

# Creating Headlands

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## Before you start

- Create a new implement at a swath width of 3 meters
- Make a marker up that is at least 2 meters from the center of the tractor to the right hand side of the tractor. If you put this marker on the fence line this will give you a 50cm gap between the guidance line and fence.

## Starting New Field

- Power the system up and touch on ok and accept.
- Tap on the **Tractor** Button
- Enter a name in the Client area (e.g. name of your farm or name of client) by pressing the **new button** against client or reuse an existing one. If you have existing clients touch on the arrow to the left of the new button and a drop down tab will appear and then you can select which client you want.

**Field Selection**

Client	phil streeter	New
Farm	home	New
Field	paddock 1	New
Event	mapping	New

Event Attributes

Selected Implement: **mapping**  
3m swath width  
3m application width

Cancel OK

- Enter the name of the farm by pressing the **new button** against the farm or reuse an existing one. If you have existing farm touch on the arrow to the left of the new button and a drop down tab will appear and then you can select which farm you want.
- Enter the name of the field by pressing the **new button** against the field or reuse an existing one. If you have existing field touch on the arrow to the left of the new button and a drop down tab will appear and then you can select which farm you want.
- Every time you are starting field you must enter a new event, e.g. spraying, harvest, harvesting barley-wheat.
- If you are going back into a field that you haven't completed you will not select a new event, you will select at the same event. You must put something in all 4 boxes otherwise you will not be able to select the **OK** button in the bottom right corner.

- Once you have entered you field etc – press OK and you'll be bought back to your main run screen. Now select swaths to get the swath management page

**Swath Management**

Swaths | Line Features | FreeForm

Shift

Rename

Export

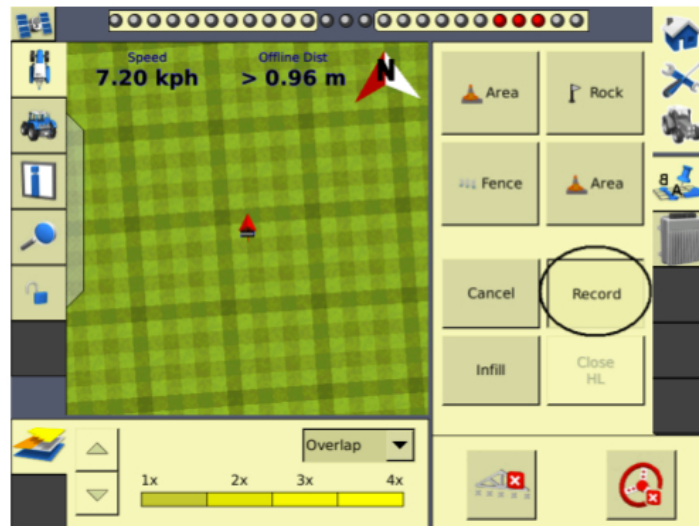
# Headlands 2

Boundaries Enabled

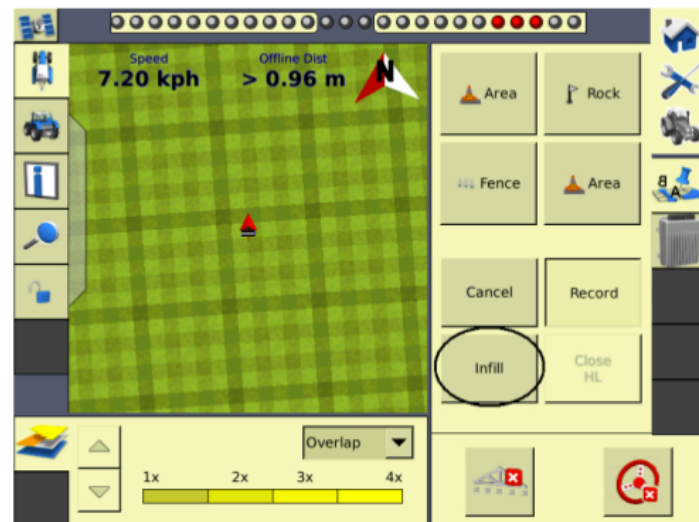
Import Delete Infill Boundary Outer Access Paths

