Presentation Details:

Slides: 21
Duration: 00:12:31
Filename: C:\Data\DeckerOther\WES\WES82\Overview\WES82.ppt

Presenter Details:

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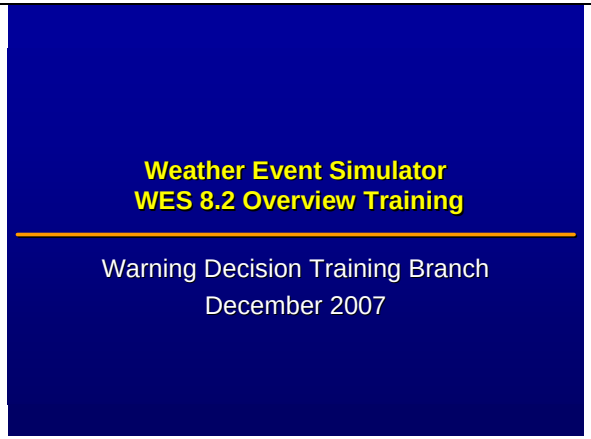
Slide 1

WES8.2 Overview Training

Duration: 00:00:28

Advance mode: By user



Notes:

Welcome to the WES 8.2 Overview Training. I am Timm Decker, WES project leader at WDTB. In this short module I will go over the WES 8.2 installation as well as provide an overview of what is new in this version of the Weather Event Simulator. This training is intended for all WES Installation Focal Points and the WES Training Focal Points, not general forecasters.

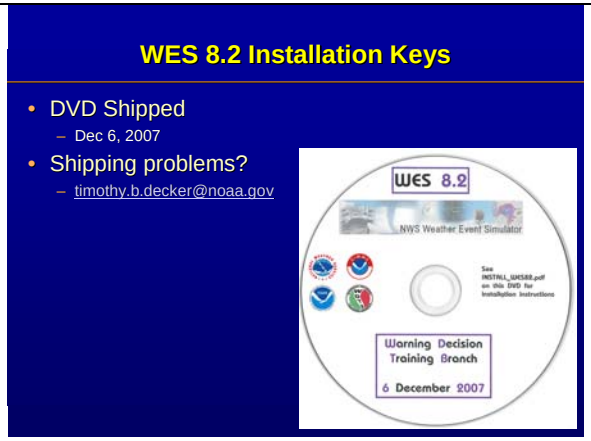
Note that WES 8.2 is a necessary requirement for anyone wishing to complete training for FSI, the Four Dimensional Stormcell Investigator.

Slide 2

WES 8.2 Installation Keys

Duration: 00:00:30

Advance mode: By user



Notes:

WES 8.2 was shipped to all NOAA affiliates on December 6, 2007. If you have not received your DVD by December 11th please e-mail me at timothy.b.decker@noaa.gov.

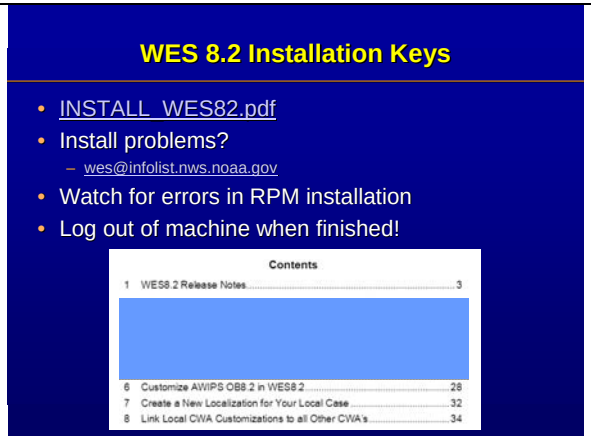
WES 8.2 is a typical WES release containing AWIPS OB8.2 and WES 8.2. It is a stand-alone release so a previous WES version is not necessary for installation. However we strongly recommend using the WES box on which the WES 7.1 disk image was installed. Using this machine will limit installation problems.

Slide 3

WES 8.2 Installation Keys

Duration: 00:00:41

Advance mode: By user



Notes:

Step by step installation instructions are provided on the DVD or the WES home page. You can click on the pdf link to view them. If you should run into any installation problems, please e-mail the WES info list at wes@infolist.nws.noaa.gov.

As we continue to get further away from the WES 7.1 Disk Image and WES boxes are patched and updated, it is very important to watch the installation output for any errors, especially those related to installing the RPMs.

