Navigation Sheet – Branching Logic

Compliance & Data Office

Research Support Office

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Introduction

Branching Logic may be employed when fields/questions need to be hidden under certain conditions. If you wish to make a field visible ONLY when the values of other fields meet certain conditions (and keep it invisible otherwise), you may provide these conditions in the Branching Logic section in the Online Designer (shown by the double green arrow icon).

You may specify those conditions using the Advanced Branching Logic Syntax or by choosing the Drag-N-Drop Logic Builder method, which allows you to build your logic in a much easier fashion by simply dragging over the options you want.

In the equation you must use the project variable names surrounded by [ ] brackets. You may use mathematical operators (=, <, >, <=, >=, <>), Boolean logic (and/or), and unary Boolean not (!). You may nest within many parenthetic levels for more complex logic.

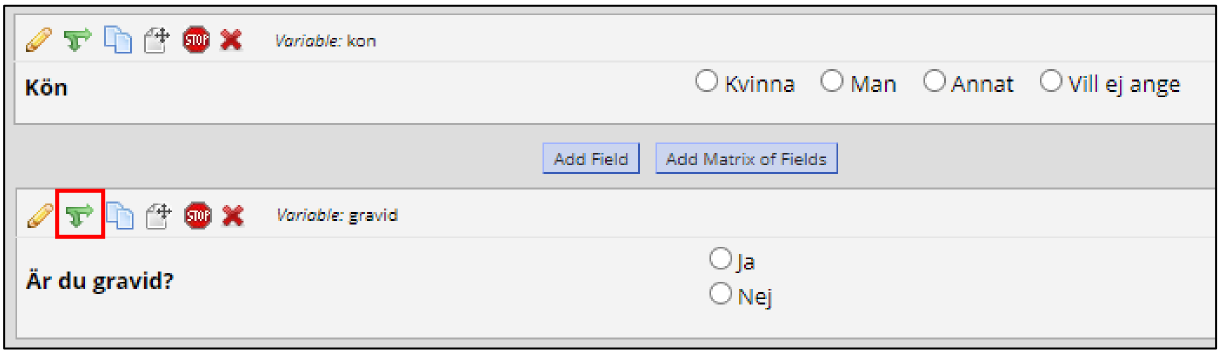
You must **always** put single (' ') or double (" ") quotes around the values in the equation UNLESS you are using > or < with numerical values.

Below you will find some examples of how you can use branching logic.

Example 1.

You wish to ask questions that should only be visible for some of the participants.

