	<input type="checkbox"/>		
Locate/Contact Attempt (Primary Contact)	<input type="checkbox"/>		

Use the sliders to indicate which letters you want HiTrack to generate. Automatic letters are indicated by an info icon . Click the icon to see what conditions will queue the letter.

Click the preview icon to review the current template text and formatting for any letter.

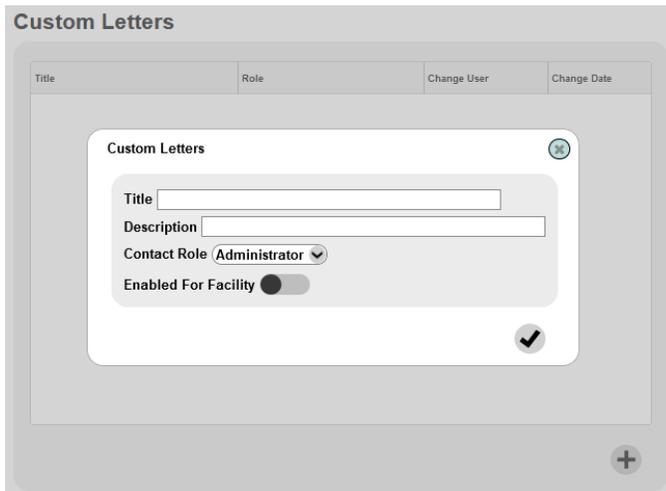
Use HiTrack's Merge Companion tool to [customize letters](#) for your Facility or Facility Group.

Contacts

Use the Contacts tile to enter a Primary Contact for your Facility or Facility Group. This is the person that shows up in the signature section at the bottom of the letter. Additional contacts for use on letters can be added by using the role of "Other Contact".

Custom Letters

Custom Letter Management is found on the Letters page under System. This feature allows you to create and manage custom letters with specific Contact Roles. (Please refer to the [steps below to customize](#) the text or appearance of exiting letters.)



To add a new letter, click the Add button  on the bottom right of the Letters screen.

Specify the title, description (this is what shows up on letter setting for Manual letter requests), Contact Role for the letter and whether it should be enabled at the facility.

When finished, click the Save button .

Follow the instructions in the following section to import a template for a new Custom Letter. This should be done prior to using the new Custom Letter.

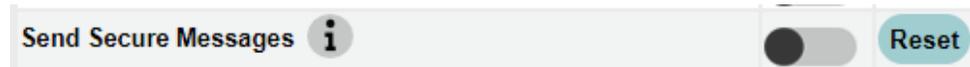
Secure Message Communication

HiTrack supports sending secure messages as an electronic method for communicating with parents, physicians and other supporting contacts. When enabled and configured HiTrack send emails with secure links for viewing and downloading secure letters to recipients.

The Secure Message system must be configured by IT to connect to an existing outgoing mail server. The HiTrack Help Desk will work with site IT to do this work. See the technical configuration requirements below.

Program Coordinator Configuration

In Letter Settings the “Send Secure Messages” enables this feature for a Facility or Facility Group.



After this feature is enabled choose a Send Secure option for individual letter types on the Letter maintenance grid:

Letter	Active	Auto	Preview	Upload	Format <i>i</i>
Behavioral Referral (PC)	<input type="checkbox"/>				Printable <input type="text"/>
Behavioral Referral (Physician)	<input type="checkbox"/>				Printable <input type="text"/>
Diagnostic Referral (PC)	<input type="checkbox"/>	<i>i</i>			Send Secure <input type="text"/>
Diagnostic Referral (Physician)	<input type="checkbox"/>	<i>i</i>			Fax (Email) <input type="text"/>
DXABR Referral (PC)	<input type="checkbox"/>				Printable <input type="text"/>

For a letter to be sent securely both the Facility setting and individual letter setting must both be enabled. This allows a HiTrack site to generate a combination of printed and secure electronic communication.

HiTrack will include letter signature information in the secure email messages using the contact information for the current Facility or Facility Group.

Processing Letters

HiTrack will automatically determine which letters to send securely and which letters to include in the batch for printing. A warning icon will be shown on the pending letter list for letters for letters that cannot be sent securely.

Now	Agrano, Boy	Outpatient Pass (PC)	6-5-2019	Soundre, Mannie	Referred	6-8-2019	Passed	6-19-2019
Now	Agrano, Boy	Outpatient Pass (Physician)	6-5-2019		Referred	6-8-2019	Passed	6-19-2019
Now	Aguilina, Jerri	Outpatient Refusal (PC)	8-11-2019	d, d :	Referred	9-11-2019	Refused	12-11-2019
Now	Aguilina, Jerri	Outpatient Refusal (Physician)	8-11-2019		Referred	9-11-2019	Refused	12-11-2019
Now	Ajdr Lee,	Diagnostic Referral (PC)	9-27-2019	Egen, Dara :	Transferred	6-2-2020	Inconclusive	9-28-2019
Now	Ajdr Lee,	Diagnostic Referral (Phys)	9-27-2019		Transferred	6-2-2020	Inconclusive	9-28-2019
Now	Ajr Faro, Chet	Diagnostic Referral (PC)	11-19-2019	Faro, Amis :	Referred	11-25-2019	No OP Scrn->E...	8-17-2020
Now	Ajr Faro, Chet	Diagnostic Referral (Phys)	11-19-2019	Zapata, Óscar :4	Referred	11-25-2019	No OP Scrn->E...	8-17-2020
Now	Alamond, Louie	Diagnostic Referral (PC)	5-5-2019	Alamond, Pa	Referred	6-19-2019	No OP Scrn->E...	8-17-2020

Some contacts do not have an email documented in HiTrack. Letters for these recipients will be generated in the current Letter batch for printing.

Recipients without email addresses that qualify for a HiTrack letters will have regular printable Letters generated for them – even if the letter is normally configured for sending securely.

When letters are processed secure message emails are sent out before for any printed letters are generated for the combined batch letter document.

Secure Message Email Content

Sample:

Subject: HiTrack Secure Message Available

Dear Óscar Zapata,

A secure message is available to you in HiTrack - Early Hearing Detection & Intervention.

To view this message get a one-time-use secure authentication code by clicking on the link below. If the link is not clickable copy the text between the *s and paste it in your browser.

<https://hitrack.com/Webforms/MessageList.aspx?u=719e9ef4-e2ae-463a-9dcc-2aa1250d0a0>

Do not reply to this email. Please use the contact information below for support.

Thanks,
Bruce Bowls Ph.D
480-480-4801

Learn more about EHD: <http://www.infanthearing.org/>

The signature selections in HiTrack will determine which Facility contact information is included at the bottom of the email.

The link in the email takes the recipient to a validation page where they receive a one-time validation code to verify their identity. A new code must be requested after three unsuccessful attempts or if more than 10 minutes have passed since the link was used.

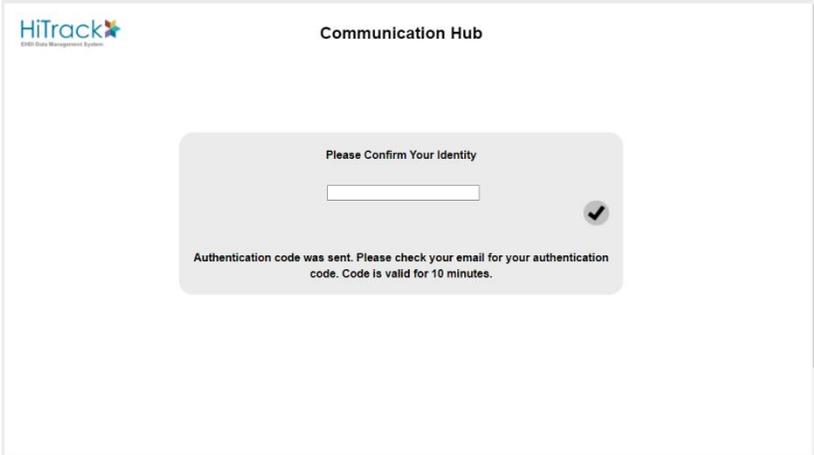
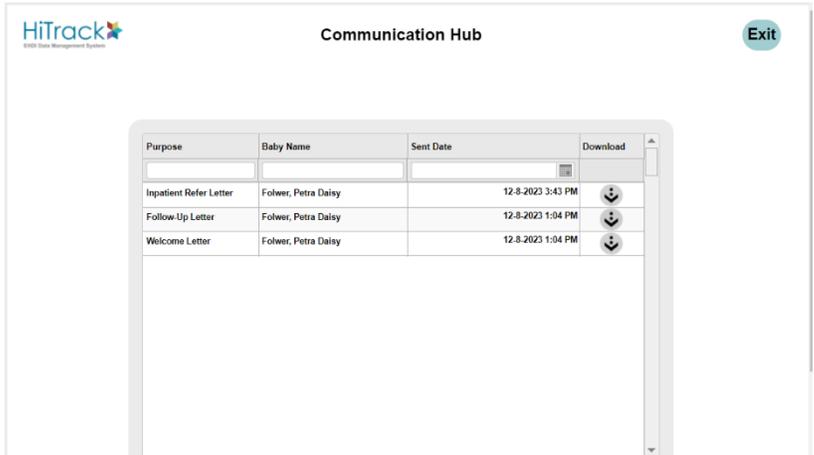
Secure letter links expire after one month. After that time has passed the recipient should use the contact information included in the link email to request a new letter or receive tech support.

Although the email link navigates to the same base URL as your HiTrack site, recipients of secure messages do not have access to HiTrack records. The only feature available to outside recipients is the secure message list of generated docx files.

In HiTrack all outgoing messages will use the same “From:” Name and Email address configured by IT. A future version of HiTrack will allow customization of the outgoing Email address and Name by Facility.

Viewing Secure Messages

The following steps show what recipients will see after clicking the URL link provided in their email.

1.	<p>The secure message Communication Hub will open in a new page.</p> 
2.	<p>The recipient will verify that their email address is correct and then click Send Code. HiTrack will send then a second email containing a one-time-use authentication code.</p>
3.	<p>After the code is received it can be entered into the “Code” field. It is then checked for validity. If more than 10 minutes have passed since it was requested a new code will be required.</p>
4.	<p>A list of communication will show after the checkbox button is clicked.</p> 
5.	<p>Clicking download will save a copy of the docx file to their computer where they can be read or saved for future reference. The default file name is formatted as “HiTrackSM...[date].docx”.</p>

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The recipient can also update the response or add a note for each secure message by clicking on the item from the list.

The screenshot displays the HiTrack Communication Hub interface. At the top left is the HiTrack logo, and at the top right is an 'Exit' button. The main content area shows a form titled 'Response: HiTrack Letter'. The form contains the following fields:

- Baby Name:** Folwer, Petra Daisy
- Date:** 12-8-2023
- Purpose:** Inpatient Refer Letter
- Response:** No Longer Contact for this Baby (dropdown menu)
- Response Date:** (empty date field)
- Note:** (empty text area)

A checkmark icon is visible in the bottom right corner of the form, indicating a confirmation or save action.

IT Configuration

HiTrack Secure messages rely on an external email server for communications. The following web config keys describe this external server and must be configured by site IT:

```
<add key="SMTP_Server" value=""/>
<add key="SMTP_Server_Username" value=""/>
<add key="SMTP_Server_Password" value=""/>
<add key="SMTP_From_Name" value="HiTrack"/>
<add key="SMTP_From_Address" value="noreply@..."/>
<add key="SMTP_UseSSL" value="N"/>
<add key="SMTP_SocketSetting" value=""/>
<add key="SMTP_Port_Number" value=""/>
```

The following values for SMTP_SocketSetting are available:

None = 0	No SSL or TLS encryption should be used.
Auto = 1	Allow the MailKit.IMailService to decide which SSL or TLS options to use (default). If the server does not support SSL or TLS, then the connection will continue without any encryption.
SslOnConnect = 2	The connection should use SSL or TLS encryption immediately.
StartTls = 3	Elevates the connection to use TLS encryption immediately after reading the greeting and capabilities of the server. If the server does not support the STARTTLS extension, then the connection will fail and a System.NotSupportedException will be thrown.
StartTlsWhenAvailable = 4	Elevates the connection to use TLS encryption immediately after reading the greeting and capabilities of the server, but only if the server supports the STARTTLS extension.

Testing Secure Messages

Outgoing email configuration tests should be conducted before making the system available to end users. The HiTrack Help Desk can provide test email accounts and test records to use to validate outgoing email processing.

Emailed-FAX Communication

HiTrack allows Letters to be faxed using a third-party fax server called RightFAX. RightFAX is a software system that receives emails and sends faxes based on the incoming email address and attachment. Once configured, HiTrack will read fax numbers from baby physicians and create specially formatted emails for RightFAX. RightFAX then sends faxes based on these emails and HiTrack Letter content.

System Configuration

HiTrack must already be configured to send emails in your state or site. Please refer to the documentation about setting up Secure Messages in HiTrack for this configuration information.

HiTrack Users must have “Outgoing Email Generation - Allow” access right in their User Group and must turn on the “Letter Faxing Enabled” feature in System – Letters.

HiTrack must also have the “Letter Fax Email Domain” configured for your site. It is assumed that only one faxing domain will be used for HiTrack’s emailed faxes. Make plans with the HiTrack Help Desk to configure this setting.

To protect patient privacy only RightFAX servers within the same network as HiTrack should be used.

Letters Configuration

Normal HiTrack letter templates are used in conjunction with the Emailed FAX feature. After the system has been configured to allow Emailed-FAXs System/Facility Administrators should use the “Format” drop-down in System – Letters to indicate which Letters should be sent as Emailed FAXs. Faxes cannot be sent to Primary Contacts.

Preparation

Clean fax numbers within HiTrack are required for accurate communication. Use a Script Report provided by the Help Desk to review the quality and format of fax numbers currently stored in your database.

HiTrack Administrators should plan to do testing before enabling Emailed-FAXs system wide. Test messages should be coordinated with the IT that support the fax server.

Processing

While processing Letters HiTrack will determine if recipients can be sent an Emailed-FAX. Recipients with blank fax numbers who are also expected to receive an Emailed-FAX will be indicated with a yellow “!” icon next to their name in the pending letter list. If left unresolved HiTrack will fall back to generating a DOCX for this recipient in the next printable letters batch. (This behavior is the same behavior that occurs when HiTrack cannot send secure messages to recipients.)

If needed, Users can use the new Tidy Outbox feature to mark all the fax recipients to process in a later batch of letters.

Email Address Format Notes

HiTrack will automatically generate the email address for the fax server using the following format:

/fax=[FAXNUMBER]/pn=[FIRST].[MIDDLE].[LAST]/o=[ORGANIZATION]@[Letter Fax Email Domain]

Rollout

A handful of health providers should be selected to begin a Emailed-FAX rollout phase. Additional provides can be brought in after a few weeks of successful fax transmissions.

Letter Templates Customization

HiTrack’s Merge Companion tool is used to customize Letter Templates a Facility or Facility Group. For individual facilities you will use the facility name and follow the instructions [covered above](#).

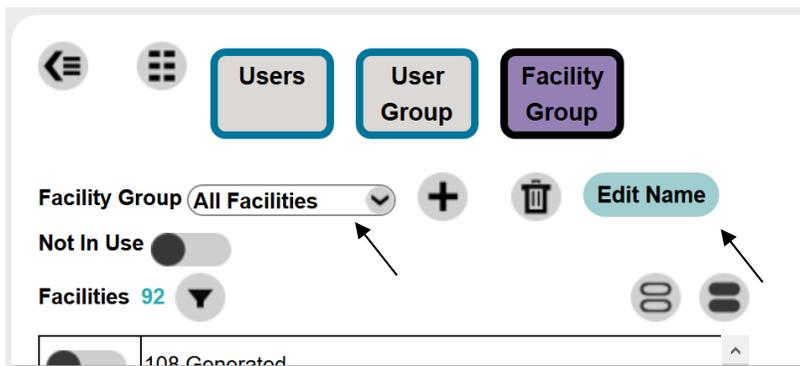
When customizing your Letter Templates it is strongly recommended that each template does not exceed an uncompressed file size of 900 KB. The Microsoft Word “docx” format used by HiTrack is automatically compressed so the file size of the letter template itself cannot be used to determine if it is too large. For more information and support about letter template size please call the Help Desk.

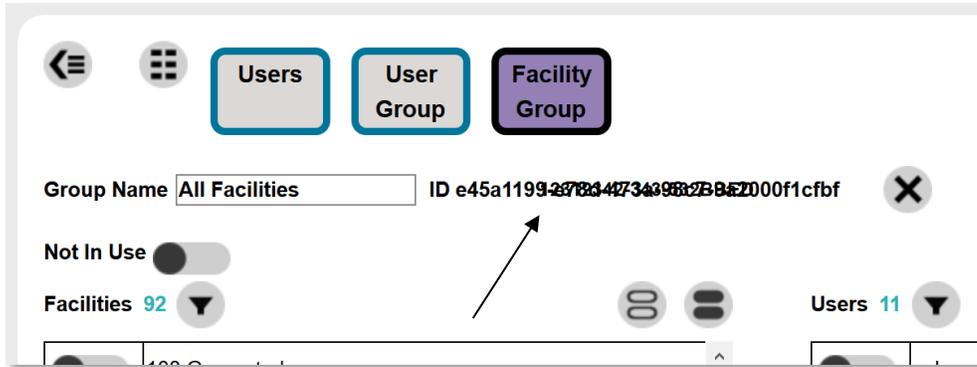


For Facility Groups you will need to obtain the Facility Group ID in the Facility box. (Note: An individual Facility ID can also be used in the Merge Companion so that the Merge Companion does not have to be reconfigured if the Facility Name changes.)

