SOLUTION FOR SECURITY AND CITIZEN CONTROL

NEW GRAPHOGENETIC TECHNOLOGY
Graph + Genetics + Software SDK = QR

DIGITAL UNIQUE IDENTIFICATION OF PEOPLE

DIGITAL UNIVOCAL IDENTIFICATION

What is it?

- **Exclusive system for non-invasive taking of papillary impressions using Grafogeneticas self-adhesive strips®**

How does it work?

- Using graphics developed specifically for multiple applications, epidermal impressions are captured to link each person's unique fingerprint and genetic identification into a QR Code (digital identity)

Proceeds

- Simplicity of use
- Prevent fraud
- Optimize ID processes
- Multiplicity of applications
- Reduce costs
- Reduce time
- Allows the linking of biometric and genetic data in the same database

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CENTRAL DATABASE JUSTIFICATION

The Justification is to initiate a central dactylogenetic database that will allow in the shortest possible time that the provinces adhering to the federal security plan with their different AGENCIES and GOVERNMENTAL ENTITIES that make up CITIZEN SECURITY AND CONTROL have an identification system with a high index of identification reliability of a person with a criminal record, by joining their fingerprints and genetic profile (NON-CODING DNA), dubious and indubitable latent traces, photographs, judicial files or other types of criminal files that the same person may possess, whether native or foreign, all united in the same Software and Hardware platform.

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COMPONENTS OF GRAPHOGENETICS

THE UNITS OF THE IMPLEMENTATION OF THE DACTYLOGENETIC SYSTEM CAN BE DIVIDED INTO THE FOLLOWING CATEGORIES:
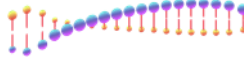
GRAPHIC

Removable portable set with visibilizer and support for papillogenetic identification

GENETICS

Obtaining genetic profiles in the laboratory from graphogenetic impressions

SOFTWARE SDK

Incorporation of innovative IT processes in the reading of biometric and genetic information.

CODEC AND ENCRYPTION

Unique Person QR
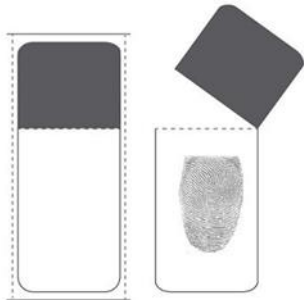BD conformation (fingerprints + DNA))

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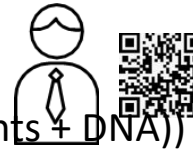
CHART THE PRODUCT

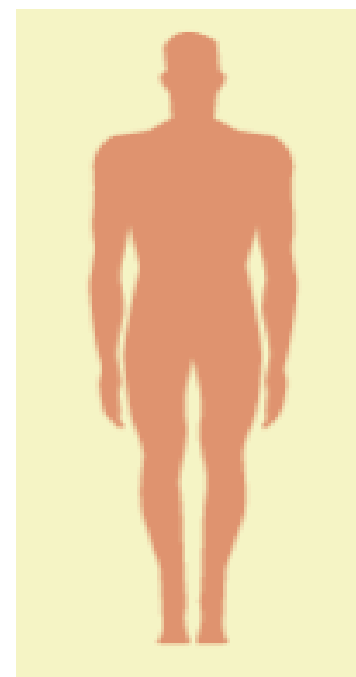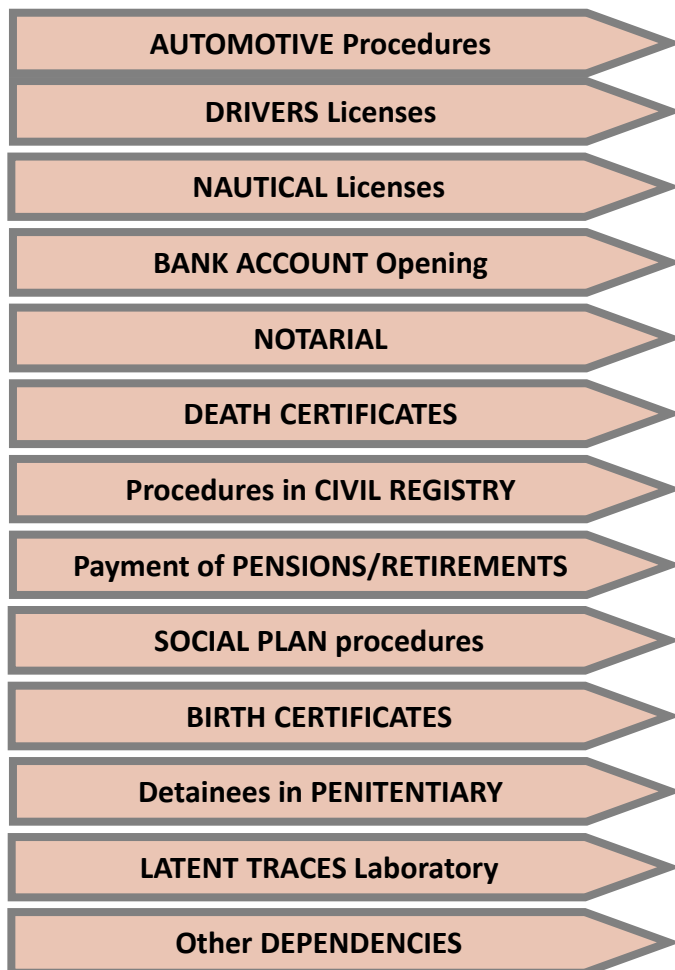REMOVABLE PORTABLE SET WITH VISIBLE AND IDENTIFICATION HOLDER

