Functional Specifications v.7.0 May 2015

Center for Digital Archaeology for Washington State University
- Mukurtu Mobile App for Mukurtu CMS -

Document Purpose

This document is aimed at describing user cases, interface requirements, and user operations inside the Mukurtu Mobile (or MM) app, as well as behavior in case of conflict and errors.

Although this is a working draft, the present document is to be considered as the most complete description of the functions implemented by CoDA, regardless of adopted technologies and differences amongst devices.

PART I - Mukurtu Mobile 1.5

Mukurtu Mobile 1.5 is a minor update of MM 1.0 with respect to features. Mukurtu Mobile 1.0 was released in October 2012 and currently (Jan 2014) still available on the Apple Store.
MM 1.5, the first release developed thanks to the NEH Grant (expected date: end of March 2014) will function exactly like the 1.0 version, except for minor adjusts to workflow and interface, and necessary bug fixes. MM 1.5 will be extended to Android and tablets including iPads.
The Table of Updates below lists bug fixes, minor changes and wishlist items for 1.5.
The itemized lists that follows describe the way the app currently works (1.0) and the additions / changes to be made in 1.5 (highlighted in colors).

Table of Updates

#Bug Fixes	Notes
App rotates in landscape mode	Remove rotation on smartphone versions; iPad/tablet versions will include mockups for both portrait and landscape version.
We noticed that logging out from Server1 and logging into Server2 with **same username, same password but different url** the app kept uploading content to Server1	Maybe we can add a complete reset function when we implement the first change below (no content creation while logged off)
Community/Cultural Protocols/Category renaming (in browser) is not detected by Sync	
#Minor Changes	Notes
Logout limits user to Login view only (+Login Help and Help Tour)	No more creating content while logged off. Add warning: content that has not been uploaded before Logout will be lost. (Added to Verbiage Document) Login/logout is stored as a status of the app and is not affected by network availability. Login will be available only if data network is available, logout is available at any time.

	Login status is maintained through network errors unless the user explicitly logs out.
Add Keywords to interface	Already included in db! Fetch + verification to ensure merging with existing keywords on upload; free input, comma separated values.
Implement tablet version	CoDA will provide mockups and necessary graphics. Estimate Delivery of mockups: End of December.
#Wishlist Items	**Notes**
Help, About and Login merged into Settings	
Single Intro on launch instead of complete Help Tour	CoDA will provide this. Will include flag "Don't show again" and button/links to online pages.
Specific message after successful upload when demo user has been used	Temporary until MM is integrated into the Mukurtu CMS package (Added to Verbiage Document)
Bigger link area on Login footer ("Help | About")	(Included in mockups)
Substitute Camera icon	(Included in mockups)

Login and Logout

Current Release 1.0
- Upon first access Development Credits and the Help Tour are shown to the user.
- Next the user is presented with the login screen, pre-filled with the "demo" account credentials.
- User can confirm demo credentials (takes to list view) or
- Add different credentials and a different instance url and wait for login confirmation
- From the login page, user has access to a Login Help screen (link "Help") or the general Help Tour (link "About").
- Successful login takes you to the empty POI list view.
- "Logout" button on list view takes you nowhere and logs out.
- Content that has not been uploaded before logout is saved locally upon logout but can't be uploaded.

Release 1.5

- Upon first access user is prompted first with the splash screen, then with one single slide that has an image, a tagline and a Get Started button, plus flag for "Don't show again". Displayed on every launch unless the flag is checked. (Wishlist Item)
- Clicking Getting Started takes the user to Settings, Login tab, (with no prefilled credentials). (Feature change)
  - Only Settings (Login / Help / About) are available until a valid login has happened.
  - On the Login tab, user can proceed with login or select "Need help to Login?" to access Login Help.
  - During any login session a Settings/gear icon from the List view should take you to the login view;
  - Settings for a user will be stored locally within the app and retrieved in case of a new login with the same username/pw/url combination.
- Logout:
  - Login button will have a Logout status for logging out.
  - Logout will be available at any time (even offline).
  - No content should be created while not logged in. Logout will also delete all the items not uploaded including resized media if there are any.
  - Logout will reset all settings to the default value, including Youtube login form which will be reset to logout mode.
  - A warning will be prompted to the user on logout if there are items still to be uploaded; the user will need to confirm on the warning before proceeding to logout