Obtaining a Facility Group ID for the Merge Companion

- Navigate to System then User Access
- Choose Facility Group and select the Facility Group (“All Facilities” shown) that will be used in the Merge Companion
- Click Edit Name

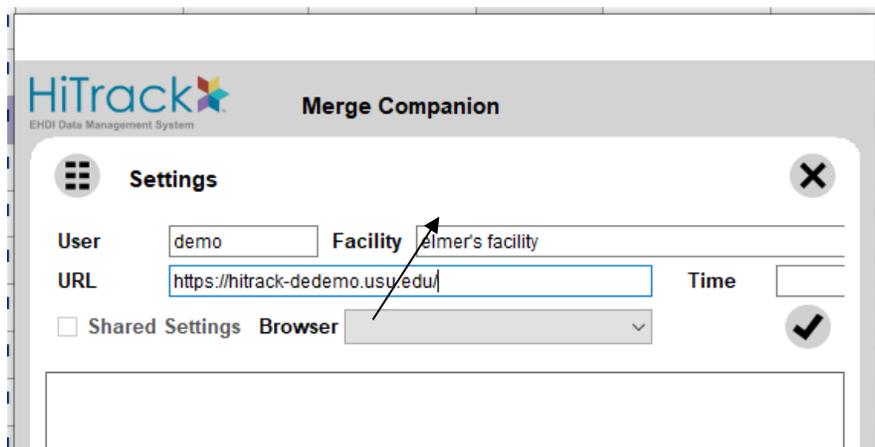




- Highlight the 36 character ID with the mouse, right click and choose Copy.
- Cancel the Edit Name function by clicking the X button.

Configuring the Merge Companion Tool for a Facility Group

Download the Merge Companion and [fill out the configuration](#) for your site or Facility Group. Paste the 36-character ID into the Facility field, then click the check button to save the changes.



Now all of the Merge Companion features will use the Facility Group for its operations, including Letter Templates.

 **Letter Templates** 

Letter  

Language

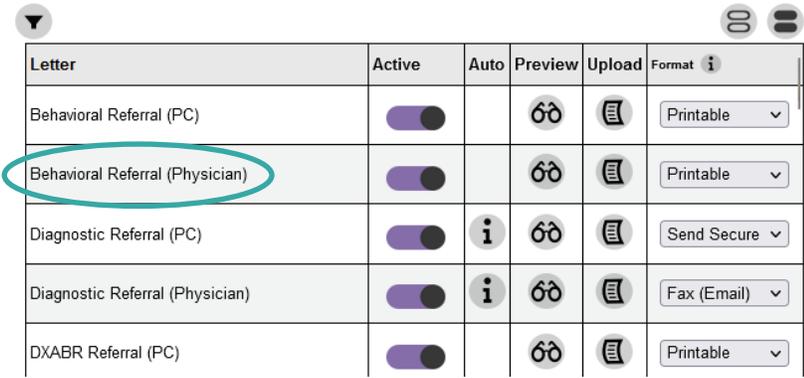
...to detect. The earlier a loss is identified, the better it is for a child's speech and language development. Please call «Birth_Hospital» within the next 2 weeks to schedule an appointment for a hearing screening or if this in no longer possible you can contact Sound Beginnings, Early Hearing Detection and Intervention Program, at 9. Thank you, Sound Beginnings Staff

Letter Template Customization without the Merge Companion

Letter Templates can also be customized without using the Merge Companion:

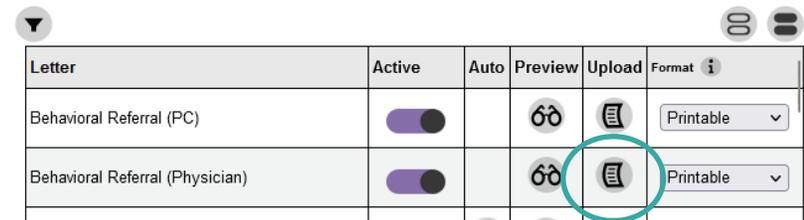
1. Download the current template by clicking on the Letter Title in the letter settings list:



Letter	Active	Auto	Preview	Upload	Format <i>i</i>
Behavioral Referral (PC)	<input checked="" type="checkbox"/>				Printable <input type="text"/>
Behavioral Referral (Physician)	<input checked="" type="checkbox"/>				Printable <input type="text"/>
Diagnostic Referral (PC)	<input checked="" type="checkbox"/>	<i>i</i>			Send Secure <input type="text"/>
Diagnostic Referral (Physician)	<input checked="" type="checkbox"/>	<i>i</i>			Fax (Email) <input type="text"/>
DXABR Referral (PC)	<input checked="" type="checkbox"/>				Printable <input type="text"/>

2. Edit this docx in Word using normal formatting and editing.
Contact the Help Desk for support on addition new Merge Fields to your template.

3. Upload the revised file by clicking on the “Upload” column for this letter:



Letter	Active	Auto	Preview	Upload	Format <i>i</i>
Behavioral Referral (PC)	<input checked="" type="checkbox"/>				Printable <input type="text"/>
Behavioral Referral (Physician)	<input checked="" type="checkbox"/>				Printable <input type="text"/>

From here a pop-up will open to help you locate the updated DOCX file.
An option for indicating which language this template is for is also shown.

Customization

Many of HiTrack's features can be customized to fit your needs. Go to the System menu and System Dashboard to access the Customization features.

Nurseries & Pick Lists

The Nurseries, Nursery Groups and Pick Lists features allow you to customize the data entry screens for your system. Under Pick Lists you can customize the following categories: Race, Insurance Type, Languages and Custom Fields. For example, if you added "Free Healthcare" as a new Insurance Type, users could select it from a list when entering baby information. The Code field allows you to synchronize data coming from screening equipment data files.



The Custom Fields feature allows you to set up new pick list categories and specify allowable entries. For example a Custom field category for "Eye Color" could be added with possible entries such as Blue, Green, Hazel and Brown. After being added this custom field could then be used later in baby records and on Reports as Advanced Filter Criteria. Free-form text entry Custom fields are also allowed.

Description	Code	Active
African American		<input type="checkbox"/>
Amer. Indian/Alaska Native	05	<input type="checkbox"/>
Asian Amer./Pacific Island	04	<input type="checkbox"/>
Caucasian	01	<input type="checkbox"/>
Hispanic	03	<input type="checkbox"/>
Other	98	<input type="checkbox"/>
Unknown	99	<input type="checkbox"/>

Custom Forms

Custom Forms provide the ability to group several Custom Fields into a single page for data entry. HiTrack automatically generates a filterable Report for each Custom Form in the system.

The Form Name specified here in System will be listed in the Baby Chart for babies in HiTrack. The Form Description is a short field where administrators can provide instructions for data entry and guidelines for using the form.

Custom Form Details

Form Name

Form Description

Field Required

[free text]

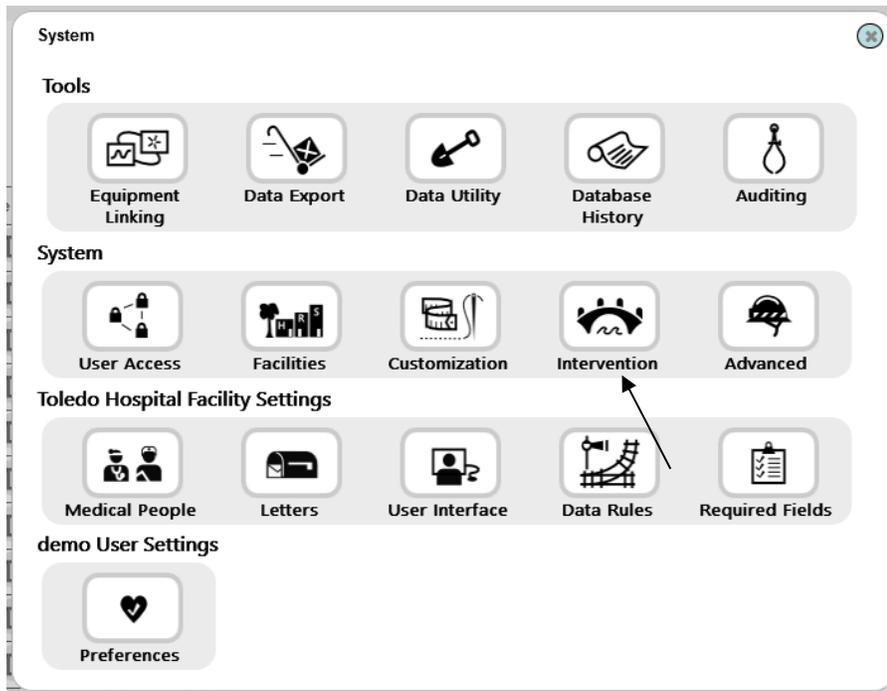
Nursery Group

Nursery Groups allow administrators to combine separate Nursery Levels together for reporting purposes. For example several different levels of intensive care units could be grouped together as one "All NICU" Nursery Group.

Developmental Measurements

To see existing measures or enter a new one:

1. Navigate to System – Intervention



2. Use the drop down to see existing measures or start entering a new one.
Choose the checkbox button to save your changes.

Measure (Add New Measure) ▾

Name
RMI Connected Expressive Language

Description
RMI

Score Detail
Context / Intent

Type Short Answer ▾

Scores

Connected Language Short Answer	Speech or Sign (Sp or S) Short Answer	Context / Intent Short Answer
------------------------------------	--	----------------------------------

Collection Method Parent ▾ Frequency time(s) Monthly ▾

Intended Age Start Intended Age End Visible

+

✓

Advanced Settings

The last category listed in the System settings is Advanced Settings. The Advanced Settings screen provides access to more in depth setting categories. In most cases these settings will not need to be reconfigured, however experienced program coordinators may want to use these settings to customize HiTrack. Each one has a brief explanation next to it to help in understanding the use of that setting. Click the Save  when done to save your changes.

Features in Advanced Settings determine how Most Conclusive Results are calculated. Please refer to [Appendix D for more information about Most Conclusive Results](#) or consult the [HiTrack Help Desk](#) for support.

Centralized HiTrack Setting

As described above, HiTrack can be used in a [Centralized Database Layout](#). Use the Centralized Database option in Advanced Settings to turn on this feature.

The Centralized setting changes how records are managed when baby transfers are entered. Newborns that become sick or need special care will often be transferred to a different facility better suited to handle their conditions. In these cases the receiving facility may need access to incoming baby records so that they can conduct hearing screening.

A second Advanced Setting called “Sending Facilities retain access to Transferred out records” also determines how transferred baby records can be accessed. When enabled, sending facilities keep their access to the baby record in addition to sharing access with the receiving Facility. Although both facilities report on the record the record shows once and is counted once when accessed from a Facility Group.

The following table summarizes how records are handled by the Centralized setting:

	Centralized		Distributed (Centralized Off)
Feature:	In System Transfer	Out of System Transfer	In system and Out of System behave the same.
Baby's Tracking Status	"In Progress"	"Transferred Out"	"Transferred Out"
Baby shown in Sending Facility Baby List and Reports?	Yes if "Sending Facilities retain access..." is enabled. Otherwise No.	Yes	Yes
Baby shown in Receiving Facility Baby List and Reports?	Yes	No (N/A)	No
Baby shown in Sending Facility's "Transferred Out" Folder?	Yes, but with view only access, unless "Sending Facilities retain access..." is enabled. The Receiving Facility name is available from the baby's Transfer History.	Yes	Yes

Program Coordinator Features

Facility Group Baby List

The Transferred folder Baby List works differently when using a Facility Group. This list includes babies transferred from any facility included in the Facility Group.

Combining Duplicate Baby Records

De-duplication is an important Tracking task simplified for you by HiTrack with the Combine  feature. By using this feature, all related record details from the two records will be permanently combined, including contact info, screening results and notes.

To combine two records from the Baby List follow these steps:

1. From the Baby List, select the baby record you would like to discard after combining.
2. Click on the combine button  at the bottom of the screen.

This will show two new fields. The first field shows the first baby that was selected.

3. Select the duplicate record from the list. Note that this fills in the second field.
4. Click on the preview button  after both records have been selected.
(Click on the X to restart the process.)
5. HiTrack will then provide a side-by-side view of the records that are going to be combined.

Use the checkboxes in the list to identify the field values you want to keep in the combined record. Leaving any field unchecked will discard the value.

Use the combine button  to confirm the record combination.



This feature can be granted or suppressed as a specific access right while customizing [User Groups](#).

HiTrack also provides Data Cleaning Reports to help identify records that are probable duplicates. Please refer to information on [these reports](#) in Appendix A.

Baby Assignment

HiTrack offers a new feature allowing administrative users to assign baby records to other user accounts. Any active HiTrack User account can have records assigned to it. Only administrative users with the “Baby Assignment To Other Users” Access Right are allowed to assign records to other users. Note the default 5.0.3 Facility Administrator group does not have this new Access Right. Customize a new Facility Group to make this feature available for Facility Administrators.

Caution: Please refer to your local privacy regulations about granting medical information access to others.

Viewing Babies Assigned to You

A new special entry in the facility list called “Assigned to Me” gives any user a view of babies assigned to their account – independent of their birth facility and screening facility. Note that other baby list filters such as DOB and result filters also apply when using this view but features like Merge and delete are unavailable.

The screenshot shows the HiTrack interface with the following elements:

- Navigation Bar:** Includes 'Appointments Today', 'Notifications 15', and a dropdown menu set to 'Assigned to Me'.
- User Profile:** Displays 'Johnson, Kyle' with details: '12/6/2023 54869', 'Passed Screening Complete', and 'EVALUATION IN PROCESS: 12/07/23'. Milestones are listed as '0/-/-'.
- Filters:** Four buttons are visible: 'All Records' (selected), 'Action Needed', 'No Action', and 'Transfers'. There is also a 'DOB' filter set to '5-1-2020' and a 'Reset' button.
- Table:** A table with columns: Baby Name, Medical ID, Birthdate, Inpatient, and IP Date. The table contains the following data:

Baby Name	Medical ID	Birthdate	Inpatient	IP Date
Miller, Jessie	55943	12-7-2023	Passed	12-7-2023
Johnson, Kyle	54869	12-6-2023	Passed	12-7-2023
Garcia, Maria	55696	12-5-2023	Referred	12-7-2023
Williams, Steven	55268	12-4-2023	Passed	12-7-2023
Jones, Jill	55782	12-1-2023	Passed	12-7-2023
Wilson, Tom	55247	11-30-2023	Referred	12-7-2023
Davis, Sam	55791	11-28-2023	Passed	12-7-2023
Rodriguez, Mario	55468	11-25-2023	Passed	12-7-2023
Campbell, Adam	54993	11-20-2023	Passed	12-7-2023
Lee, Charlie	55784	11-19-2023	Referred	12-7-2023
- Side Panel:** Includes a 'Communication Hub' and a 'Record Overview' section with sub-options for 'Demographics' and 'Screening'.

Assigning Babies to Other Users

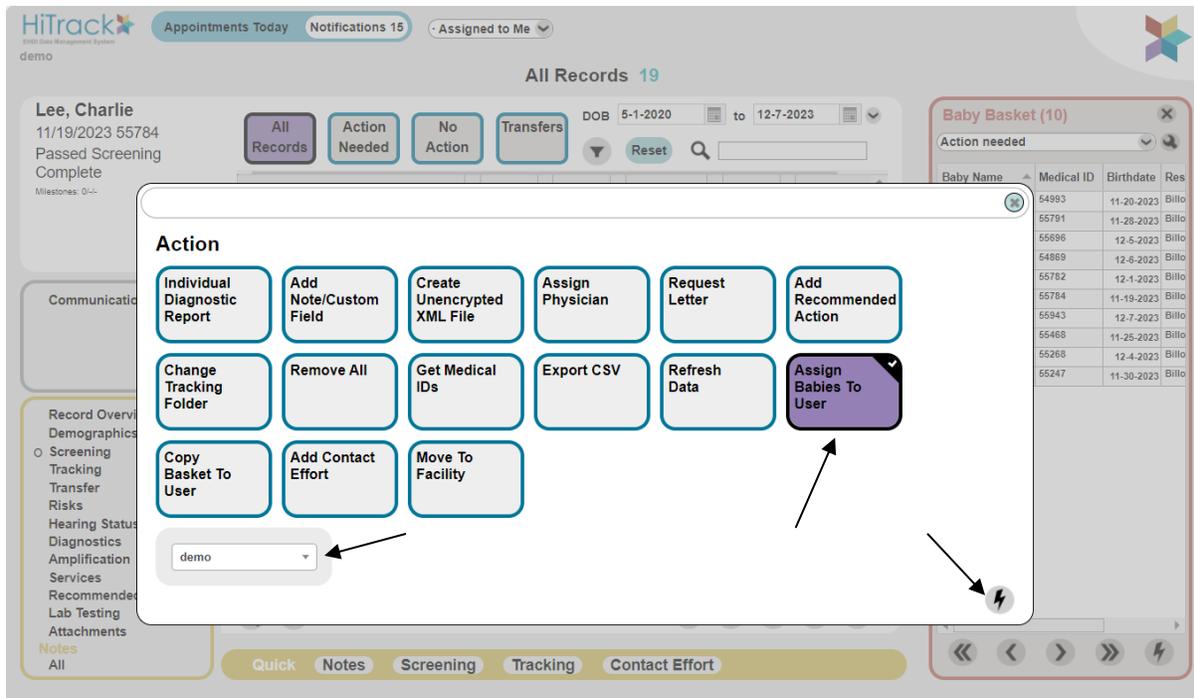
If your administrator account has the “*Baby Assignment To Other Users*” access right then you can assign babies to other users using either the Baby Basket or Tracking features.

