Running SAS on an iPhone?

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Presented at BASAS 2009
Oct 29, 2009

SAS Alliance
Affiliate Member

Presentation Overview

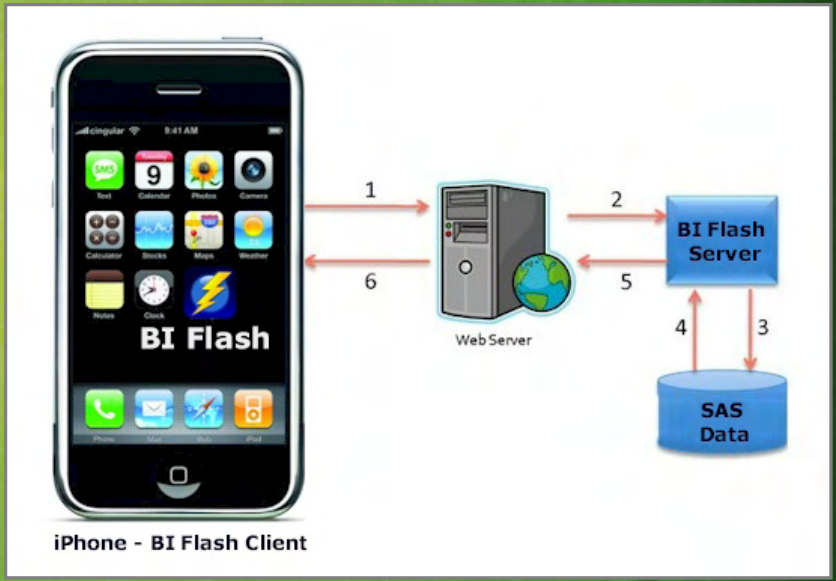
- iPhone and Mobile Computing Revolution
- System Architecture
- iPhone Software Delivery
- Server Side Computing and Communication
- User Access and Security
- Running Macros and Selecting Parameters
- Viewing SAS Data

iPhone and Mobile Computing Revolution

- Tipping Point: AppStore, 2 billion iPhone downloads with 50K apps
- Analagous to PC Revolution vs Main Frames

System Architecture

- TCP/IP Similarities Web Client
- Three Components
  - iPhone Client
  - Web Server
  - SAS Application server
- SAS Data and Macro Logic on Server
- Data View and Parameter Selection on iPhone

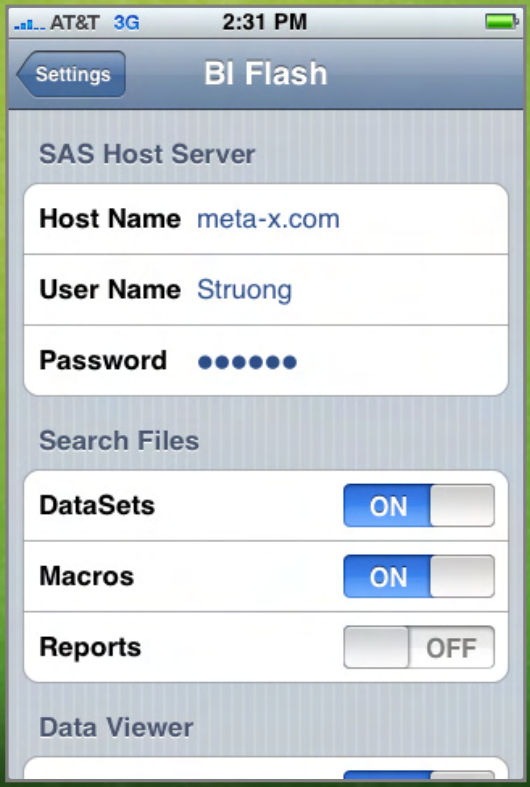


iPhone Software Delivery

- iPhone App Store
- Search, Download, Run…
- No more Shrink Wrap Box

Server Side Computing and Communication

- iPhone Settings Like Control Panel
- SAS Host Server
  - Host Name
  - User Name
  - Password



