

IF YOU HAVE A DIALUP CONNECTION, THE DOWNLOAD TIMES WILL BE LONG. AS AN ALTERNATIVE WE CAN MAIL YOU A CD WITH THE PROGRAMS. SEND AN EMAIL WITH YOUR SHIPPING ADDRESS TO r1_gallatin_gnfac@fs.fed.us. WRITE "SNOWPILOT" IN THE SUBJECT LINE.

ARE YOU UPDATING FROM A PREVIOUS VERSION?

NO—Proceed to SETUP.

YES—This new version you are about to download will bring over all your old pits, user information and preferences. However, we highly recommend you send all your pits to the database and/or save them to your hard drive before proceeding.

SETUP

SnowPilot runs on a PC or Mac, although if you choose to use a Personal Digital Assistant (PDA aka, Palm Pilot) it needs to be running Palm OS 4.1 or greater for it to work. SnowPilot is a Palm OS platform and will not work on Windows CE. If you're unsure, you can check the Operating System from your PDA Home Page. Click <Info> from the drop down menu, then click on <Version>.

Before you go any further, make sure you've got the latest Java installed on your computer since SnowPilot will not work without it. **You will need the newest version of Java** in order to run SnowPilot. Take the self diagnostic test at <http://www.java.com> Click on <Do I have Java?> and follow the instructions.

SNOWPILOT DOWNLOAD

- Print out the Download Instructions and Quick Start Guide from this PDF file: [Download-QuickStart.pdf](#)

You can also choose to print this web page instead. Either way **it's recommended you print these guides.**

The file you are going to download, [setup.exe](#), contains two programs:

- [PC-Pilot.jar](#) is the desktop version that allows you to create snow profiles on your computer as well as, print, save, view and upload them. If you're using a PDA, your pit data gets sent to this program during a HotSynch.
- [SnowPilot.prc](#) is the program that allows you record snow profile data on your PDA. As of November 2007, the PDA version does not have all the changes (ECT, expanded notes, etc) implemented. However, when you synch to the PC you'll be able use all the new features.

DOWNLOAD INSTRUCTIONS

- 1) Once again, **make sure you've got the newest Java installed** on your computer.

- 2) Click on this to download SnowPilot (9.0mb): **setup.exe**
This is the Windows Installer for SnowPilot.
- 3) We recommend you choose "Save this program to Disk". Click <OK> and then save it anywhere that you'll remember. I recommend putting it on your desktop for ease of finding it again.
- 4) Double click on the icon to begin installing it, or click <Run> or <Open>.
- 5) If you are going to use a PDA follow the steps a, b and c below. If you ARE NOT using a PDA and only want to use the desktop version, go to number 6.
 - a. **Make sure the installation folder selected is the same folder that your PDA HotSynchs to.** This is the home folder that your Palm Desktop Software is installed in, ie. 'C:/Program Files/palme. You may need to double check if you run more than one PDA off your computer.
 - b. If prompted, choose <Typical> setup.
 - c. Double check the destination and then click <Install>.
- 6) You will need to choose a location to store your PC-Pilot. Anywhere works since your shortcut will find it.
- 7) Once you install it there will be two new icons on your desktop. One is the PC-Pilot.jar shortcut. The other is the SnowPilot.prc program. IF YOU DO NOT USE A PDA, DELETE THE SNOWPILOT.PRC FILE AND SKIP TO #9.
 - a. The SnowPilot program needs to be installed on your PDA. Double clicking on it will put it into your Installer Program so it's ready for your next HotSynch.
- 8) HotSynch your PDA and computer. The SnowPilot icon should be on your PDA. If not, make sure the .prc file is in the PDA installer and HotSynch again.
- 9) You will need the Quick Start Guide before you enter info on your PDA and/or PC.
- 10) You're ready to enter info on the PC and/or your PDA.

QUICK START GUIDE FOR DESKTOP *PC-PILOT.jar*

All of SnowPilot's data fields use the newly adopted "Snow, Weather, and Avalanches: Observational Guidelines for Avalanche Programs in the United States". Also known as SWAG, you can read or purchase this book at <http://www.avalanche.org/~research/guidelines/>.

