

Data Quality Review (DQR) Data Verification and System Assessment Workshop

Session 10

Use of Tablets and Basics of CSPro



World Health
Organization



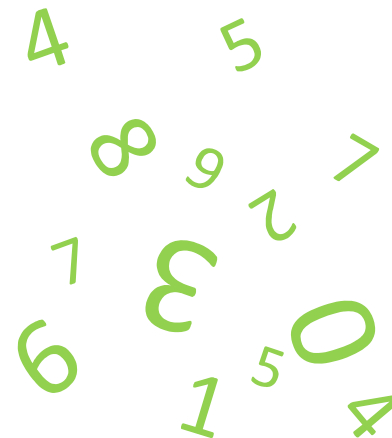
USAID
FROM THE AMERICAN PEOPLE



MEASURE
Evaluation



The Global Fund



Learning Objective

- Learn the basics of using tablet computers for data collection
- Learn the basics of using CSPro for data collection on the tablet
- Learn the basics of using CSPro for data entry on a personal computer
- Learn to collect accurate geo-spatial location data from health facilities using Global Positioning System (GPS) devices

SESSION 10

Tablet and CSPro Basics



Tablet basics

Tablet basics

SESSION 10

Tablet Basics



Basic functions

SESSION 10

Tablet Basics

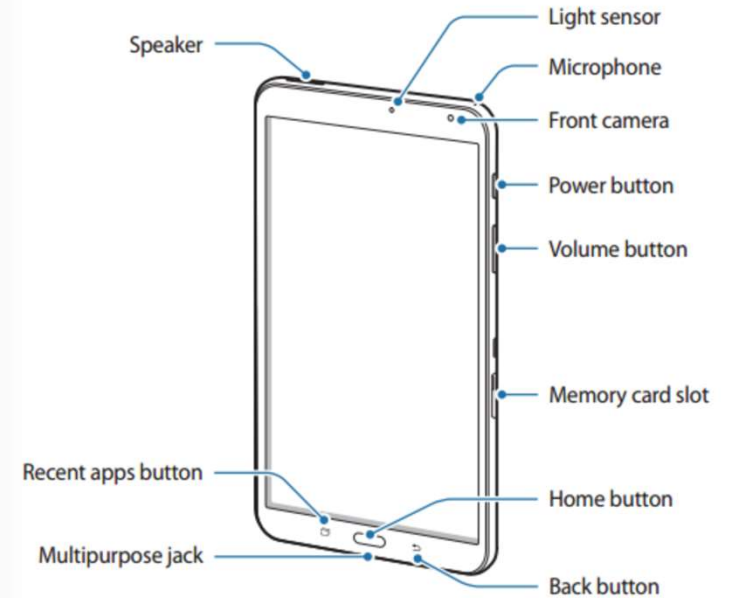
Basic functions of the tablet

- Power on and off
- Main buttons on the tablet
- Check that GPS, WiFi, screen rotate, are ON and that volume is OFF
- Check that date and time is accurate; reset if incorrect
- Connect to WiFi
- Access CSEntry app
- Quit app that is not responding
- Hard reset to reboot system
- ***holding down*** the ***Power*** button and the ***Volume-down*** button *at the same time for more than 7 seconds will force a restart*



Basic functions

Needs country adaptation!



- **Back button** - Tap to return to the previous screen, or to close a dialog box, menu, or keyboard.
- **Front camera** - Take self-portraits and record videos of yourself.
- **Home button** - Press to return to the Home screen.
- **Light sensor** - Allows the device to detect current ambient light levels.
- **Memory card slot** - Install an optional memory card (not included) for storage of files.
- **Microphone** - Records audio and detects voice commands.
- **Multipurpose jack** - Connect the Charger/USB cable (included), and other optional accessories (not included).
- **Power button** - Press and hold to turn the device on or off. Press to lock or wake up the screen. Press and hold to turn the device off or restart it, or for quick access to Airplane Mode.
- **Recent apps button** - Tap to display recent apps or touch and hold to launch split screen view.
- **Speaker** - Plays music and other sounds.
- **Volume key button** - Press to adjust the volume of your device's sounds and audio.

SESSION 10

Tablet Basics



CSPro basics

CSPro basics

SESSION 10

CSPro basics

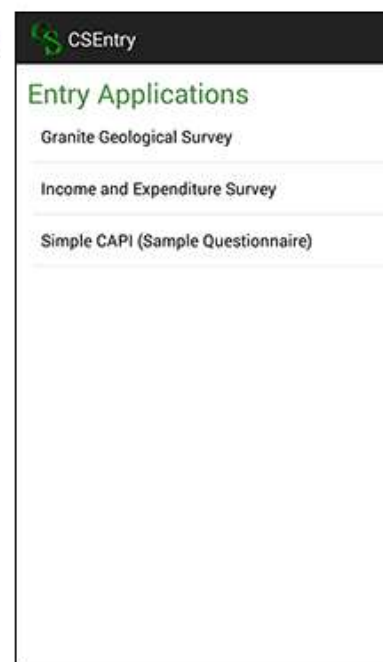


Entry applications

Entry applications screen

Entry Applications Screen

Upon opening CSEntry, all data entry applications on the device are displayed. Click on an application to open it. If only one application is on the device, it will open automatically.



SESSION 10

CSPRO Basics

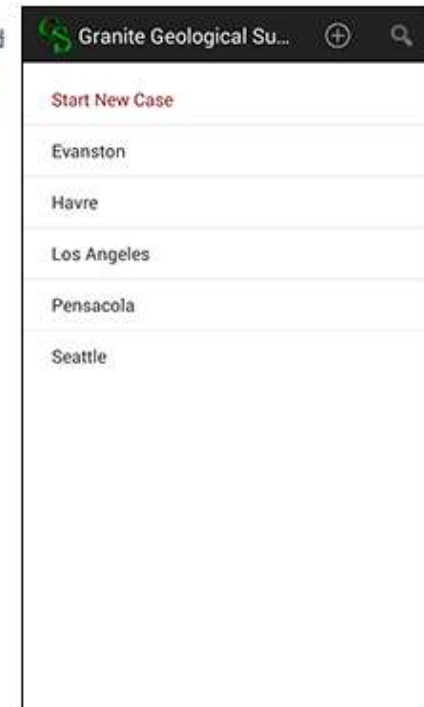


Case listing

Case listing screen

Case Listing Screen

The case listing displays all cases that have already been added to the data file. Clicking on a case will open it for modification. Clicking on "Start New Case," or the icon of a cross in a circle, will add a new case. To delete a case, hard-press on the case until a deletion menu appears. The menu on this screen has options to sort the cases alphabetically, or to display only incomplete cases.