Running Macros and Selecting Parameters

- Sample Macro Named Parameters

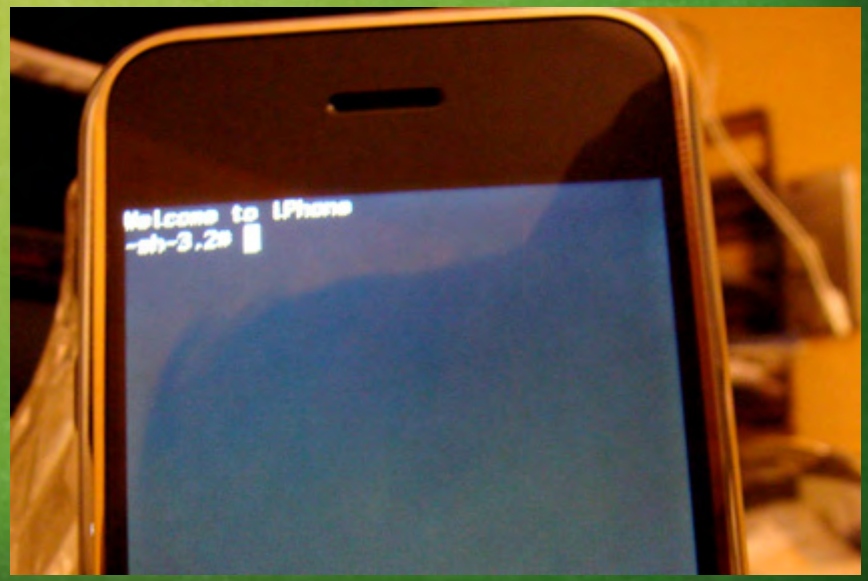
```
*** Generate Report of data by specific subset ***;
%dataview (indata = mylib.demog,
           sortby = subjid startdt,
           reptitle = Demographic data sorted by
subject ID and start date);
```

- Three Macro Steps

1. Selecting Macro
2. Selecting Parameters
3. Running Macro

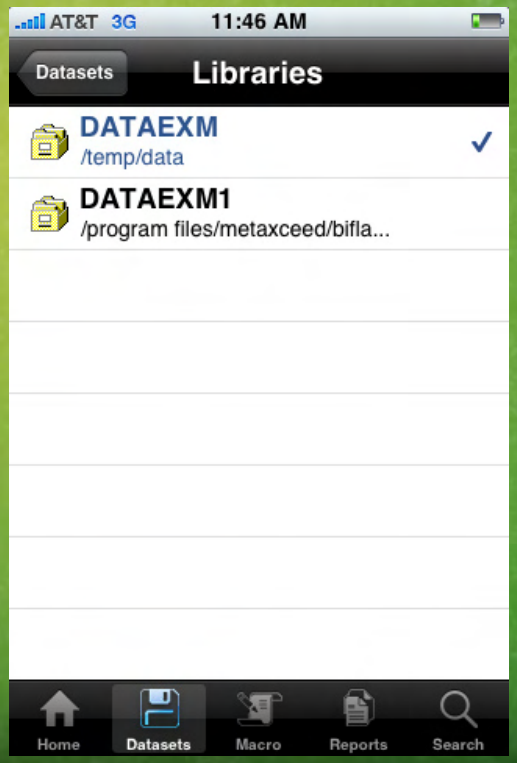
Sample Macro With Error

- %DIFFTEST Macro With Wrong Parameters
  -
```
%macro difftest (
    title=,
    path=,
    data1=, data2=, data3=);
```
- Two Parameters
  1. Display ERROR
  2. Review Log