Cancel New Headland Load

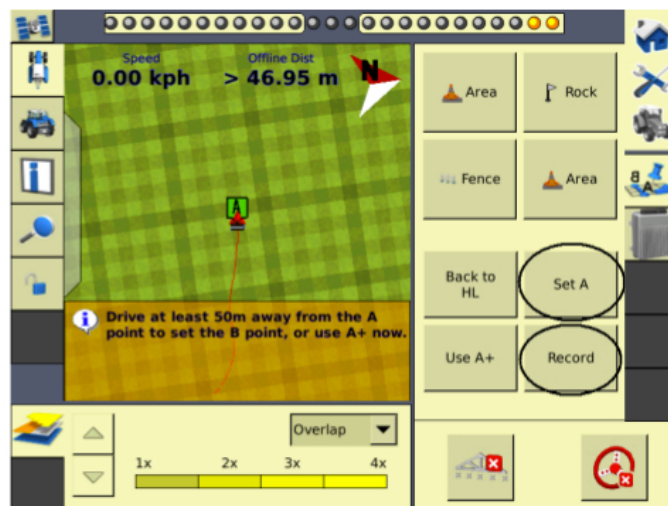
- Once into swath management tap on the drop down list and select headland
- Select the number of headlands that you want eg 2
- Then press on new headland button



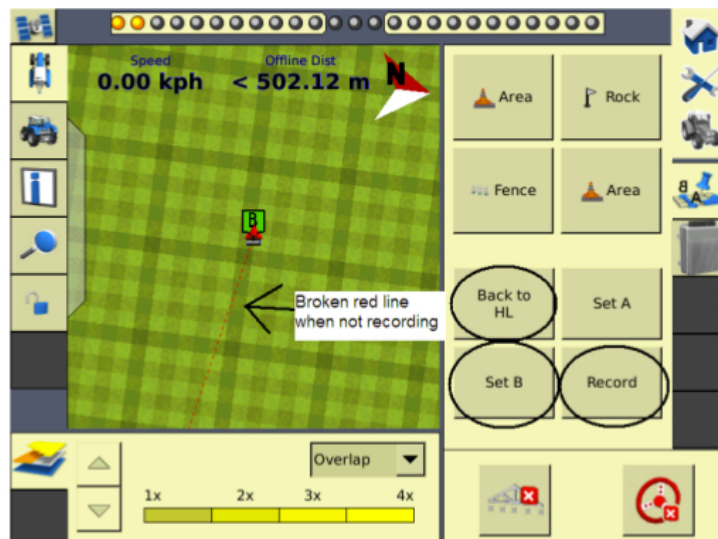
- You must select your A-B line on the first lap around the paddock.
- The record button will be turned on and off as you are recording your first lap around the paddock. When the record button is turned on you will leave a solid red line behind the tractor on the run screen. When turned off it will leave a dotted red line behind the tractor.
- Press record to start recording your headland. Generally start before you turn the first corner.



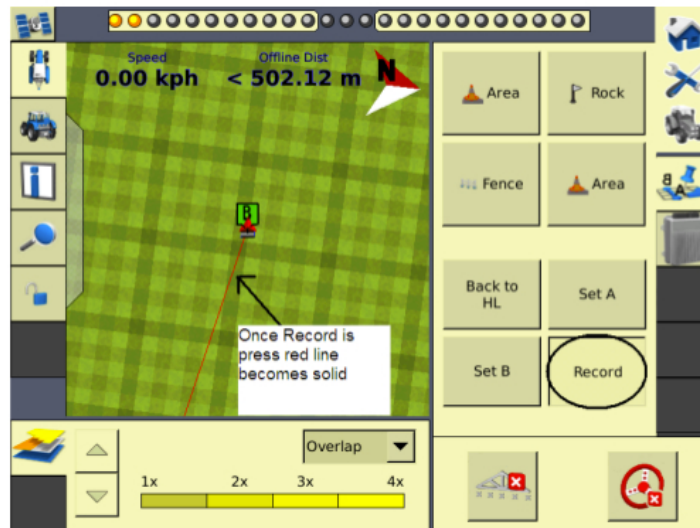
- Once you have pressed record turn the corner and stop the tractor.
- Press infill to get to the buttons that record the A-B line



- Press the Set A Button
- Press the Record Button which will turn it off. When the box is grey it's off and when it's selected it has a white background.



