

**FCCS, Consume and Other FERA tools
for Smoke Management Planning Workshop**
Short Course—0800-1530
Monument Fire Center, Monument, CO and via Webinar
Tuesday, August 13, 2013

Minimizing the adverse effects of smoke from wildland fire on human health and visibility requires estimates of fuels characteristics, fuel consumption, and emissions production. This information is used by dispersion models to estimate smoke concentrations downwind of fires and for emission inventories and permitting by regulatory agencies. This workshop/webinar will introduce and demonstrate several software tools available for providing the information necessary for effective smoke management and regulation.

The workshop/webinar will be followed by a 2-hour hands-on demonstration of the software tools for available individuals at the Monument Work Center. The tools that will be demonstrated include 1) Digital Photo Series, 2) Fuel Characteristic Classification System (FCCS), 3) Consume, and 4) Pile Calculator. All participants can load the FCCS and Consume onto their computers by following the provided directions. The Digital Photo Series (<http://depts.washington.edu/nwfire/dps/>) and the Pile Calculator (<http://depts.washington.edu/nwfire/piles/>) are web-based tools available to anyone with an internet connection.

Objective: Demonstrate how to use the Digital Photo Series, FCCS, Consume, and the Pile Calculator for fire, fuel, and smoke management planning.

Introduction	0800 -- 0815
<i>-- Roger Ottmar</i>	
Fuel Characteristic Classification System	
Overview	0815 – 0900
<i>-- Roger Ottmar</i>	
How To Use the FCCS	0900 – 0945
<i>-- Roger Ottmar and Clint Wright</i>	
Break	0945 -- 1000
Consume	1000 – 1100
<i>-- Roger Ottmar and Clint Wright</i>	
Other FERA tools	1100 -- 1200
Natural Fuels Photo Series	
Digital Photo Series	
Pile Calculator	
<i>-- Clint Wright and Roger Ottmar</i>	
Lunch	1200 -- 1300
Hands-on exercises (Monument Workcenter only)	1300 – 1530
<i>-- Roger Ottmar and Clint Wright</i>	

Nominations: If you wish to attend the short course on-site at the Monument Fire Center please submit your name and agency affiliation to Josh Howie (Southern Rockies Fire Science Network) howiejb1@gmail.com by close of business Wednesday August 7, 2013. On site attendance will be limited to 25 individuals. If this limit is exceeded, individuals not selected will be notified no later close of business August 9, 2013.

Webinar: The webinar is being offered in partnership with the Southern Rockies Fire Science Network. Go to www.srockiesfsn.org for details on how to participate in the webinar.

On Site Logistics: The Monument Fire Center is located at 3751 Mount Herman road which is west of Monument Colorado. The short course will be held in the Classroom at the Center. Access to the Training Center is from Mt Herman Road just past Sunburst Drive. Turn left onto the graded gravel road (Schilling Ave in Google maps) (suitable for passenger cars). Please park in designated Visitor Parking Area and walk up the road to the classroom which is the first building on the right.

Please bring your computer with administrative rights for the day . Internet access in the classroom is limited to Forest Service Participants only. Non Forest Service Attendees will need to bring an air card or wi-fi hotspot for internet access. Forest Service participants should bring and ethernet cable to connect their laptop to the network.

Instructions on how to install FCCS and Consume on your computer are attached. Loading the software before the session is highly recommended Roger Ottmar and Clint Wright will be at the Monument Fire Center around 0630 on August 13 and will be available to assist with installation of FCCS and Consume if you run into issues.

The closest lunch facilities are in Monument so so it is suggested you bring a sack lunch.

Handouts: FERA fact sheets

Contacts:

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FCCS Installation Instructions and Program Download

System requirements:

The Fuel Characteristic Classification System (FCCS) will run on many different operating systems, including Linux, Macintosh, and Microsoft Windows. To run FCCS, your computer must have a current version of Java Virtual Machine (version 1.6 or greater) installed.