SESSION 10

CSPPro Basics



Screen elements

SESSION 10

CSPro Basics

Screen elements

The screenshot shows a mobile application interface for ACS. At the top, there is a header bar with a menu icon (three horizontal lines) and a green dollar sign icon, followed by the text 'ACS' and a blue circle with the number 2. Below the header, there is a title 'Attended School' with a blue circle with the number 5. The main content area contains a question: 'At any time IN THE LAST 3 MONTHS, has this person attended school or college?' followed by a list of school types: 'Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a'. Below the question, there are three radio button options: 'No, has not attended in the last 3 months', 'Yes, public school, public college', and 'Yes, private school, private college, home school'. The interface also features a search icon in the top right corner and a back arrow in the bottom left corner. Numbered callouts 1 through 8 are placed over various UI elements: 1 points to the menu icon, 2 points to the 'ACS' text, 3 points to the search icon, 4 points to the back arrow, 5 points to the 'Attended School' title, 6 points to the question text, 7 points to the 'Yes, public school, public college' option, and 8 points to the 'Yes, private school, private college, home school' option.

1. Menu button- clicking on the menu button brings up options including show case tree

Screen elements

SESSION 10

CSPro Basics

Screen elements

The screenshot shows a mobile survey interface. At the top, there is a header bar with a green 'S' logo, the text 'ACS', and a blue circle with the number '2'. Below the header, the title 'Attended School' is displayed with a blue circle '5' next to it. The main content area contains a question: 'At any time IN THE LAST 3 MONTHS, has this person attended school or college?' followed by a list of school types: 'Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a'. Below the question, there are three radio button options: 'No, has not attended in the last 3 months', 'Yes, public school, public college', and 'Yes, private school, private college, home school'. The interface includes navigation arrows on the left and right sides. Numbered callouts (1-8) are placed over various UI elements: 1 points to the menu icon, 2 to the 'ACS' text, 3 to the edit icon, 4 to the search icon, 5 to the title, 6 to the question text, 7 to the 'Yes, public school' option, and 8 to the 'Yes, private school' option.

2. This is the name of the survey



Screen elements

SESSION 10

CSPro Basics

Screen elements

The screenshot shows the ACS mobile app interface. At the top, there is a header bar with a menu icon (1), the text 'ACS' (2), and a pencil and paper icon (3). Below the header, the title 'Attended School' (5) is displayed. The main content area contains a question: 'At any time IN THE LAST 3 MONTHS, has this person attended school or college?' (6). Below the question, there is a list of options: 'No, has not attended in the last 3 months' (7), 'Yes, public school, public college' (8), and 'Yes, private school, private college, home school' (8). Each option has a radio button next to it. The interface also includes a search icon (4) in the top right corner and navigation arrows (left and right) on the sides.

3. Clicking on the pencil and paper icon brings up a screen to type a field-specific note

Screen elements

SESSION 10

CSPro Basics

Screen elements

The screenshot shows the ACS mobile app interface. At the top, there is a header bar with a menu icon (1), the text 'ACS' (2), and a search icon (4). Below the header, the title 'Attended School' (5) is displayed. The main content area contains a question: 'At any time IN THE LAST 3 MONTHS, has this person attended school or college?' (6). Below the question, there are three radio button options: 'No, has not attended in the last 3 months' (7), 'Yes, public school, public college' (8), and 'Yes, private school, private college, home school' (8). The interface also includes a back arrow (8) and a forward arrow (8) for navigation.

4. Clicking on the search icon and typing in a query allows you to filter the response listing



Screen elements

ACS 2

1

3

4

5 Attended School

6 At any time IN THE LAST 3 MONTHS, has this person attended school or college?
Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a

7 No, has not attended in the last 3 months

8 Yes, public school, public college

8 Yes, private school, private college, home school

5. The field label is a short description of the field that you are currently entering; for DV/SA it is the question number

Screen elements

SESSION 10

CSPro Basics

Screen elements

The screenshot shows a mobile application interface for ACS. At the top, there is a header bar with a menu icon (1), the text 'ACS' (2), a search icon (3), and a magnifying glass icon (4). Below the header, the title 'Attended School' (5) is displayed. The main content area contains a question (6) in a light gray box: 'At any time IN THE LAST 3 MONTHS, has this person attended school or college? Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a'. Below the question, there are three radio button options: 'No, has not attended in the last 3 months' (7), 'Yes, public school, public college' (8), and 'Yes, private school, private college, home school' (8). The interface also features left and right navigation arrows.

6. This is the question text for the field that you are currently entering.



Screen elements

SESSION 10

CSPro Basics

Screen elements

The screenshot shows a mobile application interface for ACS. At the top, there is a header bar with a menu icon (1), the text 'ACS' (2), a status indicator '2' (3), a share icon (4), and a search icon (5). Below the header, the title 'Attended School' is displayed (6). The main content area contains a question: 'At any time IN THE LAST 3 MONTHS, has this person attended school or college?' followed by a list of school types: 'Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a' (7). Below the question, there are three radio button options: 'No, has not attended in the last 3 months' (8), 'Yes, public school, public college' (9), and 'Yes, private school, private college, home school' (10). The interface also features left and right navigation arrows (11) and a bottom status bar (12).