Removable set that records fingerprints for complete identification of a person while being non-invasive.

Obtaining certainty in the identification of a person.

The action is simple, fast and clean, this result allows the data to be in a general base where the papillary impression and the genetic profile are linked in a security QR, the chain of custody being the same.

PRODUCT APPLICATIONS

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SECURITY IN OFFICIAL FORMS WHERE THE STATE CAN COLLECT DIRECTLY

- AUTOMOTIVE Procedures
- DRIVERS Licenses
- NAUTICAL Licenses
- BANK ACCOUNT Opening
- NOTARIAL
- DEATH CERTIFICATES
- Procedures in CIVIL REGISTRY
- Payment of PENSIONS/RETIREMENTS
- SOCIAL PLAN procedures
- BIRTH CERTIFICATES
- Detainees in PENITENTIARY
- LATENT TRACES Laboratory
- Other DEPENDENCIES

U.ID

GRAPH MULTIPLE FORMATS AND PROCEDURES

THE GRAPHICS CARD COVERS A WIDE RANGE OF APPLICATIONS, BOTH FOR CIVIL AND OFFICIAL USE
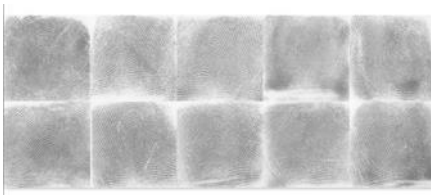
FORM WITH TWO FINGERPRINTS

E.G. OF USE: NOTARY OFFICES, UNIVERSITIES, ETC.

BIRTH REGISTRATION
MOTHER-CHILD GENETIC LINKAGE

PREVENTS THEFT/SALE OF BABIES
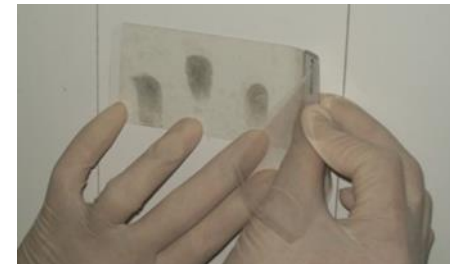OTHER ACTIVITIES LINKED TO THIS ILLEGAL TRADE

TEN-FINGER POLICE FILE

REGISTRY OF DECEASED

FORENSIC LIFTER

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HOW TO USE GRAPH

1 LIFT THE PROTECTIVE CAP AND RUB THE LEFT OR RIGHT DIGIT OVER THE GRAY AREA

2 PLACE YOUR FINGER ON THE WHITE ADHESIVE SURFACE AND PULL DOWN THE PROTECTIVE CAP

3 CUT THE SECTION OF GRAY INK ALONG THE DOTTED LINE AND DISCARD IT

4 FINAL VIEW OF THE STRIP WITH THE PRINTED FINGERPRINT. IT IS THEN DIGITIZED AND CAN BE SENT TO THE LABORATORY FOR DNA COLLECTION