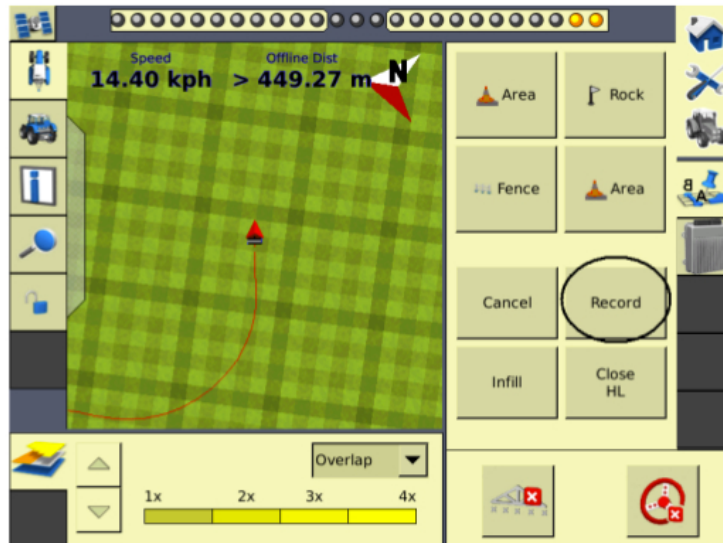
- Drive to the end of where you want to press your B button and stop the tractor
- Press Set B and turn Record On.



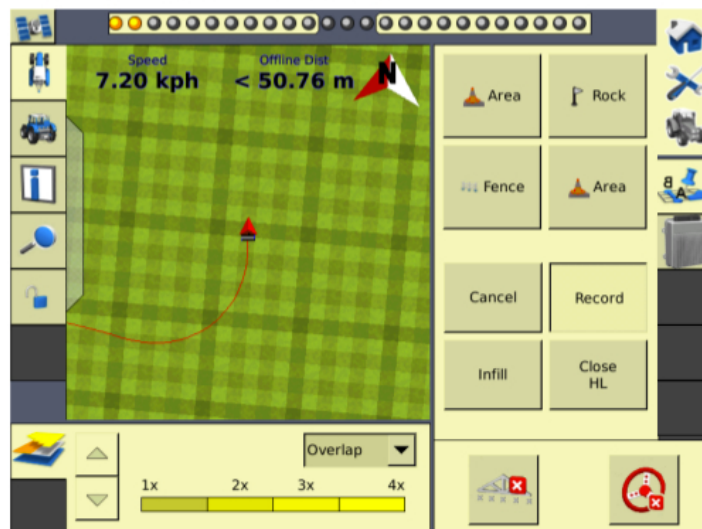
- Once you have pressed Record on you will see the red line behind the tractor will fill in red.
- Then Press Back to HL



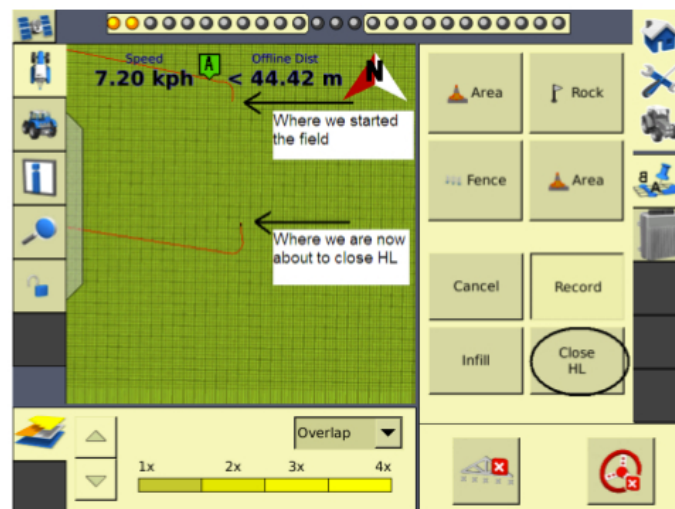
- Drive around the next corner with record on until you are at the next straight section of the paddock.
- If you need to follow a curve you can leave record on and it will follow the same path that the tractor has driven.