7. These are the response labels.



Screen elements

SESSION 10

CSPro Basics

Screen elements

The screenshot shows a mobile application interface for data entry. At the top, there is a header bar with a menu icon (1), the text 'ACS' (2), and a search icon (4). Below the header, the title 'Attended School' (5) is displayed. The main content area contains a question (6): 'At any time IN THE LAST 3 MONTHS, has this person attended school or college? Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a'. Below the question are three radio button options: 'No, has not attended in the last 3 months' (7), 'Yes, public school, public college' (8), and 'Yes, private school, private college, home school' (8). Navigation arrows are visible on the left and right sides of the form.

8. These are the left and right hand navigation buttons, which correspond to moving forwards or backwards in the data entry application.

User inputs

User inputs: Text box

To enter data in a text box field, simply type the response using the keyboard. If a keyboard does not appear automatically, click on the field and a keyboard will appear. If your keyboard has a Next key, you can click on it to move to the next field.

SESSION 10

CSPRO Basics



User inputs

User inputs: Radio buttons

When presented with a list of radio buttons, you must select one, and only one, response. Click on the response label, or the corresponding radio button, to make your selection.

Simple CAPI

Relationship

Joanna Doe: What is your relationship to John Doe?

Head of Household ☐

Spouse / Partner ☒

Daughter ☐

Sister ☐

Mother ☐

Grandmother ☐

Granddaughter ☐

Other Relative ☐

Non-Relative ☐

SESSION 10

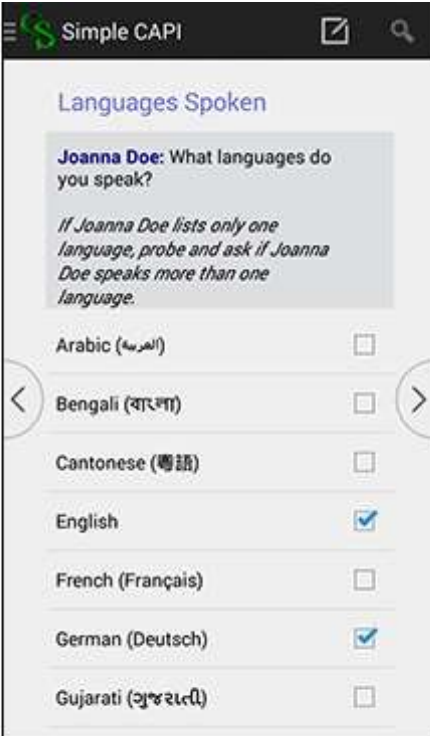
CSPPro Basics



User inputs

User inputs: Check boxes

When shown checkboxes, you can select none, one, or multiple responses. Click on the response label, or the corresponding checkbox, to make a selection. Once you are finished making all selections, you can proceed to the next field.



The screenshot shows a mobile application interface titled 'Simple CAPI'. The main heading is 'Languages Spoken'. Below it, a text box contains the question: 'Joanna Doe: What languages do you speak?'. A note below the question reads: 'If Joanna Doe lists only one language, probe and ask if Joanna Doe speaks more than one language.' Below this, there is a list of languages with checkboxes:

Language	Selected
Arabic (العربية)	<input type="checkbox"/>
Bengali (বাংলা)	<input type="checkbox"/>
Cantonese (粵語)	<input type="checkbox"/>
English	<input checked="" type="checkbox"/>
French (Français)	<input type="checkbox"/>
German (Deutsch)	<input checked="" type="checkbox"/>
Gujarati (ગુજરાતી)	<input type="checkbox"/>

SESSION 10

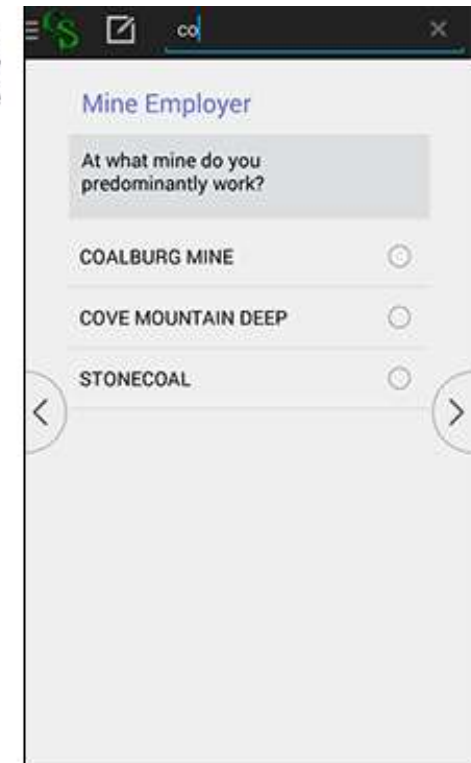
CSPRO Basics



User inputs

User inputs: Search box

After clicking on the search icon, a space will appear where you can type a search query. The list of responses will automatically filter based on your search query. The full text of each response is searched, not necessarily starting from the first letter of the response.



SESSION 10

CSPPro Basics



User inputs

User inputs: Note box

After clicking on the pencil and paper icon, you will have the opportunity to type a field-specific note. If you do not want to add a new note, you can press the Android back button to cancel.



SESSION 10

CSPro Basics



User inputs

User inputs: Case tree

Clicking on the CS icon brings up the case tree. The case tree displays all fields that have been entered in the data entry application, showing the field label as well as the field response. If you click on a field, you will be taken to that field. This allows you to quickly move from one part of the questionnaire to another. Once the case tree is shown, clicking on the CS icon again will take you up the hierarchy of the data entry application. For example, you might go from seeing details about a person to seeing details about the household. To insert or delete a repeating occurrence, hard-press on the occurrence label until you are presented with a menu that allows for insertions and deletions. You can dismiss the case tree by using the Android back button.