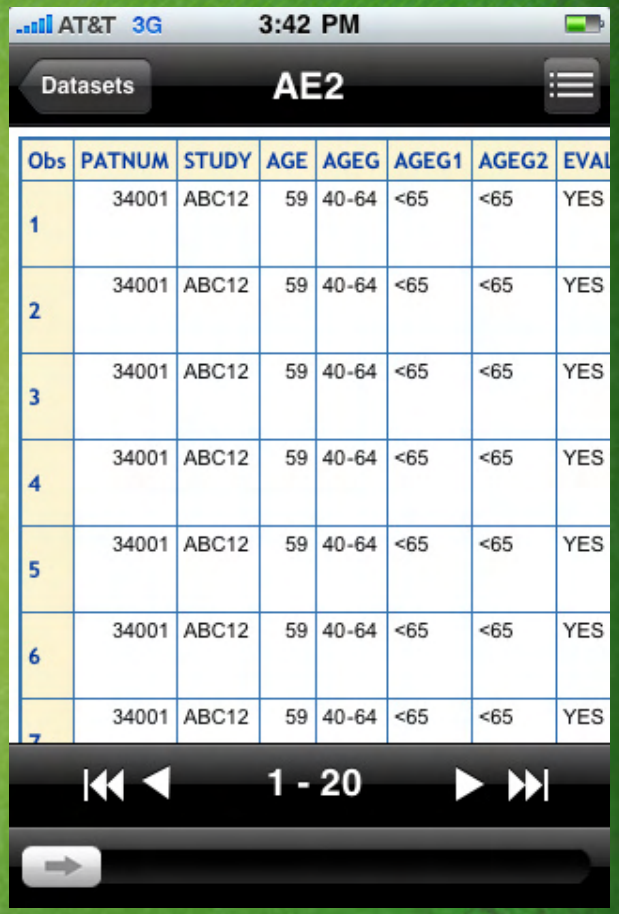
Step 1 - Selecting Data

- Select SAS Dataset from SAS Libraries
- Standard iPhone Selection List



Step 2 – View Data

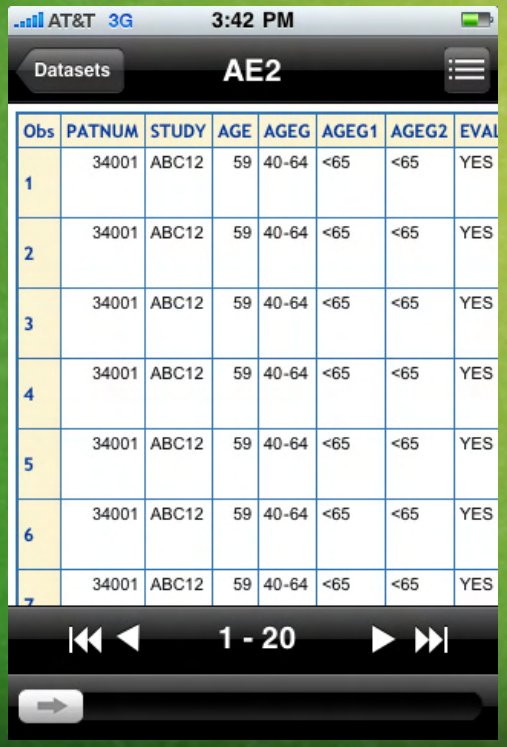
- View Data Optimized for iPhone Screen
  - ODS Optimized Fonts
  - Vertical or Landscape View
  - Dynamic Update to Date View Noted Footnote



Obs	PATNUM	STUDY	AGE	AGEG	AGEG1	AGEG2	EVAL
1	34001	ABC12	59	40-64	<65	<65	YES
2	34001	ABC12	59	40-64	<65	<65	YES
3	34001	ABC12	59	40-64	<65	<65	YES
4	34001	ABC12	59	40-64	<65	<65	YES
5	34001	ABC12	59	40-64	<65	<65	YES
6	34001	ABC12	59	40-64	<65	<65	YES
7	34001	ABC12	59	40-64	<65	<65	YES

