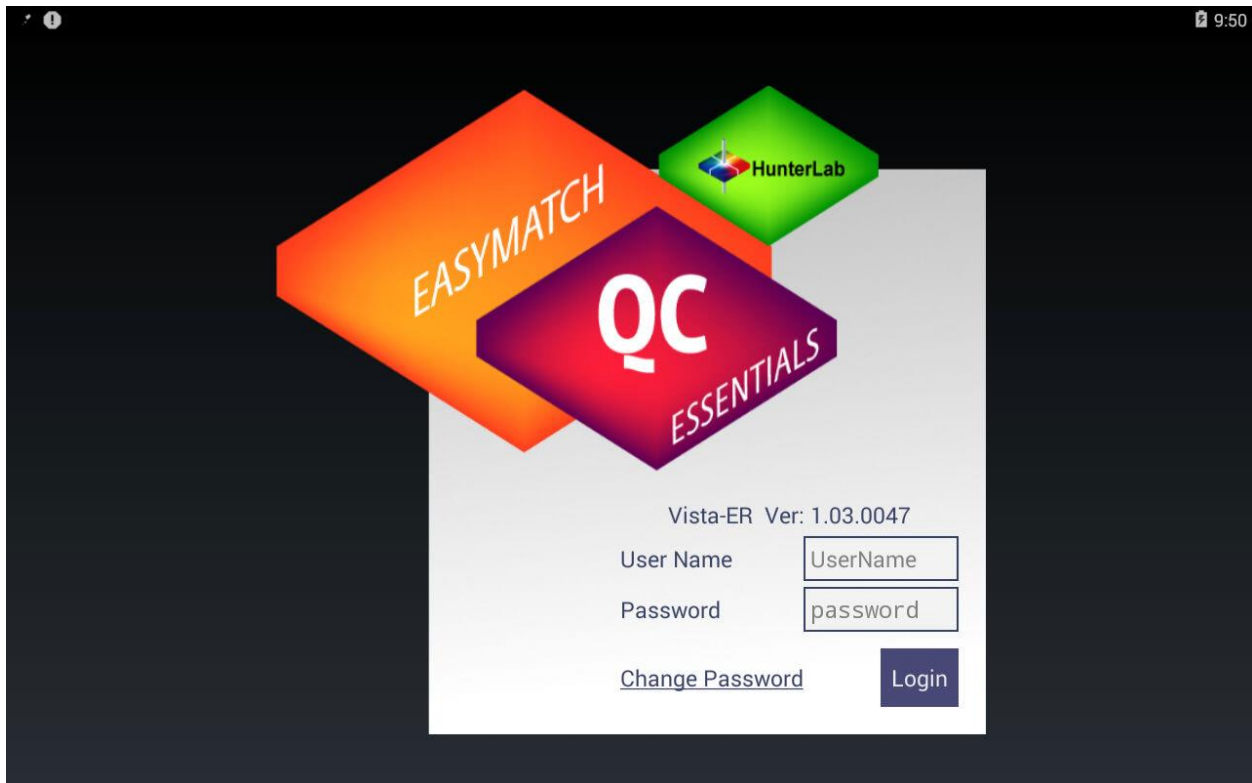


Vista ER



1. ER Server – Running as local Android application (Stand-alone ER mode)

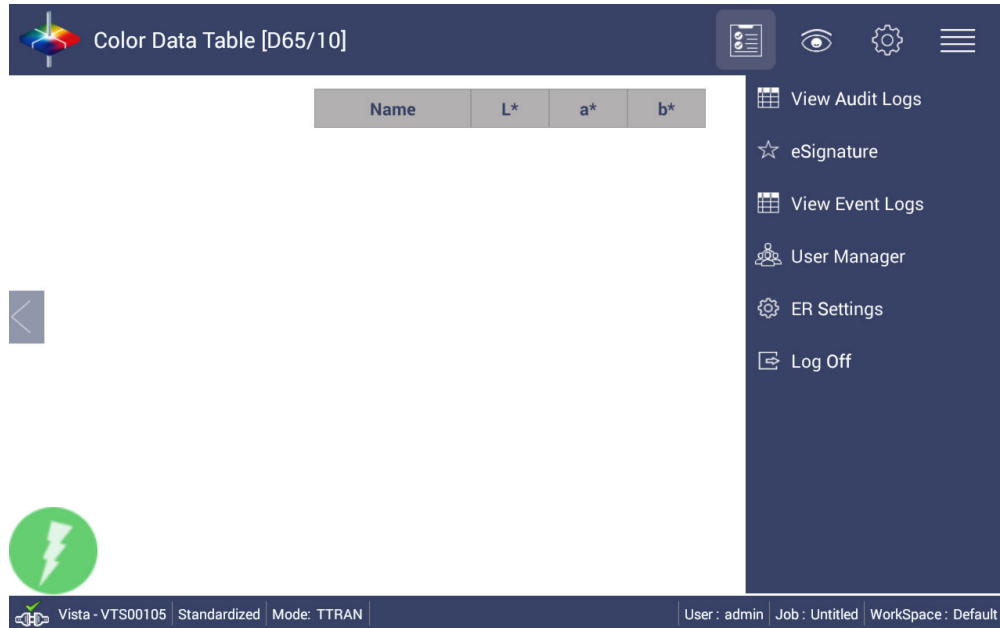
The ER-Server runs as an application module in the same Android device where the Essentials-VISTA application is present. The server application maintains the User/Group account information, Application Event logs and User Access Profiles in the local *SQLite* database created in the same device. The user authentication is performed based on the User/Group information present in the database.

