Visual Sample Plan Training Course

Presented by Bechtel Hanford, Inc.
Richland, WA

02b - Detailed Menu Layout of Sampling Design Options

Learning Objectives:

Terminal Objective: To be able to navigate through the Visual Sample Plan menu structure and to find some of the most commonly used features.

Enabling Objectives:

- To be able to open a .dxf file or create a new project.
- To be able to find four different views of a new project: map view, the graph view, the report view and the coordinates view.
- To become familiar with the various sampling designs that can be created using VSP.

I. Open a .dxf File or Create a New Project

Instructor's Notes	Navigation or Action Required
Open Visual Sample Plan from the Start menu or by clicking the desk top icon for VSP 2.0.	**Start→Programs→Visual Sample Plan**
Click the button General (all inclusive VSP).	
Close the VSP Advisor window	**Click on Close button.**
Open the existing .dxf file	**Map→Load DXF…→Base.dxf. Click on Open button**
Or to create a new project (for example room surfaces):	
Close the project without saving it.	**Map→Draw MARSSIM Room** [You can draw the room by:

	1) Entering the room dimension on the keyboard: LXWXH (e.g. 12x10x8 <Enter>) [I could not consistently get software to allow me to enter the information] 2) Entering the corners of the room on the keyboard X,Y (e.g. 50,50 <Enter>62,60 <Enter> 8 <Enter> [I could not consistently get software to allow me to enter the information] 3) Entering the corners of the room using the mouse.]
	File→Close Project **Click No**

II. Project Views

Instructor's Notes	Navigation or Action Required
To open an existing project file	**File→Open Project…→Example1.vsp**
To see the map and graph views simultaneously	**Window→Double Window**
To see the map, graph and report views simultaneously	**Window→Triple Window**
To see the map, graph, report and coordinates views simultaneously	**Window→Quad Window**
To see one particular view only (e.g. the graph view)	**View→Graph**

III. Sampling Designs

Instructor's Notes	Navigation or Action Required
There are three major types of sampling designs that can be created with VSP: simple random, systematic grid, and judgmental. Note: For all sampling design menu selections (except judgmental and predetermined), a dialog box will appear where test parameters can be varied to create different sampling designs.	
Create a parametric sampling design	**Sampling Goals→Compare Average to Fixed**

Instructor's Notes	Navigation or Action Required
suitable for a one-sample t-test analysis	**Threshold→Can assume data will be normally distributed→Simple random sampling …**
Create a parametric sampling design suitable for a two-sample t-test analysis	**Sampling Goals→Compare Average to Reference Average→Can assume data will be normally distributed→Simple random sampling …**
Calculate the number of samples needed to establish a confidence interval for specified values of confidence, standard deviation, and width of the confidence interval	**Sampling Goals→Construct Confidence Interval on Mean→Can assume data will be normally distributed→Simple random sampling …**
Create a non-parametric sampling design suitable for the Wilcoxon signed rank test analysis	**Sampling Goals→Compare Average to Fixed Threshold→Data not required to be normally distributed→Simple random sampling (Wilcoxon signed ranks test)…**
Create a non-parametric sampling design suitable for a one-sample test of proportions	**Sampling Goals→Compare Proportion to Fixed Threshold→Data not required to be normally distributed→Simple random sampling …**
Create a non-parametric sampling design suitable for the MARSSIM sign test analysis	**Sampling Goals→Compare Average to Fixed Threshold→Data not required to be normally distributed→Simple random sampling (MARSSIM sign test)…**
Create a non-parametric sampling design suitable for the MARSSIM WRS analysis	**Sampling Goals→Compare Average to Reference Average→Data not required to be normally distributed→Simple random sampling (MARSSIM sign test)…**
Randomly place a predetermined number of samples on a given sampling area	**Sampling Goals→Non-statistical sampling approach→Predetermined number of samples→Simple random sampling…**
Create a parametric systematic grid	**Sampling Goals→Compare Average to Fixed Threshold→**

Instructor's Notes	Navigation or Action Required
sampling design suitable for a one-sample t-test analysis	**Can assume data will be normally distributed→Systematic grid sampling…**
Create a parametric systematic grid sampling design suitable for a two-sample t-test analysis	**Sampling Goals→Compare Average to Reference Average→ Can assume data will be normally distributed→Systematic grid sampling…**
Create a non-parametric systematic grid design suitable for the Wilcoxon signed rank test analysis	**Sampling Goals→Compare Average to Fixed Threshold→ Data not required to be normally distributed→Systematic grid sampling (Wilcoxon signed rank test)…**
Create a non-parametric systematic grid sampling design suitable for a one-sample test of proportions	**Sampling Goals→Compare Proportion to Reference Proportion→Data not required to be normally distributed→Systematic grid sampling…**
Create a non-parametric systematic grid sampling design suitable for the MARSSIM sign test analysis	**Sampling Goals→Compare Average to Fixed Threshold→ Data not required to be normally distributed→Systematic grid sampling (MARSSIM sign test)…**
Create a non-parametric systematic grid sampling design suitable for the MARSSIM WRS test analysis	**Sampling Goals→Compare Average to Fixed Threshold→ Data not required to be normally distributed→Systematic grid sampling (MARSSIM sign test)…**
Create a sampling design that will have a given level of confidence of locating a hot spot of a given size and shape	**Sampling Goals→Locating a Hot Spot→Systematic grid sampling…→Predetermined grid spacing**
Create a judgmental sampling design by manually adding sample point to an existing sample area	**Sampling Goals→Non-statistical sampling→Judgement (authoritative sampling)**