1. Once you've added the field you click the green arrow button on the field where you want to add the branching logic.



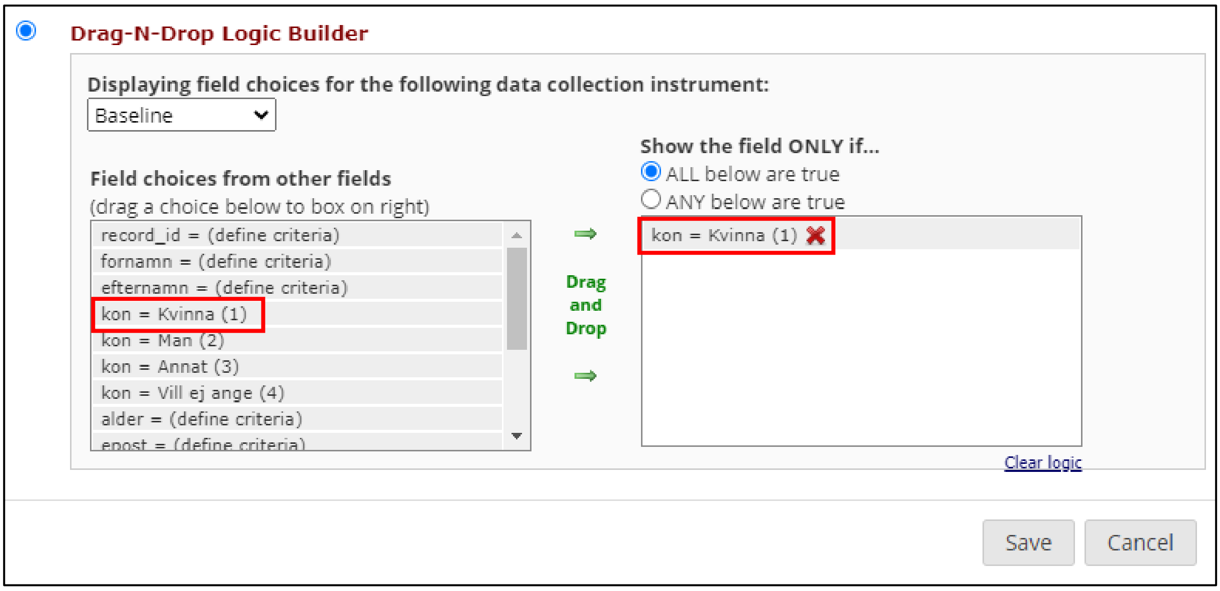
Variable: kon

Kön ○ Kvinna ○ Man ○ Annat ○ Vill ej ange

Variable: gravid

Är du gravid? ○ Ja ○ Nej

2. You will then get a pop-up window where you can enter the logic that needs to be fulfilled for the question to appear.
   For a simple logic like this, you can use the Drag-N-Drop Logic Builder and simply drag the option Female to the right-hand side box.



● Drag-N-Drop Logic Builder

Displaying field choices for the following data collection instrument: Baseline

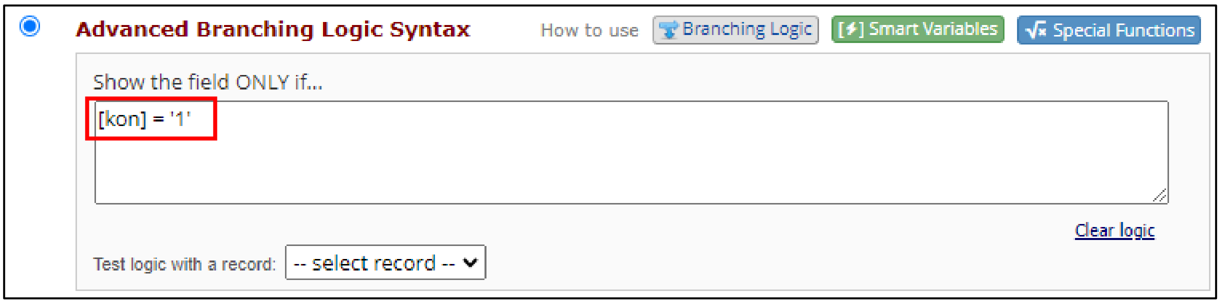
Field choices from other fields
(drag a choice below to box on right)

record_id = (define criteria)
fornamn = (define criteria)
efternamn = (define criteria)
kon = Kvinna (1)
kon = Man (2)
kon = Annat (3)
kon = Vill ej ange (4)
alder = (define criteria)
epost = (define criteria)

Show the field ONLY if...
● ALL below are true
○ ANY below are true

kon = Kvinna (1)

3. You can also choose to write your logic manually in the Advanced Branching Logic Syntax.



● Advanced Branching Logic Syntax

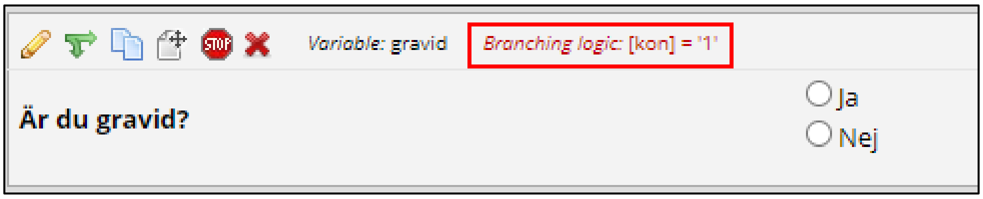
Show the field ONLY if...

```
[kon] = '1'
```

Test logic with a record: -- select record --

Please note that for items that are coded numerically, such as dropdowns and radio buttons, you will need to provide the coded numerical value in the equation (rather than the displayed text label). You can find these codes in the codebook.