Features:

- a) The ER User/Group information can be created and configured in the database
- b) Uses the customized User authentication based on the user/group information in the local database. The user's password information can be encrypted and saved into the database.
- c) Stores the application Event logs into the local database.
- d) Stores the User Access Privilege profiles into the local database.

2. ER Toolbar Menu

The main toolbar is added with an extra icon to show up the ER menu commands. We have View Audit Logs, eSignature, View Event Logs, User Manager, ER settings and Log-off in this ER menu.



3. File Audit Log

The File Audit Log is mainly used to keep track of all user events done to add or modify the data in a Job file. The file audit Log is embedded into the Job file respectively. The file audit log consists of the following operations performed by the user.

- Open and Save Job
- Read sample
- Set Sample as a Standard
- Hitch Standard
- Delete Sample/Standard
- Rename sample/standard
- Recall Standard or Sample
- Timed Read
- Averaged Read
- File e-Signature
- Standardize Sensor and mode

- Print
- Diagnostic Tests

An option is provided in the application to view and print the File Audit Log. Also, the Audit logs will be exported together when user export the job through Data Management in Essentials ER Rev47. Audit logs are added at the bottom of exported .csv report. Each audit log record consists of User Name, Event, Description of the Event and Date. The typical Audit Log viewer screen is shown below.

S.No	User	Event	Description	Date
26	Admin	Job Saved	20170925_152957_VTS0 0105_Default	2017-Sep-25 03:33:43
27	Admin	Read Sample	Sample6	2017-Sep-25 03:34:02
28	Admin	Job Saved	20170925_152957_VTS0 0105_Default	2017-Sep-25 03:34:02
29	Admin	Edit	Sample6 renamed to 4	2017-Sep-25 03:34:13
30	Admin	Job Saved	20170925_152957_VTS0 0105_Default	2017-Sep-25 03:34:14

4. Application Event Log

The application event log is maintained by ER-Server. The application communicates with the server to log the following events. The Events types categorized into “Information”, “Warning” and “Error”.

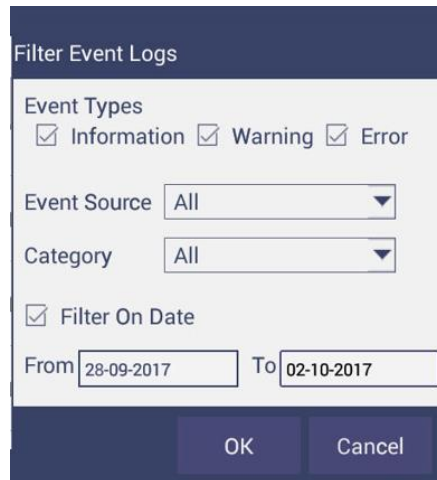
- User Login
- New Job
- Save Job and Save Job As
- Close Job
- Sensor Standardization
- Perform Diagnostics
- Read Sample
- Delete sample/standard from Job
- Set Sample as Standard
- Rename sample/standard
- Hitch Standard

- Modification of Application Preferences
- Modification of Tolerances
- Modification of Read Options
- Recall Sample(s) From Database
- Recall Standard From Database
- Print
- Import/Export/Backup/Restore
- Delete Job/Standard/Workspace/Diagnostics/Others through Data Management
- Modification of Access privileges
- Modification of ER-Server Settings
- Application log off
- Record the update of Essentials software
- Adjust clock

Each event log record consists of event types, data, time, source, category, and description. The list event Log records can be viewed by filtering according to the event. The typical event Log viewer screen is shown below.

Event Log Viewer						
Event Log:						
S.NO	Event Types	Date	Time	Source	Category	Description
247	Information	2017-Sep-29	10:35:04	Admin	Operations	Job Saved-20170929_103421_VTS00105_Default
248	Information	2017-Sep-29	10:35:17	Admin	Operations	Sample4 renamed to Old ricca aw7
249	Information	2017-Sep-29	10:35:17	Admin	Operations	Job Saved-20170929_103421_VTS00105_Default
						Jobs Exported-

The Even log records can be viewed by setting the Filters as shown below




Event log can be printed through this event log dialog. It can also be exported as .csv file through Data Management.



5. File e-Signature

The Job files can be signed to endorse their content. A file can be signed multiple times and each time a file is signed, user can enter the reason for signing the file. User has to re-enter his credentials while signing the file. The e-signature is embedded into the Job audit log.