This version of FCCS was created to run with the latest version of Java (v 7.0). Because many computers already have Java installed, it is probably easiest to install FCCS first. If FCCS does not open, your computer probably needs a Java update (see "Java Installation" below).

Download and install:

Step 1. Go to the FERA website FCCS download page: <http://www.fs.fed.us/pnw/fera/fccs/downloads.shtml>

This is the download page for the FCCS. The directions are on the site and displayed below.

Step 2. Download the installation file ([fccs22.zip](#)). For Windows users, right click the file and select **Save Link As** (or **Save Target As**) to save the file to your computer to a destination of your choice.

Step 3. Unzip (or extract) the file **fccs22.zip**. File extraction will depend on your computer's operating system and unzip utility.

- For Windows 7 Users: Once the download is complete, right click the file and select **Extract All**. The file will unzip to the folder **FCCS22**. You can move the folder to a destination of your choice (e.g., C:\FCCS22).
- For Windows XP and/or WinZip Users: Once the download is complete, you will likely have to create a folder for fccs (e.g., c:\fccs22), move the **fccs22.zip** file to that folder and then unzip it. In this case, remember to delete the zip file once you have extracted the files.

Step 4. Open the FCCS source folder (e.g., c:\FCCS22)

Step 5. Double-click the **StartFCCS.bat** file to launch the FCCS. A Windows security window will pop up -- click "run". Depending on your computer's processing speed, the program may take a few moments to load. The FCCS will open two windows: a Welcome screen and a (black) command window. Closing the command window will close the application.

*Note: you may wish to make a shortcut of the **StartFCCS.bat** file and save it to your desktop. For Windows users, right click the file and select **Create Shortcut**, then drag the shortcut file to your desktop.*

Java Installation (If Needed)

The FCCS needs the free software called Java to run. If FCCS does not open, you probably need to install Java Virtual Machine (version 1.6 or greater). Administrative privileges are necessary for this installation.

If FCCS does not open, you probably need to install Java Virtual Machine (version 1.6 or greater).

Step 1. To verify you have administrative privileges, double-click the time on the toolbar in the lower right corner of your screen. If you have administrative privileges, you can change the date and time on your computer. If you do not have administrative privileges, please contact your system administrator for assistance.

Step 2. Go to <http://www.java.com> and click the **Free Java Download** button.

Step 3. You will be asked if you accept the "Terms of Use." Click **Continue**. Once the installation is complete, try reopening FCCS.

Step 4. If there is a different problem with your installation please contact FCCS Tech Support (pnw_fccshelp@fs.fed.us) for help diagnosing the problem.

Contacts for Assistance

Susan Prichard (509) 341-4493; sprich@u.washington.edu

Ellen Eberhardt (541) 750-7481; eberhardt@fs.fed.us

Roger Ottmar (206) 732-7826; rottmar@fs.fed.us

Consume Installation Instructions

System Requirements

You can install Consume on a personal computer with the following system:

- Microsoft Windows® 2000, XP, and Vista operating systems.
- 30 MB of available disk space.
- Optional requirement: Consume links to Microsoft Excel for viewing 1000-hr fuel moisture graphs. If you do not have Excel on your computer, Consume will run but will not support this graphics feature.
- **Caution:** Consume 3.0 will install on Windows 7 machines. Although we have not seen any problems, we have not tested it fully for existing problems. The newer version of Consume is expected in the Winter of 2014.

Administrative Privileges

If you do not already have administrative privileges on your computer, you must obtain them before installing Consume 3.0. To check if you have administrative privileges, click on the clock at the bottom right of your desktop. If you are allowed to change the date and time on your computer, you already have administrative privileges. If you do not, please contact your system administrator for assistance.