Content fetch

Current Release 1.0

- When login has happened successfully, Mukurtu Mobile will fetch the following items from the user's instance that the user has access to:
  - Communities
  - Cultural Protocols
  - Categories
- Fetch of the online content happens every time "Upload" or the "Sync" is pressed on the list view.
- Only items that have not changed online will be accepted for upload. An error will prevent upload in all other cases, and the user will be asked to edit content before resuming upload.

Release 1.5

- Keywords will be implemented in MM 1.5. Fetch + verification will happen to ensure merging with existing keywords on upload; free input field, comma separated values. (Feature change)
- No error should be generated by Keywords on upload (new keywords in content are accepted for upload and created on server).

List view

Current Release 1.0
- The main view of the app is the list view, that shows all items (Digital Heritage items) that have been created locally and haven't been uploaded yet.
- Navigation bar includes the following commands:
    - Tour (Help slides)
    - Help (web view)
    - Create (Content creation)
    - Sync (fetches content from server)
    - Upload (uploads items to servers, deletes from list when upload is successful)
- Top bar includes the following commands:
    - Sign In / Sign Out
    - Edit (Deletes items from list)

Release 1.5
- The main view of the app is the list view, accessible in login mode only. (Feature change)
- On iPad/tablet version, the list of items is visible on the left column by default (in login mode). (New Feature)
- Navigation bar includes the following commands:
    - Create (Content Creation)
    - Edit (Deletes items from list)
    - Sync (fetches content from server)
    - Upload (uploads items to servers, deletes from list when upload is successful)
- Top bar includes the following commands:
    - Settings (Takes to Settings main menu: Login / Help / About) (Wishlist Item)

Settings View

Not implemented in current release (1.0). Settings will be available as a swipe view from the list on all devices (gear icon in top right corner).

Release 1.5
- Login tab
    - Intro text

- ○ Username / password / url fields
- ○ Login/Logout toggle button
- ○ "Neeh Help to Log In?" link (opens Login Help view)
- ● Help Tab
  - ○ FAQs section with Q&A
  - ○ Online Support section with
    - ■ "Online Support" button
    - ■ "Video Tutorials" button
- ● About Tab
  - ○ Link to project site
  - ○ Intro text
  - ○ "Help me enable Mobile on my Mukurtu CMS powered Site" button
  - ○ "Give feedback" button
  - ○ Development Credits with Logo + Active link area + attribution text

Content creation

Current Release 1.0
- ● From the POI list view the user can start creating a new content by clicking the Create button.
  - ○ A story is saved as soon as the user fills in the title on the first view and moves on to the next view
  - ○ "Back" cancels actions on the current view and saves content up to the previous view. Multiple backs can lead to saving incomplete content that won't be uploaded (because required fields are missing).
  - ○ "Save" takes back to POI list view
- ● First Metadata view
  - ○ Media are added by clicking on the camera icon
  - ○ Map positioning + reverse geocoding input bar accessible through edit button
  - ○ Map positioning is set to current position by default, can be edited manually dragging
- ● Second Metadata view
  - ○ Communities
  - ○ Cultural Protocols (Required)
  - ○ Categories (Required)
  - ○ Creator (Required - set to user name used for login, can be edited manually)
  - ○ Contributor
  - ○ Date (Toggles between current date and free text input field)

Third Metadata view
- ● Description
- ● Cultural Narrative

POI list view with content saved locally.

- "Edit" allows to delete POIs from the list.
- When content can't be uploaded because metadata have been changed online or because required fields are missing, user gets an error message and needs to edit content before it can be uploaded.