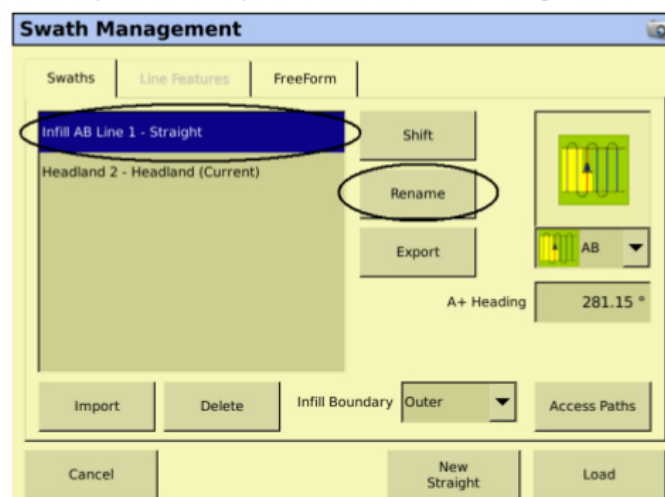
- Once onto the next straight section turn record off.



- Continue around paddock until you get to the last side of the paddock
- Turn record on and drive last corner and stop next to fence at correct distance from fence & stop tractor.



- We are able to make the last side of the paddock straight without steering it.
- With the record button selected if you press Close HL it will put a straight line between where we are and where we started the field.
- You will get a message in orange come up that says "please close and reopen field for best guidance results". Once the field is completed you can close the field by hitting on the house button and then press close. Reopen the field and the field will be right to use.



- Once Close HL is pressed, if you go back into your swath management you will see a infill AB Line 1 and a Headland 2.
- I would rename the infill AB and headland to what the implement was that we just mapped the paddock in eg 3m bar. Touch on the swath that you want to change the name and press rename.

**Swath Management**

Swaths | Line Features | FreeForm

3m mapping ab - Straight

Headland 2 - Headland (Current)

Shift

Rename

Export

A+ Heading 281.15 °

Import Delete Infill Boundary Outer Access Paths

Cancel New Straight Load

- I would rename it something like this. eg 3m mapping AB

**Swath Management**

Swaths | Line Features | FreeForm

3m mapping ab - Straight

3m mapping headland - Headland (Current)

Shift

Rename

Export

# Headlands 2

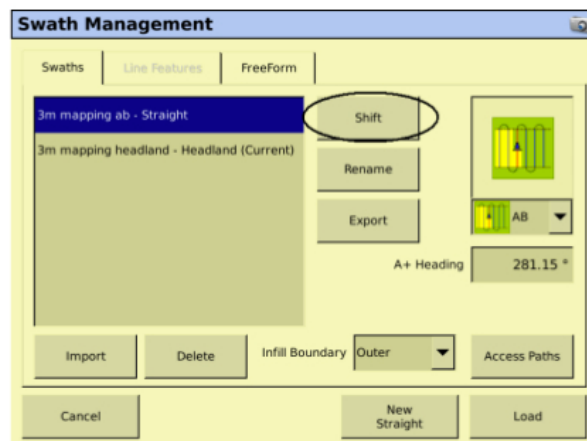
Boundaries Enabled

Import Delete Infill Boundary Outer Access Paths

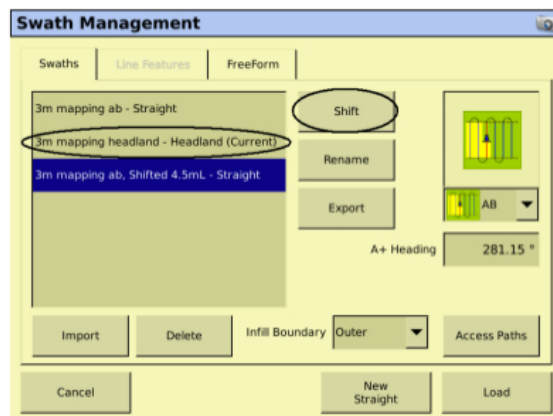
Cancel New Headland Load

- Once you have done the AB then touch on the headland and rename it. eg 3m mapping headland