Assignment Scope

The following table explains the scope of baby assignment based on the sharing users access rights:

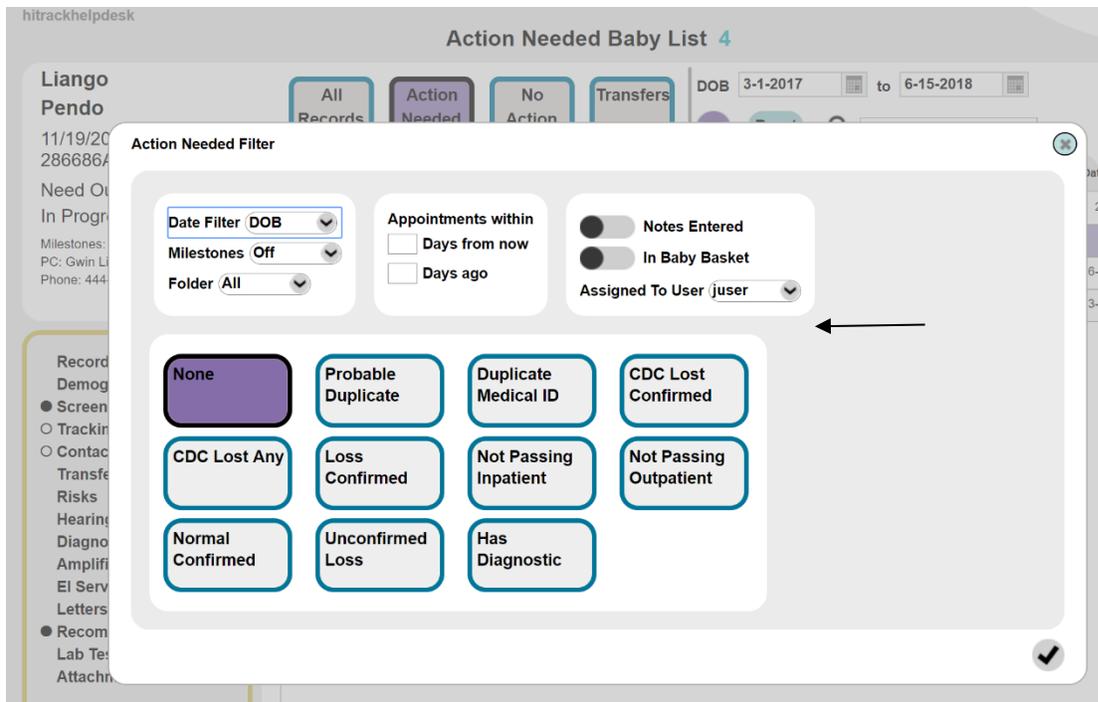
Access Right	Example User Group	Users Allowed to Assign To
System Wide User List Access & Edit	System Administrator	All Users
Facility Wide User List Access & Edit	Facility Administrator	Users with the same individual facility or list of facilities are allowed.
(none of the above)	Regular User Group	Self Only

Use the “Assign to User” button in the Baby Basket Action page to assign multiple babies to another user in one step.



Viewing Assigned Records

The Baby List filters provide a way for administrators to see lists of babies assigned to other user accounts.



Choose the user you want to filter by from the “Assigned to User” filter and then apply the filter to see the list.

Tracking can also be used to assign an individual record to another user (or facility). Disable the default filter in the “Tracked By” box to see a full list of users to choose from. Click the check button to save your changes.

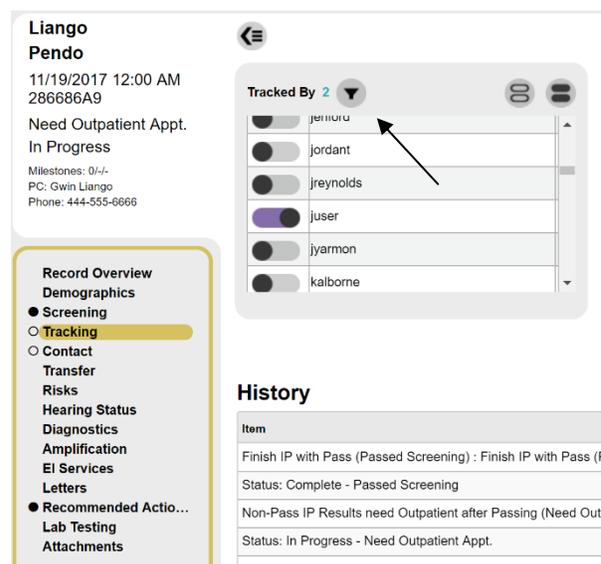


Tracking also allows administrators to remove access from individual records.

Note that a baby must be known to at least one Facility in the Tracked By list.

Finding Existing Records

When enabled, the [System Wide Search](#) allows users to add existing records to their assigned lists.



Attachments Feature

The Attachment feature allows users to upload external documentation to a baby’s chart. Some examples include diagnostic details, medical imagery, intervention lesson plans and other files.

When attachments are uploaded for a baby the following fields are collected:

- Attachment File A file from your computer that you want to attach to a HiTrack baby record.
- Content Date The date of the events referred to in the documentation itself. For example if the file is a photograph of the baby’s ear then you would enter the date that the photograph was taken. HiTrack automatically tracks the date the file was uploaded or changed in a separate date field.
- Stage Optional. Stage is a way to classify what the attachment refers to. User access is also controlled by the stage selected when uploading the attachment. See more information below.

Description This is a place to add a short description of the file for quick reference.

Privacy and Access

Like other features in HiTrack 5 this feature is controlled by four main Access Rights:

Baby Attachments - Access
Baby Attachments - Add/Edit/Delete their Own Entries
Baby Attachments - Delete Any
Baby Attachments - Edit Any

Attachments uploaded *without* an EHDI Stage tag will be available to any user with the “Baby Attachments - Access” access right. However, when EHDI Stage is specified the stage is also used to determine which users have access. For example if an attachment is uploaded and tagged with “Diagnostic Evaluation” stage then only users with both “Baby Attachments -Access” and “Diagnostics – Access” will see these attachments. This same requirement applies to attachments tagged with screening or intervention being based on their related Access Right.

Reports

A new Advanced Report Criteria element called “Has Attachments” is available to help users query records that have had attachments added to their record.

IT Considerations

This new feature requires IT to create a new Attachments subfolder in the HiTrack IIS Application folder with Read, Write and Delete permissions. IT staff can also control the maximum allowed file size by setting a key in the web configuration file called “MaxAttachmentSize”. This is specified in megabytes.

For long term storage DBA's have the option of keeping the attachment data in its own physical file location, separate from the main HiTrack data. Please contact the Help Desk for more information on this topic.

Notifications

HiTrack 5.0.4 has a new feature that allows users to receive notifications for data entry activities and system related events. Notifications are available for users with "Notification Watch – Allow" in their User Group.

Data Privacy Protection

HiTrack protects data privacy for Notifications in a few ways: First, each type of notification is controlled by a User Group Access Right. For example the "Diagnostic Record Entered" Notification will only be allowed for users with the Diagnostic – Allowed Access Right. Second, Notifications will also only be activated for baby records that are already granted to a user.

Available Notification Types

The following notifications are available in HiTrack. The Access Right required for the watching user is listed to the right.

Notification	Required Access Right
Audiologist Record Combined	Facility Audiologists - Access
Baby Manual Add	Demographics - Access
Baby Record Assigned	Facility/Group Baby List - Access
Baby Record Combined	Demographics - Access
Baby Record Deleted	Facility/Group Baby List - Access
Baby Record Search Result	Facility/Group Baby List - Access
Basket Assigned	Demographics - Access
Data Utility Script Run Success	Data Utility - Allow
Dev Measurement Changed	Services - Access
Dev Measurement Entered	Services - Access
Diagnostics Changed	Diagnostics - Access
Diagnostics Entered	Diagnostics - Access
Doctor Record Combined	Facility Physicians - Access
EI Enrollment Changed	Services - Access
EI Enrollment Entered	Services - Access
EI Referral Changed	Services – Access
EI Referral Made	Services - Access
Hearing Status Changed	Hearing Status - Access
Hearing Status Confirmed	Hearing Status - Access
Hearing Status Entered	Hearing Status - Access

Intervention Session Changed	Services - Access
Intervention Session Entered	Services - Access
Lab Test Changed	Lab Testing - Access
Lab Test Entered	Lab Testing - Access
Large Merge Ended	Merge - Access
Note Changed	Baby Notes - Access
Note Entered	Baby Notes - Access
Screening Result Deleted	Screening - Access
Special Contact Created	Contact - Access
Transferred Baby	Baby Transfer - Access
User Created	System Wide Users - Access
User Locked Out	System Wide Users - Access
User Repeated Failed Logins	System Wide Users - Access

Notification Configuration

A new User Preference called “Notification Interval” determines roughly how often (in seconds) HiTrack will check for new activity. The default value of “0” means notifications are disabled. A typical starting value for this preference is between 10 and 30 seconds. Shorter intervals (more frequent) should be used with caution as they may have a negative impact on HiTrack’s responsiveness.

Notification Watch Levels

Each user has their own Notification Watch configuration. The three possible levels of configuration are shown below. Use System → Auditing → Notifications to review the settings for the current user.

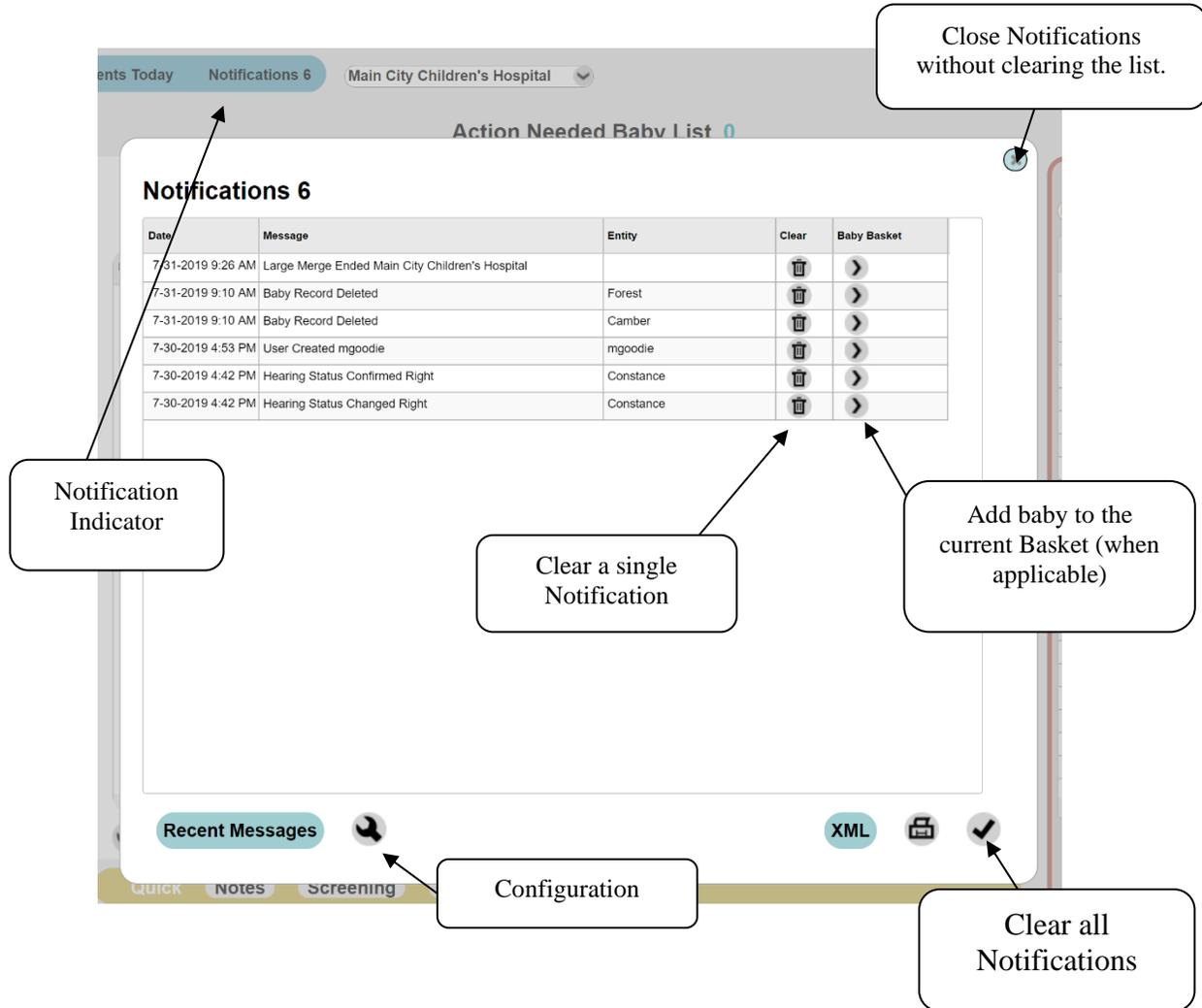
- None
 - Activity for this notification will not be shown for the watching user.
- All
 - All activity for this notification will be shown for the watching user.
- [Specific User Group]
 - Only activity by users in the selected User Group will show for the watching user.

Example – If “State Audiologists” is selected for the “Diagnostic Record Changed” notification the watching user will only see notifications for changed Diagnostics when a *user in the State Audiologists User Group* makes the change. A notification would not be shared with the watching user if a user that made the change is in a *different group*, such as “Data Entry Staff”.

Notifications List

When activity occurs for one of the configured areas the Notifications menu at the top of HiTrack will be updated to show a number.

Clicking the updated indicator opens the Notifications window:



The Date, Message and Related entity of each Notification are shown in the list. Note that only messages about individual baby records are compatible with the Baby Basket button.

To close and clear the Notifications window use the button in the lower right. Use the “x” close button in the upper right to close the window and save the notification list for later review.

Use the Wrench icon to configure the notifications for the current user.

Other Notification Information

HiTrack’s previous “Notifications” are available under the “Recent Messages” button in the Notifications list. Users with Notifications disabled will see the “Recent Messages” as they did in prior versions by clicking on Notifications.

Data Integration



HiTrack is designed to integrate with other database systems in several ways. Incoming data is imported through HiTrack's advanced Merge system so that it can be checked for completeness and existing records can be matched based on rule-based algorithms. It also means that questionable matches are left for manual review.

The following methods are available for populating and querying HiTrack:

File Exchange (XML, TXT, CSV) – HiTrack can import data from XML and Comma Separated Value formatted files. HiTrack data can also be exported in these formats.
--

Stored Procedures (SQL) – This method allows batches of data to come into HiTrack using HiTrack's Merge Database Stored procedures. HiTrack also provides stored procedures for other systems to query.
--

Web Services (SOAP) – HiTrack provides several industry standard Web Services that can be used to add or query data using web protocols.

Electronic Messaging (HL7) – HiTrack provides HL7 V2 compatibility using integration software called Mirth Connect. Both incoming and outgoing data channels are available to use with HiTrack data.

Please contact the [HiTrack Help Desk](#) to discuss data integration installation and configuration.

Helpful Hints for Data Entry in HiTrack

This section contains data entry shortcuts to make entering data quick and easy.

Navigating screens and fields

To move through the data entry fields, click the field, press Tab to move forward or press Shift+Tab to move backward.

Opening Records

In many cases you can open a record for review and editing by double-clicking the mouse on the row of information you are interested in.

Entering Dates

Each date entry control allows you to enter the month, day and years using the keyboard or a pop-up calendar. Clicking on the icon to the side of the date field will open the pop-up calendar.

In some cases dates are optional on several screens, including report filters. Optional dates will have a check box to the left of the date. Uncheck the box to exclude a date or leave it blank.

Using drop-down menus

Drop-down menus offer preset options that save time and standardize data entry. You can also use the keyboard to help you select items from drop-down menus. When a drop-down is selected you can jump to existing presets by typing the first letter of the entry.

Web Browser Settings

The following settings must be configured in your web browser:

JavaScript must be enabled for the HITRACK web application site.
Popup windows must be allowed for the HITRACK web application site. Most browsers provide feedback if a pop-up is blocked. The option to "Always allow for this site" should be used.
A PDF viewer (i.e. Adobe Reader) if using the Reports feature.
Microsoft Office Word 2003 (or later) is required for Letters
Microsoft .Net Framework 4.6 is required on client computers where users choose to use the Merge Companion upload tool. The Merge Companion provides automated upload features and renames screening equipment merge files as they are processed.

Appendix A: Linking HiTrack with Equipment Manufacturer Software

This section discusses concepts used when linking HiTrack with a screening system.

File Locations

For any screening software link you need to establish a file location that is entered into both HiTrack and the screening software. This location will be used by the screening software to write the file and used by HiTrack when reads and merges the file.

Any file path on the computer may be used when HiTrack and the screening software are installed on the same computer as long as your Windows User account has read and write access to it. In most cases a new folder such as "C:\merge files\" can be created as used as an export location. Universal paths beginning with "\\[servername]" notation can also be used.

File Processing

After HiTrack is able to successfully read in records from a merge, the file is renamed with a date and time stamp. This prevents future screening activity from writing over the completed file and also prevents unnecessary re-merging of completed files.

The date and time stamp is added to the end of the file name. For example if you merge an "ALGO5.TXT" file on March 21st 2006 at 11:02 it will be renamed to "ALGO5_TXT_2006-03-21-11-02-52.old" after merging.

Maintaining Program Information Pick Lists between HiTrack and the Screening Software

To save time and avoid potential confusion caused by different data entry conventions or different spellings of the same name, HiTrack uses "pick lists" (a.k.a. "drop-down menus") for variables such as facility, type of nursery, physician name, screener name, etc. To maintain data integrity all of the pick lists in the screening software must contain the same possible values as those used in HiTrack.

Some HiTrack pick lists, such as those used to document screening outcomes, are static and do not change. Other pick lists are customizable and contain codes and definitions that are established by users to reflect their specific hospital staff and setup. HiTrack allows users to add to these lists to keep their software updated with current screening program participants, including the option to suppress retired entries that need to be retained for data integrity. The customizable pick lists are collectively known as "[Program Information](#)".

Another important reason for exporting the pick lists from HiTrack is because many hospitals report their hearing screening data to state government agencies. At the state level it is important to know where the screening was done, who the physician is and other data described by program information.

HiTrack's Program Information can be exported in two ways. The easiest way to export these lists of shared program information is to use the [Merge Companion](#). Select "Equipment Linking" from the Dashboard and choose a folder to export to. An alternate way to obtain these files is to use the Equipment Linking menu from [within HiTrack](#).

Free Text Program Information Support

Instead of importing [HiTrack's Program Information](#) to use in drop-downs some equipment manufacturers allow "Free Text" entries collected from their software. Although this method of exporting data is not recommended by the HiTrack Help Desk it is a way to obtain patient related entries from rudimentary software.

"Placeholder Created" warnings are shown during the Merge process when HiTrack encounters a Free Text entry it does not recognize. The Fix Unknown Code Placeholders tool in HiTrack Advanced Tools should be used regularly to keep your lists of Program Information clear of duplicate entries.

Automating the HiTrack Merge

With the help of IT or Data support staff the HiTrack Merge can be automated to run on a recurring schedule without user interaction. In most cases a merging-only user account should be created and used for this type of automation. As with [other merges](#), any records that have questionable matches or need manual attention are left in the Pending Data merge screens.

A Windows "bat" file should be created with the following data fields in sequence (separated by spaces):

1. The location of the HiTrack 5 Merge Companion executable.
2. The action to perform (MERGE)
3. The Merge Source ID to merge as (found on the Facility Merge Sources screen)
4. The HiTrack 5 username (merging only user account)
5. The password for the HiTrack 5 username
6. The Facility ID (GUID) to Merge for (can be found in System→Facility→Select the hospital→ Edit→ ID slider)
7. The Facility or Facility Group ID to use to obtain HiTrack system settings.

