



# Developed to check newly produced banknotes Analyses of samples; comparison with reference Classification in 'Quality Acceptance Levels'

#### **SNOWFISH QC BENEFITS IN A FEW WORDS....**

- Integrated quality control in one tool
- Objective results, immediately available and easily stored
- · Objective allocation of minor and major defects
- Data and images of each new banknote recorded and checked

#### **CHARACTERISTICS OF THE SF QC**

#### Reference

- Reference banknote, production or proof print, to define the characteristics, the tolerances and printing details
- Additional specifications and tolerances can be added
- Reference characteristics defined by central bank

# Analysis of the newly produced banknote(s)

- Detailed sample analyses
- Data and images are available within seconds after 'reading' a banknote
- Output compares checked sample with reference characteristics
- Report in the classifications 'A, B and C' defects, or in classes to be defined by the user
- Report in quantity or percentage of sample size
- Disputes with printers avoided as result of objective data

### Data storage

- Data and images stored and can be used for analyses and comparison
- Unique database for optimal insight and understanding of characteristics of newly printed banknote(s)

### Easy to use

- Practical size and ease of operation for usage of the SF QC at various locations, for instance the location of the banknote printer
- Table-top instrument; weight ± 12 kg
- Customization of a SF QC is possible on request

## **Manufacturing & Service**

IGT Testing Systems, Almere, the Netherlands



#### **FUNCTIONALITIES OF THE SF QC**

- Image capturing in high resolution
- Measurement of banknote size with edge, corner and print-register and cutting register information
- Positioning of design elements and tolerance definition
- Measurement of areas of interest
- Ability to mask area specific image elements
- Ability to mask specific image elements
- Security thread positioning compared with reference tolerance
- Watermark/window recognition and positioning compared with reference tolerance
- Relative colour comparison against reference note
- Colour comparison of unprinted paper against reference note
- Offset print
  - o Printing quality control (set-off, misprints) in comparison to reference note
  - SC-mark printing quality control
  - IR-printing quality control
  - UV-printing quality control
  - Measurement of magnetism
  - Micro-print quality control
- Intaglio print
  - o Height comparison against reference note
  - IR-printing quality control
  - Micro-print quality control
- Foil and hologram control of location and image
- Silk screen print control of location and image
- Numbering
  - OCR registration (20 character-sets currently)
  - o Phosphor print quality control in comparison to reference note

# **Attend our presentation**

"Snowfish QC: Innovative Tool for Quality Control for Central Banks"
Wilco de Groot
IGT Testing Systems (the Netherlands)
Wednesday, June 13
Morning banknote session

And meet us for a personal presentation Jan-Dirk Enschedé (enschede@pnoglobal.com)