It is very important with this build that you log out of your machine and log back in as fxa before verifying the install or FSI (the new Four Dimensional Stormcell Investigator) will fail because it can't find shared object files.

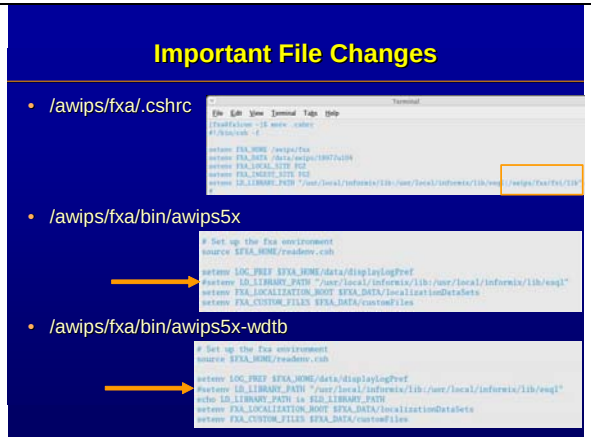
Now I will go over some important information and new features in AWIPS OB8.2 and WES 8.2.

Slide 4

Important File Changes

Duration: 00:00:40

Advance mode: By user



Notes:

In WES 8.2 there are changes to three very important files. If you made any changes to these files on you WES machine, you will need to apply these changes to the WES 8.2 versions. If they are modified incorrectly or if you don't log out after install, FSI won't launch.

In the /awips/fxa/.cshrc file, we have added the path /awips/fxa/fsi/lib to the LD_LIBRARY_PATH.

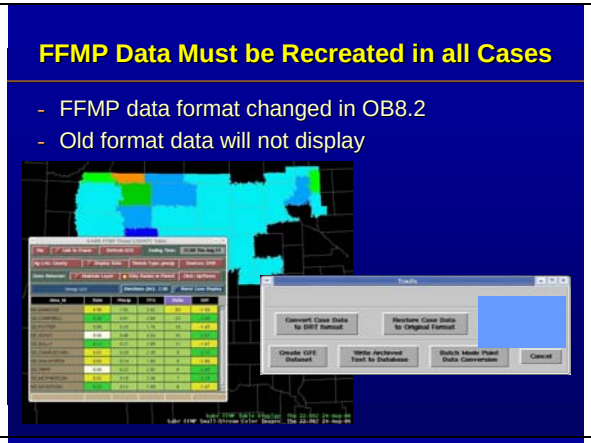
Inside /awips/fxa/bin we have modified both the awips5x and awips5x-wdtb files. In both files we have commented out the "setenv LD_LIBRARY_PATH" lines.

Slide 5

FFMP Data Must be Recreated in all Cases

Duration: 00:00:18

Advance mode: By user



Notes:

All FFMP tar files need to be recreated with WES8.2.

The format of the FFMP data changed again in OB8.2, and recreating the tar files is necessary to use FFMP with OB8.2.

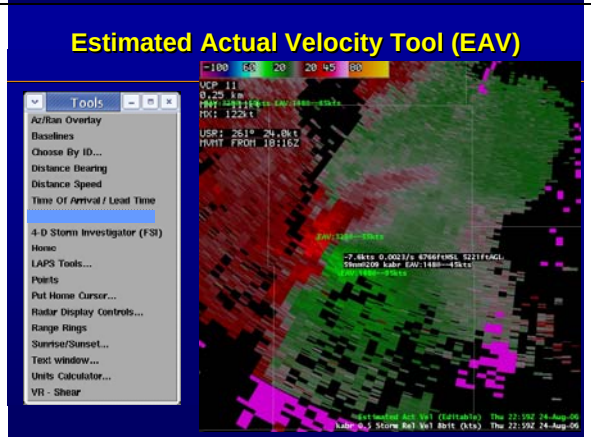
Now I will go over some of the new features in AWIPS OB8.2 and WES 8.2.

Slide 6

Estimated Actual Velocity Tool (EAV)

Duration: 00:00:26

Advance mode: By user



Notes:

The Estimated Actual Velocity tool or EAV, allows users to estimate actual velocity within a the radial velocity field based on a user supplied wind direction.

