IRRESSEF/CADU Contract Expected Work Products Outline

Contract: PAC/20181120/02

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Summary:

Product	Description	Documentation
1. Technical Outline	Serves to describe expected work products and supporting documentation.	The present document.
2. Surveys for field data collection	Used to collect equipment data in the field with or without internet connection.	Survey Description and Reference.
3. eTool application using data collected in the field	Displays and summarizes data collected in the field.	eTool Technical Documentation.
4. Configure application in RStudio Connect instance	Hosts the application referenced in item 3. Configured with alerts and other reminders.	RStudio Connect User Guide.

Work Products Detailed Outline:

1. Technical Outline

The current document was created for the benefit of project managers to anticipate expected deliveries in the future per the scope of work described in the contract amendment.

2. Surveys for field data collection

Four forms were created in Ona for field data collection. These forms can be used to enter data on equipment newly deployed in the field including associated equipment meta data, document maintenance and calibration activities, and to initiate maintenance and calibration requests. Each form was created using ODK Build, a tool that allows the user to created web forms easily using a drag and drop interface. Forms created using ODK Build are exported to Excel in a format friendly to all applications governed by the OpenRosa API which includes Ona.

Blank forms published to Ona can be downloaded to Android mobile devices and later filled in using the ODK Collect mobile app with or without internet connection. Once blank forms are filled in they can later be submitted once internet connection is restored.

3. eTool application

The eTool application from the previous contract period has been re-developed to incorporate data submitted to Ona. While similar, the newly developed eTool does not allow the user to edit or submit data back to the original data source. Rather, the new eTool will serve as a place to view details and key indicators of maintenance performance and send alerts to key personnel in the field. Links to the Ona surveys are included in the eTool to navigate back to the surveys where appropriate.

4. Configure application in RStudio Connect instance

In order to facilitate context-specific and scheduled alerts, as well as to control who views the data shown in the eTool, the eTool must be published to an online instance of RStudio Connect. While other

options exist for hosting applications developed in R, RStudio Connect allows the user to easily schedule report alerts and add users to the application with modest technical skills. Additionally, instances of RStudio Connect are available for subscription on Amazon Web Services, limiting the need for on-premises infrastructure.