FOREST BIOMETRICS RESEARCH INSTITUTE

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For the advancement of research, education and service in forest biometrics

January 4, 2016

To: All FBRI – FPS Users
From: Jim Arney
Subject: Update on FPS software, services and libraries

A number of you have been calling and/or emailing about the status and updates of FBRI offerings beginning in January 2016. This memorandum will attempt to provide an informative update by which you may plan your 2016 FPS-related activities. This is a progress report from what you learned at the FBRI Annual Meeting last November.

Also, please follow our FBRI website closely. We are now providing web updates as new developments occur and common technical support issues are addressed.

There are three parts to this memo update:

1) FBRI has now initiated a unique **User-ID** for each FBRI-associated organization;

2) The **FPS Software** is being updated to recognize each organization's unique User-ID, which unlocks the full capacity and range of the FPS Regional Species Libraries; and,

3) The **FPS SiteGrid** has become an essential ingredient to localize the FPS Regional Species Libraries. This localizes all macro-site and micro-site effects within and between vegetative species (trees and shrubs). You will want to incorporate this technology.

The FBRI User-ID Key – This is a 3-digit or 4-digit unique identity for each organization. Richard Zabel (FBRI Business Manager and WFCA Director) sent out these Identities to you last week. This was by email notification to the "primary" contact in each organization. If you did not get this notice or are not the designated "primary" contact, then please inform us of the correct contact person within your organization. We fully expect other foresters and managers within each organization to be contacting us directly depending on desires, questions and topics. In any regard, please become familiar with your organization's FBRI-Key code and identify it when contacting us for any reason.

The FBRI-Key code will significantly improve our ability to keep both you and us at a current / common level of knowledge. We may better understand technical support questions when they appear and be able to provide more consistent follow up on all topics. This facilitates our internal communication within FBRI (technical support, administration, workshops and research). It enhances our abilities when responding to your inquiries or introducing new developments. This constitutes a significant improvement in our corporate structure for providing a more robust / responsive interface when working with you.

FPS Software Update – The 2016 FPS Version 7 Software will remain essentially unchanged. There are a few minor revisions, but the basic structure and user-interface remain constant.

The full FPS Software package is being enhanced to provide a "Demo-Mode" default when it is first installed on a local computer. This will be announced shortly and it will be detailed on the FBRI website. There has been an ongoing interest in having a "Demo-Mode" version of FPS. This enhancement should fulfill those requests and provide significantly improved opportunities for forestry schools to incorporate FPS into their curriculums. The Demo FPS will only invoke a default generic Species Library. Watch for it on our FBRI website.
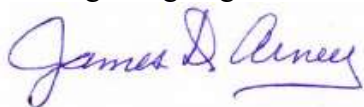
FPS SiteGrid GIS layer – The FPS SiteGrid was written up and detailed in the 2014 FPS Forester's Guidebook (page 53+), including how to build a SiteGrid from scratch. The SiteGrid has become pivotal for localization of taper, site and growth. The SiteGrid stratifies the effects of soils, climate and topography. It accounts for changes in the site height/age curve shapes across the range of each tree species. The SiteGrid is a GIS point layer at 1-point per acre or 1-point per five acres. We recommend that you build a local SiteGrid as the higher density. In addition, FBRI has built State-wide grids for western States at the 1-point per five-acre density. These were developed to be shared with FBRI organizations as a basis for localizing FPS Libraries.

Status of sharing pre-built FBRI SiteGrids. The original SiteGrid design included elevation, aspect and slope parameters for the calculation of the number of growing season days per year. However, the 2016 FPS Species Library update analyses (my 2015 research) have disclosed a significant hill shading influence not previously accounted for in the original SiteGrid design. There are significant frost-pocket and cold-air drainages in deep northeastern valleys which impact the number of the growing season days. Every forester has observed this, but it has not been incorporated analytically into any site curve or growth model. It not always affects the level of site capacity, but it does affect the shape of the site curve (height/age curve). Therefore the SiteGrid design should include two additional parameters: West Horizon and East Horizon. The minimum growing season temperature threshold of 10 degrees C cannot be achieved until the sun angle exceeds these horizons. We are adding these parameters to our pre-built SiteGrids before making them available. I am currently finalizing this enhancement before distribution to you.

We will place an expanded report on SiteGrid development and applications on the FBRI website shortly. You may then use it to update your locally-built SiteGrid GIS layers. Look under the red "Support" banner for "Resources" on the upper left of the home screen.

The FBRI Workshop on June 7 – 8, 2016 in Corvallis, Oregon will focus on SiteGrid methods for localizing FPS Regional Species Libraries, including both the felled-tree sampling methods and SiteGrid application methods. You may use this technology to localize the effects of macro-site on site capacity and the micro-site responses to early silvicultural treatments. This will be a workshop not to miss.

Best regards going into 2016, you will be hearing more shortly…

James D. Arney, PhD, President