AgScores Weather Analytics - Software Management Plan

## What software will you develop? Code to analyse weather data

Are you developing new software from scratch? If so, then what will your software do? My software will generate plots from statistical comparisons of Bureau of Meteorology data and SILO data

Are you refactoring, extending, optimising, or parallelising existing software written either by yourself or by others? If so, what are the significant changes that you plan to make? No

Will your software have a name, if it does not already have one? Do you have one in mind? Is this name unique and meaningful and not in violation of any existing trademarks held by others? AgScores Weather Analytics / AgScores Ensemble Debugger

## Who are the intended users of your software? End users of Senaps

Is there just one type of user or are there many? Just one type

Is your software for those new to your research field, for experts in your field, or for both? Experts

What, if any, software installation and configuration skills, knowledge and expertise will your users need? Will they need to be familiar with building and installing software via the command-line? None

What software development skills, knowledge and expertise will your users need? Knowledge of statistics

Will they need to write their own code to be able to use your software? No, but they need to create their own climate (ensemble) model so they can upload it to the Senaps workflow.

What are the popular operating systems, web browsers, compilers or language versions used by your intended users? Windows, MacOSX, Linux

Would supporting additional operating system, web browsers, compilers or language versions encourage new users to adopt your software? No

## How will you make your software available to your users? Provide links to the generated code

Will you release your software at all? Yes

Will you release binaries, libraries or packages? No

Will you release your source code? Yes

Do your funders, or other stakeholders, require you to release your source code? No

Under what kind of license will you make your software available? \*\*\*\*\*

How will users access your software? Senaps

Will users have to register to access or use your software? yes

Will your software be accessed as an online service or via a web portal? Online Service

Will you charge users a fee to access or use your software? What will the revenue generated by these fees be used for? No

## How will you support those who use your software?

How much effort will you have available to support your users, if any? NA

What level of support will you offer, if any? Provide relevant documentation with metrics

How will users ask for help? Pray

How will you manage their requests for help? NA

Where will you publish information about the nature and level of support available? Documentation

Will users be able to see what other users have asked and the associated answers? No

## How will your software contribute to research?

Will it help your users, or yourself, to conduct research more easily? Yes

Produce results more rapidly? No

Produce results to a higher degree of accuracy or a finer level of detail? AgScores will produce results to inform climate scientists of the efficacy of climate predictions, from the point of view of Agricultural productivity (wheat yield potential). This work enables climate scientists to debug their climate models when their predicted wheat yield potential does not match the predicted wheat yield potential of APSIM + SILO.

Exploit the power of super-computers? No

Will it help your users, or yourself, to further research by enabling research that cannot be done at present? Yes

Will your software, in some form, implement a novel solution to a research problem? Yes!!

What are the limitations of similar research software that already exists? How will your software be better? No existing software

What are the foreseen benefits for each type of user? This work will benefit climate scientists to assess the quality of their models.

## How will your software relate to other research objects?

Which published research objects relate to your research software?

Are there published papers that describe the research that your software will enable?

THERE IS A CONFERENCE PAPER THAT DISCUSSES THIS BUT THE PROJECT LEADER IS AWAY AT THE MOMENT AND I DON’T HAVE ACCESS TO IT YET

Will your software extend or depend upon other research software? Yes, Senaps (Digiscape)

Will your software consume data sets or invoke online services? Yes, THREDDS server gives us ACCESS-S and SILO data

Will you publish papers about the research you have done to which your software has contributed? You will contribute to AgScore papers

Will you publish any data sets produced by your software? No

## How will you measure your software's contribution to research?

What evidence do your funders and other stakeholders expect you to present to show that your software has contributed to research? NA

Will you measure who has downloaded your software? NA

Will you measure who has used your software? Senaps will

Will you gather information on publications that describe research which your software has helped to enable, including those by other researchers? No

Do you intend to have a recommended reference or citation for your software? AgScore will

## Where will you deposit your software to guarantee its long-term availability? I will deposit the software in the CSIRO’s Data Access Portal

Will you deposit releases of your software into a digital repository? yes

What digital repositories are appropriate for you to use? CSIRO DAP

Has your funder or publisher recommended or mandated a digital repository to use? No

Does the digital repository give you a unique persistent digital identifier for your deposit? yes

Can the digital repository accommodate the size of your deposit? yes

Are the policies of the digital repository acceptable to you? yes

Is the longevity of the digital repository acceptable to you? yes

Is the digital repository free or do you have to pay a fee? If there is a fee, is this a one-off payment and can you afford it? free