If maximum attempts for e-sign exceed the configured threshold attempts, the application closes the e-Sign dialog by showing the below message. The e-signing is not allowed using disabled and password expired user accounts.



The image shows a dialog box titled "eSignature". It contains three input fields: "User Name" with the placeholder text "User Name", "Password" with the placeholder text "Password", and a "Comment:" field which is a larger empty text area. At the bottom of the dialog, there are two buttons: "Sign In" and "Cancel".

The latest e-Signature will be printed as footer in the job report, including e-signature time stamp, user account of e-signature, and comment.

6. User Management and Access Privilege Profile

User Manager is used to create Groups/User accounts and to configure access privileges for user groups. The User Access Privilege profile can be modified by Admin type of users. The existing User Manager module will be modified to update the configured Access privilege profile of a group to the local ER-Server. When application is logged in, based on the logged in user, the respective user access profile is downloaded applied. The "Access Privileges" of a specific group can be printed in this dialog. The below is the typical user manager dialog.



The image shows a screenshot of the "User Manager" dialog box within the "Color Data Table [D65/10]" application. The dialog has a sidebar on the left with buttons: "Create", "Privileges", "Disable", "Reset Password", "Unlock User", and "Enable". The "Privileges" button is selected. The main area shows "User Groups" set to "users" and "Edit Privileges" with a list of checked items: "Main Menu", "Read Button", "Job Menu", "New Job", "Open Job", "Save Job", and "Save Job As". At the bottom of the dialog are "Print", "Update Profile", and "Cancel" buttons. The application's status bar at the bottom shows: "Vista - VTS00105 | Standardization Expired | Mode: RTRAN | User: hldadmin | Job: 20180405_094411_VTS00105_Default | Workspace: Default".

Following features are greyed out in Vista ER products. No way to enable them for Admin or User groups.

- * Delete Job, Standard, Diagnostics, and Others in Data Management
- * Enable Application Security and Use Last Login Credentials in Preferences.

Except the greyed out features above, the features listed below are disabled for user-type groups as default. However, you can enable them for a specific user group if needed.

- * User Manager
- * E-signature
- * ER Setting
- * Adjust clock
- * Delete and Restore under Data Management
- * Delete Standard and Delete Sample in CDT view
- * Update Essentials

7. ER Configuration

The ER Settings dialog can be used to configure password aging, password length, account locking threshold and Auto-Log off settings

The screenshot shows the 'Color Data Table [D65/10]' application window. At the top, there is a dark blue header bar with a logo on the left and icons for help, eye, settings, and a menu on the right. Below the header, there is a table with columns labeled 'Name', 'L*', 'a*', and 'b*'. In the center, an 'ER Settings' dialog box is open, containing four rows of settings, each with a text input field and a unit label: 'Enter Maximum Password age : 30 days', 'Enter Minimum Password length : 8 characters', 'Enter Account Locking Threshold : 10 attempts', and 'Enter AutoLogOff Duration when Idle for : 30 minutes'. The dialog has 'Configure' and 'Cancel' buttons at the bottom. A green lightning bolt icon is visible in the bottom left corner. At the very bottom, a dark blue status bar displays system information: 'Vista - VTS00105 | Standardization Expired | Mode: RTRAN | User : hldmin | Job : 20180405_094411_VTS00105_Default | Workspace : Default'.

- 7.1 **Password complexity:** The user name should be a minimum of 5 characters and password can be set to a minimum of 8 characters. The password must include at least one number, a capital letter and a special character (~, !, @, #, \$, %, ^, &, *). The length of the password can be configured in ER Configuration dialog. The default length if the password is kept as 8 characters.
- 7.2 **Password aging:** The password age can be set to a minimum of 1 day and can be configured in ER Configuration dialog. The default password age is set as 30 days. Once the password age is elapsed, the respective user account will be marked as 'EXPIRED'. The application prompts the below message to change password while trying to login using the account with expired status.
- 7.3 **Failed Login attempts:** The failed login attempts count can be set to a minimum of 3 and can be configured in ER Configuration dialog. The default value is set as 5. For any specific user account, if login attempt count exceeds more than configured value, the respective user account will be marked as "LOCKED". Also, application prompts below message. The administrator type user can only unlock the locked accounts.

An additional page is added to unlock the Locked user accounts (only for Administrator).



7.4 Autologoff duration: The Essentials will automatically log off when a user does not use it for a time longer than the configured duration time. If there is a job with no file name yet, it will be saved as "Auto Save" job file. If it is a job with a file name already, it will be automatically saved before log-off.

8. Log-off Application

The user can log off and return to the Login Screen. The application prompts the user to save the unsaved data and then log off the application by prompting the below confirmations message

9. File Integrity

While saving the Job file, the application embeds the Modulo Sum Checksum. The file integrity is verified by calculating the checksum while opening the job file and if the checksum is not valid, application will not open the job file by showing an error prompt.