Notes on Installing Consume

- ***** Important*****If the Consume file you downloaded is not approximately 23.2 MB, it will not install properly. Save the file a second time, and check the file size.
- To run **Consume** in Microsoft Windows, it is necessary to have both Microsoft Framework .NET v 1.1 and Visual J#.NET installed on your computer. Most computers will already have the Microsoft Framework .Net v1.1, but Visual J#.NET will need to be installed on most computers.
- The best way to check if you have the necessary Microsoft Windows updates is to try installing **Consume 3_0**. You will receive detailed error messages if you need to install Microsoft Framework.NET version 1.1 and/or Visual J# .NET. To download and install the necessary updates, see the instructions provided later in this installation guide.
- **Caution:** Consume 3.0 will install on Windows 7 machines. Although we have not seen any problems, we have not tested it fully for existing problems. The newer version of Consume is expected in the Winter of 2014.

Installation Instructions

Step 1. Go to the [Consume download page](http://www.fs.fed.us/pnw/fera/research/smoke/consume/consume_download.shtml):
http://www.fs.fed.us/pnw/fera/research/smoke/consume/consume_download.shtml

Step 2. Click Consume 3.0 Software Download.

Step 3. From the "File Download" dialog box, click "Save to Disk". Depending on your internet connection speed, the file download may take a few minutes.

- **Note:** If the Consume file you downloaded is not approximately 23.2 MB, it will not install properly. Save the file a second time, and check the file size.

Step 4. Once the download is complete, go to the folder where the download is located and double-click on the file **setup.msi** to launch the installation process.

Step 5. Change the installation path to **C:\Consume** (note that a forward slash will not work).

*****IMPORTANT***** The Microsoft installer will suggest you place the program in the location c:\Program Files\Consume. Please do not use this default location since it may be incompatible with upcoming governmental computer

regulations. Please change the installation path to: **c:\Consume**.

Step 6. On the same screen (Select Installation Folder), click **Everyone** under “Install Consume30 for yourself or anyone who uses this computer. Then click **Next** to complete the installation.

*****IMPORTANT***** Click **Everyone** under “Install Consume30 for yourself or for anyone who uses this computer”.

Step 7. To open **Consume**, double-click the Consume icon (burning log) on your desktop. Depending on your computer’s processing speed, the program may take a few minutes to load. If the program does not open, please see the following instructions on installing the two free Microsoft products:

- 1) Framework.Net version 1.1 Redistribution Package and
- 2) Visual J#.NET Redistributable Package 1.1. These will require administration rights.

Installing Microsoft .NET version 1.1 Redistributable Package

Most Microsoft Windows 2000 and XP operating systems should have a working version of Microsoft.NET v1.1. If you have a more recent version of .NET, you will still need to install .NET v1.1. Note: it is not necessary to uninstall more recent versions of .NET.

1. Click [Microsoft.NET Framework v 1.1](#).
2. From the File Download dialog box, click Save to Disk, then OK. Depending on your internet connection speed, the file download may take a few minutes.
3. Once the download is complete, double-click on the file **dotnetfx.exe** to launch the installation process.
4. Follow the on-screen instructions to complete the installation.

If your operating system already has Microsoft Framework .NET v1.1 installed, you will get an error message during this installation process. You can cancel this installation and proceed to install Microsoft J#.Net Redistributable Package version 1.1.

Installing Visual J#.NET Redistributable Package 1.1

Most Microsoft Windows 2000 and XP operating systems will not have Visual J#.NET. If your computer does not have Visual J#.Net v 1.1, follow these installation instructions:

1. Click [Microsoft Visual J# v 1.1](#).
2. From the File Download dialog box, click Save to Disk, then OK. Depending on your internet connection speed, the file download may take a few minutes.
3. Once the download is complete, double-click on the file **vjredist.exe** to launch the installation process.
4. Follow the on-screen instructions to complete the installation.

If your operating system already has Microsoft Visual J#.NET 1.1, you will get an error message during the installation process. Cancel this installation and proceed to download and install Consume 3.0.

For further information or assistance with Consume 3.0, contact:

- consumehelp@fs.fed.us
- Ellen Eberhardt, Technical Information Specialist, 3200 SW Jefferson Way, Corvallis OR 97331; (541)750-7481; eeberhardt@fs.fed.us
- Susan Prichard, Research Scientist and Consume Manager, (509) 341-4493, sprich@u.washington.edu