4. You will now see the branching logic for the specific field.

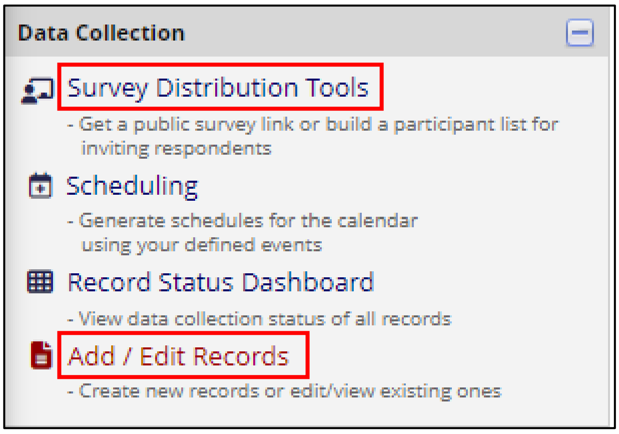


Variable: gravid *Branching logic:* [kon] = '1'

Är du gravid?

○ Ja
○ Nej

5. You should always test your logic properly to make sure it works as intended. You can do this either via the public survey link or via the Add/Edit Records function.



Data Collection

Survey Distribution Tools
- Get a public survey link or build a participant list for inviting respondents

Scheduling
- Generate schedules for the calendar using your defined events

Record Status Dashboard
- View data collection status of all records

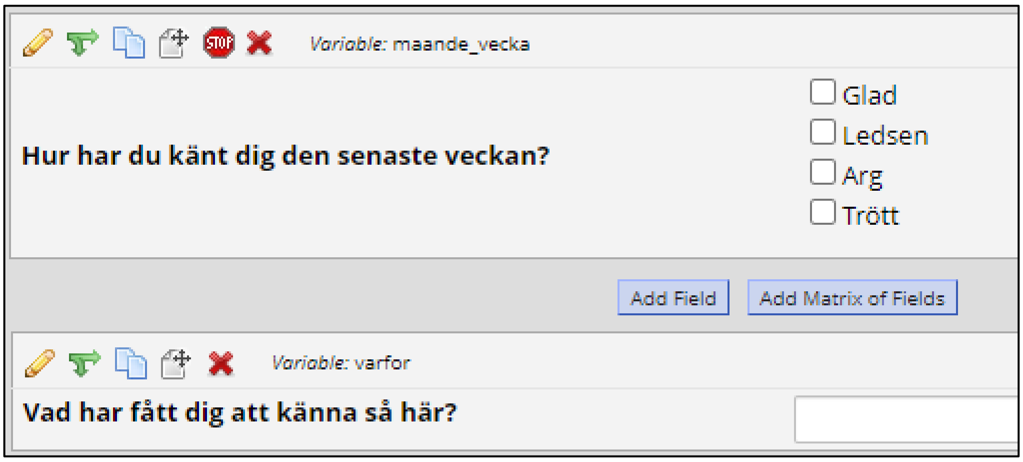
Add / Edit Records
- Create new records or edit/view existing ones

While the project is in Development mode you can always add test records to make sure your instruments are working properly.

Example 2.

You want to ask a follow-up question if the participant has answered 1 or several specific answers in a previous question that contains checkboxes.

1. Special formatting is needed for the branching logic syntax in checkbox field types. For checkboxes, simply add the coded numerical value inside () parentheses after the variable name. A checked box will have the value "1" and an unchecked box will have the value "0".
In this case we would like to add a follow-up question if the participant has answered either option 2 or 3 in the previous question.



Variable: maande_vecka

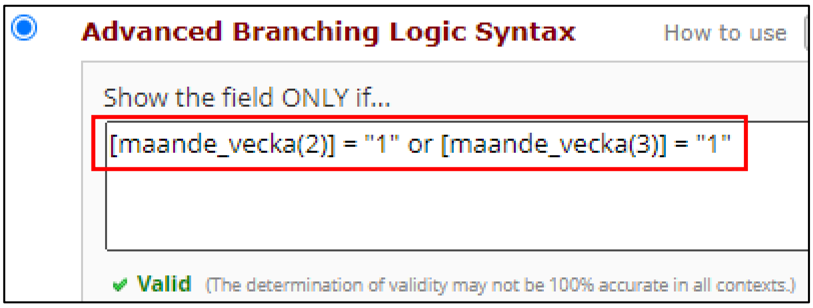
Hur har du känt dig den senaste veckan?

