

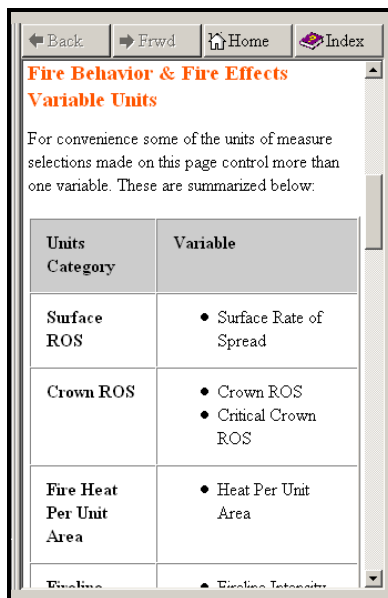
Exercise Answers

1. Assume that you want to use English units, but prefer not to use 'chains'.
 - Start with the **BasicStart.bpw** Worksheet from the **ExampleWorksheets** folder.
 - Change every use of chains to feet.
 - Save the Worksheet as **BasicStartNoChains**.
 - Define it as your startup Worksheet.

Click on **Configure > Custom units preferences**.

The following units are changed on the **Fire & Effects Units** tab. You can see which variables are affected by these changes by scrolling through the information in the help pane.

- **Surface ROS** from ch/h to ft/min
- **Crown ROS** from ch/h to mi/h
- **Spread Distance** from ch to ft (or possibly mi)
- **Fire Perimeter** from ch to ft



Units Category	Variable
Surface ROS	• Surface Rate of Spread
Crown ROS	• Crown ROS • Critical Crown ROS
Fire Heat Per Unit Area	• Heat Per Unit Area
Evolving	• Evolving Intensity

The following units are changed on the **Contain & Safety Units** tab.

- **Line Production Rate** from ch/h to ft/min
- **Containment Distances** from ch to ft

- Define a map application Worksheet that you might use as a startup Worksheet while you are doing a fire behavior prediction job.

You can define your Worksheet as you wish. It might look like the following.

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Inputs SURFACE

Description

Fire Name

Fire Date & Projection Period

Fire Analyst

FuelVegetationSurfaceUnderstory

Fuel Model

FuelMoisture

Dead Fuel Moisture %

Live Fuel Moisture %

Weather

Midflame Wind Speed mi/h

Wind Direction (from north) deg

Terrain

Aspect deg

Fire

Elapsed Time h

Map

Map Representative Fraction (1:x)

Contour Interval ft

Map Distance in

Number of Contour Intervals

RunOptionNotes

Maximum reliable effective wind speed limit IS imposed [SURFACE].

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output distances are also displayed in map units [MAP].

OutputVariables

Surface Rate of Spread (maximum) (ch/h) [SURFACE]

Flame Length (ft) [SURFACE]

(continued on next page)

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Input Worksheet (continued)

Surface Spread Distance (ch) [SURFACE]

Surface Spread Map Distance (in) [SURFACE]

Notes

Here is some additional help to set up this Worksheet (Try to set it up on your own before viewing these tips!).

Based on information in the **Fuel Moisture** area (i.e., only requesting Dead and Live Fuel Moisture),

- open **SurfaceSimple.bpw** (You could also change the Fuel Moisture preferences in **BasicStart.bpw**).

Based on the information found in the **Inputs SURFACE** area,

- add the **Fire Name**, **Fire Date & Projection Period**, and **Fire Analyst** boxes by going to the **Configure > Appearance preferences > Worksheet** tab and selecting **Fire behavior projection worksheet** header.

Based on information found in the **Weather** and **Terrain** areas as well as the **Run Option Notes**,

- change the Wind parameters in **Module Selection > SURFACE Options... > Directions** so that **Wind is specified on the worksheet** and **Wind & spread directions are degrees clockwise from north (direction from which the wind is blowing)**, and

Based on information found in the **Map** area,

- in **Module Selection > SURFACE Options... > Slope**, select **Slope steepness is calculated from map measurements**.

Based on information found in the **Run Option Notes**,

- in **Module Selection**, select **Display output distances in map units**.

Based on information found in the **Output Variables**,

- change the outputs to match the **Output Variables**.