

Incrementing a counter

Overview

It may be useful to increment counters in a case values, the typical example being the number of visits or consultations a patient received. The case stores the number of consultations received and each form stores a number of the consultation received at that time. Such counters are implemented with a couple of hidden values in the form and a single case value.

General Approach

We will walk through a very simple example where we count the number of times that a home visit form has been completed.

Set up the Form

The visit form will need to have a **hidden value**.

Hidden value name	Description	Calculate Condition	Explanation of Calculation Condition
count	Each time the form is opened, this hidden value will calculate how many times the form has been filled out	<code>coalesce (#case /visit_count, 0) + 1</code>	<p>This hidden value will use coalesce to determine whether the case property visit_count has any value. If it does, it will add 1 to it, if it does not then it will take 0 and add 1 to that.</p> <p>You can imagine the first time the form is completed it will add 1 to 0 = 1</p> <p>The second time it will take the case property value (1) and add 1 = 2</p> <p>And so on...</p>

CommCare Functions: Coalesce

This example uses a function called **coalesce**. You can read more about [CommCare Functions](#) but here is the basic information about how this function works:

coalesce

- **Behavior:** Useful for choosing which of two values to return. Will return the non-empty value. If both are not null, will return the first argument.
- **Return:** One of the values
- **Arguments:** The two values to be coalesced
- **Syntax:** `coalesce(value_1, value_2)`.
- **Example:** This is useful if you want to use a default value when referring to a question which may or may not have been answered. Ex. `coalesce(#form/my_question, "my default value")`.

Set up the Case Management

After you form is set up you will need to link your case properties. You will want to take the value of home_visits each time, add one, and save it to the case again.

Example: Counting ANC Visits

Let's take an example of Ante Natal Care (ANC) visits.

- Create a hidden value (`anc_number`) to compute the current ANC number by adding 1 to the case property `anc_number`
- Since the case property `anc_number` can be blank in the case of a first ANC, we need to use the coalesce function: `coalesce (#case /anc_number, 0) + 1`

[Explained Step by Step](#)

To count or keep track of ANC visits in follow-up forms, do this...

1. Create Hidden Value **anc_number**
2. Set up your case management to save **anc_number** to the case
3. In the form question **anc_number**, in the calculate condition, type: **coalesce(#case/anc_number,0)+1**