□ Glad
□ Ledsen
□ Arg
□ Trött

Variable: varfor

Vad har fått dig att känna så här?

2. The logic will then be as follows.



```
[maande_vecka(2)] = "1" or [maande_vecka(3)] = "1"
```

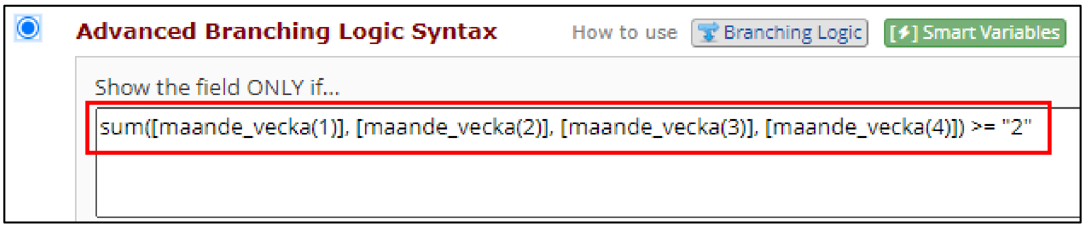
✓ Valid (The determination of validity may not be 100% accurate in all contexts.)

Where the first section of the logic is saying that checkbox option 2 is checked (= 1) and the second section is saying that checkbox option 3 is checked (= 1).

Example 3.

When a participant has answered a question using checkboxes, you wish to ask a follow-up question if 2 or more boxes have been checked.

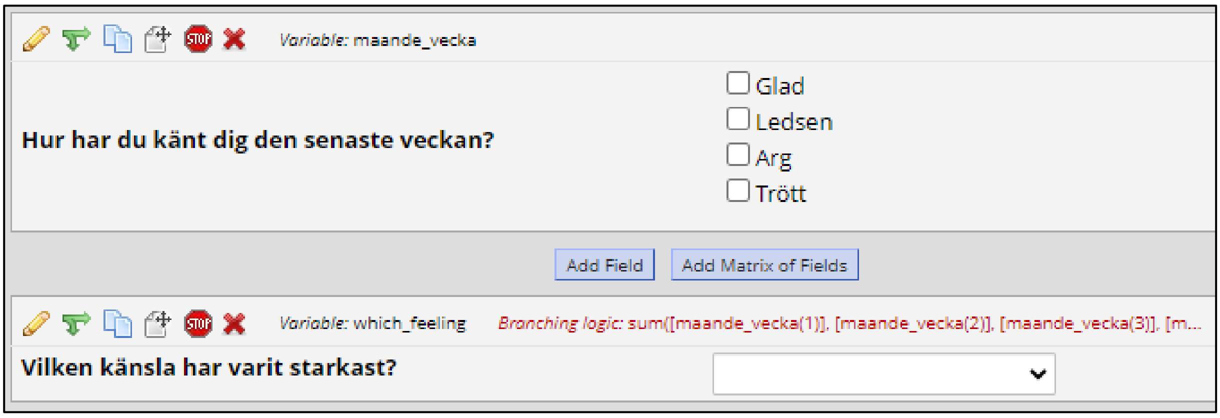
1. As explained in example 2, checkboxes show the value 1 or 0 depending on whether the box has been checked or not. In this case we want the branching logic to say that a follow-up question should appear when 2 or more boxes have been checked, no specific boxes, just any of the options. One way of doing this is to use the SUM-function.



```
sum([maande_vecka(1)], [maande_vecka(2)], [maande_vecka(3)], [maande_vecka(4)]) >= "2"
```

The logic is now saying that if the sum of all 4 options is ≥ 2, then the field in question will appear.
If all boxes are checked, the sum would be = 4, if none of the boxes are checked, the sum would be = 0.