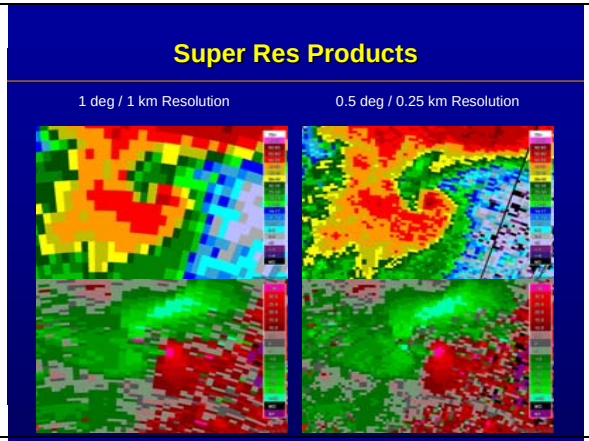
Note that the EAV tool is modeled on VR-Shear, but in this case, the vector drawn serves primarily to establish direction. While the data plotted at the endpoints and in the top-left corner is valid, sampling should be used to gather most of the information.

Slide 7

Super Res Products

Duration: 00:00:24

Advance mode: By user



Notes:

OB 8.2 is able to display Z, V and SW data in the "super resolution" format with ½ degree beam width, ¼ km gate spacing. Only a OB8.2 localization is required to view Super Res products in WES 8.2.

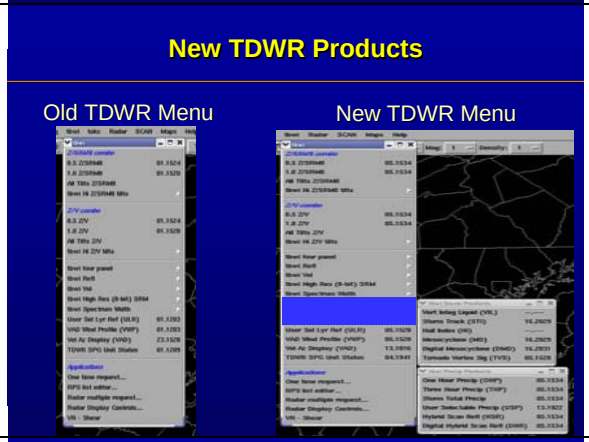
Note that Super Res data will not be produced until ORPG Build 10 which is due for release in Spring 2008.

Slide 8

New TDWR Products

Duration: 00:00:25

Advance mode: By user



Notes:

OB 8.2 now includes several new TDWR products. These new products include DMD, VIL, CZ, and TVS among others. In D2D, these products have been added to the main txxx radar menu as well as the Storm Products and Precip Products sub menus.

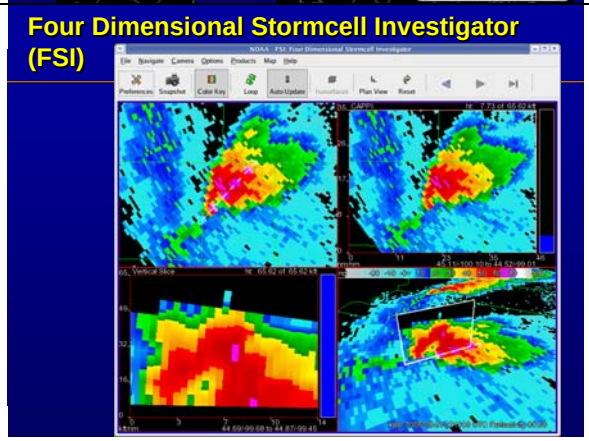
It is important to note that these new products are produced beginning with SPG Build 3 due for release April 2008.

Slide 9

FSI

Duration: 00:00:40

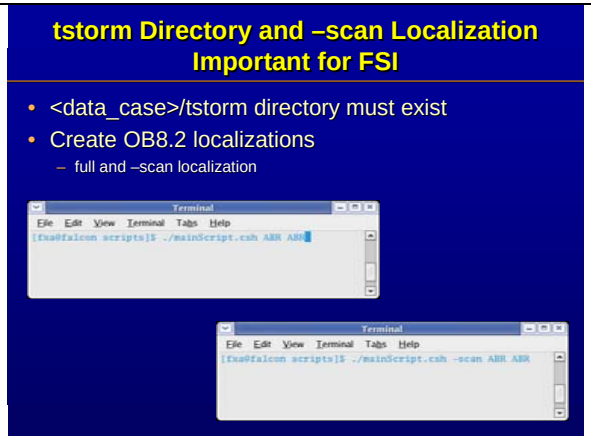
Advance mode: By user



Notes:

Also new with AWIPS OB8.2 and WES 8.2 is the Four Dimensional Stormcell Investigator (FSI). FSI is a base radar data display application which allows users to create and manipulate dynamic cross-sections (both vertical and at constant altitude), such that one can “slice and dice” storms and view these cross-section data in three-dimensions and across time.