- 1) Click on the shortcut PC-Pilot.jar to open the desktop version of SnowPilot.
- 2) Click on the <Select> button on the upper left side of the window and click on <Add User>.
- 3) You will be prompted to enter a username (3 characters minimum), email address, etc. You MUST enter all fields in order to upload your data to the web. This way every pit has a name, email and phone number associated with it.
 - a. Click the <Professional> box if you dig snowpits on the job (ski patrol, forecaster, guide, etc.)
 - i) If you checked the <Professional> box, enter where you work.
 - ii) In <Select> click <Save User>.
 - b. You can have multiple users for SnowPilot.
- 4) You will be taken to the *Preferences* page. You will now choose how you want your pits and data to be entered and displayed.

- 5) Familiarize yourself with the choices under <Select>.
 - a. <Add User>: lets you add other users to the program.
 - b. <Edit User>: allows you to change any of the fields for a user.
 - c. <Preferences>: will allow you to change the preferences of the person highlighted in the first box.
 - d. <Locations>: Brings up another window from where you can add a location that you go to frequently. This way you can pull it up on the Locations tab in the Main Menu and not have to enter everything again. This is handy for study plots or frequent snow pit sites.
 - e. <Edit Pits> and <Edit Occurrences>: Lets you edit an existing entry.
 - f. <Add Pit> and <Add Occurrence> are the same as the buttons on the bottom of the Main Menu window. This is the starting point for creating snow profiles and reporting occurrences.
 - g. <Send Data>: Click on this to upload all your Pits and Occurrences to the Web Client (online database). This puts your information into the database and allows others to look at your pit. You need to be connected to the Internet for this to work.
 - h. <Web Client>: If you are online, this will show you ALL the pits and Occurrences that have been recently added to the database.
 - i. **NEW!** <Search for Pits>: This allows you to search the entire database of pits.
- 6) Click on <Add Pit>.
 - a. **NEW!** Make a TEST pit. Click on the <Test/practice Pit?> pit box.
 - b. Your State/Prov will populate from your preferences, but you can change it here.
 - c. The time/date is from your current time, but can be manually changed by clicking on the button.
 - d. Aspect refers to TRUE North and should be entered as a number.
 - e. Always enter angle as a whole number.
 - f. Lat and Long must be entered in decimal format, not minutes/seconds.
 - g. **NEW!** For <Notes>, you can enter as much as you like. After 2 lines another window will appear with your notes.
- 7) Click on <Pit> in the upper left corner. This will give us options for other screens to enter data.
- 8) Click on <Pit Graph> to view the pit and get an idea of the layout.
 - a. Click on <Pit> in the upper left corner. From here you have options to:
 - i) <Print Pit> which sends it to your printer. Landscape view works best.
 - ii) **NEW!** If you have a separate window of <Notes>, these will print automatically too.
 - iii) <Save Pit Image> will allow you to save this Pit as a JPEG anywhere on your computer.
 - iv) <Save Pit as Text File> lets you save all your data in a raw format.
- 9) Click on the <x> on the upper right hand of the window to close it and return to the *Add/Edit Pit* window.
- 10) Click on <Layers> in <Pit>
 - a. Fill in the depth of the layer boundaries.
 - b. On <Select Grain Type>, pick your crystal type. Close the window by clicking the <x>.
 - c. After adding the layer info, click on <Add this layer> at the bottom of the page or from the dropdown menu at the top of the screen.
 - d. For *Comments*, keep them to a few words since space is limited to only 15 characters.