GRAPHIC QUALITIES

- ❑ GENETIC FINGERPRINT REMAINS SHARP AND ORIGINAL, WITHOUT DEFORMING
- ❑ THE SAMPLE REMAINS NUMBERED AND IDENTIFIED
- ❑ REMOVAL METHOD THAT DOES NOT CAUSE REJECTION
- ❑ METHOD OF MASS AND POPULATION DNA COLLECTION
- ❑ ECONOMICAL AND FAST EXTRACTION METHOD
- ❑ THE CHAIN OF CUSTODY OF DNA IS THE STAMPED FINGERPRINT
- ❑ USED TO OBTAIN SAMPLES IN ANY POLICE CASE ON THE STREET ACCIDENTS, WITNESSES, DEAD ON PUBLIC ROADS IDENTIFICATION SUSPECTS
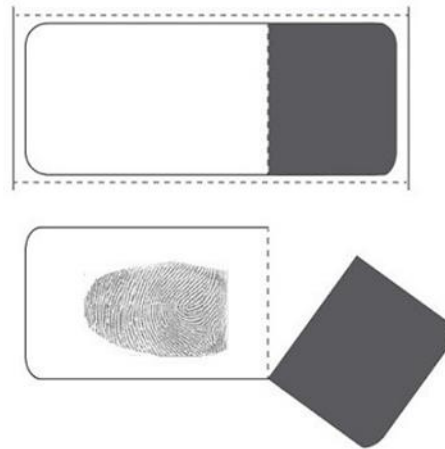
- ❑ THE GRAPHIC ADAPTS TO MULTIPLE FORMATS AND FORMS
- ❑ DNA CANNOT BE MANIPULATED FOR OTHER SPURIOUS PURPOSES
- ❑ GRAPHOGENETIC DEVICE AND EPITHELIAL CELLS DO NOT DEGRADE OVER TIME
- ❑ METHOD THAT DOES NOT USE SHARP OR PAINFUL ELEMENTS
- ❑ PRESERVES GENETIC FINGERPRINTING AT ROOM TEMPERATURE (IN A FILE)
- ❑ TOTALLY CLEAN METHOD TO OBTAIN GENETIC FINGERPRINTING
- ❑ ENABLES A COST-FREE CHAIN OF CUSTODY
- ❑ IT IS INVIOLABLE

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STATE BENEFITS

FOR THE COMPLETION OF THE FOLLOWING
PROCEDURES WITH POSITIVE IDENTITY ASSURED

Database

GOVERNMENT SERVICES
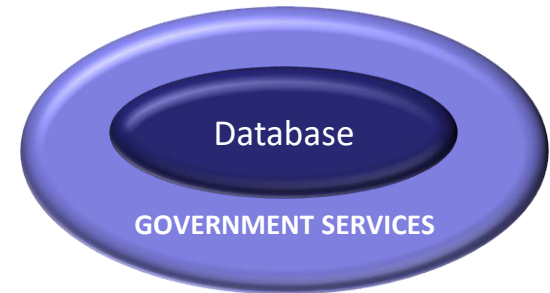
- ❑ PROVINCIAL POLICE WITH NATIONAL CONNECTION
- ❑ JUDICIAL POWER
- ❑ GENERAL PROCURATORSHIP
- ❑ FORENSIC SCIENCE (FORENSICS, DNA AND FINGERPRI
- ❑ PRISON
- ❑ MIGRATIONS
- ❑ REGISTRY OFFICE
- ❑ FEDERAL FORCES
- ❑ SUPREME COURT OF JUSTICE
- ❑ NATIONAL SECURITY