Release 1.5
- First metadata view
  - Title
  - Camera icon replaced on new mockups (Wishlist Item)
  - Map positioning + reverse geocoding input bar accessible through edit button
- Second metadata view
  - Communities
  - Cultural Protocols (required)
  - Categories (required)
  - Creator (Required - set to user name used for login, can be edited manually)
  - Contributor
  - Date (Toggles between current date and free text input field)
- Third metadata view
  - Keywords will be added here (New Feature)
  - Description
  - Cultural Narrative
- On iPad/tablet version, the list of items will be visible in the left column while editing a single item. (New Feature)

Behavior in case of conflict and errors

Warning messages in case of conflict and errors are listed in this document.
https://docs.google.com/a/codifi.info/spreadsheet/ccc?key=0ApqsgZ1hzw_ndDk0LTZZeTBsaU5UNlhQdHd2WnRfOGc&usp=sharing

App Help and Community Support

Current Release 1.0
The app includes several places for help content and links
Help content within the app
- LOGIN HELP
- TOUR / HELP
- META HELP - Modal tooltips with help text for individual metadata fields in the content creation views

Web resources
- http://mukurtumobile.org/ Mukurtu Mobile site

- http://mukurtumobile.org/support Mukurtu Mobile Support portal
- http://mukurtumobile.org/support/video Mukurtu Mobile Introductory Video
- http://mukurtu.org/get-mukurtu Mukurtu CMS Signup form

Release 1.5

Help content within the app
- INTRO Slide
- LOGIN HELP (In the Settings View, Login Tab)
- ABOUT and HELP (In the Settings View, About Tab + Help Tab)
- META HELP* - Modal tooltips with help text for individual metadata fields in the content creation views

Web resources
- http://mukurtumobile.org/ Mukurtu Mobile site
- http://mukurtumobile.org/support Mukurtu Mobile Support portal
- http://mukurtumobile.org/support/video Mukurtu Mobile Video Tutorials - to be created
- http://mukurtumobile.org/support/enable Support resource for enabling Mobile on site - to be defined
- http://mukurtu.org/get-mukurtu Mukurtu CMS Signup form

*META HELP: Help text for individual metadata fields - available on the content creation view next to each field - is included in this document: [MM2-NEH] Mukurtu Mobile Verbiage

User cases: Workflow

1) User case: Not a Mukurtu user

Current Release 1.0
- While user skims through Help Tour at launch, she can choose one of the following
  - Discover Mukurtu CMS
  - Get Mukurtu CMS
- Or user gets to list view, chooses to log in using Demo login
- Or from login view user clicks Help, Chooses one of the following
  - Use Demo login (takes her back)
  - Get Mukurtu CMS

Release 1.5
- User is taken through splash screen and intro slide, gets to Settings Login tab.
- Valid paths from Settings Login tab
  - "Need help to login" > "Learn More" (about Mukurtu CMS)
  - "Need help to login" > "Try Demo Login"

- Valid paths from Settings Help tab
    - "Learn more" in FAQ section
    - Online Support or
    - Video Tutorials
- Valid paths from Settings About tab
    - Learn more (about Mukurtu CMS)
    - Mukurtu CMS linked through the credits

2) User case: Mukurtu User without Mobile settings activated

Current Release 1.0
- While user skims through Help Tour at launch, she can choose one of the following
    - Visit Mukurtu Mobile Online
    - Support/Feedback
- Or user gets to list view, chooses to log in using Demo login
- Or from login view user clicks Help, Chooses one of the following
    - Use Demo login (takes her back)
    - Account Help

Release 1.5
- User is taken through splash screen and intro slide, gets to Settings Login tab.
- Valid paths from Settings Login tab
    - "Need help to login" > "Help me enable Mobile on my Mukurtu CMS powered site"
    - "Need help to login" > "Try Demo Login"
- Valid paths from Settings Help tab
    - "Learn more here"
    - Online Support or
    - Video Tutorials
- Valid paths from Settings About tab
    - "Learn more"
    - Mukurtu Mobile site link
    - "Help me enable Mobile on my Mukurtu CMS powered site"

3) User case: Mukurtu Mobile user working without Internet access

Current Release 1.0
- User needs to be connected to login when she launches the application for the first time
- Sync will happen on last available login session.