Person Record	
Name	John Doe
Sex	1 - Male
Age	32
Relationship	1 - Head of Household
Literate	1 - Yes
Languages Spoken	English, French (Français)
Languages Spoken (Other)	
Main Language	4 - English
Person Record(2)	
Name	Joanna Doe
Sex	2 - Female
Age	

SESSION 10

CSPPro Basics



CSPro main functions

Practice as a group

1. Open the data entry application
2. Start a new case
3. Begin to enter data
4. Understand the case tree
5. Use the automated GPS collection button
6. Change an answer entered into the forms
7. See an error message (staffing example)
8. Stop data entry in the middle of a case and partially save
9. Open a partially saved case
10. Open a new case
11. Examine a skip pattern (infrastructure example)
12. Identify a partially saved case vs. a complete case
13. Delete a case (if mistakenly started and saved)



Synchronizing tablets

Synchronizing tablets

SESSION 10

CSPPro Basics



Synchronizing tablets

SESSION 10

CSPro Basics

Syncing the tablet : Sending Data

1. Make sure your tablet is connected to the WiFi
2. Make sure CSEntry is opened to the Entry Applications screen. Click on the application you would like to synchronize
3. Click on the menu button and choose «synchronize».
4. Tap on Facility_DV_SA to do the actual synchronizing.
5. You may be asked if CSEntry can access a Dropbox account.
6. Example: DV/SA.southsudan@gmail.com
7. Click ALLOW

needs to be customized for DV and country instance login info



Syncing the tablet (con't)

1. Syncing progress will show on the tablet; make sure you get the sync complete message
2. Repeat for each module:
 - Facility DV
 - District DV

•**SYNC DAILY!**

1. Ensures data managers can do their job to check the data for completeness and correctness in a timely manner
2. Sends each tablet any updates to the program if errors have been found



Synchronizing tablets

SESSION 10

CSPPro Basics

Synchronizing the application

- The synchronization we have conducted sends the data from the tablet to the server.
- We may also want to download updates to the CSPPro application and lookup files if edits are made.
- To update the application, from the Entry application screen, click on the menu button and select add new. Then select the application you would like to update (if changes have been made it should say new version available)



CSPRO – Open Data Entry

SESSION 10

Using CSPRO on a PC

Open the Data Entry Program

- On the desktop, double click on the icon
FACILITY_DV_SA.pff



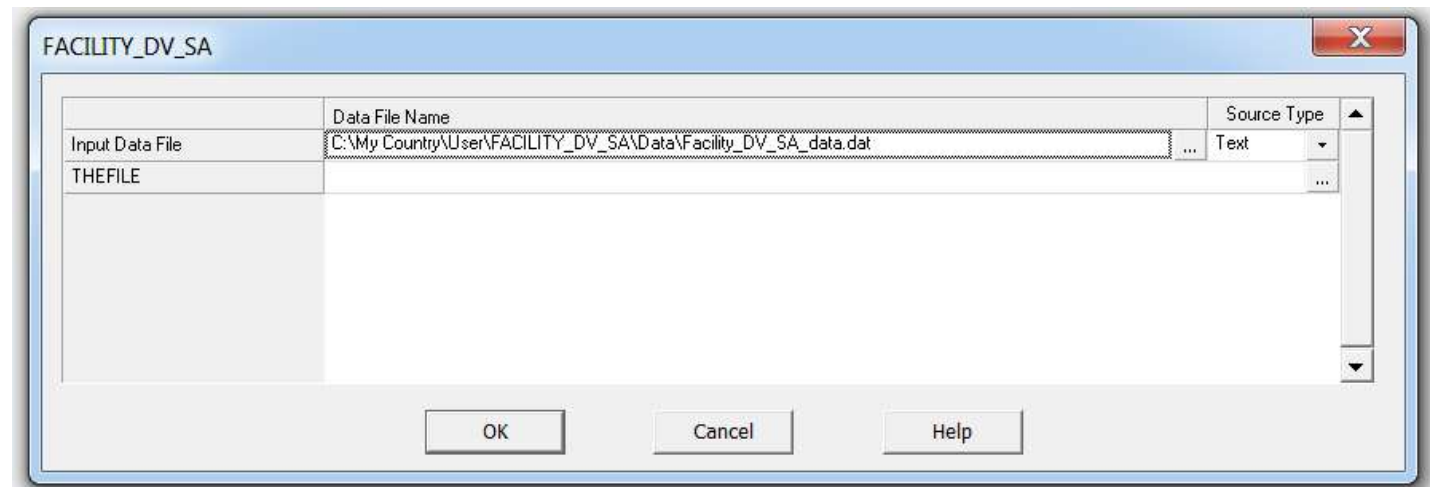
CSPRO – Open Data Entry

SESSION 10

Using CSPRO on a PC

Open the Data Entry Program

- The first time the application opens it will ask you to specify the data file. Click on ok to continue.



SESSION 10

Using C#Pro on a PC

- The question text is located on the yellow top window. For each question a pop-up window will appear. Select your answer by clicking on the radio button.