Sample "bat" file contents:

```
"C:\Users\Screen A\Desktop\HiTrack_5_MergeCompanion.exe" MERGE 10 usern passw 56045B2B-DB17-42DE-BBDC-735F8EA3B5C9 56045B2B-DB17-42DE-BBDC-735F8EA3B5C9
```

IT support staff should contact the [HiTrack Help Desk](#) to complete the setup for automated merges.

Appendix B: Report Criteria Documentation

Classifications

Classifications are used to categorize babies on reports including the Flow Chart and other summary reports. Each baby may be classified for each [EHDI Stage](#): Inpatient, Outpatient, Evaluation and Intervention. A baby may have at most four classifications, one for each stage.

Classifications are based on Most Conclusive Results and other parts of the baby record. Most Conclusive Results are computed for each ear at Inpatient and Outpatient stages. Most Conclusive Outcomes are also defined for Hearing Status but must be manually selected for each infant after any type and degree of hearing loss is entered or changed.

The criteria lists below are presented in the order of consideration. Once a qualifying classification is found for each stage no other criteria is considered.

Updated 5/19/2008.

Inpatient Classifications

Last updated: 10/9/2007

	<i>Classification</i>	<i>Criteria</i>
1	<i>Deceased before/during Inpatient Screening</i>	Infant is marked as deceased and no screening results exist
2	<i>Inpatient Pass</i>	Both Inpatient Most Conclusive Results are Pass
3	<i>Inpatient Referred</i>	Both or one Inpatient Most Conclusive Result is Refer
4	<i>Inconclusive Inpatient Results</i>	Other Inpatient screening results exist that are not Refer
5	<i>Missed Inpatient Screening</i>	Infant's most recent Tracking Action for Inpatient Screening is "Missed" and the baby has no Transfer entries.
6	<i>Refused Inpatient Screening</i>	Infant's most recent Tracking Status for Inpatient Screening is "Refused".
7	<i>Transferred Out before/during Inpatient Screening</i>	Infant's most recent Tracking Status for Inpatient Screening is "Transferred Out" or a Transfer entry exists.
8	<i>No Inpatient Information</i>	(default Classification)

Outpatient Classifications

Last updated: 10/9/2007

	<i>Classification</i>	<i>Criteria</i>
1	<i>Deceased before/during Outpatient Screening</i>	Infant is marked as deceased, Inpatient screening results exist and no Outpatient screening results or Hearing Status is entered.
2	<i>Outpatient Pass</i>	Both Outpatient Most Conclusive Results are Pass.
3	<i>Outpatient Refer</i>	Both or one Outpatient Most Conclusive Result is Refer.
4	<i>Outpatient Inconclusive Results</i>	Other Outpatient screening results exist that are not Refer.
5	<i>Refused Outpatient Screening</i>	Infant's most recent Tracking Status for Outpatient Screening is "Refused".
6	<i>Scheduled for Outpatient Screening</i>	Infant's folder is "Need Outpatient Screening" and no Outpatient results exist.
7	<i>Follow-Up Discontinued before/during Outpatient Screening</i>	Infant marked Discontinued while in "Need Outpatient Appt.", "Need Outpatient Screening" or "Need to Locate" folders. (Excludes the infant if they need to be located for Evaluation.)
8	<i>Need to Locate for Outpatient Screening</i>	Infant does not have Outpatient screening results and their folder is "Need Outpatient Appt." or "Need to Locate".
9	<i>Go directly to Evaluation without Outpatient Screening</i>	Infant does not have Outpatient screening results and any of the following: a. folder is "Need Evaluation Appt.", "Need Evaluation", or "Completed Evaluation". b. "Evaluate w/o Outpatient" Action exists in Tracking History. c. Hearing Status has been entered.
10	<i>No Outpatient Information</i>	Infant does not have Outpatient screening results

Evaluation Classifications

Last updated: 4/28/2008

	<i>Classification</i>	<i>Criteria</i>
1	<i>Deceased before/during Eval</i>	Infant is marked as deceased, Outpatient screening results or Hearing Status is entered and no Services are entered. (Single Stage Protocols check for Inpatient Screening.)
2	<i>Confirmed Loss after Evaluation</i>	Infant has Most Conclusive Hearing Status where any ear is entered with a confirmed type of Loss or Sound Field is entered and confirmed.
3	<i>Normal Hearing after Evaluation</i>	Infant has Most Conclusive Hearing Status where a. both ears are confirmed Normal ("N/A (No Loss)" or "None" (for HT3.5 converted data)) d. one ear is entered and confirmed normal c. sound field is entered and confirmed normal
4	<i>Refused Evaluation</i>	Infant's most recent Tracking Status for Evaluation is "Refused".
5	<i>Follow-Up Discontinued before/during Evaluation</i>	Infant's most recent Tracking Status for Evaluation is "Discontinued".
6	<i>Out of Jurisdiction – No Evaluation</i>	Infant with a "Transfer Out of System" History record entered while the record is in "Need Evaluation Appt" or "Need Evaluation" and no Hearing Status entries exist. (Transfer date must be after DOB)
7	<i>Evaluation in Process</i>	Infant has any of the following a. Most Conclusive Hearing Status with unconfirmed type and degree of Loss entered b. An "Evaluate without Screening" Tracking Option has been used.. c. Outpatient Most Conclusive Result of Refer, Invalid or Could not Test.
8	<i>Need to Locate for Evaluation</i>	Infant's folder is "Need Evaluation Appt." or "Need to Locate" and a Tracking Action of "Need to Locate" during Evaluation exists.

Intervention Classifications

Last updated: 10/26/2012

	<i>Classification</i>	<i>Criteria</i>
1	<i>Deceased before/during Intervention</i>	Infant is marked as deceased and an Service enrollment has been entered.
2	<i>Refused Intervention</i>	All Service entries are marked as "Parent Opt Out" or the infants most recent Tracking Status for "Referred for Intervention" is "Refused".
3	<i>Follow-Up Discontinued before/during Intervention</i>	Infant's most recent Tracking Status for "Referred for Intervention" is "Discontinued".
4	<i>No Intervention Info</i>	Infant has no Service enrollments entered that are "Pending", "Enrolled", or "Monitoring"
5	<i>Enrolled in Intervention</i>	Infant has at least one Service enrollment entered that is "Enrolled" or "Monitoring".
6	<i>Referred but Not Enrolled</i>	A Recommended Action exists for the EI Referral.

Audiologist Profile Report

Report Specific Filtering Options

Amplification Report

This report lists babies who have Amplification entries and provides calculations for the JCIH 2007 Benchmark for Amplification. Deceased babies are not included in this report.

Report Specific Filtering Options

This report uses the general filtering options.

JCIH 2007 Benchmark

This report includes the JCIH Benchmark for amplification:

“For families who elect amplification, the percentage of infants with confirmed bilateral hearing loss who receive amplification devices within 1 month of confirmation of hearing loss; the recommended benchmark is 95%.”

Although the benchmark applies only to infants with bilateral hearing loss, information has also been provided on infants who have unilateral hearing losses or where laterality is unknown.

To determine whether a baby meets the benchmark or not, two pieces of information are required: 1) the fitted date for the amplification device, and 2) a hearing status entry. Babies who do not have these two pieces of information will not be counted on the JCIH 2007 Benchmark report, but they will be counted on the Amplification report as long as they have an amplification entry.

A count of babies without a fitted date is included on the JCIH 2007 Benchmark report to show how many babies are not included on the report because the fitted date is missing. The Total Babies count includes babies without fitted dates, babies without hearing status entries, and babies with bilateral, unilateral, and laterality unknown hearing losses.

Contact Effort Individual and Summary Reports

Report Specific Filtering Options

CDC Survey Data Report

The HiTrack 5 CDC Survey Data Report follows the guidelines provided in the CDC's "CDC-EHDI Hearing Screening and Follow-up Survey (HSFS) Explanations." This report also contains quality assurance feedback statistics not included by the CDC explanations. These additional numbers help program coordinators check the quality of their data.

Report Specific Filtering Options

Birth date range	Specifies the Birth Date Range for the report.
In Baby Basket	Allows the CDC Survey report to be run for a small subset of records by indicating if you want to use only babies in the current Baby Basket.
State Abbreviation for Non-resident calculation	Used to calculate non-resident totals. Note that blank addresses are considered Resident addresses.

Like all Reports in HiTrack this report uses the selected running Facility or Facility Group to filter the output. The CDC requires an additional level of facility filtering on top of this that states that only babies **born** in the running Facility or Facility Group are included in the report. This means that babies born outside of the current Facility or Facility Group will be excluded from the CDC Survey Report. The one exception to this filter is the inclusion of babies born at Home Birth Facilities. These babies are included in the output as long as they are known to the running Facility or Facility Group.

HiTrack 5.0.4 and later uses Facility Type to determine which facilities are Home Birth facilities in your data. Please review the Facility Types for your home birth facilities in the list found in System – Facilities.

Interactive Browse List Feature

The Interactive Browse List mode of this report allows users to see lists of babies that make up the counts for most of the survey categories. The records from these filtered lists can then be added to a Baby Basket for later review.

Supporting Information

Lost to Follow-Up % and Number (Diagnosis) and Screening Rate %s are included at the end of section 1 of the CDC Report.

Age Calculations and Types of Loss Considered



The CDC defines the date ranges as follows:

0 to 1 month = 0 to 30 days
0 to 6 months = 0 to 180 days
6 to 12 months = 181 to 360 days
12+ months = 361+ days

As prescribed by the CDC, ears Fluctuating Conductive losses are counted as Normal hearing ears.

Missed ears

CDC and JCIH have recommended that both ears should always be rescreened at outpatient screening appointments. From the "JCIH Position Statement":

"For rescreening, a complete screening on both ears is recommended, even if only 1 ear failed the initial screening."

The following table summarizes how the HiTrack 5 CDC Survey reports babies with only one ear screened.

Inpatient	Outpatient	CDC Report Outcome
Single ear Pass, Refer, Invalid or Could Not Test.	[blank]	Missed
Inconclusive (both ears screened or single Pass ear)	Single ear Pass, Refer, Invalid or Could Not Test	Not Passed (reflects Inpatient result)
Refer (both ears screened)	Single ear Pass, Refer, Invalid or Could Not Test	Refer (reflects Inpatient result)

Hearing Status for CDC Reporting

The CDC requests Initial Hearing Status for Parts 1 and 3 of their survey and the most current status for Part 2. The current status uses the Most Conclusive Outcomes [selected by the user](#). The initial hearing status defaults to the first chronological entries. Users with the Hearing Status – Advanced [Access Right](#) may override the default initial hearing status entries for each baby. This must be done on a case-by-case basis.

In bilateral cases where the type of loss is different in each ear the following rules are used:

Ear 1 Type	Ear 2 Type	"Head" Type of Loss
Sensorineural	Conductive, Mixed, Neural, Fluctuating*	Sensorineural
Neural	Anything except Sensorineural.	Neural
Conductive	Mixed	Conductive
Conductive	Fluctuating	Conductive
Fluctuating	Mixed	Mixed

Non-Resident CDC Counts

Starting with the 2012 instructions the CDC has added a new count to each section of Part 1 that allows users to account for No Info/Unknown babies by categorizing them as Non-Resident. To

determine if a baby is Non-Resident HT uses the following rules: If a state is specified it must be a valid abbreviation. Blank entries are counted as Residents. Only records without screening or diagnosis (depending on which count) qualify for the Non-Resident counts.

A count of invalid Address entries is included in the Warnings List (see below).

Adoption Counts

The CDC now allows “Adopted” to be used as an explanation for why Screening, Diagnostic or Intervention was not completed. HiTrack reports this number by checking the “Adoptive Parent” contact role specified in Demographics – Contacts. The Primary Contact must have this checked to qualify for these counts.

Skipped Screening

Starting with 2020 data babies who skipped screening and were directly referred to for diagnostic evaluation are no longer considered “Screened - Not Pass”. Instead, the CDC has a new category under “Total Not Screened” to report these records. This only affects babies that received no screening at all; if the hospital screening program screened the baby at birth who did not pass and then decided to skip Outpatient screening the baby counts in the normal “Screened – Not Pass” category.

Babies in this category and still counted as being referred for diagnosis. They will continue show up in the lower sections under Diagnostic Data and Early Intervention data. This means the total for the Diagnostic Data subcategories might not easily add up to Total Not Pass. If this number looks low when reviewing the output be sure to look for records counted as “Straight to Diagnostic Evaluation.”

The Screened Rate % will be lowered for states with babies in this scenario. The CDC feels that the number of babies skipping screening altogether is a small number.

COVID19 Scenarios

The CDC has provided three ways to account for COVID related delays and obstacles.

	<i>Report Option</i>	<i>Usage</i>
1	<i>Unable to [Screen/Diagnose/Enroll] Due to Medical Reasons</i>	Babies can be reported in this category if EHDI services were delayed due to COVID. Use Tracking to document this scenario.
2	<i>Parent/Family Declined [Screening/Diagnosis/Enrollment]</i>	Babies can be reported in this group if EHDI services were declined due to COVID concerns. Use Tracking to document this scenario.
3	<i>No [Screening/Diagnosis/Enrollment] - Other</i>	Babies can be reported here if they didn’t receive an EHDI activity because of a COVID Facility closure.

		<p>Use the new Action titled “No [...] - Facility Unavailable” in Tracking to document this scenario.</p> <p>Note: This new “Other” count is also used to report cases where an adoption prevented EHDI activities.</p>
--	--	---

Transient Losses

Fluctuating/Transient Hearing Loss is now reported as a separate category and is no longer combined with the Normal Hearing counts.

No Services – Diagnosis Changed to No Hearing Loss

The No Documented Services section has a new category to report records that did not receive services because their hearing resolved. As with other CDC Survey reporting HiTrack uses drop downs on the Hearing Status page to distinguish the Current Hearing Status from the Initial Hearing Status. These drop downs are only available for users who have the Hearing Status – Advanced [Access Right](#) in their HiTrack User Group.

Non-Pass/Skip Diagnosis babies will be counted here if their Current Hearing Status is Normal but was initially documented as a Hearing Loss.

Part 2 Hearing Loss Type and Severity Summary

Part 2 of the survey report summarizes types and degrees of loss for the report selection criteria. As required by the CDC the hearing loss summary grid reports statistics based on the most complete diagnosis. To meet this requirement HiTrack uses selections based on the Most Conclusive Outcomes [selected on the Hearing Status screen](#).

Each Type and Degree of loss category reports the number of ears recorded in HiTrack with that status. When ranged Degrees of Loss are used in records they are included in the counts with the most severe end of that range. (For example, Mild-Moderate is counted as Moderate and Severe-Profound is counted as Profound.) Babies with a type of loss that did not follow a normal screening protocol are not counted in this section, including babies for whom tracking was discontinued and babies that passed their screening results.

This summary also includes other statistics to help program coordinators understand their data, especially numbers of babies being excluded by the CDC survey reporting instructions.

There may be a difference in the number of babies with hearing loss on the summary grid when compared to counts on other parts of the survey. Parts 1 and 3 report statistics based on the initial diagnosis. The report includes two numbers that help account for this difference. "Total Cases Resolved" counts babies who initially had a type of loss that resolved to Normal hearing. These babies do not show on the type of loss grids. The second number, "Initial Normal Cases to Identified later as a Loss" counts babies who initially had confirmed Normal hearing, but developed a confirmed loss. This second number is provided for the Comments section of the survey.

Not Pass Babies with Type of Hearing Loss

This number provides the number of babies represented by the ear counts in the Type and Degree grid. Types of loss for Late Onset/Atypical babies are excluded from this grid.

Total Number of Babies with Hearing Status Data

This number provides the number of babies with any entries in Hearing Status. This can be used as a quality assurance feedback especially if it differs greatly from the number of babies reported on the grid. Differences in the number could be due to Sound Field entries or losses entered as "Undetermined" type of loss.

Total Ears with Undetermined Type of Hearing Loss

This number provides the number of ears entered with Undetermined as a quality assurance feedback.

Quality Assurance Tools

HiTrack provides several quality assurance tools to assist you in preparing your CDC Survey.

Custom Report Columns	CDC Screening Outcome, Type of Loss (Initial), Degree of Loss (Initial)
Custom Report Auto Filters	The output grid of all Custom Reports can be dynamically filtered further depending on the values obtained from the report.
Report Advanced Filter Criteria	"CDC Initial Dx is Different" Yes/No "In Baby Basket" Yes/No
Baby Advanced Details	CDC Screening Outcome
Baby Basket	A Baby Basket can be used to keep an intermediate list of CDC qualifying babies to use for other Reports.

Please contact Help Desk to brainstorm additional quality assurance checks.

Other Notes

The "Profound" degree under Conductive loss is shaded grey to indicate that this is not a valid category. The number of ear losses for this category is provided as a quality assurance feedback.

When laterality is unknown the ear with a specified type of loss will be represented in the Laterality Unknown count.

Unknown Ear counts are not provided in this section because HiTrack requires left/right ear identification on audiometric data entry.

Warning List Feature

After generating the CDC Report, HiTrack provides a list of babies and issues that may be of interest for data entry completion purposes. The following categories are reported:

Names of babies who have an Initial Loss reported on Part 1, but not on Part 2
Names of babies who have Unknown Diagnosis
Names of babies who were Not Referred to EI
Names of babies with have Unknown EI Services
invalid address State Fields
of NICU Days entries

Babies from the Warnings List can be added to a Baby Basket by using the Baby Basket button on the warning list screen. Once in a basket this list can be used as a to-do list for data entry completion or deeper reporting purposes.

CDC-Related Custom Report Columns

Several are available in Custom Reports to help locate and verify data to be submitted:

Evaluation Head Result – Hearing Status
EI Services Outcome – EI Services
Primary Contact State – Contacts
Primary Contact Zip – Contacts

CDC Survey Report Count Details

The following sections of this document explain how babies are counted in each survey question. Based on CDC reporting instructions Inpatient and Outpatient hearing screening result outcomes are combined into overall outcomes of Pass, Not Pass/Inconclusive, Refer, Refused, Missed and Deceased. For more information about these combinations see the [Appendix](#).