A CITIZEN = AN IDENTITY

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GENETICS CONCEPTS

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GRAPHICS ® ALLOW GENETIC PROFILES TO BE OBTAINED IN THE LABORATORY FROM FINGERPRINTS OF BOTH GRAPHOGENETIC STRIPS (INDUBITABLE SAMPLES) AND LATENT FINGERPRINTS (DUBITABLE SAMPLES).
STRATUM CORNEUM: IT IS THE MOST SUPERFICIAL LAYER OF THE EPIDERMIS, COMPOSED OF THIN LAYERS OF DEAD KERATINOCYTES THAT ARE IN PERMANENT REPLACEMENT.
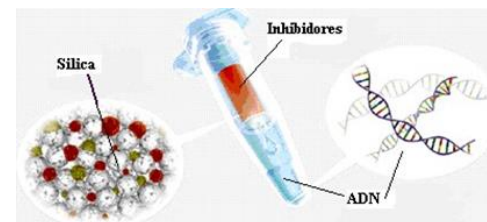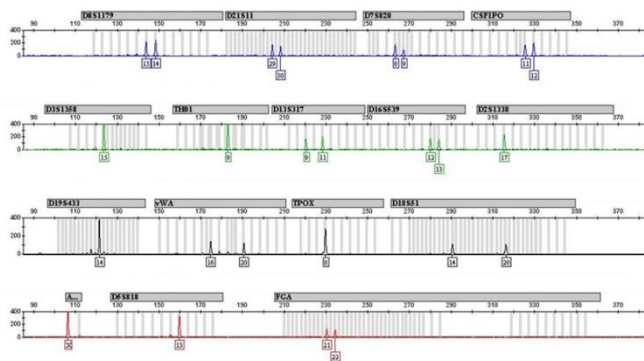
PROCEDURE: EPITHELIAL CELLS
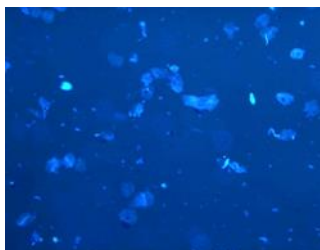
DNA EXTRACTION (LYSIS))
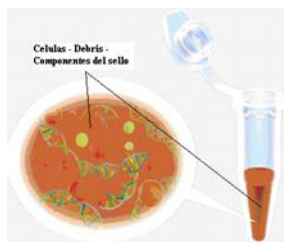
INHIBITOR REMOVAL