2. The follow-up question would now appear when 2 or more boxes have been checked.



Variable: maande_vecka

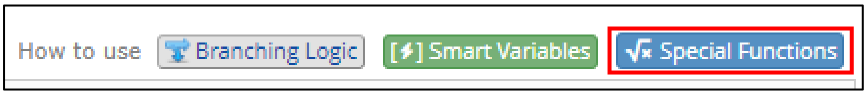
Hur har du känt dig den senaste veckan?

□ Glad
□ Ledsen
□ Arg
□ Trött

Variable: which_feeling *Branching logic:* sum([maande_vecka(1)], [maande_vecka(2)], [maande_vecka(3)], [m...

Vilken känsla har varit starkast?

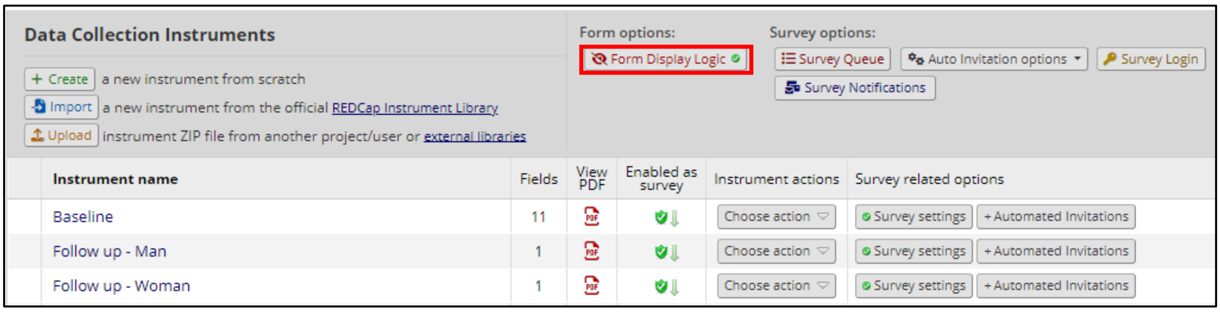
3. To find more information about how to use special functions, you can always click the blue button in the branching logic pop-up window.



Example 4.

You want to hide an entire instrument for specific participants.

1. The Form Display Logic is an advanced feature that provides a way to use conditional logic to disable specific data entry forms that are displayed on the Record Status Dashboard, Record Home Page, or the form list on the left-hand menu. You might think of it as 'form-level branching logic'.



Data Collection Instruments

+ Create a new instrument from scratch
Import a new instrument from the official REDCap Instrument Library
Upload instrument ZIP file from another project/user or external libraries