Survey Counts

Total Occurrent Births

This reports all baby records that are known to **and born** at the current Facility or Facility Group including Home Births.

Total Screened

Calculated: Total Passed + Total Not Pass

Total Passed

This reports babies with Pass as their [combined Screening outcome](#).

Total Not Pass

This reports the number of babies with Refer or Not Pass/Inconclusive as their [combined Screening outcome](#). Babies who did not Pass Inpatient and were screened in only one ear and passed are also included in this count. This count is used later as a basis for babies that should be receiving diagnosis and is typically used as a denominator for the Lost to Diagnosis percent.

Detailed Screening Results

Counts show different result combinations for Inpatient and Outpatient screening results.

Total Not Screened

A total of all of the Not Screened categories.

Straight to Diagnostic Evaluation

This reports babies where directly sent to an audiologist and where not screened. Note: Prior to 2020 data these records were counted as Not Pass.

Not Screened – Infant Died

This reports babies with Deceased as their [combined Screening outcome](#).

Not Screened - Non-Resident

This reports babies with No Information or Missed as their [combined Screening outcome](#) that also have a Primary Contact address entered with a different State Abbreviation than what was requested in the criteria. (Record with blank addresses are not considered Non-Resident.)

Unable to be Screened Due to Medical Reasons

This reports babies with No Information or Missed as their [combined Screening outcome](#) that have been moved to the “No Scrn. Medical Reasons” tracking folder.

Not Screened – Parents Declined Services

This reports babies with Refused as their [combined Screening outcome](#).

Infant Transferred and No Documentation of Screening

This reports babies with Transferred Out as their [combined Screening outcome](#).

Homebirth

This reports babies with No Information or Missed as their [combined Screening outcome](#) that also have Home Birth (as indicated by the CDC Survey Data criteria) as their Birthing Facility.

Parents / Family Contacted (for Screening) but Unresponsive

This reports babies with No Information or Missed as their [combined Screening outcome](#) that have been moved to the “Contacted but Unresponsive for Screening” tracking folder.

Unable to Contact (for Screening)

This reports babies with No Information or Missed as their [combined Screening outcome](#) that have been moved to the “Unable to Contact for Screening” tracking folder.

Unknown Hearing Screening

This reports babies with No Information or Missed as their [combined Screening outcome](#).

Not Screened - Other

This reports babies with No Information as their [combined Screening outcome](#) that also have a contact entered as “Adoptive Parent”. Records for whom screening could not be completed due to COVID19 are also reported here.

Total with No Hearing Loss (Initial diagnosis)

This reports the number of Not Pass and Straight to Evaluation babies with confirmed normal hearing. This includes babies with fluctuating loss in one ear and confirmed normal hearing in the other ear. The computed age subcategories are based on the date of the Initial Outcomes selected on the Hearing Disposition screen.

Total with Transient Hearing Loss

This reports Not Pass and Straight to Evaluation babies with non-permanent fluctuating losses (both bilateral and unilateral)

Total with Permanent Hearing Loss

This reports the number of Not Pass and Straight to Evaluation babies with confirmed hearing loss as a subset of Total Not Pass. The computed age subcategories are based on the date of the Initial Outcomes selected on the Hearing Disposition screen. Non-permanent fluctuating losses (both bilateral and unilateral) are excluded from this count.

Total with No Documented Diagnosis

Calculated: Audiological Diagnosis in Process (Awaiting Dx) + All No Diagnosis counts

Audiological Diagnosis in Process (Awaiting Diagnosis)

This reports the number of babies with all of the following criteria:

Classified as Evaluation In Process (Outpatient Refer or Evaluate without Screening)
One ear-specific Hearing Disposition entry
One diagnostic Recommended Action six months since the last Hearing Disposition entry
One currently scheduled diagnostic Recommended Action at the time the CDC Survey Report was generated.

No Diagnosis – Infant Died

This reports the number of babies who are classified as "Deceased during/before Evaluation".

No Diagnosis – Non-resident or Moved Out of Jurisdiction

This reports the number of babies who are entered as Transferred Out of System while in an Needing Evaluation folder.

No Diagnosis – Unable to Receive Diagnostic Testing Due to Medical Reasons

This reports the number of Not Pass babies without Hearing Disposition entered that have been moved to the “No Eval. – Medical Reasons” tracking folder.

No Diagnosis – Declined Services

This reports the number of babies who are classified as "Refused evaluation".

No Diagnosis – Unresponsive

This reports the number of Not Pass babies without Hearing Disposition entered that have been moved to the “Contacted But Unresponsive”.

No Diagnosis – Unable to Contact

This reports the number of Not Pass babies without Hearing Disposition entered that have been moved to the “Unable to Contact” Evaluation tracking folder.

No Diagnosis – Unknown

This reports the number of Not Pass babies without Hearing Disposition entered that have no other documentation.

No Diagnosis – Other

This reports the number of Not Pass babies without Hearing Disposition entered that also have a contact entered as “Adoptive Parent” or who have no diagnosis due to COVID19.

Early Intervention Counts

The Early Intervention counts are based on several data entry fields. A baby must qualify for each of the items listed as criteria for the EI counts.

Total Referrals to Part C EI

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
Must have a Recommended Action entry for Early Intervention Referral.

Total Referrals to Part C EI Before Six months of Age

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
Must have a Recommended Action entry for Early Intervention Referral with a “Recommended On” Date before six months of age. (Target and Confirmed Appt Date are not used to generate this statistic.)

Total Not Referred to Part C EI and Unknown

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
Must not have a Recommended Action entry for Early Intervention Referral.

Total Enrolled in Part C EI (IFSP Signed)

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
On the EI Services screen, there must be a “IFSP” type enrollment entered with “Enrolled.” Status. The checkbox must not be checked for “Private Enrollment (Non-Part C).” If there are multiple enrollments for a baby and some of them are Non-Part C enrollments while others are Part C the baby will still be counted in this section.
Marked as Eligible for Part C services.

Total Receiving Only Monitoring

This reports the number of enrolled babies that only have Monitoring EI Service entries.

Total Services from Non-Part C EI Services Only

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
On the EI Services screen, there must be a record entered with “Enrolled.” Status. The checkbox must be checked for “Private Enrollment (Non-Part C).” If a baby has multiple enrollments, they must all be non-part C enrollments to be counted in this section.

No EI Services – Not Eligible for Part C Services

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
No Enrollment entered – and “No” answered for Part C Eligibility.

No EI Services – Dx Changed to Normal

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
Must have a normal current hearing diagnosis

No EI Services Infant Died

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
If a baby has a tracking folder of Receiving Intervention and an enrollment entry from the EI Services screen prior to marking the baby as Deceased they will be counted as Deceased in this category.

No EI Services Parents Declined Services

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.
If a baby has a tracking folder of Receiving Intervention prior to stopping tracking (from the Tracking Status screen) because of parent refusal the baby will be counted in this category.
If a baby has one or more enrollment entries from the EI Services screen where the Status is “Parent Opt-out,” they will be counted in this category. However if that baby also has enrollment entries where the status is not “Parent Opt-out,” they will not be counted in this section of the report but will be counted in one of the “Enrolled” sections.

No EI Services Non-resident or Moved Out of Jurisdiction

This reports the number of hearing loss infants whose latest EI entry is marked as Out of Jurisdiction or whose contact address is in a state other than the state used for reporting.

No EI Services Unresponsive/Unable to Contact/Medical/Reasons/Unknown

Refer or not pass the hearing screening.
Must have an initial permanent hearing loss.

If a baby has a tracking status of Receiving Intervention prior to stopping tracking by changing the status to “Follow-Up Discontinued,” the baby will be counted in this category.
If a baby has a tracking status of Receiving Intervention and no enrollment entries on the EI Services screen, the baby will be counted in this category.
If a baby has one or more enrollment entries from the EI Services screen where status is “Not eligible/Closed,” then that baby will be counted in this category. If that baby also has enrollment entries from the EI Services screen where the status is “Parent Opt-out,” then that baby will still be counted in this category.
Records who have had their Tracking folder changed to No Services - Parent/Family Unresponsive or No Services - Unable to Contact or No EI Medical Reasons will count in these respective folders. Otherwise these records will be counted as Unknown.

Additional Cases Not Reported

Additional Cases of Hearing Loss not included in Diagnostic Data

This reports the number of babies with a confirmed hearing loss that also have Pass, Missed, Refused or No Info as their [combined Screening outcome](#). The computed age subcategories are based on the date of the Most Conclusive Outcomes listed on the Hearing Disposition screen.

Additional Cases of non-permanent, transient hearing loss

This reports the number of babies with Fluctuating Conductive hearing losses.

EI Services for Late Onset Hearing Losses

These counts match the logic used for Not Pass hearing losses, except they account for babies that passed or missed screening.

Demographics Report

This final report section uses the same criteria as above categorized by CDC defined demographic sub categories.

Note that for each category, missing entries in HiTrack will be included in the Unknown count, except for Mother’s Education which filters by the mother’s age.

Persons with no race entries or multiple race entries are counted as "Other".

CDC “iEHDI” Data Extract

This new feature creates an anonymized CSV file based on CDC specifications found in "iEHDI_DD2006_final_ExhibitA...xlsx". The expectation is that this extract will eventually replace the existing reporting method that only collects aggregate data.

Filter Criteria

The feature can be found on the same Report page as the existing CDC Report. It uses all the same filter criteria as the prior CDC report except for the "Include Warnings" feature.

There are sliders for the types of data the user collects at their state. State Program Coordinators should only make the selections for the types of EHDI data that is collected in their state. This feature allows HiTrack to report “Not Collected” instead of “Unknown” for the types of data shown.

Facility Zip Codes

The CDC requests zip code for several EHDI activities including birth, screening and diagnosis. This means it is important that all Facilities in HiTrack have a Facility Contact with a zip code. (A placeholder name “Contact, Facility” could be used in cases where the contact is not known.)

Identifiers and Codes

The generated extract file outputs anonymous baby identifiers and numeric CDC defined codes. HiTrack does provide an option to include readable outcome descriptions in the output but this version of the file should not be shared using unsecure methods.

Diagnostic Phases

This extract asks for three diagnostic phases. See below how HiTrack reports data for each phase:

<i>Phase</i>	<i>Description</i>
First Testing Phase	Reports DxABRs, OAEs, etc. that occurred on the earliest day listed in Diagnostics. If detailed diagnostics are not available the date of the Initial Hearing Status is reported in the date field.
First Diagnosis Phase	Reports the earliest detailed Diagnostics (DxABRs, OAEs, etc.) that occurred on the <u>same day</u> of the Date Evaluated/Confirmed set in the Initial Hearing Status drop downs. If detailed diagnostics are not available the date of the Initial Hearing Status is reported in the date field.
Most Recent Diagnosis Phase	Reports the earliest detailed Diagnostics (DxABRs, OAEs, etc.) that occurred on the <u>same day</u> of the Date Evaluated/Confirmed set in the Current Hearing Status drop downs.

	If detailed diagnostics are not available the date of the Current Hearing Status is reported in the date field.
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Data Cleaning Reports

These three reports help program coordinators to find duplicate records for the purpose of combining records in HiTrack.



These reports help answer the following questions: "How can I identify duplicate records?" and "How can I locate duplicate records sent from different hospitals when babies are transferred?"

Duplicate Medical ID

This report includes babies with duplicate Medical ID numbers in the system. Duplicate Medical IDs are allowed across birthing facilities but not within a facility. This report should be used to see if a baby has been entered under more than one facility with the same Medical ID.

Probable Duplicates

This report includes babies who share the same last name and date of birth and includes birth order to help distinguish records for twins and multiple births. This report should be used to look for baby records that have been entered by more than one facility, especially transferred babies.

Custom Duplicates

This report allows users to build a duplicate list based on a variety of field combinations.

Report Specific Filtering Options

This report uses the general filtering options.

Combining Duplicates

After duplicate records have been identified with these reports they can be combined using the

[Record Combine](#) feature on the Baby List, indicated by the  button

Early Intervention Report

This report lists babies who have Early Intervention entries filtered by either status or service type. Deceased babies are not included in this report

Report Specific Filtering Options

In addition to the general filtering options users may filter by Enrollment Status and Type of Service.

Hearing Status Report

This report may include babies with a Confirmed Loss, Confirmed Normal Hearing or Suspected Loss, depending on the selection criteria options.

This report also includes the Milestone ages and Early Intervention enrollment if it is entered. Milestone ages are the baby's age in months for Screening, Identification of Loss, and Enrollment. These ages are delimited by slashes (/) with exclamation marks (!) noting for ages that have exceeded the target milestone.

Report Specific Filtering Options

In addition to the general filter options this report allows you to filter by hearing status confirmation:

Confirmed Losses, Suspected Losses, Confirmed Normal Hearing

Any combination of these loss filters may be used to help answer the following questions: "Which infants have not had their suspected loss confirmed yet?" and "What services are being given to infants with hearing loss?"



Needing Evaluation Report

This report lists babies needing evaluation grouped by their Recommended Actions.

By default the baby must meet the following criteria to be included:

1	Not Deceased
2	"In Progress" Status
3	Classified as "Evaluation in Process", "Confirmed Loss after Evaluation" or "Risk Monitoring"

Completed Actions are not included for babies on this report. If the baby has Outpatient Refer or No OP→Dx then the baby will show up under No Recommendation/None.



This report helps program coordinators answer the following questions: "Which infants are scheduled for follow-up within the next (x) days?" and "Which infants need to be scheduled for follow-up?" (The latter question can be answered by referring the "No Recommendation/None" category.)

Report Specific Filtering Options

In addition to the general filter options, this report can be filtered by a specific type of recommendation or the date when the recommendation is due. The date boxes at the top of the filter page allow for appointment date filtering.

Disabling the Incomplete Records filter allows HiTrack to include actions for any babies, not only ones meeting the three criteria above. This may be useful for reporting actions recorded for babies that passed their hearing screening.

Needing Outpatient Report

This report includes babies with any of the following classifications:

Inpatient	Inpatient Referred Missed Inpatient Screening Inconclusive Inpatient Results Refused Inpatient Screening Transferred Out before/during Inpatient Screening
Outpatient	Outpatient Inconclusive Results, Need to Locate for Outpatient Screening' Scheduled for Outpatient Screening' No Outpatient Information'.

Report Specific Filtering Options

This report uses the general filtering options.

Outpatient Screening Report

This report lists babies known to the current Facility or Facility Group with Outpatient screening results. The final pages of the report provide summary outcome counts and nursery level counts for babies listed on the report.



This report may help answer the question: "I need to report Outpatient screening differently for billing purposes; how do I get a list of patients who came back for Outpatient screening?"

Report Specific Filtering Options

This report uses the general filtering options and also allows for filtering by screening outcome classifications.

Physicians Report

This report lists babies by their Primary Care Provider and provides an alternative to printing individual letters to inform physicians of screening results. The report can be generated for all physicians or for only those who wish to receive information in this format. If no patients of a particular physician were screened during the selected date range, no report is generated for that physician.

The list of babies for each Physician starts on a new page.



This report helps answer the questions: "How can I communicate patient hearing screening outcomes to doctors?" and "Which baby records do not have their doctor specified?"

Report Specific Filtering Options

In addition to the general filter options this allows for filtering by screening classification and by specific doctor.

Risk Indicator Report

On this report the JCIH risk indicators are listed as columns across the top of the report with baby records showing as rows. The risk indicators abbreviation explanations and indicator statistics are included at the end of the report. A diagnostic and Hearing status evaluation summary is also provided at the end of the report.

This report includes babies that are marked as 'Yes' for any Risk Indicator.

In HiTrack version 5, several indicators have been retired to conform to the modern JCIH Position Statement. These retired indicators are provided on this report for historical reporting purposes.



Report Specific Filtering Options

This report uses the general filtering options and also allows for filtering by each indicator.

Screener Profile Report

This report shows screening outcome rates broken down by screening Facility, Screener and then the stage of screening. Audiologists are included as Screeners on this report as well as other screens in HiTrack. All Most Conclusive Ear results are counted unless filtered by technology type.



This report helps hospital program coordinators answer the following question: "Which screeners at my hospital need additional training and monitoring?"

Report Specific Filtering Options

In addition to the general filtering options this report provides the ability to filter by screening technology.

Screening Results Report

This report lists babies within the specified Selection Criteria range and infant screening outcomes. You can create a concise listing of babies including only name, medical record number, date of birth and screening results or a more comprehensive report including contact information. The final pages of the report provide summary outcome counts and nursery level counts for babies listed on the report.

Report Specific Filtering Options

This report uses the general filtering options and also allows for filtering by screening outcome classifications.

Flow Chart

The Flow Chart lets screening program coordinators see the 'flow' of babies through their program. It provides a concise one-page summary of the total number of births, the numbers and percentages of babies who passed, were referred, were not screened, the number of children undergoing specific types of diagnostic assessment, and the number found to have confirmed hearing loss. Periodic review of the HiTrack Flow Chart allows coordinators to assess the quality of their program.

There are three main vertical sections on this report: Inpatient, Outpatient and Hearing Status (Evaluation). The total # of babies at the top of the chart indicates how many babies are at this facility.

The Flow Chart is also clickable. Clicking on a category such as "Screened" will bring up a list of all the babies that are included in the category. These babies can then be added to a [Baby Basket](#) for further inspection or revision.

Inpatient Section

The top section shows the number of babies for each IP screening outcome. A special "NICU" category is included in the Not Screening box to account for babies without screening results (Missed or No Information) because they are still in an intensive care unit. Babies with a nursery level other than "Well Baby Nursery" are counted here if they have no IP results.

Outpatient Section

The OP section accounts for all babies who 'Referred' after being screened during IP, whose IP results were 'Inconclusive' or who were 'Not Screened' during IP. The OP section is divided vertically into two sections; OP outcomes for babies who were not screened during IP are shown on the right and OP outcomes for babies whose IP results were Referred or Inconclusive are on the left.



The divided OP section lets program coordinators assess OP screening efficiency. It answers the questions: "How effective are my programs' follow-up policies for babies who come back for additional screening? Are these policies working to screen babies who were missed at birth?"

Hearing Status

The Hearing Status section includes a count for the Total Recommended for Evaluation. This count includes babies who were referred from OP screening, who referred directly to diagnostic evaluation ('No Out. Scrn ->Dx') and babies who received some diagnostic evaluation without being referred in a typical way. These atypical babies are reported in 'Atypical - > Dx' box in the

center of the chart. These are babies whose records indicate evaluation in process or a confirmed hearing status although they passed or were not screened during IP or OP.