- Once you have mapped the field you can then set up your guidance line to suit all of your implements from the 3m AB and Headland that you have just created.
- To work out how far you need to move your guidance line you need to know the swath width of the implement. In this example we will shift our lines for a 12 meter implement with an AB and Headland that have been created with a 3 meter swath width.
- $\text{New implement width minus mapped implement width divided by two} = \text{Distance to shift guidance line}$ .
- For example -  $12\text{meters minus } 3\text{meters divided by } 2 = 4.5\text{ meters}$
- Once you have worked this out, make sure the field is open and you are facing the way the AB line was originally created (ie - A at rear of tractor and B in front ) touch on the AB line and then press shift. Enter in 4.5 meters. If you have mapped the field anticlockwise and set the AB line in the same direction as the headland, selected left will bring you into the field and selecting right will move you out. So if your implement is larger than the one you have moved your line from you will select left.



- Once you have done that it should look something like this.
- We then want to move the headland as well.

- You must always have the AB line (straight) above the headland.
- When moving the headland it will automatically adjust the headland width for the implement. You need to enter 0.01cm as the distance to move the headland.

**Swath Management**

Swaths | **Line Features** | FreeForm

3m mapping ab - Straight

3m mapping headland - Headland (Current)

3m mapping ab, Shifted 4.5mL - Straight

**3m mapping headland, Shifted 0.01mL - Headland**

Shift

Rename

Export

# Headlands: 2

Boundaries: Enabled

Import Delete Infill Boundary Outer Access Paths

Cancel New Headland Load

- Once you have shifted your guidance lines it should look something like this. You will see after the guidance name the distance that the line has been moved

**Swath Management**

Swaths | **Line Features** | FreeForm

3m mapping ab - Straight

3m mapping headland - Headland (Current)

12m seeder ab - Straight

**12m seeder headland - Headland**

Shift

Rename

Export

# Headlands: 2

Boundaries: Enabled

Import Delete Infill Boundary Outer Access Paths

Cancel New Headland Load

- I would rename the guidance line to something like this.
- It is very important to rename the line for future reference.

- If you want to set up your guidance line for inter-row sowing you can make another set of lines moved half of your row spacing.
- Touch on the guidance line (must be AB line first) and then press shift.

- Enter in half the spacing. eg 30cm spacing enter in 15cm.
- I would move the guidance line to the left which will move the guidance line in the field as you would have generally set the guidance line right on the fence line.

**Swath Management**

Swaths | Line Features | FreeForm

3m mapping ab - Straight  
 3m mapping headland - Headland (Current)  
 12m seeder ab - Straight  
**12m seeder headland - Headland**  
 12m seeder ab, Shifted 0.15mL - Straight

Shift  
 Rename  
 Export

# Headlands: 1  
 Boundaries: Enabled  
 Infill Boundary: Outer  
 Access Paths

Import Delete Cancel New Headland Load

- Once you have hit OK it should look something like this.
- Then you can move the headland as well.
- Touch on the original 12m seeder headland and press shift.

**Enter the Shift Distance**

Range: 0.0 m ... 500.0 m

clear 0.15 <<

Left Right  
 1 2 3  
 4 5 6  
 7 8 9  
 0 .

Metric  
 Feet\_Inches  
 Decimal Feet

Cancel Calculator OK

- Once again select a half spacing again but this time when moving the headland Right will move you in the field and Left will move you out.
- So if you have moved the AB line to the left then select Right for the headland.

