



## Introduction to the Friction Ridge Process Map

The friction ridge examination process map offers a visual description of the conventional process used for associating impressions of friction ridge skin by latent print examiners. The process is commonly referred to as ACE-V: Analysis, Comparison, Evaluation, and Verification. In broad strokes, a friction ridge examination following the ACE-V process proceeds as follows: *Analysis* refers to an initial information-gathering phase in which the examiner studies the unknown print to assess the quality and quantity of discriminating detail present. The examiner considers information such as substrate, development method, various levels of ridge detail, and pressure distortions. A separate analysis then occurs with the exemplar. *Comparison* is the side-by-side observation of the friction ridge detail in the two impressions to determine the agreement or disagreement in the details. In the *Evaluation* phase, the examiner assesses the agreement or disagreement of the information observed during Analysis and Comparison and forms a conclusion. *Verification* in some agencies is a review of an examiner's conclusions with knowledge of those conclusions; in other agencies, it is an independent re-examination by a second examiner who does not know the outcome of the first examination.

This process map was originally created by the NIST/NIJ Expert Working Group on Human Factors in Latent Print Analysis and published in 2012. The map was then updated by the OSAC Friction Ridge Subcommittee to describe the various steps of the ACE-V process and the several different ways they are *currently* practiced by the friction ridge examination community. The OSAC Friction Ridge Subcommittee does not support or endorse all the different ways the steps of the ACE-V process are currently practiced as depicted by the process map. As the OSAC Friction Ridge Subcommittee continues to develop standards and best practice recommendations related to the friction ridge examination process, this map will be updated to reflect a single standardized process that is recommended for the friction ridge community.

The intended uses of this process map are to facilitate discussions about key decision points in the ACE-V process, help the research and standard's development community be able to cite the specific latent print activity that their efforts address, and enable laboratory managers to better understand how their protocols compare with other laboratories.