Most Conclusive Outcomes for Hearing Status are used to categorize babies in the Hearing Status section and must be manually set for each baby.

The Total Recommended for Evaluation is divided into four sub-sections:

Normal Hearing	Babies who have 'Confirmed Normal' Hearing.
Not Evaluated	Babies for whom Tracking has been stopped because they have been marked as Discontinued, Lost/Locate, Refused or Deceased.
Evaluation in process	Babies who do not yet have a confirmed hearing status divided by their current Diagnostic Recommendation. ('In Process'). The last category in this box shows babies who have yet not received a diagnostic recommendation.
Confirmed Loss	Babies with a Confirmed Loss. Unspecified Type of Loss shows the number of babies with only Sound Field Hearing Status or whose type of loss is not yet specified.

HiTrack's Flow Chart also accommodates Single Stage protocols where babies are referred directly for evaluation when they do not pass Inpatient screening. In this case, babies who do not pass Inpatient screening will be counted under the 'No Out. Scrn ->Dx' counts in the Outpatient section chart and then represented in the Hearing Status section below.

Confirmed Loss - Other Category

This count includes babies with a confirmed loss where one or both of the selected Hearing Status ear entries are Neural or Undetermined Loss.

Evaluation in Process

This count reports babies who did not Pass Inpatient or Outpatient that have no other diagnostic Recommendations.

Unmonitored Babies with Risk Indicators

This supplemental count reports babies with positive ("Yes") Risk Indicators that don't have an active Risk Monitoring Recommended Action and that are not being evaluated for hearing loss.

Pass Babies Monitored for Risk Indicators

This supplemental count reports babies that have an active Risk Monitoring Recommended Action that have Passed Inpatient/Outpatient Screening.

Report Specific Filtering Options

This report uses the general filtering options.

Grouping Options

This report can be grouped in three different ways. Grouping the data as a single report shows all babies for the selection criteria on one Flow Chart. When grouped by Multiple Birth facility or Multiple Inp. Screening Site the total list of babies is divided into different Flow Chart pages based on where they were born or where they were screened. Note that changing the grouping options does not change the total number of babies included, it only affects how they are shown.

Hospital Summary

The Hospital Summary report allows state and regional screening program coordinators to see the 'flow' of babies through facilities in their program. It provides concise facility-oriented summaries of the total number of babies, the numbers and percentages of babies who passed, were referred, were not screened, the number of children undergoing specific types of diagnostic assessment, and the number found to have confirmed hearing loss. The numbers on this report are based on the same criteria as the HiTrack Flow Chart, except that the OP section counts are simplified.

On this report each row of numbers and percentages represents a facility grouped as either a Birthing or Screening location followed by an 'All Facilities' total at the end of the report.



This report allows state and regional coordinators to answer the following question: "How can I compare and report each facility in my state or region in one step?" This report can also be used as a "score card" for facility coordinator training meetings!

Report Specific Filtering Options

This report uses the general filtering options.

Grouping Options

This report can be grouped in three different ways. Grouping the data as a single report shows all babies for the selection criteria as one row with total counts. When grouped by MultipleBirth facility or Multiple Inp. Screening Site, the total list of babies are divided into different Facility rows based on where they were born or where they were screened. Note that changing the grouping options does not change the total number of babies included, it only affects how they are shown.

Quarterly Report

This 12-month report is composed of four main categories: Percent Screened as Inpatients, Percent Passing Inpatient Screening, Percent Completing Outpatient Screening and Hearing Status. The first two categories are shown together in the first half of the report and the latter two categories are also shown together in the second half of the report. Each facility is shown as a row and a "Quarter Totals" summary count is included at the end of each section.



This report is helpful because it allows a state or regional coordinator to evaluate screening statistics over time. It helps answer the following questions: "I have just started a new protocol in my state/region how can I tell if overall performance has improved?" and "How can I report percentages of screening completion for all facilities in my state/region?"

Percent Screened as Inpatient

Actual: IP Pass + IP Refer + IP Inconclusive

Expected: Total Babies - IP Refused - IP Deceased

Percent Passing Inpatient Screening

Actual: IP Pass

Expected: IP Pass + IP Refer + IP Inconclusive (Same as Actual 'Screened')

No Info

Totals grouped by facility are shown for babies who have no information.

Deceased

Totals grouped by facility are shown for babies who are marked as Deceased during the IP stage.

Percent Completing Outpatient Screening

Actual: OP Refer + OP Pass + 'No Scrn ->Dx' + OP Inconclusive

Expected: IP Referred + IP Inconclusive + Missed + IP No-Info - OP Deceased.

This does not include IP Transferred, allowing individual hospitals to possibly show more than 100%.



'No Scrn -> Dx' is included to account for babies with atypical evaluation. Any sites using a [Single Stage](#) protocol will see most of their non-pass babies counted in this category.

Referred For Diagnostics

Actual: Total Recommended for Evaluation (Includes Atypical Dx),

Expected: Total Babies - IP Deceased - OP Deceased

Other Dx

These numbers equal totals for each respective Hearing Status section based on the Flow Chart categories.

No Follow-Up

This number includes babies from the following categories: Need to Locate, Refused, Deceased, and Follow-up Discontinued.

Report Specific Filtering Options

This report uses the general filtering options and may be grouped by facility.

Grouping Options

This report can be grouped in three different ways. Grouping the data as a single report shows all babies for the selection criteria as one row with total counts. When grouped by Multiple Birth Facility or Multiple Inp. Screening Site the total list of babies is divided into different Facility rows based on where they were born or where they were screened. Note that changing the grouping options does not change the total number of babies included, it only affects how they are shown.

Technology Summary

This report shows summary information for OAE and A-ABR screening technologies. This helps answer the questions: "How can I report screening effectiveness by technology?", "Is my first stage screening technology providing a cost effective waypoint?", and "Do I need to consider changing screening technology at my facility?"



Each count represents an overall "head" screening outcome at a given stage of screening. (For example, if the Most Conclusive Ear results are both OAE then the baby is counted in the OAE column. If the Most Conclusive Ear results are both A-ABR then the baby is counted in the A-ABR column.)

The first column indicates the facility name for which these babies are reported. Inpatient and Outpatient counts are provided for each facility as separate rows of information. The total number of infants screened at the stage is given. The number of infants not screened for that stage is included in curled brackets. "{x}".

The third and fourth columns show baby counts whose head screening outcomes were either OAE or A-ABR.

The last column on the right counts babies who have a Most Conclusive Ear result with one technology for one ear and a different technology for the other ear.

A noteworthy count on this report is the {Non-Pass OAE} count under the A-ABR column. This number shows the number of babies with A-ABR Most Conclusive Results that also did not pass screening with OAE.

Report Specific Filtering Options

This report uses the general filtering options.

Grouping Options

This report can be grouped in three different ways. Grouping the data as a single report shows all babies for the selection criteria as one row with total counts. When grouped by Multiple Birth Facility or Multiple Inp. Screening Site the total list of babies is divided into different Facility rows based on where they were born or where they were screened. Note that changing the grouping options does not change the total number of babies included, it only affects how they are shown.

Milestone Summary Report

The Milestone Summary Report (and the Milestone mode on the Baby List) use the following criteria for each milestone. Hearing Loss dates are based on the hearing entry specified as a Most Conclusive outcome on the Hearing Status screen. Deceased babies are excluded from these counts.



This report helps answer the questions: "How closely is my program meeting the recommended CDC milestones?" and "What is my programs average age of loss of identification and EI enrollment?"

"Screened by" Milestone:

This count uses the screening Most Conclusive Result date of Inpatient screening or Outpatient screening if it exists. Babies without Most Conclusive Results are considered Late or Overdue for this Milestone.

"Hearing Identified by" Milestone:

This count reports the user-selected first date of hearing disposition for babies in the following categories:

Inpatient Referred
Inconclusive Inpatient Results
Outpatient Refer
Outpatient Inconclusive Results
Go directly to Evaluation without Outpatient Screening
<i>Not:</i> Outpatient Pass
<i>Not:</i> Follow-Up Discontinued before/during Outpatient Screening

Babies in these categories without a hearing disposition specified are considered Late or Overdue for this Milestone.

"Enrolled by" Milestone:

This count uses the date enrolled entered from the Services screen or the Confirmed Appt. Date/Target date on the "Early Intervention Referral" recommendation for babies with:

Hearing Loss specified
<i>Not:</i> Refused Evaluation
<i>Not:</i> Parental Opt-Out of service
<i>Not:</i> Deceased before/during Eval

Babies with a hearing loss specified without Services or EI Referrals specified are considered Late or Overdue for this Milestone.

Report Specific Filtering Options

This report uses the general filtering options.

Grouping Options

This report can be grouped in three different ways. Grouping the data as a single report shows all babies for the selection criteria as one row with total counts. When grouped by Multiple Birth Facility or Multiple Inp. Screening Site the total list of babies is divided into different Facility rows based on where they were born or where they were screened. Note that changing the grouping options does not change the total number of babies included, it only affects how they are shown.

Custom Reports

Selecting this report option will open up an "Custom Reports" list. This list lets you select an existing saved report to run, create a new report or delete an existing report.

Clicking the New **+** button starts a new report:

The screenshot shows the 'Custom Reports' configuration interface. At the top, there is a 'Report Name' text input field. Below it, on the left, is a sidebar with various filters: 'Date' (with 'Birthdate' selected and a date range from '7-1-2017' to '10-9-2017'), 'Birth Facility' (set to 'All'), 'Inp Screening Site' (set to 'All'), 'Nursery' (set to 'All'), and 'Test Type' (set to 'All'). Below these filters is an 'Advanced Criteria' button with a plus sign. The main area is titled 'Columns' and contains three column selection boxes labeled 'Name', 'Birthdate', and 'Medical ID'. To the right of these boxes are three toggle switches for 'Sort Ascending', 'First Col', 'Second Col', and 'Third Col'. Below the columns is a 'Description' text area with a plus sign button. At the bottom right, there are four buttons: 'Save', 'CSV', 'XML', and a lightning bolt icon.

The Column box allows you to select up to 12 columns to include on the report. Click on the existing column to change its definition. Click on the add **+** button to add a new column and choose its definition.

Advanced Selection Criteria can be created using the same steps as used in [Advanced Criteria](#) for other reports.

Choose whether to sort each column in ascending by checking or unchecking the slide bar next to each column.

Overall report options are provided at the left of the screen. You can name the report at the top of the screen, and save the report or generate the report as well as include a description of the report, at the bottom of the screen.

When a report is generated the results of the report, including the selected columns, are shown in a grid that can be printed or exported using buttons below the list.



When report results are saved as a CSV (comma separated values) file HiTrack creates a file that can be opened in Microsoft Excel 2003 automatically for further reporting flexibility.

Advanced Criteria

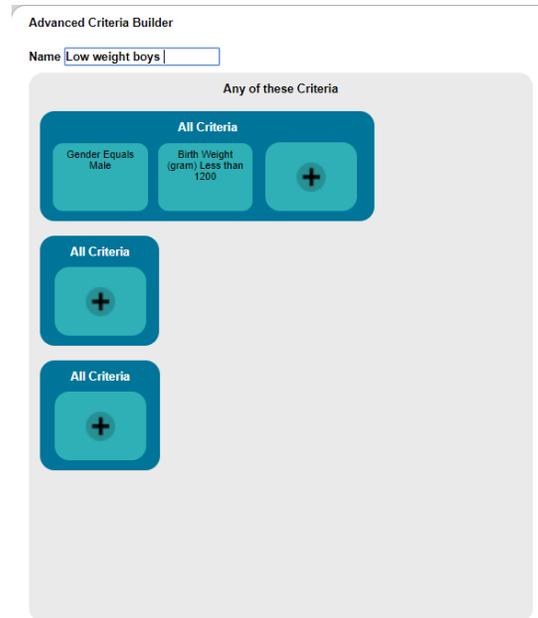
Advanced criteria can be added to most reports in HiTrack allowing for targeted reporting and data quality investigation.

Adding criteria

The "Add"  button below the grid shows the Advanced Criteria screen. The Name field is used to describe complex criteria, such as "Low weight boys".

Clicking to add under "All Criteria" will bring up a box on the right hand side of the screen with two drop down boxes. The drop down box on the top allows you to select criteria elements. After an element is selected the drop down on the bottom provides relevant options such as "Equals", "Not Equals", "Is Blank" and other options for date and number ranges.

Adding a second criteria element in the same "All Criteria" section (surrounded by dark blue) will make the advanced criteria contingent on every element listed together. i.e. these criteria function as Boolean "AND" operations.



For example if two elements are selected as shown above, a baby must qualify for *both* elements at the same time to be included with this criteria. "Gender Equals Male and Birth Weight Less than 1200."

After selecting the desired elements for this criterion the "Add"  button can be used to include this in the advanced criteria grid.

You can clear any advanced criteria you do not want showing up by selecting the trash can symbol .

Boolean "OR" Operation

Criteria entered into separate "All Criteria" sections will filter using Boolean "OR" operations. For example if you added the criteria from the example above in two separate "All Criteria" sections then the possible list of infants would be expanded to include babies with either criteria: "Gender Equals Male or Birth Weight Less than 1200."

Appendix C: Classification Combinations

This table lists the overall combined screening outcome used on some reports.

Inpatient	Inpatient Ears	Outpatient	Outpatient Ears	CDC Outcome
Inconclusive	0	Broken Appt.	0	Unknown
Inconclusive	0	Deceased	0	Deceased
Inconclusive	0	Discontinued	0	Unknown
Inconclusive	0	Inconclusive	0	Unknown
Inconclusive	0	Inconclusive	1	Missed
Inconclusive	0	Inconclusive	2	Not Passed
Inconclusive	0	No Info.	0	Unknown
Inconclusive	0	No Out. Scrn->Eval	0	Not Passed
Inconclusive	0	Passed	1	Missed
Inconclusive	0	Passed	2	Passed
Inconclusive	0	Referred	1	Missed
Inconclusive	0	Referred	2	Referred
Inconclusive	0	Refused	0	Refused
Inconclusive	0	Scheduled	0	Unknown
Inconclusive	1	Broken Appt.	0	Missed
Inconclusive	1	Deceased	0	Deceased
Inconclusive	1	Discontinued	0	Missed
Inconclusive	1	Inconclusive	0	Missed
Inconclusive	1	Inconclusive	1	Missed
Inconclusive	1	Inconclusive	2	Not Passed
Inconclusive	1	No Info.	0	Missed
Inconclusive	1	No Out. Scrn->Eval	0	Not Passed
Inconclusive	1	Passed	1	Not Passed
Inconclusive	1	Passed	2	Passed
Inconclusive	1	Referred	1	Not Passed
Inconclusive	1	Referred	2	Referred
Inconclusive	1	Refused	0	Refused
Inconclusive	1	Scheduled	0	Missed

Inconclusive	2	Broken Appt.	0	Not Passed
Inconclusive	2	Deceased	0	Not Passed
Inconclusive	2	Discontinued	0	Not Passed
Inconclusive	2	Inconclusive	0	Not Passed
Inconclusive	2	Inconclusive	1	Not Passed
Inconclusive	2	Inconclusive	2	Not Passed
Inconclusive	2	No Info.	0	Not Passed
Inconclusive	2	No Out. Scrn->Eval	0	Not Passed
Inconclusive	2	Passed	1	Not Passed
Inconclusive	2	Passed	2	Passed
Inconclusive	2	Referred	1	Not Passed
Inconclusive	2	Referred	2	Referred
Inconclusive	2	Refused	0	Not Passed
Inconclusive	2	Scheduled	0	Not Passed
Missed	0	Broken Appt.	0	Missed
Missed	0	Deceased	0	Deceased
Missed	0	Discontinued	0	Missed
Missed	0	Inconclusive	0	Missed
Missed	0	Inconclusive	1	Missed
Missed	0	Inconclusive	2	Not Passed
Missed	0	No Info.	0	Missed
Missed	0	No Out. Scrn->Eval	0	Not Passed
Missed	0	Passed	1	Missed
Missed	0	Passed	2	Passed
Missed	0	Referred	1	Missed
Missed	0	Referred	2	Referred
Missed	0	Refused	0	Refused
Missed	0	Scheduled	0	Missed
No Info.	0	Broken Appt.	0	Unknown
No Info.	0	Deceased	0	Deceased
No Info.	0	Discontinued	0	Unknown

No Info.	0	Inconclusive	0	Unknown
No Info.	0	Inconclusive	1	Missed
No Info.	0	Inconclusive	2	Not Passed
No Info.	0	No Info.	0	Unknown
No Info.	0	No Out. Scrn->Eval	0	Not Passed
No Info.	0	Passed	1	Missed
No Info.	0	Passed	2	Passed
No Info.	0	Referred	1	Missed
No Info.	0	Referred	2	Referred
No Info.	0	Refused	0	Refused
No Info.	0	Scheduled	0	Unknown
Passed	1	Broken Appt.	0	Missed
Passed	1	Deceased	0	Deceased
Passed	1	Discontinued	0	Missed
Passed	1	Inconclusive	0	Missed
Passed	1	Inconclusive	1	Missed
Passed	1	Inconclusive	2	Not Passed
Passed	1	No Info.	0	Missed
Passed	1	No Out. Scrn->Eval	0	Not Passed
Passed	1	Passed	1	Missed
Passed	1	Passed	2	Passed
Passed	1	Referred	1	Missed
Passed	1	Referred	2	Referred
Passed	1	Refused	0	Refused
Passed	1	Scheduled	0	Missed
Passed	2	Broken Appt.	0	Passed
Passed	2	Deceased	0	Passed
Passed	2	Discontinued	0	Passed
Passed	2	Inconclusive	0	Passed
Passed	2	Inconclusive	1	Not Passed
Passed	2	Inconclusive	2	Not Passed