**Swath Management**

Swaths | Line Features | FreeForm

3m mapping ab - Straight  
 3m mapping headland - Headland (Current)  
 12m seeder ab even year - Straight  
 12m seeder headland even year - Headland  
 12m seeder ab odd year - Straight  
 12m seeder headland odd year - Headland

Shift  
 Rename  
 Export

A+ Heading: 281.15 °

Import Delete Infill Boundary Outer Access Paths

Cancel New Straight Load

- Once you have got another set of guidance lines set up for inter row sowing I would rename the odd and even years so you can tell which lines you will need to choose year to year.

**Swath Management**

Swaths | Line Features | FreeForm

3m mapping headland - Headland (Current)  
 12m seeder ab even year - Straight  
 12m seeder headland even year - Headland  
 12m seeder ab odd year - Straight  
 12m seeder headland odd year - Headland  
 3m mapping ab, Shifted 16.5mL - Straight

Shift  
 Rename  
 Export

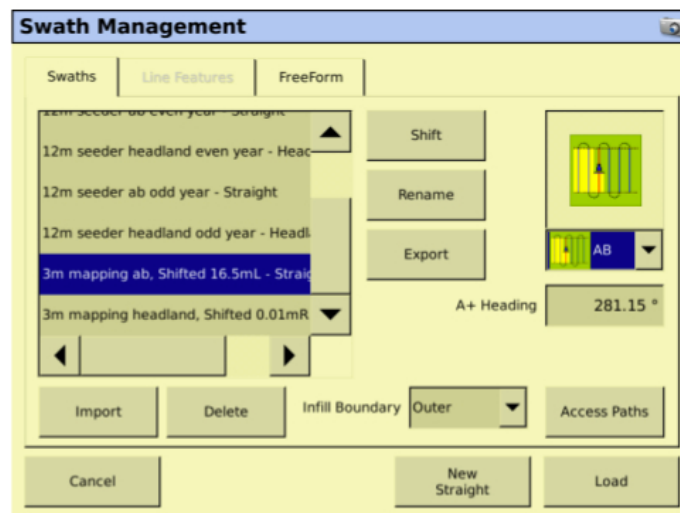
# Headlands: 2

Boundaries: Enabled

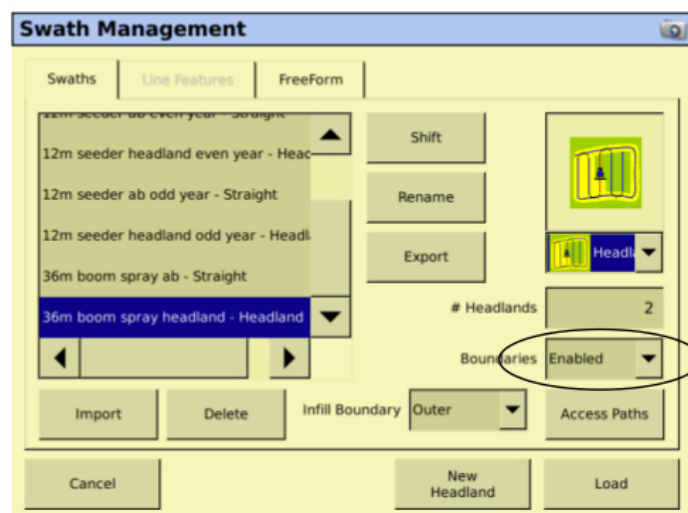
Import Delete Infill Boundary Outer Access Paths

Cancel New Headland Load

- If you want to set up another implement you must shift your lines from the original guidance lines that were set for the field eg 3 m mapping AB and 3 m mapping headland.
- We will set up a 36 meter boom.  $36\text{m} \text{ minus } 3 \text{ divided by } 2 = 16.5 \text{ meters}$
- Touch on the AB line first and then press shift. Enter in 16.5 meter to the left as the new implement is wider than the one that we are shifting from.



- The move the headland 0.01cm as it will adjust you your width but it must come down the list. It should look like something above.



- I would then rename them 36m boom spray AB and 36m boom spray headland.
- When spraying and using section control – disable the boundaries before loading. Otherwise if your boom goes over the boundary – even by just a little, the outer section will be turned off.