- e. **NEW!** For research we are interested in knowing what the weakest or most problematic layer in the pit is. Check the box if you know which layer this is. And if you can identify which interface is the most problematic, check this box too.
 - f. If you want to edit an existing layer, you can easily do so by bringing it up in the *Current Layers* drop down. Clicking on it will repopulate the layer info into the *Edit Layer* page. Edit what you need and then <save>.
- 11) Click on the <x> to close the window and return to *Add/Edit Pit*.
 - 12) Click on <Temp> on the drop down menu. Add data, then hit <Add Point> when you're done. From the drop down menu you can also <Delete Points>.
 - 13) Click on <Test>. Select your test from the drop down menu and it will load the Scores. This uses the test scores as outlined in SWAG.
 - a. For *Comments*, keep them to a few words since space is limited to only 15 characters.
 - b. If you have an identical test/score/depth, you can bring up the previous test in the dropdown menu and hit the button <same result> at the bottom of the screen. A x2 is put in front of the test on the pit graph.
 - c. **NEW!** If you are not familiar with the Extended Column Test (ECT) you can read up on it here:
http://www.fsavalanche.org/NAC/techPages/articles/07_TAR_ECT_Update_Simenhais.pdf
 - d. **NEW!** If you are not familiar with Rutschblock Release Types you can check out page 41 of SWAG.
 - 14) Click on <x> to exit and return to the *Add/Edit Pit* window.
 - 15) Click on <Pit Graph> in the menu to see your pit.
 - 16) If you like it you can save it or print it. Once you close it, you can reopen the pit from the *SnowPilot Main Menu* under *Pits* and chose <Edit Pits> to correct or add anything to your pit. You can also <delete pits> from this page.
 - 17) <Add Occurrence> will take you to a detailed form outlining the data to collect when you investigate an avalanche. If you click on <Crown Obs> on the drop down menu you can associate a pit with the occurrence. All fields in the *Occurrence* Form follow the new SWAG.
 - 18) From the *SnowPilot Main Menu* window click on <Select>. From here you can <Send data> or go to <Web Client> if you are online.
 - a. <Send Data> uploads all your data to the *Web Client* database. All pits in the window get uploaded.
 - b. A pop-up window will appear reading "Sending data-please wait". This will be followed shortly by a new window saying "Data Sent". Click OK and you're ready to see your pits in the database.
 - c. Clicking on <Web Client> brings up a window with the Master Database List. Your pit will be in here.
 - 19) Using <Web Client>:
 - a. Double clicking on any pit will bring up the pit graph or occurrence data. You can print or save it, but not edit it.
 - b. To make searching easier you can double click on a specific mountain range or state and see all the pits entered for that area.
 - 20) **HOT TIP!** Once your pits are either in the database or saved elsewhere, we recommend <Deleting> them in order to make managing your pits in SnowPilot easier.

QUICK START GUIDE FOR PDA

The **PC-Pilot.jar** is the desktop version of SnowPilot that is on your handheld. I recommend that you first get familiar with it on your desktop since the screen size is so much bigger than a PDA!

The newest version of the PDA does not have all of the updates (ECT, etc) associated with it. You can add these to your pit once you sync them to your computer. An updated version of the PDA will follow shortly.

- 1) The first time you use the PDA, click on the <SnowPilot> icon. You will be prompted to enter a username, email address, etc. You **MUST** enter all fields in order to upload your data to the web. This way every pit has a name, email and phone number associated with it. *If you entered this information on PC-Pilot, you need to enter it again on your PDA.*
 - a. Tap the bottom or top of the screen to move up or down on the page.
 - b. Tapping the very top of the page will give you the drop down menus.
 - i) Click the <Professional> box if you dig snowpits on the job (ski patrol, forecaster, guide, etc.)
 - ii) If you checked the <Professional> box, enter where you work.
 - iii) If you want to your pits available for viewing from the database leave this checked.
 - iv) Click <save>.
 - c. Each PDA can have multiple users.
- 2) You will be taken to the *Preferences* page. You will now choose how you want your pits and data to be entered and displayed.
- 3) From the *SnowPilot - Main Menu*, tap the top of the screen to familiarize yourself with the drop down menus.
 - a. You can pre-set Locations that to make data entry in the field quicker. This is handy if you dig many pits in the same spot.
- 4) Click on <Add Pit>.
 - a. Make a TEST pit. Click on the <Test/practice Pit?> pit box.
 - b. Your State/Prov will populate from your preferences, but you can change it here.
 - c. The time/date is from your PDA and can be manually changed by clicking on the button.
 - d. Aspect refers to TRUE North and should be entered as a number.
 - e. Always enter angle as a whole number.
 - f. Lat and Long must be entered in decimal format, not minutes/seconds.
 - g. You will be able to Edit all info on your Desktop after you HotSynch it (headers, layers, tests, etc).
- 5) Click on <Layer>
 - a. On the <Add Layer> drop down menu, <back> will always save AND bring you to the previous page. <save>, keeps you on the same page, but saves the data.
 - b. On <Select Grain Type>, pick your crystal type.
 - c. After adding the layer info, click on <Add this layer> at the bottom of the page or from the dropdown menu at the top of the screen.
 - d. The PDA will “beep” and a small box will inform you your layer was added.
 - e. For *Comments*, keep them to a few words since space is limited to only 15 characters.