Passed	2	No Info.	0	Passed
Passed	2	No Out. Scrn->Eval	0	Passed
Passed	2	Passed	1	Passed
Passed	2	Passed	2	Passed
Passed	2	Referred	1	Referred
Passed	2	Referred	2	Referred
Passed	2	Refused	0	Passed
Passed	2	Scheduled	0	Passed
Referred	1	Broken Appt.	0	Missed
Referred	1	Deceased	0	Deceased
Referred	1	Discontinued	0	Missed
Referred	1	Inconclusive	0	Missed
Referred	1	Inconclusive	1	Missed
Referred	1	Inconclusive	2	Not Passed
Referred	1	No Info.	0	Missed
Referred	1	No Out. Scrn->Eval	0	Not Passed
Referred	1	Passed	1	Missed
Referred	1	Passed	2	Passed
Referred	1	Referred	1	Missed
Referred	1	Referred	2	Referred
Referred	1	Refused	0	Refused
Referred	1	Scheduled	0	Missed
Referred	2	Broken Appt.	0	Referred
Referred	2	Deceased	0	Referred
Referred	2	Discontinued	0	Referred
Referred	2	Inconclusive	0	Referred
Referred	2	Inconclusive	1	Not Passed
Referred	2	Inconclusive	2	Not Passed
Referred	2	No Info.	0	Referred
Referred	2	No Out. Scrn->Eval	0	Referred
Referred	2	Passed	1	Referred

Referred	2	Passed	2	Passed
Referred	2	Referred	1	Referred
Referred	2	Referred	2	Referred
Referred	2	Refused	0	Referred
Referred	2	Scheduled	0	Referred
Refused	0	Broken Appt.	0	Refused
Refused	0	Deceased	0	Deceased
Refused	0	Discontinued	0	Refused
Refused	0	Inconclusive	0	Refused
Refused	0	Inconclusive	1	Missed
Refused	0	Inconclusive	2	Not Passed
Refused	0	No Info.	0	Refused
Refused	0	No Out. Scrn->Eval	0	Not Passed
Refused	0	Passed	1	Missed
Refused	0	Passed	2	Passed
Refused	0	Referred	1	Missed
Refused	0	Referred	2	Referred
Refused	0	Refused	0	Refused
Refused	0	Scheduled	0	Refused
Transferred Out	0	Broken Appt.	0	Transferred
Transferred Out	0	Deceased	0	Deceased
Transferred Out	0	Discontinued	0	Transferred
Transferred Out	0	Inconclusive	0	Unknown
Transferred Out	0	Inconclusive	1	Missed
Transferred Out	0	Inconclusive	2	Not Passed
Transferred Out	0	No Info.	0	Transferred
Transferred Out	0	No Out. Scrn->Eval	0	Not Passed
Transferred Out	0	Passed	1	Missed
Transferred Out	0	Passed	2	Passed
Transferred Out	0	Referred	1	Missed
Transferred Out	0	Referred	2	Referred

Transferred Out	0	Refused	0	Refused
Transferred Out	0	Scheduled	0	Transferred
Deceased	0	Broken Appt.	0	Deceased
Deceased	0	Deceased	0	Deceased
Deceased	0	Discontinued	0	Deceased
Deceased	0	Inconclusive	0	Deceased
Deceased	0	Inconclusive	1	Deceased
Deceased	0	Inconclusive	2	Deceased
Deceased	0	No Info.	0	Deceased
Deceased	0	No Out. Scrn->Eval	0	Deceased
Deceased	0	Passed	1	Deceased
Deceased	0	Passed	2	Deceased
Deceased	0	Referred	1	Deceased
Deceased	0	Referred	2	Deceased
Deceased	0	Refused	0	Deceased
Deceased	0	Scheduled	0	Deceased

Appendix D: Merge Matching Criteria and Overwrite rules

HiTrack checks for existing records when merging from [Equipment data files](#) or [Data Export files](#). Existing records are found in two steps. First, the database is filtered down to a short list of possible matches. During the second step a matching “score” is determined for each record in this short list. Depending on the score the records will be merged together, added as a new record or left for user resolution.

Step 1: Filters are used to find a list of possible matches

Based on the type of merge, HiTrack filters down the number of infants to examine for matches by performing the following filters (in order) until matching records are found.

The purpose of the filters is to narrow down a potentially huge database into a small subset that can be checked row by row.

If no records are found after checking all filters, the incoming record is added new.

Equipment Merges

<i>Search for...</i>	<i>Facility</i>
1. Babies born on the same day (excludes time of day) with an exact match on Medical ID	All
2. Babies born within 1 day with matching birth weight	Birth Facility
3. Babies born within 1 day with matching birth weight	Merging Facility

HiTrack 3.5 ETF Merges

Search for... (across all Facilities)

1. Babies with an exact match on HT35 Unique ID and Medical ID
2. Babies with an exact match on HT35 Unique ID and Birth Date
3. Babies born the same day (excludes time of day) with an exact match on Medical ID
4. Babies with an exact match on HT35 Unique ID and birth weight
5. Babies born within 1 day with matching birth weight and with similar last name (4 letters)

HiTrack 4 and 5 ETF4 and ETF5 Merges

Search for... (across all Facilities)

1. Babies with an exact match on HT4 "ID" (globally unique identifier)
2.. Uses same filters as HiTrack 3.5 ETF Merges

Step 2: Calculating match score for possible matches

A score is calculated for each baby found with filters and HiTrack decides what to do with the record based on the following ranges of scores:

0-54	Not a match
55 - 69	This is a possible match but needs user resolution. This baby is left in Pending Data as "Needing Attention".
70+	These records will be Automatically merged together. This is a "High Confidence" match.

A score lower than the "unsure match" score will result in a new record after all the babies found by filters have been checked for matches.

Some filters from Step 1 will result in subsets of babies whose records have already been pre-matched on a given field.

Baby Field Matching Scores

Scores are assigned for matches on the following fields:

HiTrack 4 "ID"	100
HiTrack 3.5 Unique ID	46
Baby DOB	40
Medical ID	25
Birth Weight	10
Baby last name	5

Score can be inferred as "trust" of the field used in matching. Matches on Globally Unique IDs (GUIDS) from HiTrack 4 ETF4 files ("ID") will always result in an automatic match. (Score 100> Score 70)

Other Scores

Demographic merges, alldata.txt and demgraph.txt have slightly different scores because they give higher score value (trust) to Medical IDs.

Merges from XML files use the same filters and scores as HiTrack 4 and 5 ETF4 and 5 rules.

Match Score Examples

Same lastname, weight and medical ID, all else different (or blank)	Score: $25+10+5=35$	Not a Match
Same DOB and lastname, all else different (or blank)	Score: $40+5=45$	Not a match
Same HT35 Unique ID, all else different (or blank)	Score: 46	Not a match
Same HT35 Unique ID and Medical ID, all else different (or blank)	Score: $46+25=71$	High Confidence Match, Automatically merged
Same DOB, weight and last name, all else different (or blank)	Score: $40+10+5=55$	Unsure match, "Needs Attention".

Field Overwriting

HiTrack uses rules when baby records are automatically merged from a High Confidence match to determine which fields to overwrite.

HiTrack updates and overwrites existing baby records by splitting each baby record into three areas:

<p>Baby Identifying Fields: Medical ID, Last name, first name and Birth date.</p>	<p>Other Baby demographic fields</p>	<p>Screening History, Diagnostics, Contacts and other historical lists of information for the baby</p>
---	--	--

Depending on the source of data the following rules are used:

<i>Source</i>	Identifying Fields	Other Fields	Historical Lists
<p>Data Export from another HiTrack 5 database.</p>	<p>Identifying fields, such as last name and birth date, are handled individually. Whichever value was changed most recently is retained.</p>	<p>If any of the incoming values for this area have changed more recently then all of the existing fields in this area are overwritten to the incoming values.</p>	<p>All fields for exact* entries are overwritten with incoming values if they have changed more recently. New records are appended</p>
<p>Data Export from a HiTrack 4 or 3.5 database</p>	<p>If any of the incoming values have changed more recently then all of the existing fields are overwritten to the incoming values.</p>	<p>All fields for exact* entries are overwritten with incoming values if they have changed more recently. New records are appended</p>	
<p>Equipment Files</p>	<p>No fields are overwritten. New values for blank fields are inserted.</p>	<p>Existing contacts are updated based on matching last and first names. All other records are always appended.</p>	

Additional Overwriting Information

*Existing historical entries are matched on HiTrack's internal Primary Keys. This allows HiTrack to confidently match existing historical rows.

HiTrack's Change Log keeps logs changes to identifying fields during merge overwrites.

Customized field overwriting is allowed for baby and person matches that require user attention.

HiTrack 5 Data Export overwrite rules are used when merging from data in XML sources.

Appendix E: Most Conclusive Result Calculation

Overview

HiTrack not only allows users to save multiple screening results for an infant, it also saves data management time by automatically determining which results best reflect the child’s overall screening status and need for follow-up. HiTrack uses ranking rules to: 1) select a Most Conclusive set of Left and Right ear results at each screening level (Inpatient/Outpatient) and 2) combine Left and Right ear results to produce a Most Conclusive Head result at each screening level. The Most Conclusive Head results determine how a child will be [counted in reports](#), what follow-up is needed, and which [letter will automatically be generated](#) for the child’s parent and health care providers.

Most Conclusive Result Ranking Rules

HiTrack’s ranking rules have been carefully thought through and periodically reviewed to correctly determine the Most Conclusive Head results for children in the most common screening scenarios. In the small number of cases where unique circumstances would suggest that a different decision rule should be applied a user can override HiTrack’s selection and manually designate the Most Conclusive results for an infant.

HiTrack offers two ranking rules:

<i>"Results ranked independent of technology" (default)</i>
<i>"Results ranked with precedence given to Automated ABR"</i>

At the broadest level both rules use the following algorithm:

<i>MCRs...</i>	<i>Rule</i>
for Individual Ears	Best Test Result is selected. ("Pass beats Refer")
for Head Result	Worst Test Result (from Left and Right MCR) is selected.

“Same Day” Most Conclusive Result Option

HiTrack also allows program coordinators to require that most conclusive results to only be selected from the most recent screenings that happened on the same day as the other ear. When this setting is enabled “Inconclusive” will be reported for any baby that has only one ear pass on the most recent day.

This setting helps programs follow the JCIH recommendation that both ears should be rescreened – even ears that passed in prior attempts.

“Same Session” Most Conclusive Result Option

This new Advanced Setting limits Most Conclusive Results to only tests within one hour of each other.

Note – Not all screening equipment provides Time of Screening to HiTrack. The selection logic will fall back to “Same Day” rules for screening results that don’t have “time” documented.

Optional Most Conclusive Result Window

When the “*Consider most recent results from the same side within ...*” option is used HiTrack calculates Most Conclusive Results (MCRs) using a ranking rule for test results but first filters the results by a “window of time” since the latest result was obtained. (Inpatient and Outpatient results are calculated separately.) By default this window is defined as beginning 5 days prior to the newest test and ending on the date of the newest test.

The following two examples illustrate how the Most Conclusive Result Window works.

Example #1

Inpatient Day	1 (DOB)	2	3	5	6	7	8	
	Excluded results		←MCR Window→					MCR Outcome
Right Ear	Pass						Refer	Refer
Left Ear	Pass						Refer	Refer

The shaded area above shows results that will be excluded in the query for seeking Most Conclusive Results. In this case, the baby’s result would be calculated as an overall “Refer” instead of an overall “Pass”.

Example #2

Inpatient Day	1 (DOB)	2	3	5	6	7	8	
	Excluded results		←MCR Window→					MCR Outcome
Right Ear	Pass				Pass		Refer	Pass
Left Ear	Invalid				Pass		Refer	Pass

In this example the overall results would be a “Pass” because both ear passes are within the ranking filter window.

In general, the MCR Window affects only infants in Inpatient for more than five days with developing hearing loss that results from, for example, Head Trauma, high doses of Ototoxic Medications or Meningitis. As always, clinical judgment should be used in cases where the circumstances and conditions require manual overriding.

Appendix F: Automatic Letter Generation Criteria

Criteria

The following table explains what automatic letters will be generated based on possible combinations of Inpatient and Outpatient Screening results.

<i>Letter Title</i>	<i>Inpatient Head Result</i>	<i>Outpatient Head Result</i>
Diagnostic Referral (PC)	Inconclusive	Inconclusive
Diagnostic Referral (PC)	Inconclusive	No Out. Scrn->Eval
Diagnostic Referral (PC)	Inconclusive	Referred
Diagnostic Referral (PC)	Missed	Inconclusive
Diagnostic Referral (PC)	Missed	No Out. Scrn->Eval
Diagnostic Referral (PC)	Missed	Referred
Diagnostic Referral (PC)	No Info.	Inconclusive
Diagnostic Referral (PC)	No Info.	No Out. Scrn->Eval
Diagnostic Referral (PC)	No Info.	Referred
Diagnostic Referral (PC)	Passed	Inconclusive
Diagnostic Referral (PC)	Passed	No Out. Scrn->Eval
Diagnostic Referral (PC)	Passed	Referred
Diagnostic Referral (PC)	Referred	Inconclusive
Diagnostic Referral (PC)	Referred	No Out. Scrn->Eval
Diagnostic Referral (PC)	Referred	Referred
Diagnostic Referral (PC)	Refused	Inconclusive
Diagnostic Referral (PC)	Refused	No Out. Scrn->Eval
Diagnostic Referral (PC)	Refused	Referred
Diagnostic Referral (PC)	Transferred Out	Inconclusive
Diagnostic Referral (PC)	Transferred Out	No Out. Scrn->Eval
Diagnostic Referral (PC)	Transferred Out	Referred
Diagnostic Referral (Physician)	Inconclusive	Inconclusive
Diagnostic Referral (Physician)	Inconclusive	No Out. Scrn->Eval
Diagnostic Referral (Physician)	Inconclusive	Referred
Diagnostic Referral (Physician)	Missed	Inconclusive

Diagnostic Referral (Physician)	Missed	No Out. Scrn->Eval
Diagnostic Referral (Physician)	Missed	Referred
Diagnostic Referral (Physician)	No Info.	Inconclusive
Diagnostic Referral (Physician)	No Info.	No Out. Scrn->Eval
Diagnostic Referral (Physician)	No Info.	Referred
Diagnostic Referral (Physician)	Passed	Inconclusive
Diagnostic Referral (Physician)	Passed	No Out. Scrn->Eval
Diagnostic Referral (Physician)	Passed	Referred
Diagnostic Referral (Physician)	Referred	Inconclusive
Diagnostic Referral (Physician)	Referred	No Out. Scrn->Eval
Diagnostic Referral (Physician)	Referred	Referred
Diagnostic Referral (Physician)	Refused	Inconclusive
Diagnostic Referral (Physician)	Refused	No Out. Scrn->Eval
Diagnostic Referral (Physician)	Refused	Referred
Diagnostic Referral (Physician)	Transferred Out	Inconclusive
Diagnostic Referral (Physician)	Transferred Out	No Out. Scrn->Eval
Diagnostic Referral (Physician)	Transferred Out	Referred
Inpatient Inconclusive/Missed (PC)	Inconclusive	No Info.
Inpatient Inconclusive/Missed (PC)	Missed	No Info.
Inpatient Inconclusive/Missed (Phys.)	Inconclusive	No Info.
Inpatient Inconclusive/Missed (Phys.)	Missed	No Info.
Inpatient Pass (PC)	Passed	No Info.
Inpatient Pass (Physician)	Passed	No Info.
Inpatient Refer for Outp. (Physician)	Referred	No Info.
Inpatient Refer for Outp. Scn (PC)	Referred	No Info.
Inpatient Refusal (PC)	Refused	No Info.
Inpatient Refusal (Physician)	Refused	No Info.
Outpatient Broken Appt. (PC)	Inconclusive	Broken Appt.
Outpatient Broken Appt. (PC)	Missed	Broken Appt.
Outpatient Broken Appt. (PC)	No Info.	Broken Appt.
Outpatient Broken Appt. (PC)	Passed	Broken Appt.

Outpatient Broken Appt. (PC)	Referred	Broken Appt.
Outpatient Broken Appt. (PC)	Refused	Broken Appt.
Outpatient Broken Appt. (PC)	Transferred Out	Broken Appt.
Outpatient Broken Appt. (Physician)	Inconclusive	Broken Appt.
Outpatient Broken Appt. (Physician)	Missed	Broken Appt.
Outpatient Broken Appt. (Physician)	No Info.	Broken Appt.
Outpatient Broken Appt. (Physician)	Passed	Broken Appt.
Outpatient Broken Appt. (Physician)	Referred	Broken Appt.
Outpatient Broken Appt. (Physician)	Refused	Broken Appt.
Outpatient Broken Appt. (Physician)	Transferred Out	Broken Appt.
Outpatient Pass (PC)	Inconclusive	Passed
Outpatient Pass (PC)	Missed	Passed
Outpatient Pass (PC)	No Info.	Passed
Outpatient Pass (PC)	Passed	Passed
Outpatient Pass (PC)	Referred	Passed
Outpatient Pass (PC)	Refused	Passed
Outpatient Pass (PC)	Transferred Out	Passed
Outpatient Pass (Physician)	Inconclusive	Passed
Outpatient Pass (Physician)	Missed	Passed
Outpatient Pass (Physician)	No Info.	Passed
Outpatient Pass (Physician)	Passed	Passed
Outpatient Pass (Physician)	Referred	Passed
Outpatient Pass (Physician)	Refused	Passed
Outpatient Pass (Physician)	Transferred Out	Passed
Outpatient Refusal (PC)	Inconclusive	Refused
Outpatient Refusal (PC)	Missed	Refused
Outpatient Refusal (PC)	No Info.	Refused
Outpatient Refusal (PC)	Passed	Refused
Outpatient Refusal (PC)	Referred	Refused
Outpatient Refusal (PC)	Refused	Refused
Outpatient Refusal (PC)	Transferred Out	Refused

Outpatient Refusal (Physician)	Inconclusive	Refused
Outpatient Refusal (Physician)	Missed	Refused
Outpatient Refusal (Physician)	No Info.	Refused
Outpatient Refusal (Physician)	Passed	Refused
Outpatient Refusal (Physician)	Referred	Refused
Outpatient Refusal (Physician)	Refused	Refused
Outpatient Refusal (Physician)	Transferred Out	Refused

Appendix G: User Access Rights

This table lists the available User Access Right configurations and their descriptions. Most of the Access Rights are split up into four components: Access, Add/Edit/Delete Own, Edit Any and Delete Any. “Access” grants the least amount of access possible to give in a specific feature. Users in Groups with only “Access” cannot make changes. To allow additions and changes to one’s own data “Add/Edit/Delete Own” component should be added. All four components of an Access Right are needed to give complete control to a feature. The Edit Any and Delete Any access types should be reserved for users with very specific authorization and are generally used together.