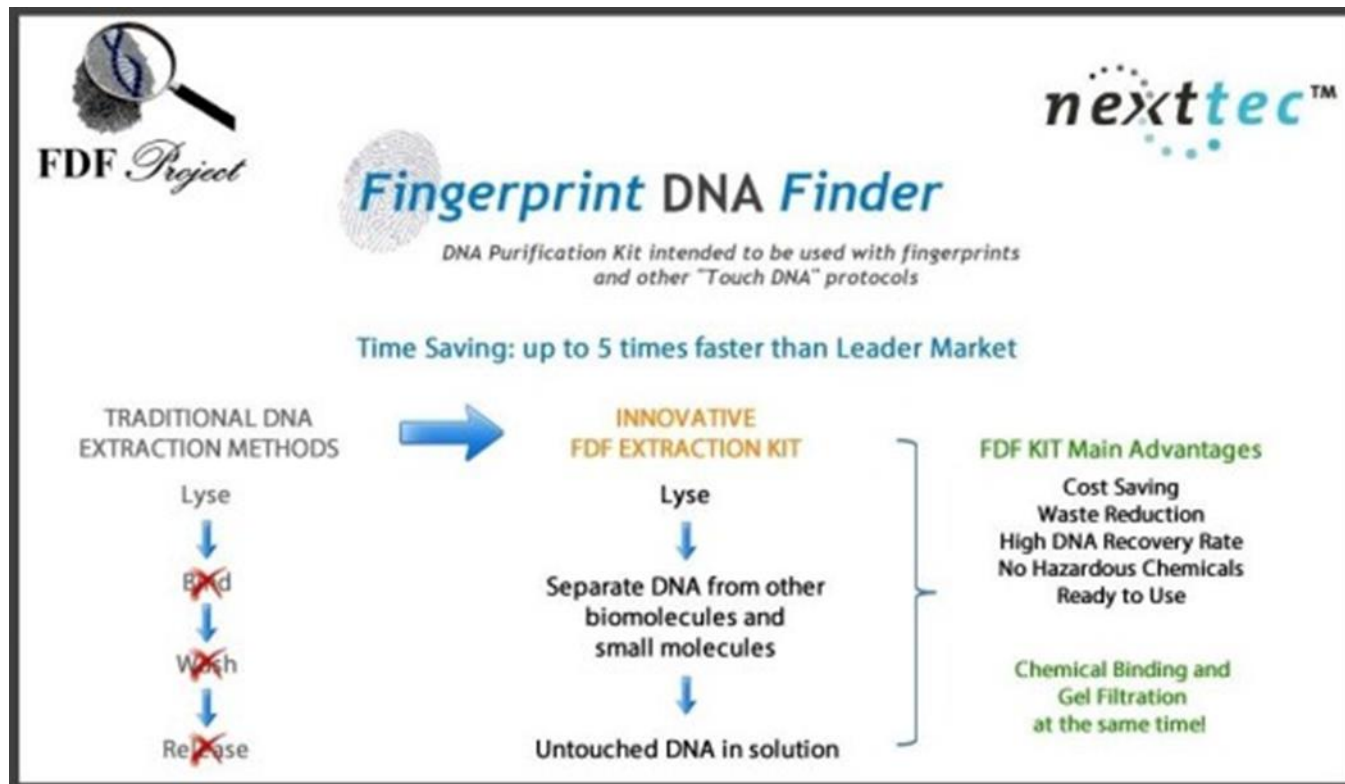ELECTROPHORETIC PROFILE OBTAINED: SAMPLE COM 24 PG/UL

PCR

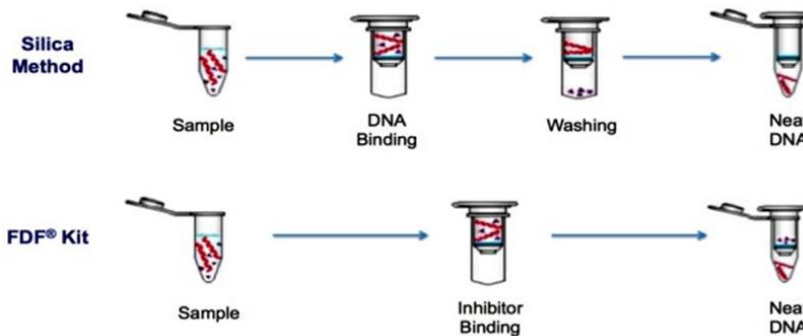SEQUENCING

GENETICS EXTRACTION KITS

NEXTTEC - FINGERPRINT DNA FINDER

NEXTTEC CHEMICALLY MODIFIED COLUMNS SPECIALLY REFORMULATED LYSE BUFFER EFFECTIVE REMOVAL OF PCR INHIBITORS IN SINGLE-COLUMN OR 96-WELL MICROPLATE FORMAT DOES NOT USE RESINS, ORGANIC SOLVENTS, OR MAGNETIC PARTICLES.

GRAPHOGENETIC DNA EXTRACTION AND PERFORMANCE OF NEXTECC FDF REAGENT VS QIAAMP DNA INVESTIGATOR QIAGEN REAGENT

PROTEINS, DETERGENTS, AND OTHER PCR INHIBITORS BIND TO THE SURFACE OF A SPECIAL SORBENT, WHILE NUCLEIC ACIDS PASS THROUGH THE COLUMN AND ARE RETAINED IN THE SOLUTION.

Silica Method: Sample → DNA Binding → Washing → Neat DNA

FDF® Kit: Sample → Inhibitor Binding → Neat DNA

DNA EXTRACTION METHOD BASED ON SILICA AND FDF®. PROTEINS, DETERGENTS, AND LOW-MOLECULAR-WEIGHT COMPONENTS BIND TO THE SORBENT, AND THE DNA IS WASHED THROUGH THE COLUMN.
THE ENTIRE PAPILLOGENETIC FINGERPRINT IMAGE RECORDED IN THE GRAPH WAS RUBBED WITH A SINGLE SWAB AND PRE-WETTED WITH 30 ML OR 20 ML OF FDF® LYSIS BUFFER FOR THE FDF KIT, AND 30 ML OF 2% SDS FOR THE INVESTIGATOR KIT.

FDF® IS ABLE TO EXTRACT A LARGE QUANTITY AND QUALITY OF DNA FROM FINGERPRINTS STAMPED ON THE ADHESIVE LAYER OF GRAPHENE STRIPS USING THE SWAB METHOD.
THE DNA INVESTIGATOR KIT PRODUCED THE HIGHEST DNA YIELDS OF ALL THE SAMPLES.
FDF® PRODUCED MORE CONCENTRATED DNA EXTRACTS AND HIGHER STR HIT RATES FOR ALL SAMPLES COMPARED TO THE INVESTIGATOR KIT.
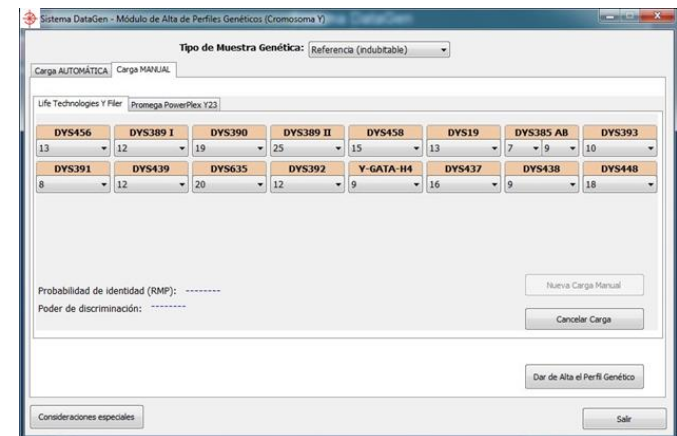
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GENETICS INTERFACES DATABASE

