**SUMIT: the SUMs-iButton Tool**

**Overview.** SUMIT is an easy-to-use and simple tool for preliminary analysis of SUMs data from iButtons. It is made for rapid visualization and analysis of a small number of files; it is not suited for analysis of large amounts of SUMs data. SUMIT requires R, some visualization and analysis libraries, and a modern web browser (Chrome recommended) to work. SUMIT currently accepts *only* csv files from Maxim's OneWireViewer, the free software used to download data from iButtons.

SUMIT can be run locally or on the web. To run SUMIT on your own computer, you must first download and install R (version 3.0 or later), available here:

<https://cran.rstudio.com>

Choose the file appropriate for your platform (Linux, Mac OS X, or Windows) and follow the onscreen instructions. After R is installed, run the following code to install required packages:

# install missing packages.

list.of.packages <- c("shiny","reshape2","plyr","lubridate","data.table","dygraphs","xts","devtools","shinydashboard","shinyBS","scales")

new.packages <- list.of.packages[!(list.of.packages %in% installed.packages()[,"Package"])]

if(length(new.packages))(print(paste("The following packages are not installed: ", new.packages, sep="")))else(print("All packages installed"))

if(length(new.packages)) install.packages(new.packages)

lapply(list.of.packages,function(x){library(x,character.only=TRUE)})

SUMIT can be run in three ways after R and the appropriate packages are run:

# 1. Use runGitHub

library(shiny)

runGitHub("sumit", "ajaypillarisetti")

# 2. Run a zip file using runUrl

library(shiny)

runUrl("https://github.com/ajaypillarisetti/SUMIT/archive/master.zip")

Finally, you can clone the source code of SUMIT from

<https://github.com/ajaypillarisetti/SUMIT/archive/master.zip>

# Clone with git. If you have cloned it into

# ~/sumit, cd to that directory and use runApp().

setwd("~/sumit")

runApp()