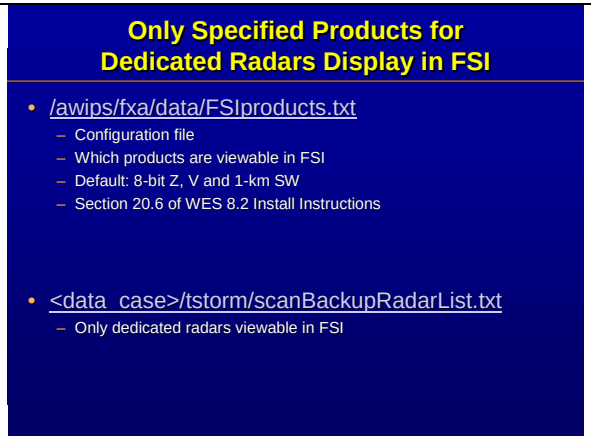
For WES 8.2, we have developed plug and play FSI capability for both case review and simulations allowing any archived base radar

		data to be displayed in FSI. WES 8.2 is required to complete the FSI training available in the LMS. Next I will discuss how to prepare and view a case in FSI using WES 8.2.
Slide 10 **tstorm Dir & -scan Localization** Duration: 00:00:44 Advance mode: By user		**Notes:** Since FSI displays base radar products, there are only two simple steps that need to be taken to prepare pre OB8.2 cases for viewing in FSI. First, you need to make sure that a tstorm directory exists in your case directory. Most cases will already have the tstorm directory present, but if not, you need to create it. The next step is to create the OB8.2 localizations. First run a full localization without any switches. Once this is complete, run a localization with the –scan switch. This will create the files necessary for FSI to run properly. If either of these steps are not complete, WES will use a placeholder to prevent FSI from failing to launch, but it is a very good practice to complete these steps when setting up all your cases.

Slide 11

Products & Radars in FSI

Duration: 00:00:48
Advance mode: By user



Notes:

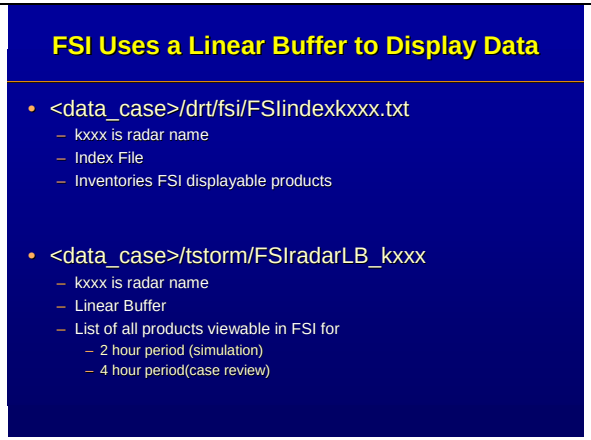
By default, the three radar products viewable in FSI are 8-bit Z, V and 1-km SW. This can be changed by altering the file /awips/fxa/data/FSIproducts.txt. Refer to the actual file or the FSI user guide for instructions on altering this file. In general, you should not be modifying this file unless perhaps you have an archived case with only 4-bit data. Follow Section 20.6 of the WES 8.2 Install Instructions if you modify this file because it effects all cases.

The only radars which will be viewable in FSI are those dedicated radars listed in the file <data_case>/tstorm/scanBackupRadarList.txt. If you wish to add or remove a radar in FSI, you must do so in this file.

Slide 12

How Does FSI Display Data

Duration: 00:01:02
Advance mode: By user



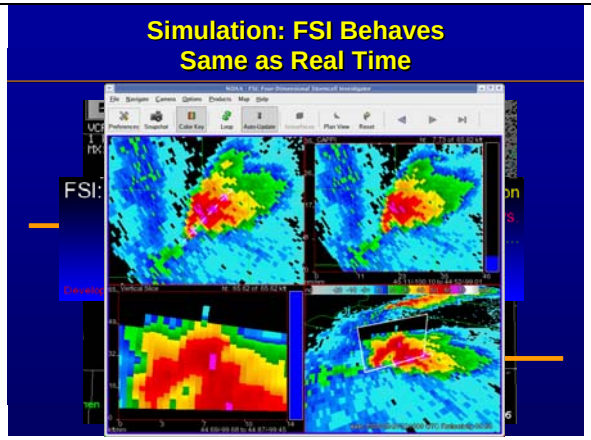
Notes:

The WES will create and inventory of valid products in your case to enable FSI to work resulting in the following two new files.

