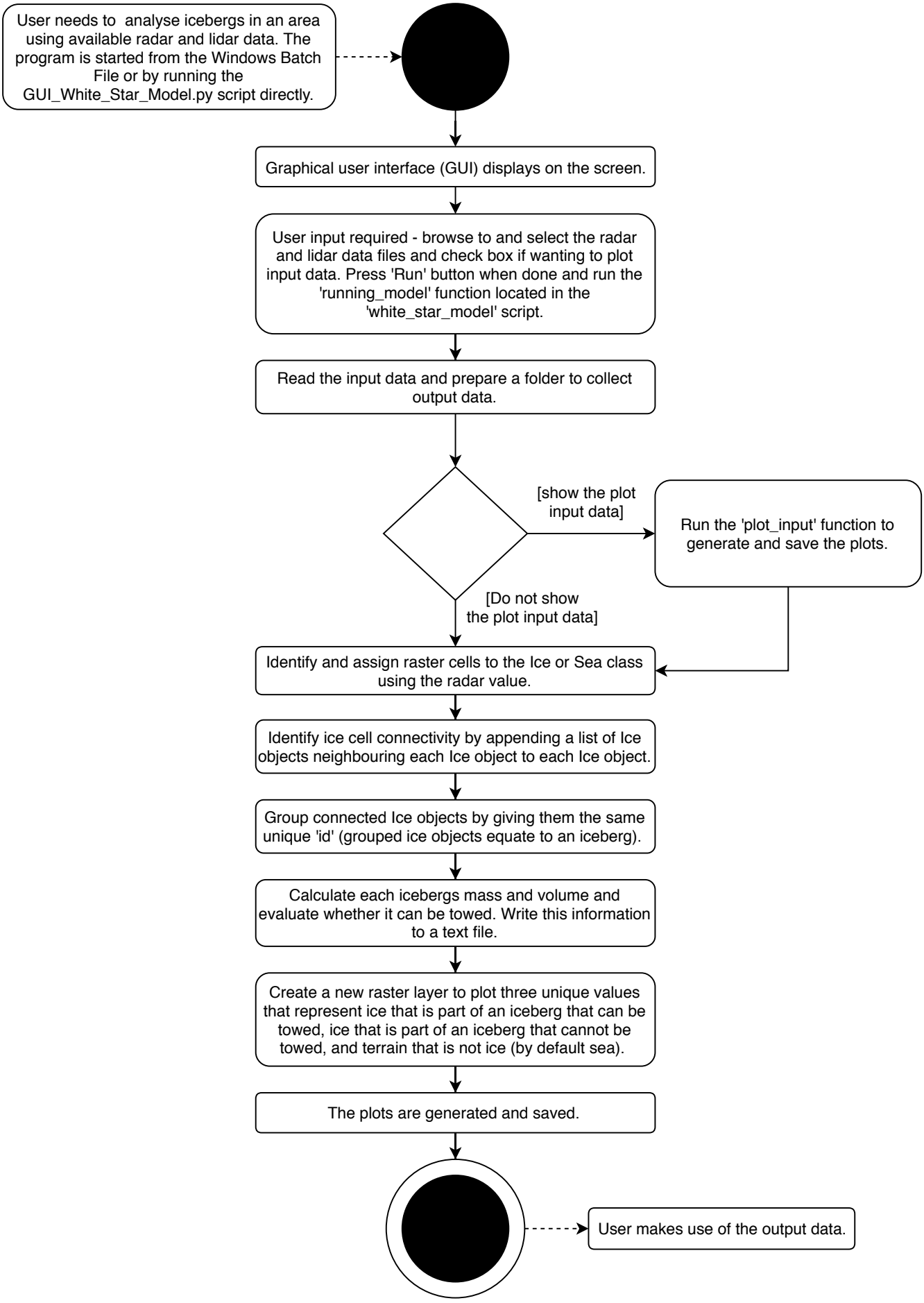
User needs to analyse icebergs in an area using available radar and lidar data. The program is started from the Windows Batch File or by running the GUI_White_Star_Model.py script directly.
Graphical user interface (GUI) displays on the screen.
User input required - browse to and select the radar and lidar data files and check box if wanting to plot input data. Press 'Run' button when done and run the 'running_model' function located in the 'white_star_model' script.
Read the input data and prepare a folder to collect output data.
[show the plot input data]
Run the 'plot_input' function to generate and save the plots.
[Do not show the plot input data]
Identify and assign raster cells to the Ice or Sea class using the radar value.
Identify ice cell connectivity by appending a list of Ice objects neighbouring each Ice object to each Ice object.
Group connected Ice objects by giving them the same unique 'id' (grouped ice objects equate to an iceberg).
Calculate each icebergs mass and volume and evaluate whether it can be towed. Write this information to a text file.
Create a new raster layer to plot three unique values that represent ice that is part of an iceberg that can be towed, ice that is part of an iceberg that cannot be towed, and terrain that is not ice (by default sea).
The plots are generated and saved.
User makes use of the output data.