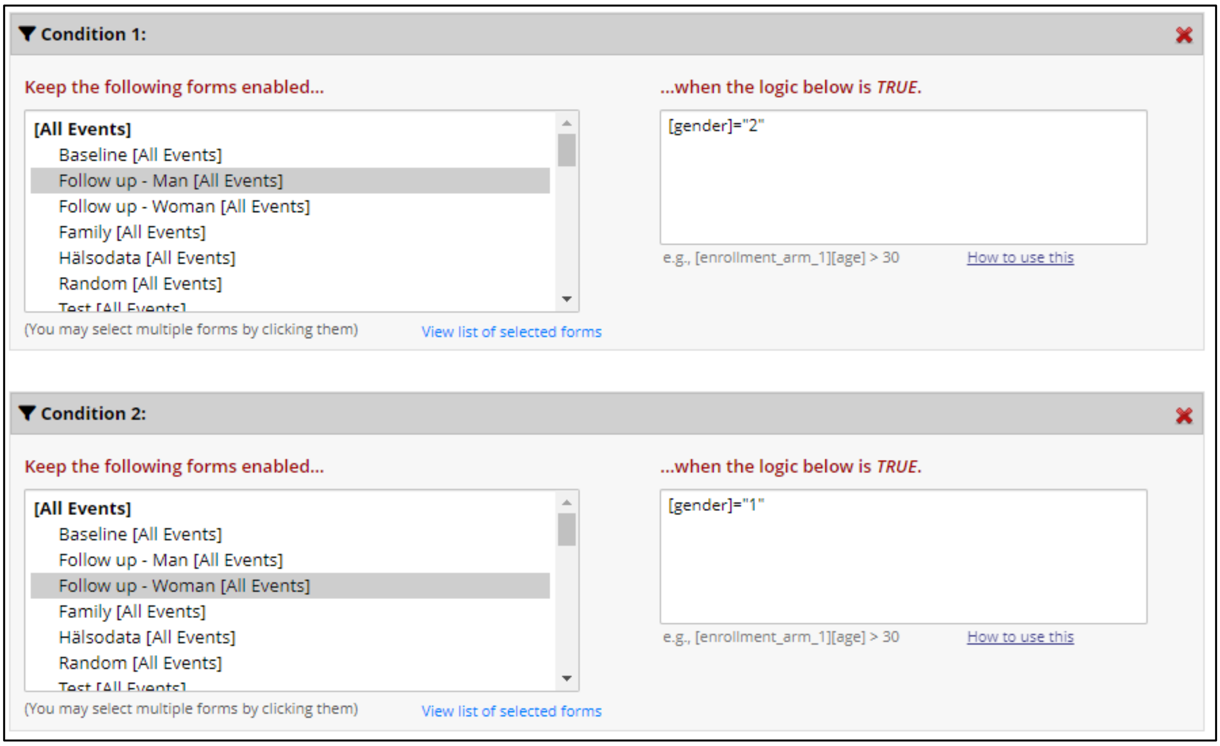
Form options: Form Display Logic

Survey options: Survey Queue | Auto Invitation options | Survey Login | Survey Notifications

Instrument name	Fields	View PDF	Enabled as survey	Instrument actions	Survey related options
Baseline	11		✓	Choose action	Survey settings | + Automated Invitations
Follow up - Man	1		✓	Choose action	Survey settings | + Automated Invitations
Follow up - Woman	1		✓	Choose action	Survey settings | + Automated Invitations

In this case we have different follow-up instruments for men and women, and we only want the relevant instrument to be displayed for each participant.

2. When you open the Form Display Logic you will get the option of adding 1 or more conditions for your logic. You highlight the instrument and add the logic for when the specific instrument should be enabled.



Condition 1:

Keep the following forms enabled...

[All Events]
Baseline [All Events]
Follow up - Man [All Events]
Follow up - Woman [All Events]
Family [All Events]
Hälsodata [All Events]
Random [All Events]
Test [All Events]

(You may select multiple forms by clicking them)

...when the logic below is *TRUE*.

[gender]="2"

e.g., [enrollment_arm_1][age] > 30

Condition 2:

Keep the following forms enabled...

[All Events]
Baseline [All Events]
Follow up - Man [All Events]
Follow up - Woman [All Events]
Family [All Events]
Hälsodata [All Events]
Random [All Events]
Test [All Events]

(You may select multiple forms by clicking them)

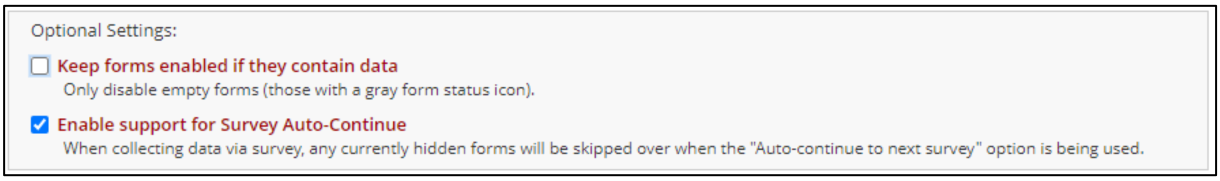
...when the logic below is *TRUE*.

[gender]="1"

e.g., [enrollment_arm_1][age] > 30

In this example, the instrument "Follow up – Man" will only be enabled when the "male"-option (= 2) has been chosen in the field gender. In the same way, the instrument "Follow up – Woman" will only be enabled when the "female"-option (= 1) has been chosen.

3. If you are using the function Auto-continue to next survey, you need to tick the "Enable support for Survey Auto-Continue" in order for it to work properly.



Optional Settings:

☐ Keep forms enabled if they contain data
Only disable empty forms (those with a gray form status icon).

☑ Enable support for Survey Auto-Continue
When collecting data via survey, any currently hidden forms will be skipped over when the "Auto-continue to next survey" option is being used.