- Once login and sync have happened successfully, user can create - and save locally - content while offline.
- User must not log out while off Internet access
- Upload will have to happen once user is back to a working connection - and will trigger sync. Only content associated to metadata that have not been changed online (e.g. a Category that has been deleted, a Cultural Protocol that has been renamed..) will be accepted for upload. Errors will be generated for all other content.

Release 1.5
- User can logout at any time. Logout will reset settings (that can be retrieved in the future with a new login to the same account) and delete permanently any content that has not been uploaded
- No other substantial changes

4) User case: User logs out

Current Release 1.0
- Logout currently only interrupts connection to the server.
- It does not delete locally saved content, or its associated metadata that was fetched during the logged session.
- User is still allowed to create content, edit it, delete it locally.
- The only operations that are not allowed are "Upload" and "Sync".

Release 1.5
- Logout will be available at any time.
- Logout will not be available directly on the List view, it will require three steps (Settings/Gear icon > Logout > Confirm on popup Warning)
- Locally stored content will be deleted.
- On Logout mode, only the Settings view and the Login Help View will be available.

PART II - Mukurtu Mobile 2.0

The second release of the app for the MM2-NEH Project (Mukurtu Mobile 2.0, expected date: end of June 2014) will comprise a complete feature update of the app and workflow adjusts. The Table of Updates below lists bug fixes, minor changes and wishlist items for 2.0.

Table of Updates

#Bug Fixes	Notes
#Feature Additions	**Notes**
Support for Videos	Youtube authentication + video optimization + video upload to Youtube.
Support for Audio Files	With internal recorder. Storage will be internal to the destination Mukurtu CMS powered site. List of supported formats provided in Technical Specifications document.
"Visit" link to web view	http://www.testurl.com/**browse**
Add selected Image/Video EXIF Data	List of relevant EXIF/IPTC fields provided in Technical Specifications document
Configure Google Analytics to track in-app clicks to external links	* CoDA will provide list of relevant actions
Add Settings > Preferences section	Mockup provided here
Manage Image resolution	
#Wishlist Items	**Notes**
Ability to select more than one media from library	
Switch between map types (satellite / map / hybrid?)	Define interface / mockup

Release 1.5
- Upon first access user is prompted first with the splash screen, then with one single slide that has an image, a tagline and a Get Started button, plus flag for "Don't show again". Displayed on every launch unless the flag is checked. (Wishlist Item)
- Clicking Getting Started takes the user to Settings, Login tab, (with no prefilled credentials). (Feature change)
  - Only Settings (Login / Help / About) are available until a valid login has happened.
  - On the Login tab, user can proceed with login or select "Need help to Login?" to access Login Help.
  - During any login session a Settings/gear icon from the List view should take you to the login view;
  - Settings for a user will be stored locally within the app and retrieved in case of a new login with the same username/pw/url combination.
- Logout:
  - Login button will have a Logout status for logging out.
  - Logout will be available at any time (even offline).
  - No content should be created while not logged in. Logout will also delete all the items not uploaded including resized media if there are any.
  - Logout will reset all settings to the default value, including Youtube login form which will be reset to logout mode.
  - A warning will be prompted to the user on logout if there are items still to be uploaded; the user will need to confirm on the warning before proceeding to logout

Release 2.0
- Upon first access only the orange logo splash screen is displayed, then the Settings Login tab (on logout mode) or the List view (on Login mode).
- Added Settings tab "Preferences" to update media and content preferences.
- Additional login (Youtube) required to upload videos. It is still possible to use the app without a valid youtube login, but items containing videos won't be uploaded.
- If Youtube login token (permissions) expire, upload will only progress until the first item containing video, then the user will be prompted to login to Youtube again by pulling up an external web view. Upload will have to be resumed manually (click Upload button again) after successful login.