- f. If you want to edit an existing layer, you can easily do so by bringing it up in the *Current Layers* drop down. Clicking on it will repopulate the layer info into the *Edit Layer* page. Edit what you need and click <back>.
- 6) Clicking on <back> from the *Add Layer*, *Test* or *Temp* pages will always take you to the *Edit Pit* page
- 7) Click on <Temp> on the drop down menu. Add data, then hit <Add Point> when you're done. From the drop down menu you can also <Delete Points>.
- 8) Click on <Test>. Select your test from the drop down menu and it will load the Scores. This uses the test scores as outlined in SWAG.
 - a. For *Comments*, keep them to a few words since space is limited to only 15 characters.
 - b. When you're done, click on <back>. This will take you to the *Edit Pit* page.
 - c. If you have an identical test/score/depth, you can bring up the previous test in the dropdown menu and hit the button <same result> at the bottom of the screen. A x2 is put in front of the test on the pit graph.
- 9) From the *Edit Pit* page, click on <Pit Graph> to see a simple graph of your pit. Only hardness's and some tests are displayed. If you have multiple stability tests not all of them will be displayed because of space limitations, but they will be on your computer.
- 10) From the *SnowPilot-Main Menu* on your PDA you can always chose <Edit Pits> to correct or add anything to your pit. You can also <delete pits> from this page.
- 11) <Add Occurrence> will take you to a detailed form outlining the data to collect when you investigate an avalanche. This is broken into 2 parts. If you click on <Crown Obs> on the drop down menu you can associate a pit with the occurrence. All fields in the Occurrence Form follow the new SWAG.

HOTSYNCHING AND USING THE DESKTOP APPLICATION

- 20) This is the cool part. HotSynch your PDA. This will bring all your data over to your computer where it can be viewed and edited from the [PC-Pilot.jar](#) shortcut.
- 21) Once your snowpits are synched over to the computer, ALL further edits should be done on the computer instead of the PDA. Edits done on your PDA *after* the HotSynch will not come over.

BEAMING PITS

- 1) Both PDAs, the sending and the receiving unit, should be on the *Edit Pits* page.
- 2) The receiving unit should click <Receive Pit> on the drop down menu. A pop up box will confirm this.
- 3) The sending unit should choose the pit to beam in the <Select Observation> box.
- 4) The sending unit should then click <Beam Pit> in the drop down menu. The pit will be beamed to the other PDA.

TIPS FOR FIELD USE

- 1) Use a hand warmer packet to keep the screen warm. Rubber band it to the screen on the approach and it will reward you with full clarity.
- 2) You can enter data through a Ziploc if you are in a wet climate.
- 3) Record your <Locations> ahead of time.
- 4) Practice using your PDA. Get fast using "Graffiti".
- 5) The newer your PDA, the faster it's going to work. If you have an older OS 4.1, an upgrade to OS 5.1 or higher will make your data entry go much faster.

IMPORTANT STUFF TO REMEMBER

- 1) Practice making a few test pits before you head out into the field. It'll save you frustration and time.
- 2) **After uploading your data, Delete Pits from your PDA and PC-Pilot. It keeps everything cleaner and easier to use.**
- 3) Upload your data to the web often.
- 4) Go skiing.