The FSIindexkxxx.txt file is a WES text file which inventories displayable products in FSI. This WES file is known as the index file and is used to create the following FSI file.

The FSIradarLB_kxxx file is a Linear Buffer file which contains an inventory of all products FSI can display. This is the actual file that FSI looks to in order to display products. As in your real-time AWIPS, during a simulation you will have access to the latest 2 hours worth of visible data. For case review only, we modified the Linear Buffer to support viewing 4 hours of data.

Note that a version of both of these files is created for each dedicated radar in a case.

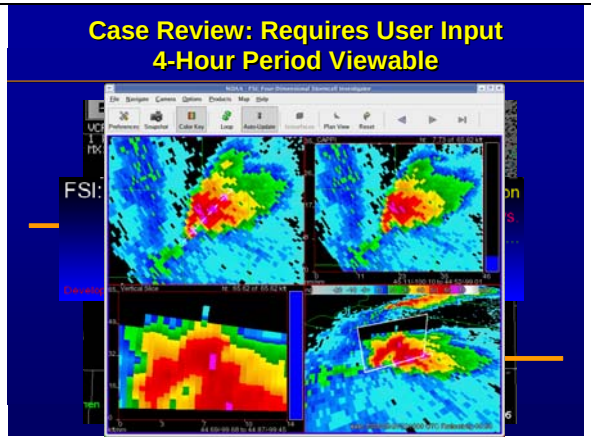
		If you ever add or remove case data, you will need to delete the drt/fsi directory within your case in order for the WES inventories to be recreated.
Slide 13 **FSI in Simulation Mode** Duration: 00:00:49 Advance mode: By user		**Notes:** Using FSI during a simulation is very easy. All necessary files are created during simulation start-up so FSI in a simulation will behave like a real time. Once you start a simulation and start D2D, there are two ways to run FSI. You can select 4-D Storm Investigator under either the Tools or Radar menus. Once you select FSI, you will see instructions in the legend telling you to right-click over the storm of interest. If you have more than one dedicated radar, you will see a radar selection pop-up. Select your radar and press OK. Once you select your radar or if you have only one dedicated radar, FSI will display a banner and then the FSI 4-panel will display. You will notice that like operational AWIPS, only the previous two hours worth of data up to the simulation time are visible in FSI.

Slide 14

FSI in Case Review Mode

Duration: 00:01:23

Advance mode: By user



Notes:

FSI in case review mode, either using start_awips or enhanced_case_review, allows the user to select the time viewable in FSI.

First it is very important in case review mode to load radar data before attempting to launch FSI. Doing this will help eliminate time matching problems.

Once radar data is loaded, select 4-D Storm Investigator from either the Radar or Tools menu then right-click over the storm of interest.

Again, if you have more than one dedicated radar, you will see the radar selection pop-up. Select your radar and press OK.

Once you select your radar or if you have only one dedicated radar, WES will create an Index file for that specific radar if one doesn't already exist. You will see an hourglass pop-up during this process which takes less than one minute for most cases.

The user will next see this time entry pop-up. This entry window is used to select the midpoint time of the 4 hour period you want to display. The default time will be the time entered in the D2D clock or the closest time available. Once a time is selected, press Continue.

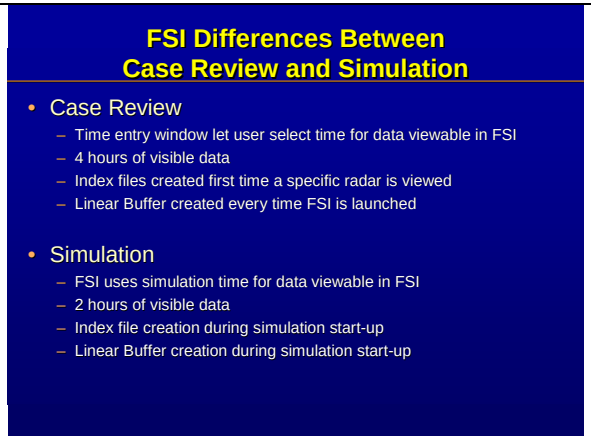
WES will then create the 4 hour Linear Buffer file and you will see the hourglass pop-up. This process takes less than 10 seconds. Once creation of the linear Buffer is complete FSI will display a banner and then the FSI 4-panel will display

Slide 15

FSI Differences in WES

Duration: 00:01:06

Advance mode: By user



Notes:

So to recap there are four main differences between running FSI in Case Review vs. Simulation mode.