THROUGH THE DIFFERENT MODULES OF THE DATAGEN SYSTEM, IT IS POSSIBLE TO RECORD THE MARKERS OBTAINED IN THE GENETICS LABORATORY.
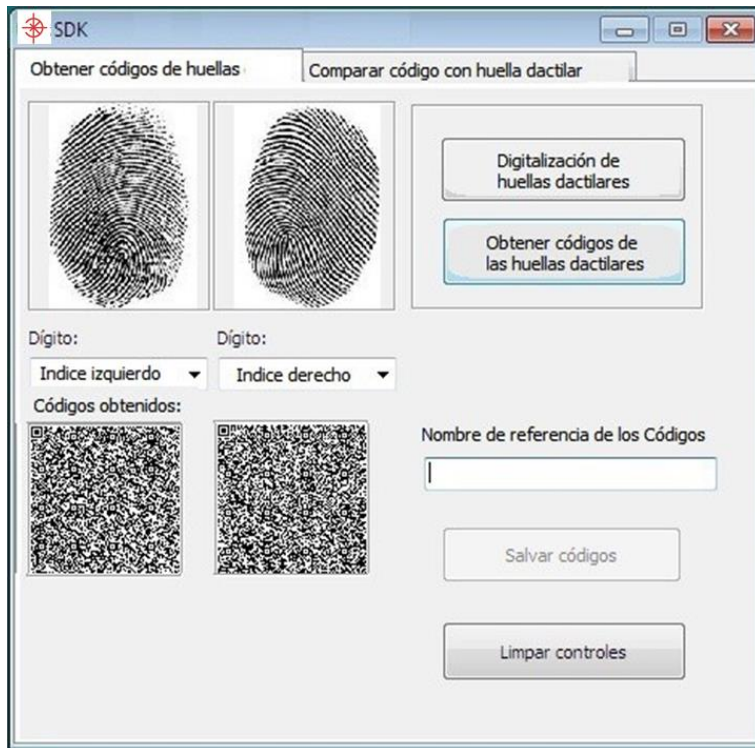
LOADING AUTOSOMAL MARKERS FROM DIFFERENT COMMERCIAL KITS. MANUAL AND AUTOMATIC LOADING
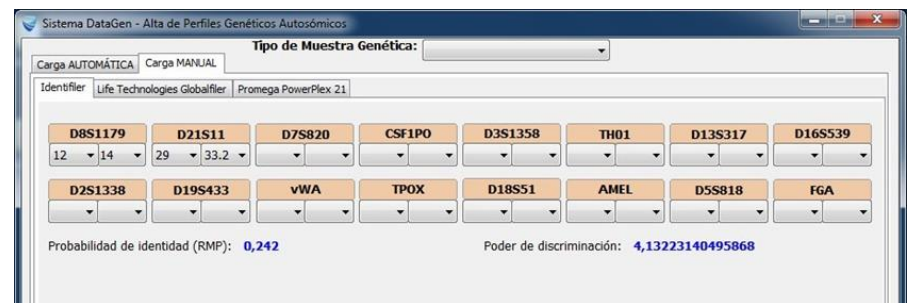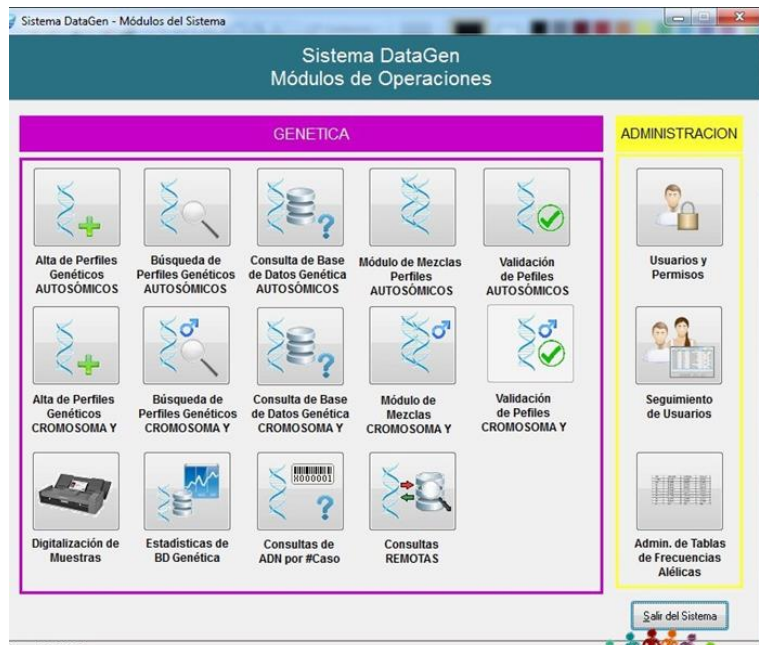
LOADING Y CHROMOSOME MARKERS FROM DIFFERENT COMMERCIAL KITS

