# Instruction Manual

# FAS Facial Photographic Analysis Software

Version 1.0.0

FAS Diagnostic and Prevention Network
FAS DPN
University of Washington
Seattle Washington

Susan Astley, Ph.D.
2003

## Table of Contents

Acknowledgments ..... iii

License Agreement ..... iv

**PART I.** Introduction

What is FAS ..... 1
The FAS 4-Digit Diagnostic Code ..... 1
Facial Features of FAS ..... 2
FAS Facial Analysis Software ..... 2

**PART II.** Getting Started

Professional Qualifications for Use of this Software ..... 3
Computer System ..... 3
Minimum Requirements ..... 3
Recommended Requirements ..... 3
To Install the Facial Software ..... 3
Help ..... 3
To Open the Software ..... 4
To Open the "John Doe" Demonstration Case ..... 4

**PART III** Taking the Facial Photographs

How to Take the 3 Standardized Facial Photographs ..... 5
Internal Measure of Scale ..... 5
Frontal, ¾, Lateral Pictures ..... 5
Facial Expression ..... 5
Rotation ..... 6
Additional Training / Instructional Resources ..... 6
Camera / Image Resolution Specifications
Digital Camera ..... 7
Film Camera ..... 7
Image Resolution ..... 7
Image Formats ..... 7

**PART IV. USING THE MEASUREMENT TOOLS, PICTORIAL GUIDES AND SCORING TABLES**

Tools and Guides to Measure Facial Features
Tools ..... 8
Guides ..... 8
Tool Options Guide ..... 8
Identifying Key Facial Features
The Landmark/Rotation Pictorial Guide ..... 9
The FAS Face and Other Anomalies Guide ..... 9
Measuring the Internal Measure of Scale
The Single-Distance Tool ..... 10
Measuring PFLs and Inner Canthal Distance
The 3-Distances Tool ..... 10

Measuring Lip Thinness
The Circularity Tool ....11
The Lip-Philtrum Guides ....11
Measuring Philtrum Smoothness
The Lip-Philtrum Guides ....12
Guide for Scoring the FAS Facial Phenotype
The Facial ABC-Score and 4-Digit Rank Table ....13
Measuring the Rotation of the Facial Image
The Rotation Pictorial Guides ....14

**PART V ANALYZING AN IMAGE**
Example of a Complete Analysis and Outcome Report ....15
Opening an Image and Worksheet
To Open a New Photo ....16
To Open an Existing Subject File ....16
Enhancing the Image
Brightness ....17
Contrast ....17
Rotation ....17
Zoom ....17
Clear overlays ....17
Analyzing an Image
Recording Data on the Worksheet ....18
Patient Identification ....18
Photograph Identification ....19
Customizing Lists ....20
Real Length of Internal Measure of Scale ....20
Anomalies ....20
Syndromes ....20
Source of Image ....20
Assessor of Image ....20
Race of Subject ....20
Racial Norms for Palpebral Fissure Lengths ....20
Eyes ....21
Lip/Philtrum ....22
Other Anomalies / Syndromes ....23
Photo Quality ....24
Outcome ....27
Practice Image Set “John Doe” ....28
Circularity Practice Guide ....29

**PART VI SAVING / DELETING / EXPORTING THE DATA**
The Facial Software Database ....30
Saving Data to the Database ....31
Deleting Data from the Database ....31
Exporting Data from the Database ....32

**PART VII VIEWING / PRINTING THE OUTCOME REPORT**
Viewing the Outcome Report .....33
Printing the Outcome Report .....34
Outcome Report for Practice Case.....35

**Dictionary** .....36

**References**.....39

Watch for Updates and Frequently Asked Questions on the FAS DPN Website

http://depts.washington.edu/fasdpn

## ACKNOWLEDGMENTS

The development of this software was supported in part by the following agencies and contributors:

Royalty Research Fund
University of Washington
Seattle Washington

Washington Research Foundation
Seattle Washington

John B. Chavez FAS Fund

I would like to thank James M. Kinzel who served as the sole programmer for this software.

I would like to thank Kristen Daniels, M.L.I.S., Joshua Hunter, B.S. and Cliff Astley, M.S. for their invaluable technical assistance throughout the development of this program.

And special thanks are extended to all families who have supported and assisted the Washington State FAS Diagnostic & Prevention Network in our ongoing development and enhancement of FAS diagnostic and screening tools.