



## LOGBUST™ COMPUTER PROGRAM



### LOGBUST™ DEFINITION

LOGBUST™ is a Subsurface Consultants & Associates, LLC. (SCA) proprietary computer program that identifies and quantifies seismic and well log correlations, faults and unconformities and growth patterns, and displays these patterns graphically for ease of interpretation, analysis and integration into existing data and interpretation.

### INTRODUCTION

The LOGBUST™ computer program was developed to computerize the application of two growth methods, the  $\Delta d/d$  technique and the Multiple Bischke Plot Analysis (MBPA). The LOGBUST™ computer program consists of a number of proprietary computer subroutines (macros) and is divided into four parts. The program takes electric well log or seismic correlation data and processes the data into the form of graphs that can be readily interpreted. The object of the interpretation is often multifold. In some cases there are correlation problems caused by data mis-correlations, that need to be resolved or ambiguities may exist in the correlation data that result from faulting or from unconformities. In other cases subtle and difficult to locate faults or disconformities may be present within the data sets that need identification. The method can succeed where conventional methods, such as seismic data, fail. This occurs as the LOGBUST™ processes and methods enhance the resolution of the data. The computer program consists of a number of SCA proprietary processes and macros build around an Excel graphics program.

### PART 1

Part 1 of the LOGBUST™ program uses seismic or well log correlations to process correlation data. Output is in the form of multiple cross-plot graphs. Correlation anomalies and growth trends are presented on these graphs for interpretation. The style of faulting and the general direction of the dip of a fault can also be determined from the plots. These data can then be integrated with other geological or geophysical data.

### PART 2

Part 2 of the program stacks relevant data on to a single graph, in order to rapidly compare several correlation curves to each other. This stacked plot approach allows multiple growth curves to be easily interpreted. This part of the program is a derivative of the MBPA method, but the program goes beyond the traditional MBPA analysis in that the plots can qualitatively distinguish faults from unconformities using missing section data.

### **PART 3**

Part 3 is a powerful portion of the program that contains proprietary methods for quantitatively distinguishing faults from unconformities in areas of high bed dips. This technology recognizes areal differences in scalar data that quantitatively distinguish faults from disconformities in well log data. This proprietary and quantitative description of the correlation data make the process of distinguishing faults from unconformities much more certain than the existing MBPA methods.

### **PART 4**

Part 4 of the LOGBUST™ program is designed to predict the amount of missing section that is expected along faults or unconformities. Until the advent of LOGBUST™ **no method existed** to accurately predict missing section data from well log control.

## **HOW TO USE THE LOGBUST COMPUTER PROGRAM**

SCA has developed a procedure on how to learn and use the LOGBUST™ computer program and related processes. The program contains a tutorial and workflow section for interpreting the plots and missing section data. This brief description of how to interpret the plots and how to use the computer program assists interpreters at arriving at correct interpretations of the correlation data. Furthermore, the SCA geoscientists have written an extensive user/training manual for a 2 day short course on the  $\Delta d/d$  and MBPA methods. The short course teaches the Multiple Bischke Plot Analysis and  $\Delta D/D$  methods and how to use LOGBUST™ to generate various plots for interpretation of the data and application to a current exploration or development project **Unleash the powers of well log and seismic correlations with the LOGBUST™ program.**

For information on the LOGBUST™ or the short course, please refer to SCA's website [www.scacompanies.com/logbust.htm](http://www.scacompanies.com/logbust.htm).

The LOGBUST™ program is offered at a discount when you attend the 2 day seminar!!

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