Text of the question

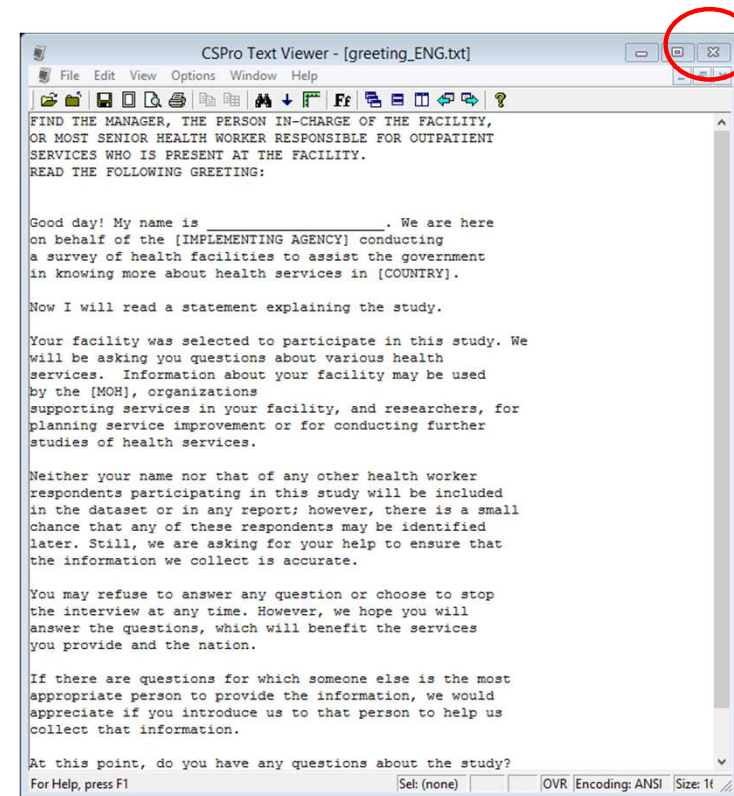
CSPro – Data Entry

SESSION 10

Using CSPro on a PC

Fill in the data entry forms: consent

- Fill in all the responses for the cover page. When you get to the consent question a pop up box will open with the text for the consent. Read this to the respondent, then when finished click on the X in the right corner to close this box and return to the data entry application
- If consent is received from the respondent select “1” for the answer Q015; the next form will open and you can continue entering data for the next section



CSPRO – Data Entry

Entering data: Error messages

- If you enter an incorrect value you will receive an error message. You will need to correct the error in order to proceed.

SESSION 10

Using CSpRo on a PC

The screenshot shows the CSpRo application window titled "CSpRo (Application: FACILITY_DV_SA - Data: Facility_DV_SA_data.dat)". The interface includes a menu bar (File, Mode, Edit, Navigation, View, Options, Help) and a toolbar. On the left, a tree view displays the data structure for case 11011101_13105201904, including forms like COVER_PAGE_FORM, DV_ANTENATAL_CARE_FORM, and DV_100 through DV_106_A. The main area shows a list of data fields with their current values. A yellow banner at the top of the main area reads: "Please confirm the availability of the main source document used for reporting of ANC visits for August." Two dialog boxes are overlaid on the main area. The first is a confirmation dialog titled "Source document ANC1 available - Month 2" with two radio button options: "1 Yes, source document available with information recorded for ANC visits" (selected) and "2 No, source document not available or information on ANC visits not recorded". The second is a warning dialog titled "WARNING: Out of range! Please enter a valid value for DV_103_02A" with an "OK" button. The data fields shown include DV_100 (1), DV_101 (1), DV_102 (1), DV_102_A (empty), INS_ANC_DV (1), DV_103_01A (1), DV_103_01B (129), DV_103_02A (empty), DV_103_02B (empty), DV_103_03A (empty), DV_103_03B (empty), DV_104_01A (empty), DV_104_01B (empty), DV_104_02A (empty), DV_104_02B (empty), DV_104_03A (empty), DV_104_03B (empty), DV_105 (empty), DV_106_A (empty), DV_IMMUNIZATION_FORM (0 occur), DV_ARV_COVERAGE_FORM (0 occur), DV_TB_CASES_FORM (0 occurrence), DV_MALARIA_CASE_RATE_FORM (0), DV_COUNTRY_SPECIFIC_FORM (0), and DV_SYSTEMS_ASSESSMENT_FORM (0).



CSPro – Data Entry

SESSION 10 Using CSPro on a PC

Change an answer

- Use the tree on the left to scroll to the question you would like to change. Double click on the question number in the tree and the form on the right should show the question of interest with the cursor in that box. Enter the correct response and hit return to continue. To move forward to the next question, once again use the tree on the left and navigate the cursor to the correct question and double click.

File Edit View Help

11011101_1310520190

COVER_PAGE_FORM

DV_DAY..... : 01

DV_MONTH..... : 5

DV_YEAR..... : 2009

DV_005..... : 1

DV_005_NAME... : Eastern

DV_006..... : 11

DV_006_NAME... : Kailash

DV_006_1..... : 1101110

USCORE..... : 1

DV_003..... : Baiwall

DV_004..... : Kailash

DV_002..... : 1

DV_INTERVIEWER : 4

DV_007..... : 4

DV_007_A..... : 2

DV_008..... : 2

DV_009..... : 2

DV_011..... : 3105201

DV_012..... : 5555

DV_013_A..... : 1

DV_013_B..... : 8.0000

DV_014_A..... : 1

DV_014_B..... : 1.0000

INS_DV_015..... : 1

DV_015..... : 1

DV_016_A..... : 18

DV_016_B..... : 2

DV_100..... : 1

DV_101..... : 1

DV_102..... : 1

Please recount the number of ANC1 visits recorded in the main source document for September.