Release 1.5

- When login has happened successfully, Mukurtu Mobile will fetch the following items from the user's instance that the user has access to:
  - Communities
  - Cultural Protocols
  - Categories
- Fetch of the online content happens every time "Upload" or the "Sync" is pressed on the list view.
- Only items that have not changed online will be accepted for upload. An error will prevent upload in all other cases, and the user will be asked to edit content before resuming upload.

Release 2.0

No substantial updates on content fetch.

List view

Release 1.5
- The main view of the app is the list view, accessible in login mode only.
- On iPad/tablet version, the list of items is visible on the left column by default (in login mode, landscape position). List hides on portrait while creating content.
- Navigation bar includes the following commands:
  - Create (Content Creation)
  - Edit (Deletes items from list)
  - Sync (fetches content from server)
  - Upload (uploads items to servers, deletes from list when upload is successful)
- Top bar includes the following commands:
  - Settings (Takes to Settings main menu: Login / Help / About)

Release 2.0
- Navigation bar includes the following commands:
  - Create (Content Creation)
  - Delete (Deletes items from list)
  - Sync (fetches content from server)
  - Upload (uploads items to servers, deletes from list when upload is successful)
- Top bar includes the following commands:
  - Visit (Takes to /browse page in the specified Mukurtu CMS archive, under working internet connection only)
  - Settings (Takes to Settings main menu: Login / Help / About)

Release 1.5
- Login tab
  - Intro text
  - Username / password / url fields
  - Login/Logout toggle button
  - "Neeh Help to Log In?" link (opens Login Help view)
- Help Tab
  - FAQs section with Q&A
  - Online Support section with
    - "Online Support" button
    - "Video Tutorials" button
- About Tab
  - Link to project site
  - Intro text
  - "Help me enable Mobile on my Mukurtu CMS powered Site" button
  - "Give feedback" button
  - Development Credits with Logo + Active link area + attribution text

Release 2.0
- Login Tab
- Preferences Tab
  - "Video" section
  - Intro text
  - Youtube login link (button linked to external web view)
  - Video preferences (toggle)
  - "Images and content" section
  - Content preferences (toggle)
  - Image preferences (radio buttons)
- Help Tab
- About Tab

Release 1.5
- First metadata view
  - Title
  - Camera icon
    - Take photo
    - Choose from Library

- - - ■ Cancel
      - ○ Map positioning + reverse geocoding input bar accessible through edit button
  - ● Second metadata view
    - ○ Communities
    - ○ Cultural Protocols (required)
    - ○ Categories (required)
    - ○ Creator (Required - set to user name used for login, can be edited manually)
    - ○ Contributor
    - ○ Date (Toggles between current date and free text input field)
  - ● Third metadata view
    - ○ Keywords
    - ○ Description
    - ○ Cultural Narrative
  - ● On iPad/tablet version, the list of items will be visible in the left column while editing a single item.

Release 2.0
  - ● First metadata view
    - ○ Camera icon
      - ■ Take photo
      - ■ Choose Photo from Library
      - ■ Choose Video from Library
      - ■ Cancel

Behavior in case of conflict and errors

Warning messages in case of conflict and errors are listed in this document.
https://docs.google.com/a/codifi.info/spreadsheet/ccc?key=0ApqsgZ1hzw_ndDk0LTZZeTBsaU5UNlhQdHd2WnRfOGc&usp=sharing

App Help and Community Support

Release 1.5
Help content within the app
  - ● INTRO Slide
  - ● LOGIN HELP (In the Settings View, Login Tab)
  - ● ABOUT and HELP (In the Settings View, About Tab + Help Tab)
  - ● META HELP* - Modal tooltips with help text for individual metadata fields in the content creation views
Web resources