SOFTWARE SDK FUNDAMENTALS

THE IMPORTANCE OF HAVING A MIXED DATABASE, IN WHICH THE FINGERPRINT ACTS AS A CHAIN OF CUSTODY OF THE DNA OBTAINED FROM THE SAME FINGERPRINT, BOTH BIOMETRIC ELEMENTS ACTING AS A DOUBLE SECURITY KEY FOR THE IDENTIFICATION OF THE PERPETRATOR OF AN ILLICIT OR IDENTITY FRAUD, ALLOWING THE SDK TO IMMEDIATELY IDENTIFY AND NULLIFY ANY ATTEMPT TO REPEAT OR REPEAT A CRIME WITH ANOTHER NAME AND FALSE DOCUMENTATION.

IT ALLOWS THE PHYSICAL INFORMATION OBTAINED THROUGH THE GRAPHIC TO BE CONVERTED INTO DIGITAL INFORMATION, BOTH THE FINGERPRINTS AND THE GENETIC PROFILES OF THE IDENTIFIED PERSON.

INCORPORATING INNOVATIVE STATE-OF-THE-ART PROCESSES IN THE READING OF BIOMETRIC AND GENETIC INFORMATION.

SYSTEM AND DEVELOPMENT TOOLS
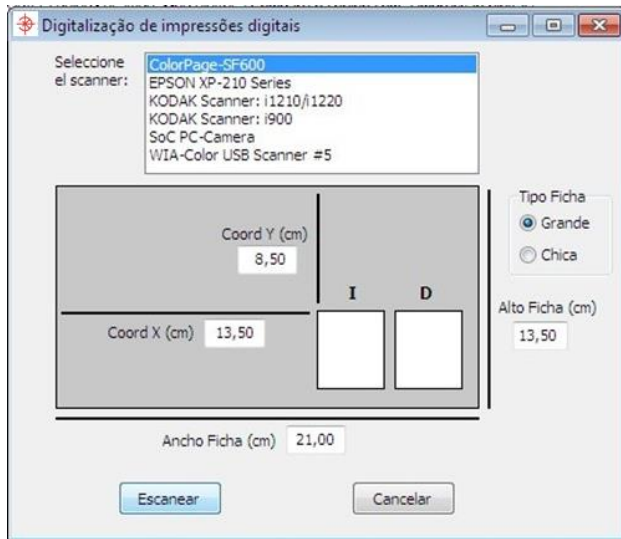
IT CONSISTS OF A DLL LIBRARY THAT PROVIDES THE NECESSARY FUNCTIONS TO SCAN, ENCODE IN QR CODE AND COMPARE INFORMATION RELATED TO FINGERPRINTS, WHICH WILL ALLOW THE CREATION OF A UNIQUE QR CODE FOR EACH PERSON.

THE DLL LIBRARY AND A USER INTERFACE ARE PROVIDED AS AN EXAMPLE, WITH SOURCE CODE. IT WORKS ON WINDOWS PLATFORM.