DV_100 1

DV_101 1

DV_102 1

DV_102_A

INS_ANC_DV 1

DV_103_01A 1

DV_103_01B 1,2,9

DV_103_02A 2

DV_103_02B

DV_103_03A 1

DV_103_03B

DV_104_01A

DV_104_01B

DV_104_02A

DV_104_02B

DV_104_03A

DV_104_03B

Number Pad

7 8 9 ←

4 5 6 −

1 2 3 C

0 . →

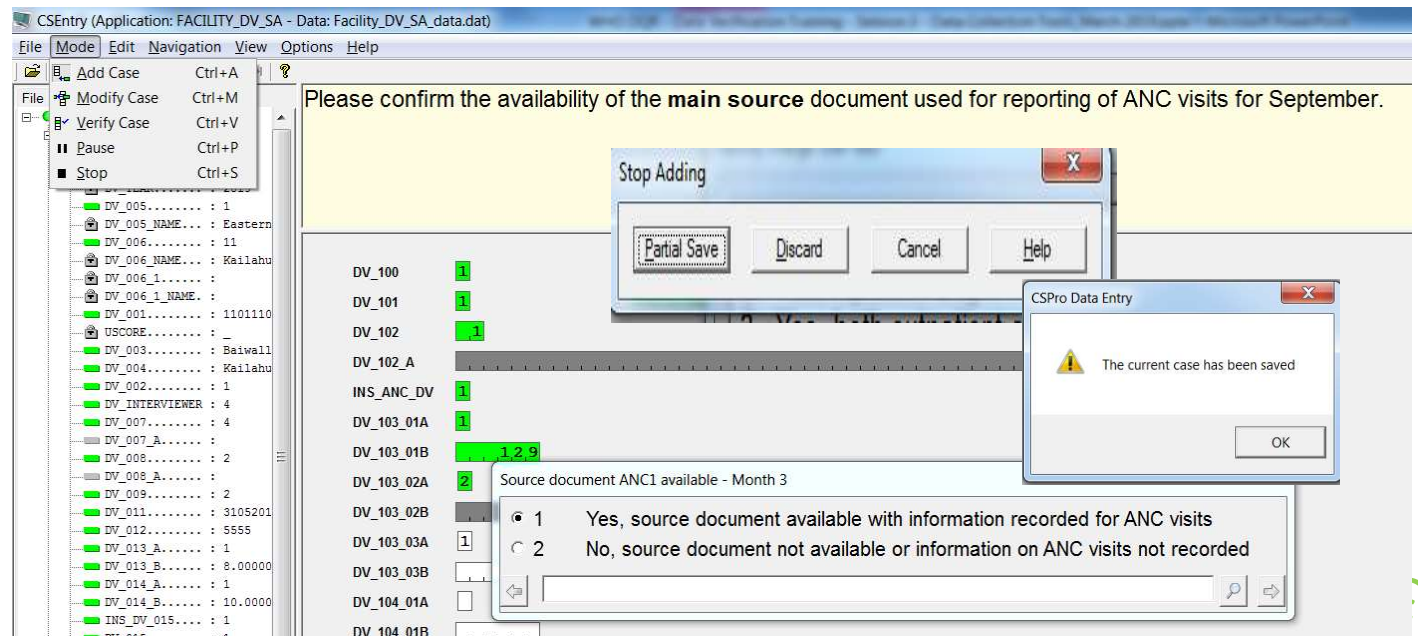
CSPRO – Data Entry

SESSION 10

Using CSPRO on a PC

Stop data entry in the middle of a case

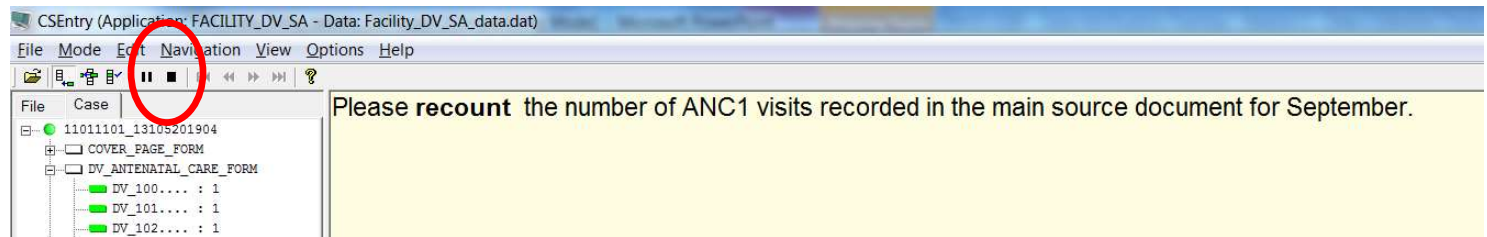
- If you are in the middle of filling a form and need to exit the form and the program click on the “X” at the top right end of the form to close it. A pop-up window opens:
- Select “Partial save” to save the data entered. Another pop-up window will open indicating that “The current case has been saved”. Click “Ok” and the data will be saved and the application will close.



CSPro – Data Entry

Stop data entry

- To stop data entry without closing the CSEntry program, use the stop icon on the menu bar



- “Partial save” to save the data entered. Another pop-up window will open indicating that “The current case has been saved”. Click “Ok” and the data will be saved and the application will RETURN TO THE MAIN MENU.



SESSION 10

Using CSPro on a PC

CSPro – Data Entry

SESSION 10

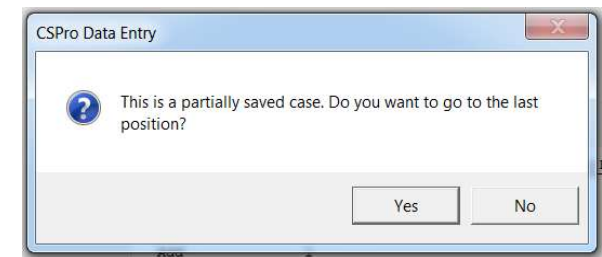
Using CSPro on a PC

Finalize an incomplete case

- To complete a case, select it from the main Menu and double click to open.



- A window opens asking if you want to go to the last position. If you would like to navigate to where you left off, click yes. If you click no, you will be taken to the cover page and can use the tree on the left to navigate the case.



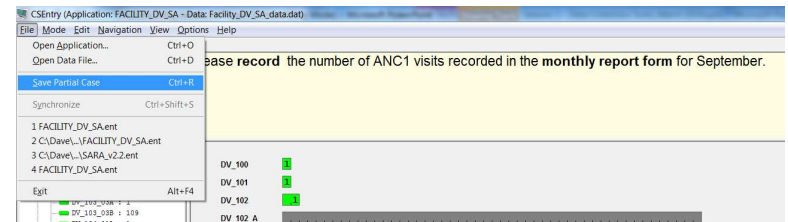
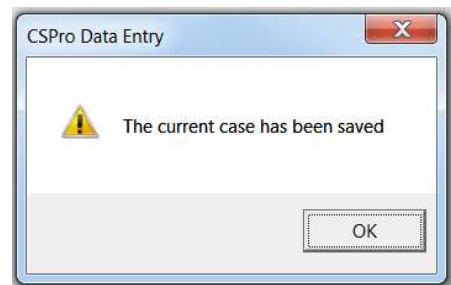
CSPro – Data Entry

SESSION 10

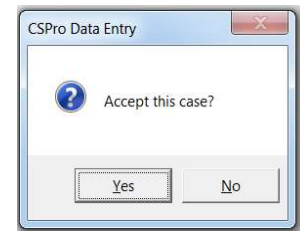
Using CSPro on a PC

Save a case

- To save the record, go to File -> Save partial case. The following pop-up window appears. Click “Ok” to continue the data entry.