In case review, the user will always see the time entry window. If the D2D clock has been set back, the time entry window will be seeded with this time, otherwise it will be seeded with the latest time available in the data. In simulation mode, FSI uses the simulation time, therefore the time entry window never appears.

In case review, WES makes 4 hours worth of data available in FSI. In simulation mode, WES makes two hours of data visible during a simulation, just like an operational AWIPS.

In case review, the index file is created the first time a radar is viewed in FSI. In simulation mode, the index files for each radar in a case are created during DRT conversion or simulation start-up which is transparent to the user.

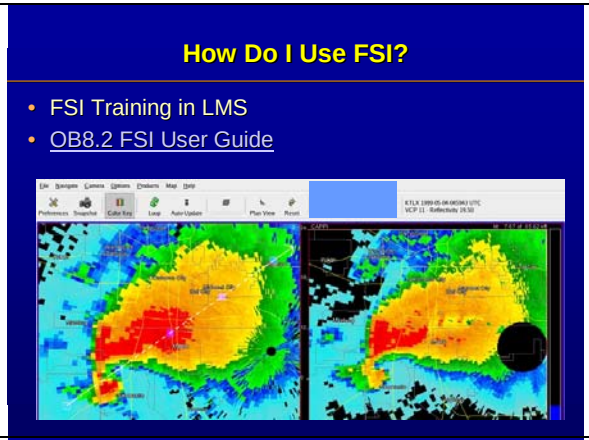
In case review, the Linear Buffer is created each time FSI is launched. In simulation mode, the Linear Buffer is constantly updated as radar products are processed.

Slide 16

How Do I Use FSI?

Duration: 00:00:10

Advance mode: By user



Notes:

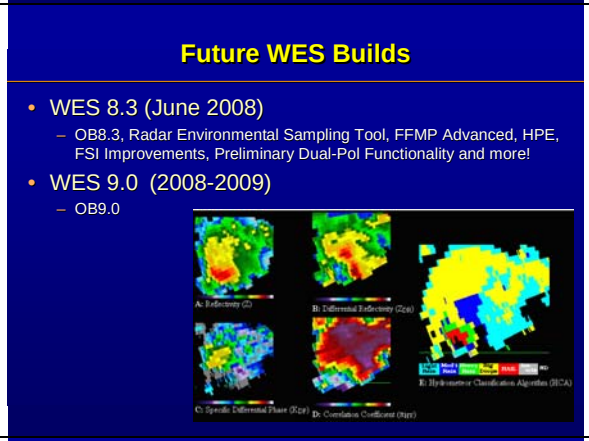
To learn more about using FSI, take the FSI training available in the LMS. The OB8.2 FSI user guide is also a good source.

Slide 17

Future WES Builds

Duration: 00:00:26

Advance mode: By user



Notes:

WES 8.3 with AWIPS OB8.3 is currently planned for release in June of 2008. Included in this build are Radar environmental sampling tool, FFMP Advanced, High Resolution Precipitation Estimator, FSI improvements, preliminary Dual-Pol functionality for later implementation and more.

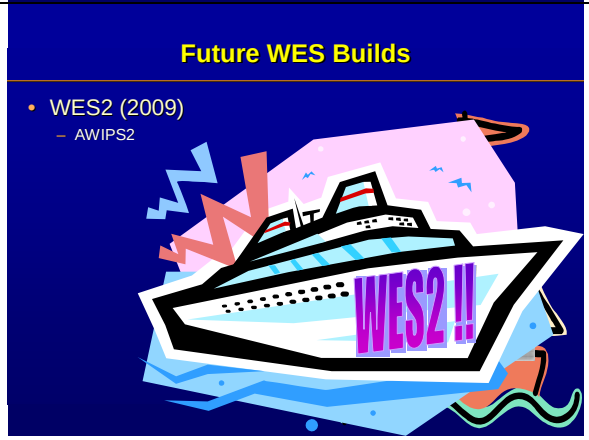
WES 9.0 with AWIPS OB9.0 is currently planned for release in the 2008-2009 timeframe.