IT ALLOWS THE DEVELOPMENT OF APPLICATIONS WITH THEIR OWN INTERFACES WITH ALL THE FUNCTIONALITIES PROVIDED IN THE DLL. CONNECTS WITH DIFFERENT BASES OF OTHER SYSTEMS.
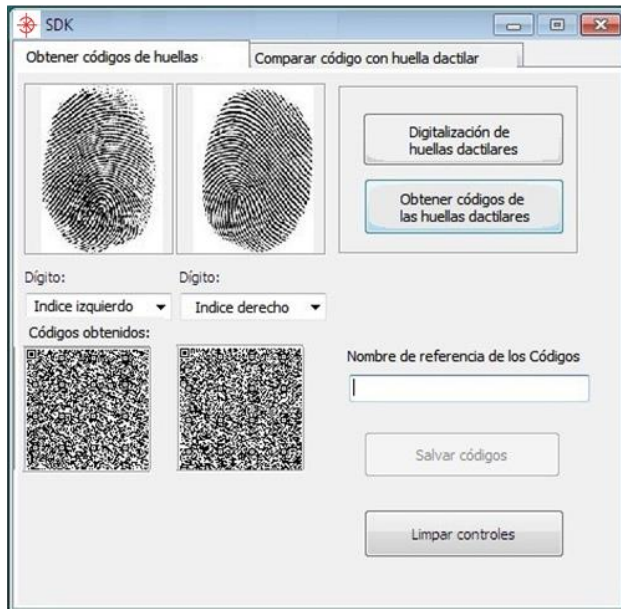


```
{$R *.dfm}

function CodificarHuella(Digito: Integer; handleHuella: HBITMAP; var cadena: PChar)
  : Integer;
stdcall external 'SDK.dll' name 'CodificarHuella';

  function Comparar(handleHuella: HBITMAP; cadena: PChar; Digito: Integer;
    var puntaje: Integer): Integer;
  stdcall external 'SDK.dll' name 'Comparar';
```
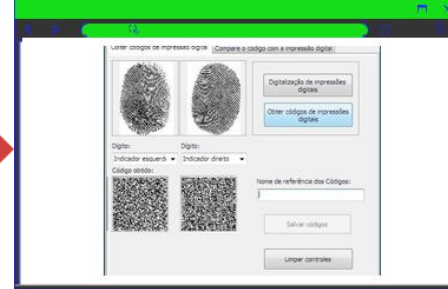
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STAGES OF THE DIGITAL PROCESS

COMPUTER CENTER STAGE

STEP 1

CAPTURE THE IMPRESSIONS FINGER
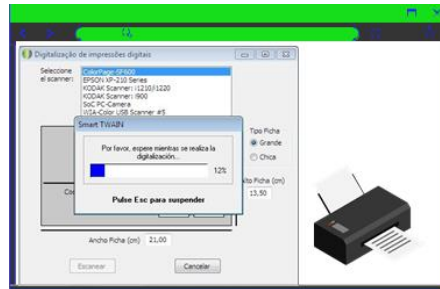
DIGITIZATION OF FILES

CODIFICATION OF THE FINGERPRINTS

FINAL STAGE
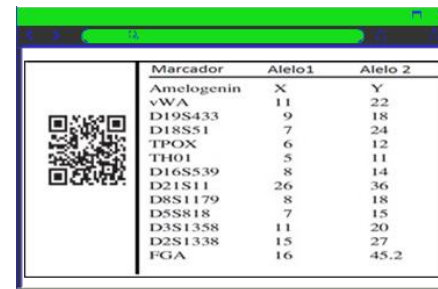
REGISTRO EN LA BASE DE DATOS

LABORATORY STAGE
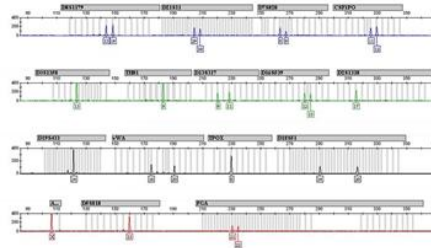
OBTAINING THE GENETIC PROFILE

CODING THE GENETIC PROFILE

FINAL CONSEQUENCE

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POSSESSING AN IDENTIFIED INDIVIDUAL ENSURES A GREATER DEGREE OF CERTAINTY AND CONSEQUENT SENSITIVE, INCREASING THE GENERAL SECURITY OF THE CITIZENRY.

FOR MORE INFORMATION, THESE ARE OUR CONTACT DETAILS:
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