Some Access Rights control whether a feature is enabled for that User Group. These are noted by the “Enable Feature” column.

HiTrack Feature	Access	Add/Edit/Delete Own	Edit Any	Delete Any	Enable Feature	Description
Advanced System Settings	x		x			View or edit system-wide settings
Amplification	x	x	x	x		View and update a baby's amplification device usage
Audiograms	x	x	x	x		View and update audiograms
Auditing	x					View the Change and Record View logs. Make User Watch selections
Baby Assignment to Other Users					x	Share an existing baby record to another user's Assigned to Me baby list
Baby Attachments	x	x	x	x		View and attach files to a baby's record
Baby Basket – Allow Delete				x		Allows permanent record deletion using the Baby Basket
Baby Letters	x	(add only)	x	x		View letter history and request new letters for a single baby
Baby List	x					View a configurable list of babies in a facility group or facility
Baby Notes	x	x	x	x		View and update baby notes
Baby Transfer	x	x	x	x		Transfer a baby's record to a different facility

Combine Baby Records					x	Combine duplicate baby records
Contact	x	x	x	x		View and update a baby's contact details
HiTrack Feature	Access	Add/Edit/Delete Own	Edit Any	Delete Any	Enable Feature	Description
Custom Forms	x	x	x	x		View and update custom form entries
Custom Forms - Maintenance					x	Create and update custom data collection forms in the Customization System feature
Custom Letters - Maintenance					x	Create and update custom letters
Custom Report	x	(add only)	x	x		Create and update custom reports (See 'User Defined Report' Appendix)
Custom Report User Group - Maintenance					x	Allows the ability to choose which user groups have access to a custom report
Data Export	x					Export data in a variety of file formats such as XML, CSV and TXT
Data Utility	x					Perform advanced data cleanup and customization
Database History	x					View a history of database changes and errors
Demographics	x	x	x	x		View and update a baby's demographic data
Developmental Measure	x					View Developmental Measure configurations in system settings
Developmental Measure - Maintenance					x	Create and update Developmental Measures
Diagnostics	x	x	x	x		View and update hearing diagnostic results

Services	x	x	x	x		View update Early Intervention enrollment and session entries
Equipment Linking					x	Export various facility lists for use in Screening Equipment software
External Links	x	x	x	x		Access or update links to external pages
Facility Audiologists	x	x	x	x		View and update audiologist information for your facility
Facility EI Programs	x	x	x	x		View and update early intervention individual/organization information for your facility
Facility Groups	x	(add only)	x	x		View and update facility groups within your database
Facility Letters	x	(add only)	x	x		View letter history and request new letters for a group of babies in a facility
Facility Merge Sources	x	(add only)	x	x		View and update facility merge source settings in Merge
Facility Physicians	x	x	x	x		View and update physician information for your facility
Facility Required Fields			x			Specify required fields for demographic, contact, and screening entries
Facility Screeners	x	x	x	x		View and update screeners for your facility
Facility Settings	x		x			View and update facility-wide settings for UI settings, Data Rules, and Required Fields
Facility Users	x	(add only)	x	x		View and update other HiTrack users at your facility

Hearing Status	x	x	x	x		View and update hearing status entries for a particular baby
HiTrack Feature	Access	Add/Edit/Delete Own	Edit Any	Delete Any	Enable Feature	Description
Hearing Status Advanced	x					Manually change Most Conclusive Outcomes if multiple diagnostics entries are available
Lab Testing	x	x	x	x		View and update lab testing entries
Letters Settings	x		x			View and update Letter Configuration and Templates
Medical ID Maintenance	x	x	x	x		View and update Medical IDs for other Facilities
Merge	x	(add only)	x	x		Import and merge data into HiTrack. Delete and Edit refer to Pending Data deletion and correction.
Merge Companion					x	Download the merge companion from the merge page to handle merging from the desktop
Override Screening MCRs					x	Manually change Most Conclusive Results if multiple screening entries are available
Pick List Customization	x	(add only)	x	x		View and update HiTrack pick lists
Recommended Actions	x	x	x	x		View and update recommended actions entries
Record Overview	x					See a general overview of a baby's record in the HiTrack database
Risk Indicators	x	x	x	x		View and update risk indicators for a baby as specified by the most recent JCIH guidelines

Screening	x	x	x	x		View and update screening entries
Script Report	x	(add only)	x	x		View and update customized Script Reports provided by the HiTrack Help Desk
System Facility List	x	(add only)	x	x		View and update all facilities within your HiTrack database
System Wide Search	x					Allows users to search for a baby outside of their current facility assignments
System Wide Users	x	(add only)	x	x		View all users within your database and update their credentials
Tracking Options	x	x	x	(reset)		View and update tracking information. Delete Access is needed to use the Reset Tracking Options Feature
User Activity Subscription					x	Select users to include in the User Activity Report
User Groups	x	(add only)	x	x		Assign users to specific group depending on their role: System Administrators can assign any User Group to any user. Facility Administrators can only assign users at their facilities to groups that are similar or more restrictive than their own group.

Appendix H: (User-Defined) Custom Report Columns

This table lists the available the available columns that can be integrated in a Custom Report.

Record Area	Name	Note
Amplification	Amplification CUID	HT User who created or changed Amplification entry
Amplification	Amplification Fitter	Person who fitted the patient's amplification device
Amplification	Amplification Style	Bone Conduction / Body Worn / BTE / Canal / CIC / ITE
Amplification	Amplification Type	Cochlear Implant / FM System / Hearing Aid
Amplification	Fitted Date	
Audiogram	Audiogram Audiologist	
Audiogram	Audiogram CUID	HT User who made Audiogram entry
Audiogram	Audiogram Date Created	
Audiogram	Audiogram Frequencies	
Audiogram	Audiogram Stage	Inpatient / Outpatient / Dx Evaluation / Early Intervention / Lab Testing
Audiogram	Audiogram Title	
Baby Information	All Medical IDs	
Baby Information	Attachment Change Date	
Baby Information	Attachment Content Date	
Baby Information	Attachment CUID	HT User who added attachment to baby record
Baby Information	Attachment Description	
Baby Information	Attachment Stage	Inpatient / Outpatient / Dx Evaluation / Early Intervention / Lab Testing
Baby Information	Attachment Upload Date	
Baby Information	Baby Entered By User Name	
Baby Information	Baby Record Change User Name	
Baby Information	Baby Tracking Status	
Baby Information	Birth Facility	
Baby Information	Birth Order	
Baby Information	Birth Weight	
Baby Information	Birthdate	
Baby Information	CDC Initial Dx is Different	Reports Y when the initial hearing status is different than the current hearing status
Baby Information	CDC Initial Dx is Different Any Conf	Reports Y when the initial hearing status is different than the current hearing status. Considers even unconfirmed status.

Baby Information	CDC Screening Outcome	
Baby Information	Current Location	
Baby Information	Current Protocol State	
Baby Information	Deceased Date	
Baby Information	Eligible for Part C	
Baby Information	Entered On Date	
Baby Information	Gender	
Baby Information	Gestation Age	
Baby Information	HITRACK 5 ID	GUID associated with baby's record in the HT database
Baby Information	ICU Days	
Baby Information	Infant Alt. Rec. #	
Baby Information	Latest Custom Field	
Baby Information	Latest Note	
Baby Information	Medical ID	
Baby Information	Medical ID Resp. Facility	
Baby Information	Milestones (1/3/6)	
Baby Information	Name	
Baby Information	Nursery Level	
Baby Information	Race	
Baby Information	Responsible Facility	
Baby Information	Source Facility	
Baby Information	Unique 3.5 ID	HT v 3.5 record ID
Contacts	Physician	
Contacts	Physician Contact CUID	HT User who assigned physician to baby record
Contacts	Primary Contact Address	
Contacts	Primary Contact Birthdate	
Contacts	Primary Contact County	
Contacts	Primary Contact CUID	
Contacts	Primary Contact Education Level	
Contacts	Primary Contact Email	
Contacts	Primary Contact Ethnicity	
Contacts	Primary Contact Is Birth Mother	
Contacts	Primary Contact Is Deceased	
Contacts	Primary Contact Language	
Contacts	Primary Contact Medical ID	
Contacts	Primary Contact Name	
Contacts	Primary Contact Phone	
Contacts	Primary Contact Race	
Contacts	Primary Contact State	
Contacts	Primary Contact Zip	

Diagnostics	Behav. Audiologist	
Diagnostics	Behav. Conduction	
Diagnostics	Behav. CUID	HT User who created or changed Behavioral Diagnostics entry
Diagnostics	Behav. Facility	
Diagnostics	Behav. Frequencies	
Diagnostics	Behav. Stage	Dx Evaluation / Early Intervention
Diagnostics	Behav. Stimulus	BOA / Play / VRA
Diagnostics	Behav. Test Date	
Diagnostics	DxABR Audiologist	
Diagnostics	DxABR Conduction	
Diagnostics	DxABR CUID	
Diagnostics	DxABR Facility	
Diagnostics	DxABR Frequencies	
Diagnostics	DxABR Stage	
Diagnostics	DxABR Stimulus	
Diagnostics	DxABR Test Date	
Diagnostics	OAE Audiologist	
Diagnostics	OAE CUID	HT User who made OAE Results entry
Diagnostics	OAE Facility	
Diagnostics	OAE Result	
Diagnostics	OAE Stage	Dx Evaluation / Early Intervention
Diagnostics	OAE Test Date	
Diagnostics	OAE Type	TEAOE / DPOAE / OAE / A-ABR
Diagnostics	Tymp Audiologist	
Diagnostics	Tymp CUID	HT User who created or changed Tympanometry results entry
Diagnostics	Tymp Facility	
Diagnostics	Tymp Result	
Diagnostics	Tymp Stage	Dx Evaluation / Early Intervention
Diagnostics	Tymp Test Date	
Diagnostics	Tymp Type	220 Hz / 226 Hz / 660 Hz / 678 Hz / 1000 Hz / Unknown
Services	Dev Screening	
Services	Services CUID	HT User who created or changed Services Entry
Services	Services Outcome	Enrolled / Refused / NA
Services	Enrolled With	
Services	Enrollment Activities	
Services	Enrollment Date	
Services	Enrollment Service Type	IFSP / Audiology / Speech Language / Assistive Technology /

		Service Coordination / Deaf Specialist Service / Medical / Nursing / Family Training / Other
Services	Enrollment Status	Enrolled / Pending / Monitoring / Not eligible / Out of Jurisdiction / Parent Opt-out
Services	Enrollment Status Date	
Services	First EI Session	
Services	First Home Visit	
Services	Interv Event Location	
Services	Interv Screening CUID	HT User who created or changed EI Screening entry
Services	Interv Type Code	
Services	Measure	
Services	Measurement By	
Services	Measurement CUID	HT User who created or changed EI Measurement entry
Services	Measurement Date	
Services	Person Conducting Session	
Services	Private Fund	
Services	Session Date	
Services	Session Number	
Services	Timeliness	
Hearing Disposition	Any Loss Confirmed	
Hearing Disposition	Audiologist	
Hearing Disposition	Conf. Date (Initial) Any	
Hearing Disposition	Confirmed Loss Date	
Hearing Disposition	Confirmed(Left)	
Hearing Disposition	Confirmed(Right)	
Hearing Disposition	Confirmed(Sound)	
Hearing Disposition	Days Since Confirmed HL	
Hearing Disposition	Degree Of Loss(Initial)	
Hearing Disposition	Degree Of Loss(Left)	
Hearing Disposition	Degree Of Loss(Right)	
Hearing Disposition	Degree Of Loss(Sound)	
Hearing Disposition	Eval. Date (Initial) Any	
Hearing Disposition	Evaluated Date (Initial)	
Hearing Disposition	Evaluation Head Result	
Hearing Disposition	Hearing Status CUID	HT User who created or changed Hearing Status entry
Hearing Disposition	Loss Ear(Initial)	
Hearing Disposition	Type Of Loss(Initial)	Sensorineural / Mixed / Permanent Conductive / Fluctuating

		Conductive / Undetermined / Neural
Hearing Disposition	Type Of Loss(Initial) Any	
Hearing Disposition	Type Of Loss(Left)	
Hearing Disposition	Type Of Loss(Right)	
Hearing Disposition	Type Of Loss(Sound)	
Insurance Info	Insurance Change Date	
Insurance Info	Insurance CUID	HT User who entered baby's insurance details
Insurance Info	Insurance G#	
Insurance Info	Insurance P#	
Insurance Info	Insurance Type	
Lab Testing	CMV PCR Ref Contact Method	
Lab Testing	CMV PCR Ref Date	
Lab Testing	CMV PCR Referred to	
Lab Testing	Initial Scrn Fail Contact Method	
Lab Testing	Initial Scrn Fail Notified	
Lab Testing	Initial Scrn Failed Notify Date	
Lab Testing	Lab Date	
Lab Testing	Lab Entered By	
Lab Testing	Lab Facility	
Lab Testing	Lab Result	
Lab Testing	Lab Testing CUID	HT User who created or changed Lab Testing entry
Lab Testing	Lab Type	Saliva / Urine / Blood / Cerebral Spinal Fluid / Not Tested / Dried Blood Spot / Unknown
Lab Testing	Ordering Phys.	
Letters	Letter CUID	HT User who performed letter actions
Letters	Letter Date	
Letters	Letter Gen Date	
Letters	Letter Is Pending	
Letters	Letter Type	
Recommended Action	Diagnostic Rec	
Recommended Action	Rec. A CUID	HT User who created or changed Recommended Action entry
Recommended Action	Rec. A. Confirmed Appt.	
Recommended Action	Rec. A. Notes	
Recommended Action	Rec. A. Responsible Person	
Recommended Action	Rec. A. Status	
Recommended Action	Rec. A. Target Date	
Recommended Action	Recommended Action	

Recommended Action	Recommended By	
Recommended Action	Recommended Date	
Risk Indicators	All Risk Indicators	
Risk Indicators	Bacterial Meningitis (RI)	
Risk Indicators	Congenital Infection (RI)	
Risk Indicators	Cranio-Facial Anomalies (RI)	
Risk Indicators	Family History (RI)	
Risk Indicators	Head Trauma (RI)	
Risk Indicators	Hyperbilirubinemia (RI)	
Risk Indicators	Ill. Req. 48+ Hrs In NICU (RI)	
Risk Indicators	Low Apgar Scores (RI)	
Risk Indicators	Low Birth Weight (RI)	
Risk Indicators	Mechanical Ventilation (RI)	
Risk Indicators	Neonatal Ind. Req. ECMO (RI)	
Risk Indicators	Neurodegenerative Disorders(RI)	
Risk Indicators	Ototoxic Drugs/Meds (RI)	
Risk Indicators	Parent/Caregiver Concern (RI)	
Risk Indicators	Rec/Persist Otitis Media w(RI)	
Risk Indicators	Risk Indicator CUID	
Risk Indicators	Syndrome -> Hearing Loss (RI)	
Risk Indicators	Syndrome -> Progressive HL (RI)	
Screening Results	Head (IN) Result	
Screening Results	Head (OUT) Result	
Screening Results	IP Age	
Screening Results	IP Age Hours	
Screening Results	IP Screening CUID	HT User who created or changed Inpatient Screening entry
Screening Results	IP to OP Delay	
Screening Results	Left Ear Values(IN) Result	
Screening Results	Left Ear Values(OUT) Result	
Screening Results	OP Age	
Screening Results	OP Screening CUID	HT user who created or changed Outpatient Screening entry
Screening Results	Overridden MCRs	
Screening Results	Result Data(IN)	
Screening Results	Result Data(OUT)	
Screening Results	Right Ear Values(IN) Result	
Screening Results	Right Ear Values(OUT) Result	
Screening Results	Screen Facility Values(IN)	
Screening Results	Screener(IN)	
Screening Results	Screener(OUT)	
Screening Results	Screening Date Values(IN)	

Screening Results	Screening Date Values(OUT)	
Screening Results	Screening Source	
Screening Results	Source(IN)	Data source of Inpatient Screening Results
Screening Results	Source(OUT)	Data source of Outpatient Screening Results
Screening Results	Technology(IN)	TEOAE / DPOAE / A-ABR
Screening Results	Technology(OUT)	TEOAE / DPOAE / A-ABR
Screening Stats	All IP Count	
Screening Stats	All OP Count	
Screening Stats	Days Span of All IP	
Screening Stats	Days Span of All OP	
Tracking Information	Tracking CUID	HT User who updated Tracking Information
Tracking Information	Tracking History Action	
Tracking Information	Tracking History Date	
Tracking Information	Tracking History Folder	
Tracking Information	Tracking History User name	
Tracking Information	Tracking Reason	
Transfers	Transfer Date	
Transfers	Transfer From Facility	
Transfers	Transfer Reason	
Transfers	Transfer To Facility	
Transfers	Transfers CUID	HT User who performed transfer or baby record
Vision Screening Results	Both Eyes Date	
Vision Screening Results	Both Eyes Facility	
Vision Screening Results	Both Eyes Result	
Vision Screening Results	Vision Screening CUID	HT User who created or changed Vision Screening entry

Appendix I: Frequently Asked Questions (FAQs)

Some common IT security questions:

1. What is the password history policy in HiTrack?
HiTrack does retain a password history and prevents reuse within a year.
2. Is there a way to adjust the password complexity (i.e. from 8 characters to 14 minimum)?
Yes. A feature in Settings – Advanced controls the minimum length and other complexity factors for passwords.
3. What is the password age limit?
This is configurable by installation and can be configured to an age in days.
4. Are passwords stored in an encrypted or hashed format?
Yes, passwords are stored encrypted in the database.
5. How many failed passwords attempts before an account is locked?
Locking after three failed attempts can be enabled or disabled.
6. Are users prompted for a new password on first login?
This is an optional feature that can be set for accounts by a HiTrack Admin.
7. Is HiTrack HIPAA Compliant?
Yes – HiTrack provides:
 - Industry-grade encryption and user account management policies
 - View logging and user specific patient level change tracking
 - Business Associate Agreements
 - HiTrack Help Desk is trained annually on HIPAA
8. Can HiTrack be hosted in the “cloud”
Yes. HiTrack can run on a cloud hosted instance of IIS and SQL Server. Your organization must obtain and manage these resources.