Step 3 – Navigate Data Chunks

- Chunk to Smaller Views
- Slider or List Selection for Check Selection



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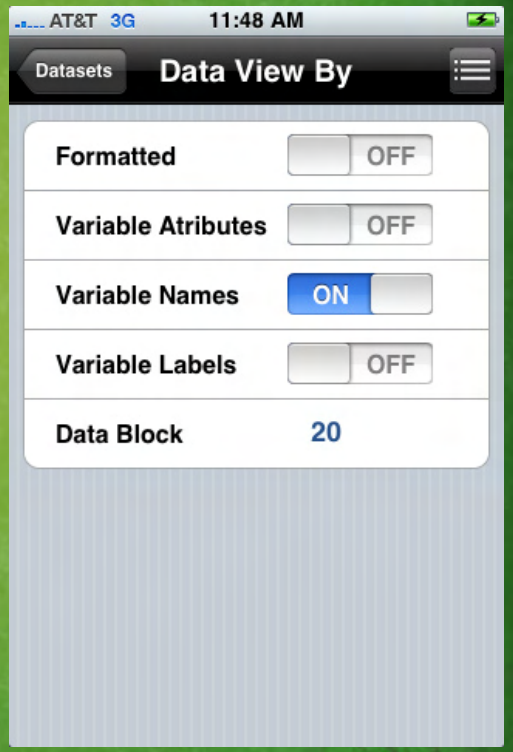
Step 4 – Change View Settings

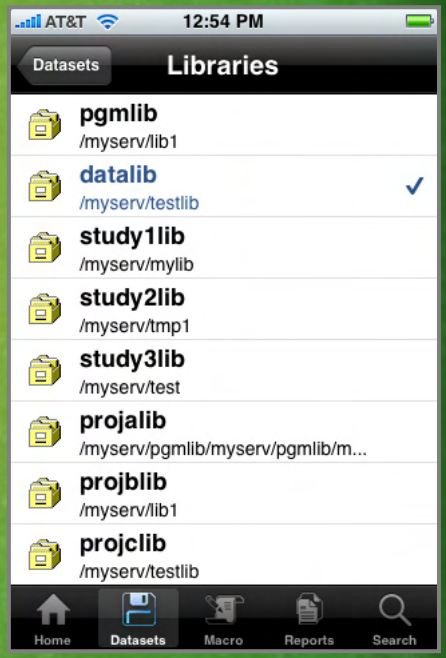
- Settings Button or Application Settings
  - User Defined Formats
  - Attributes (PROC CONTENTS)
  - Variable Name Column Header
  - Variable Label Column Header
  - Data Block or Chunk Size



SAS to XML for iPhone

- SAS Libraries Converted to XML

```
<Libraries>
   <Library id="1">
      <shortTitle>pgmlib</shortTitle>
      <longTitle></longTitle>
      <descriptionTitle>/myserv/lib1</descriptionTitle>
   </Library>
   <Library id="2">
      <shortTitle>datlib</shortTitle>
      <longTitle></longTitle>
      <descriptionTitle>/myserv/testlib</descriptionTitle>
   </Library>
   <Library id="3">
      <shortTitle>study</shortTitle>
      <longTitle></longTitle>
      <descriptionTitle>/myserv/testlib</descriptionTitle>
   </Library>
...
</Libraries>
```



Sample Macro PDF Output

- %STABANA Macro Stability Lab
  -
```
%macro stabana (indata=, anatype=,
    title1=, title2=, title3=, title4=, title5=,
    title6=,
    plotvref1=, plotvref2=,  plotvaxis1=,
    plotvaxis2=, plotvaxis3=, output=);
```

- PDF Output
  - Can be Emailed

Editing SAS Program on iPhone?

AppStore or Macro Store

Mobility and Ubiquity

User Friendly Interface

i Don't

	Stone (40,000 B.C.)	iPhone 3G (2008)
MMS	✗	✗
Video recording	✗	✗
Videocall	✗	✗
Changeable memory cards	✗	✗
Running SAS Macros	✗	✓

Conclusion

- Software Delivery and Distribution Significantly Changed with App Store
- SAS Macro is Powerful Customizable Business Intelligence Analytical Tool
- Barriers of SAS Tools Behind IT and Servers is now Broken and Delivered to Users via iPhone
- Ubiquity of Portable Computing such as iPhone Delivers Information to Masses

Questions

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