- At the end of the form the following pop-up window will appear. Click yes to save the record as a completed record.



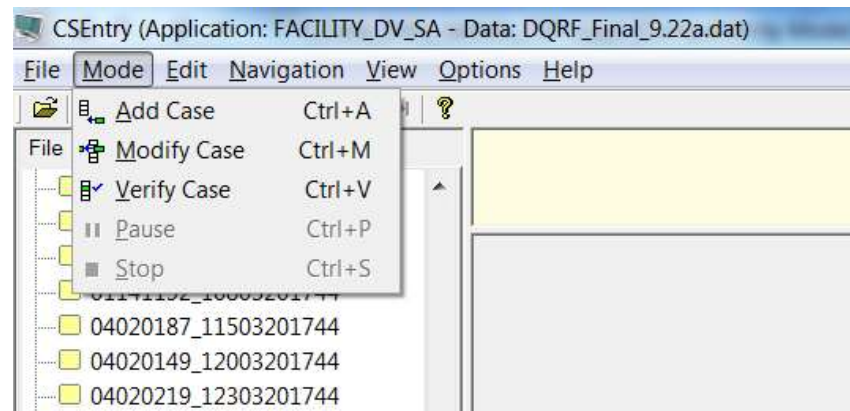
CSPro – Data Entry

SESSION 10

Using CSPro on a PC

Open a new case

- Start the application by double clicking on the icon on the desktop
- In the menu, go to Mode, select “Add case”



- A new form opens and you can begin entering data.



GPS: Purpose

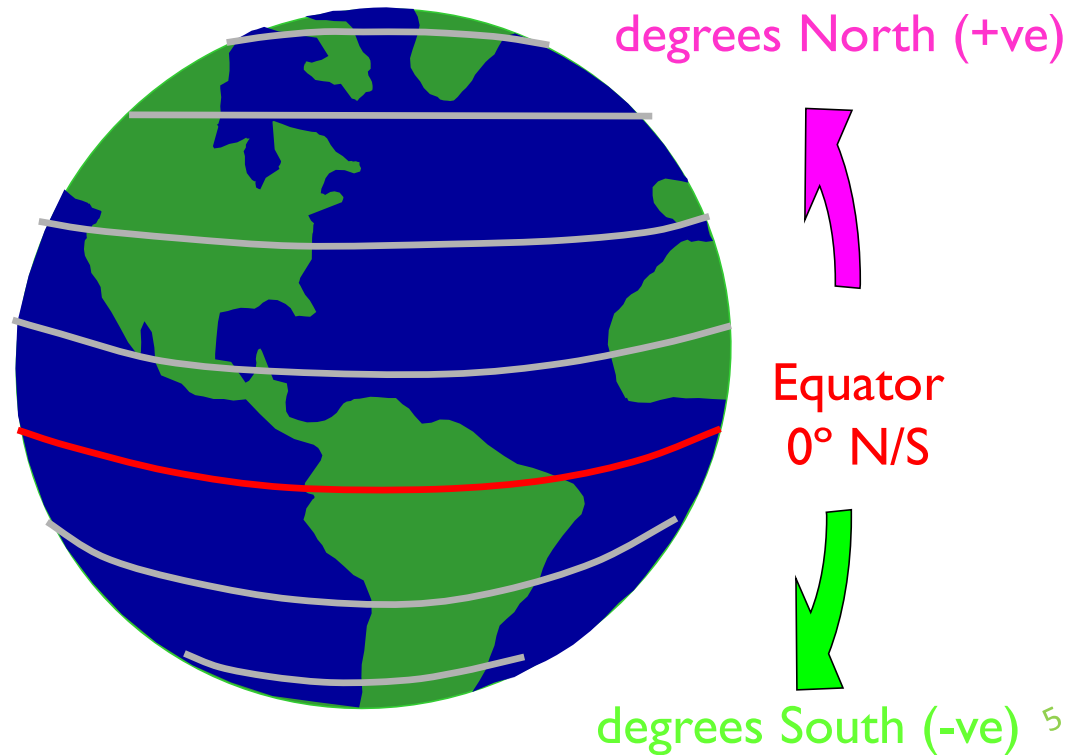
- GPS = Global Positioning System
- At its simplest, a GPS gives its *position*, in the form of a *co-ordinate*
- Two main uses:
 1. **Information collection**
 2. Navigation
(Where am I? How do I get to...?)



Coordinate systems: Latitude

Latitude:

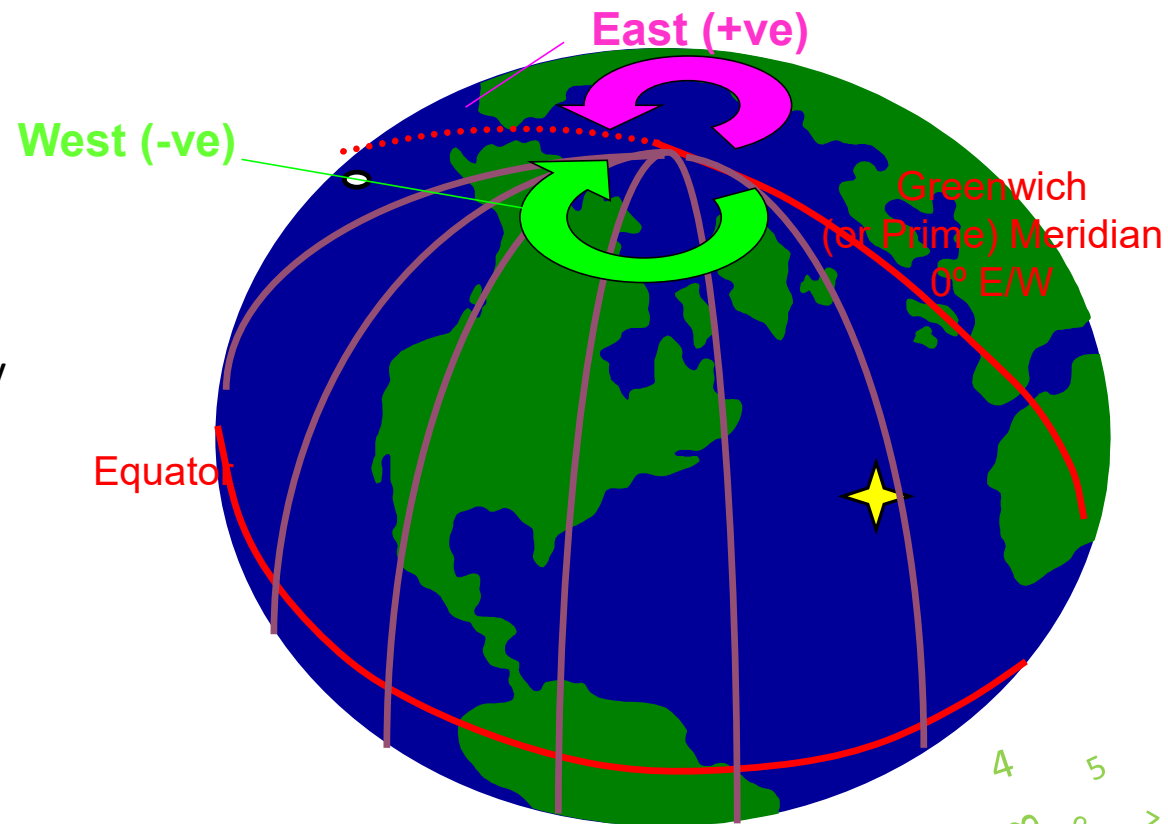
- Imaginary horizontal lines shown running east-to-west
- Tells you how many degrees north or south of the equator



Co-ordinate systems: Longitude

Longitude:

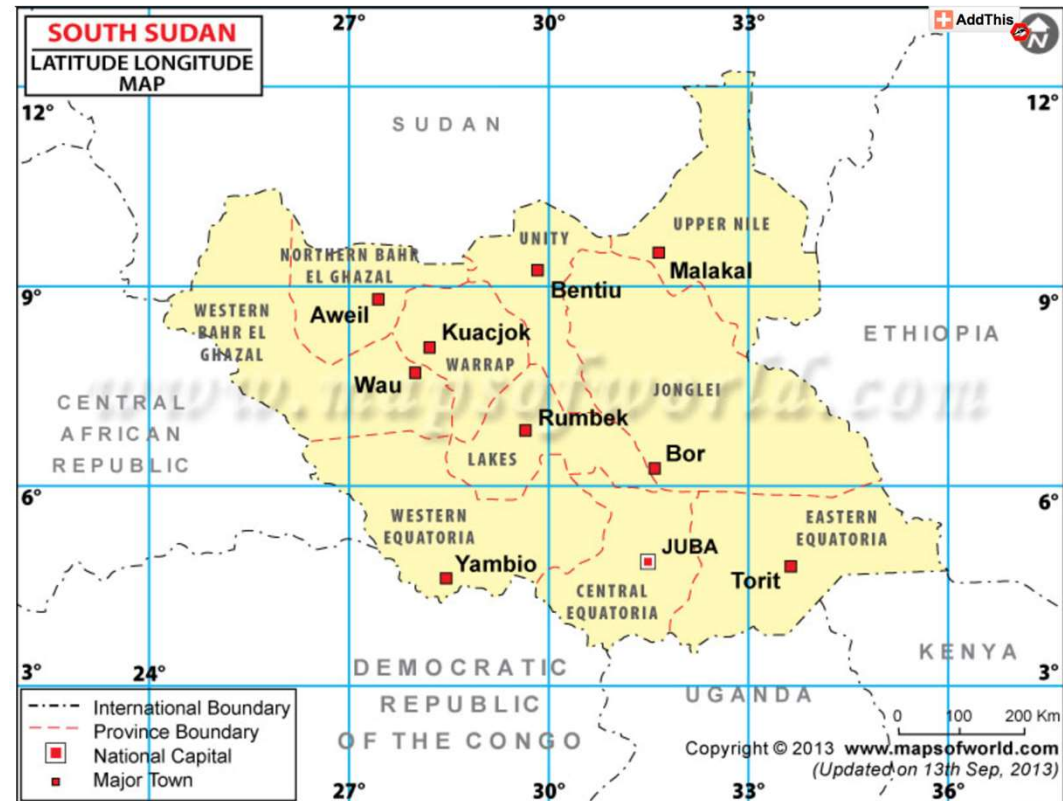
- Imaginary vertical lines shown running north-to-south
- Tells you how many degrees east or west of the prime meridian



Co-ordinates of South Sudan

Latitude will be + as
the country lies
North of the Equator

Longitude will all be
+ because all of
country is East of the
Prime Meridian



Where to stand to collect GPS coordinates

- You MUST be outside!
- MOVE TO MAIN ENTRANCE OF THE BUILDING. STAND WITHIN 30 METERS OF DOOR WHERE ENTRANCE IS IN PLAIN VIEW TO THE SKY.



Capturing GPS coordinates

- Automated pick-up of GPS coordinates on the tablet
- We will practice this shortly...



Questions

SESSION 10

CSPRO Basics

- What does clicking on the paper and pencil icon in the DV/SA application do?
- True or false: When using radio buttons in the DV/SA to answer a question you can select as many responses as are applicable.
- True or false: When using check boxes in the DV/SA application to answer a question you can select none, one, or multiple responses.
- How often should collected data on the tablet be synched with the national server?
- What does “GPS” stand for?
- True or false: Latitudes are measured in degrees east or west of the Prime Meridian.



Practice

SESSION 10

CSPro Basics

- Read the instructions carefully and ask any questions to clarify any points of confusion.
- The instructor will provide you with all the files that you will need to use for this exercise.
- You will work in a small group and at the end there will be a plenary discussion.
- Practice navigating around the CSPro DV/SA data entry application on the tablet. Then practice entering records into the DV/SA data entry application and synching with the server.