Slide 18

Future WES Builds

Duration: 00:00:45

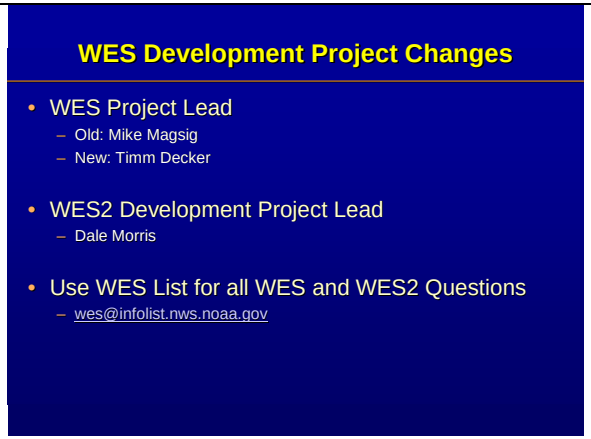
Advance mode: By user

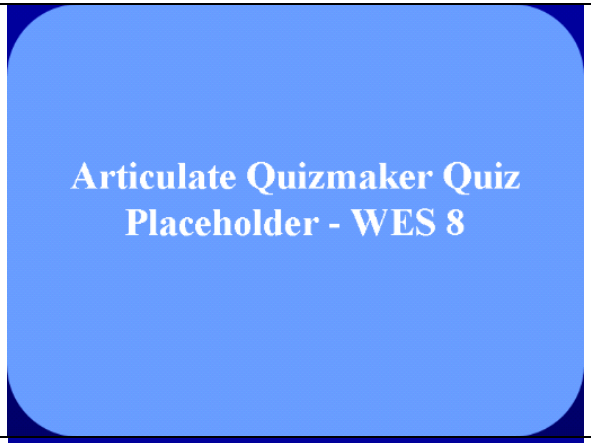
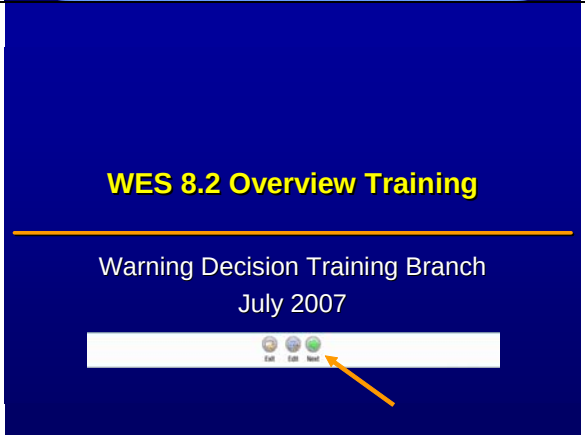


Notes:

OB9.0 is the last AWIPS build before the transition to the next generation AWIPS build, AWIPS2, which is currently scheduled to be released in 2009.

The current plan is for WDTB to develop a new Weather Event Simulator (WES2) for AWIPS2 to coincide with the AWIPS2 release. This interim WES will prototype a training capability for integration into AWIPS2 after the initial release. WDTB will provide continuity of training capability and cases in the transition to AWIPS2. WDTB

		plans on developing a case converter to allow old cases to view with the new AWIPS. Although AWIPS2 is intended to have the same look and feel as AWIPS, it will be a major change for archiving and playing back cases.
Slide 19 **WES Development Project Changes** Duration: 00:00:27 Advance mode: By user		**Notes:** Since the last WES release, there have been some changes in the management of the WES project. Although Mike Magsig is still involved in WES development and support, I am the new project lead for the Weather Event Simulator. Mike is now the primary AWIPS warning-related training focal point at WDTB. Dale Morris is the WES2 development project lead. We are all available for support but please continue to send all WES related questions or comments to the WES info list.

Slide 20 **WES 8.2 Overview Quiz** Duration: 00:00:05 Advance mode: By user		**Notes:** WES 8.2 Overview Quiz
Slide 21 **WES 8.2 Overview Training** Duration: 00:00:14 Advance mode: By user		**Notes:** This concludes the presentation of the WES 8.2 Overview Training. Again, please use the WES info list for any WES related questions. Please be sure to navigate completely through the course by clicking the green next arrow in the LMS. Thank you for your time.