- http://mukurtumobile.org/ Mukurtu Mobile site
- http://mukurtumobile.org/support Mukurtu Mobile Support portal
- http://mukurtumobile.org/support/video Mukurtu Mobile Video Tutorials
- http://mukurtumobile.org/support/enable Support resource for enabling Mobile on site
- http://mukurtumobile.org/get-mukurtu Mukurtu CMS Signup form

Release 2.0

- Additional content added to http://mukurtumobile.org/support/video Mukurtu Mobile Video Tutorials

ATTACHMENT 1: Graphics Interface and Views [MM1.5, MM2.0]

All screenshots are included in the shared folder Implementation

View Title	Access from	Content Type	Actions
Splash Screen	App Launch	Static Image	➔ Automatically loads Intro slide. ➔ If "Don't show again" is checked on Intro, loads List view on login mode / Settings view, Login tab on logout mode.
Intro Slide	App Launch, after Splash Screen.	Text slide with one action button.	➔ Get Started opens List view on login mode / Settings view, Login tab on logout mode.
Settings View	Gear Icon in List View	Tab Menu	➔ Back icon takes you to List View in login mode (swipe). ➔ Login opens Login Tab ➔ Preferences opens P. tab ➔ Help opens Help tab ➔ About opens About tab
Settings - Login	Automatically loaded after Intro / Splash Screen on logout mode. "Try demo login" or "X" on Login Help. Gear Icon in List View. Loads with demo credentials filled in when accessed from "Try demo login" on Login Help (NOT on the first launch and in logout mode).	Login Form with one link to other view.	➔ Login (in logout mode) takes you to List View ➔ Logout (in login mode) prompts warning, resets settings (logs out from Youtube too) and limits user to Settings view. ➔ Need help to log in? loads Login Help View
Settings - Preferences	Loaded from Content Creation Views if user tries to add video without a valid Youtube login. Gear Icon in List View.	Youtube Login Form, preferences flags	
View Title	**Access from**	**Content Type**	**Actions**
Settings - Help	Gear Icon in List View	Text slide with two buttons/links to web page and one textual link to web page.	➔ Learn more here opens web page > http://mukurtumobile.org/get-mukurtu in browser (when online). ➔ Online Support opens web page http://mukurtumobile.org/support/ in browser (when online).

			➔ Video Tutorials opens web page http://mukurtumobile.org/support/video in browser (when online)
Settings - About	Gear Icon in List View	Text slide with one textual link to web page, and five buttons/links to web page	➔ http://mukurtumobile.org opens web page in browser (when online) ➔ Help me enable Mobile on my Mukurtu CMS site opens web page http://mukurtumobile.org/support/enable in browser (when online). ➔ Give Feedback opens web page http://mukurtumobile.org/support/ in browser (when online). ➔ Mukurtu Logo opens web page http://mukurtu.org/ in browser (when online). ➔ CoDA Logo opens web page http://codifi.org/ in browser (when online). ➔ Map2app logo opens web page http://map2app.com/ in browser (when online).
List View	From Settings in login mode. On app launch in login mode. From Content Creation Views when an item is saved.	List of content to be uploaded.	➔ Create takes you to content creation views. ➔ Sync fetches metadata from server (when online). ➔ Edit allows to delete content from the list. ➔ Upload starts upload of content (when online). ➔ Visit opens web view of server (when online - 2.0). ➔ Gear icon opens Settings View (popup)
View Title	**Access from**	**Content Type**	**Actions**
Login Help	From Settings View, Login Tab.		➔ X loads Settings View, Login Tab in previous status ➔ Help me enable Mobile on my Mukurtu CMS site opens web page http://mukurtumobile.org/support/enable in browser (when online). ➔ Try demo login loads Settings View, Login Tab with demo credentials filled in
Content Creation View	Create Icon on List View. Edit icon on individual items in List View.	POI creation form Audio recorder Video/Camera Gallery access ...	
Visit Web View	"Visit" icon on List View.	Web View of /browse page for the specified Mukurtu CMS powered site	➔ Back takes you back to the list view ➔ Gear icon opens Settings View (popup)