



Next Generation Identification (NGI)

Face Report Card

Oregon State Police

Version 1.0

December 2011



Prepared by:

Services, Evaluation and Analysis Unit
Next Generation Identification Program Office

b7E

TABLE OF CONTENTS

Preface.....	1
Purpose of the Face Report Card	1
The Importance of Image Quality in Facial Matching Systems	1
Documented Standards and Best Practices	2
ANSI/NIST-ITL 1-2011: Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information	2
Electronic Biometric Transmission Specification (EBTS) Version 9.3	2
Assessment Summary	3
Improvement Opportunities	4
Image Resolution	4
Lighting	4
Interference	4
Detailed Assessments by Category	6
Image Resolution	6
Applicable Specifications	6
Scoring	6
Improvement Suggestions.....	7
Lighting	8
Applicable Specifications	8
Scoring	8
Examples of Unacceptable Images	9
Improvement Suggestions.....	9
Pose	10
Applicable Specifications	10
Scoring	10
Examples of Unacceptable Images	11
Improvement Suggestions.....	11
Interference	12
Applicable Specifications	12

Face Report Card

Scoring	12
Examples of Unacceptable Images	13
Improvement Suggestions.....	13
Composition	14
Scoring	14
Examples of Unacceptable Images	15
Improvement Suggestions.....	15
Modality	16
Scoring	16
Improvement Suggestions.....	16

PREFACE

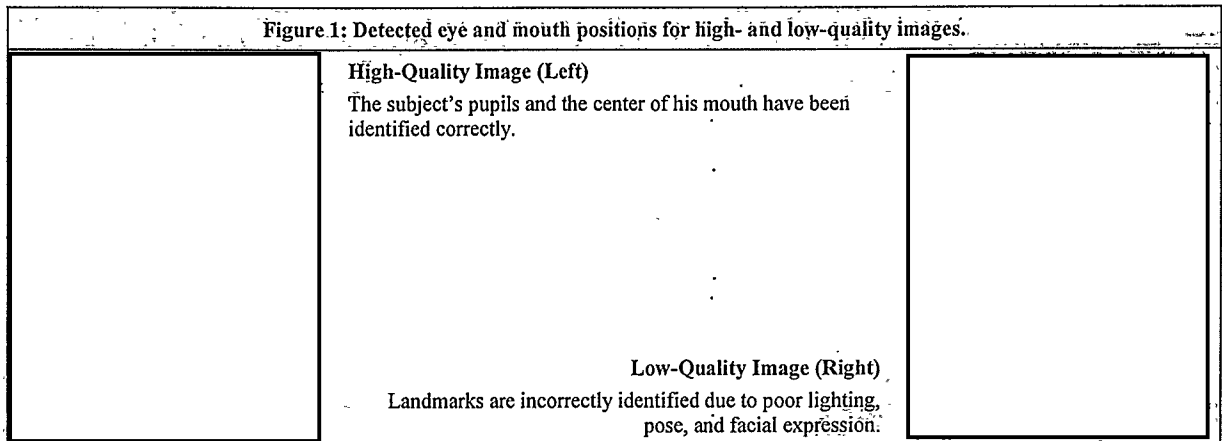
Purpose of the Face Report Card

The purpose of the Face Report Card is to provide feedback to individual agencies regarding the quality of images submitted. This feedback includes suggestions which, if followed, will improve the quality of future image submissions. As the quality of images submitted to the Federal Bureau of Investigation (FBI) improves, it is expected that agencies participating in the FBI's face matching systems will benefit.

The Importance of Image Quality in Facial Matching Systems

The performance of facial matching systems is highly dependent upon the quality of images enrolled in the system. Therefore, it is important that agencies submit images that meet, at minimum, specific image quality metrics and recommendations so system users may realize the maximum potential benefit.

Figure 1 demonstrates the negative impact a poor-quality image can have on the facial system's ability to detect a face. Note the high-quality image the landmarks, including the subject's eyes and the center of his mouth, have been correctly detected and marked. In the low-quality image, the system failed to detect the subject's eyes and mouth properly.



b6
b7C

Documented Standards and Best Practices

The following documents will be used as references throughout the Face Report Card. It is recommended that all law enforcement agencies which submit images to the FBI review these documents. Agency familiarity and compliance with these standards and best practices mitigates the risk of submitting an unsuitable, poor-quality image.

ANSI/NIST-ITL 1-2011: Data Format for the Interchange of Fingerprint, Facial & Other Biometric Information

This document is freely available from the ANSI/NIST-ITL¹ Standard Homepage.² It defines the format that must be used when transmitting biometric information. The following sections of the document should be reviewed:

1. 7.7.5 Subject acquisition profile / SAP / FAP / IAP
2. Annex E: Facial Capture Requirements and Recommendations

Electronic Biometric Transmission Specification (EBTS) Version 9.3

This document is freely available from the FBI Biometric Specifications (BioSpecs) website.³ The EBTS implements and conforms to the ANSI/NIST-ITL 1-2011 Standard and documents the requirements for transmitting biometric transactions to the FBI.

As noted in the Appendix K reference notes of the FBI EBTS v9.3, "Subject Acquisition Profile (SAP) values of 40 and above are preferred by IAFIS⁴/NGI for facial photo enrollment." Table 1, below, summarizes the minimum resolutions which must be met at each SAP level.

Table 1: Summary of Minimum Image Resolution for Select SAP Values

SAP Value	Minimum Resolution
30 – Basic Mugshot	480x600 (0.27 MP)
40 – High Resolution Mugshot	768x1024 (0.75 MP)
50 – Best Practice Mugshot	3300x4400 (13.85 MP)

¹ ANSI/NIST-ITL stands for American National Standards Institute/National Institute of Standards and Technology Information Technology Laboratory

² http://www.nist.gov/itl/iad/ig/ansi_standard.cfm

³ <https://www.fbibiospecs.org/ebts.html>

⁴ Integrated Automated Fingerprint Identification System

ASSESSMENT SUMMARY

Trained face examiners reviewed 14,408 images submitted to the FBI from the state of Oregon. These images were evaluated in the context of six major categories. A summary of the evaluation is provided in the table below. Detailed assessment information is provided in the next section.

Table 2: Report Card Score Summary

<p>Image Resolution</p>	<p>The images do not meet the minimum image resolution requirements: [] images [] do not meet the minimum resolution requirements of 0.3 megapixels. Only [] images [] of the images meet or exceed the FBI's recommended resolution of 0.75 MP.</p>	<p>Insufficient</p>	<p>b7E</p>
<p>Lighting</p>	<p>More than [] of the submitted images are negatively affected by lighting conditions: [] images [] are impacted by harsh lighting and [] images [] are impacted by low lighting.</p>	<p>Insufficient</p>	<p>b7E</p>
<p>Pose</p>	<p>Less than [] of the submitted images are negatively affected by the subject's pose: [] are impacted by pitch, [] are impacted by roll, and [] are impacted by yaw. In total, [] images [] are negatively impacted by one or more improper pose angles.</p>	<p>Good</p>	<p>b7E</p>
<p>Interference</p>	<p>More than [] of the submitted images are affected by obstructions which block all or part of the subject's face, profile, or outline: [] images [] had an inappropriate background, hair obscured the subject's face in [] images [] and [] images [] were negatively impacted by dark glasses or glare off of the lenses.</p>	<p>Insufficient</p>	<p>b7E</p>
<p>Composition</p>	<p>Between [] and [] of the images are negatively impacted by improper composition characteristics: the subject was not centered in [] images [] and the subject had an inappropriate facial expression in [] images []</p>	<p>Acceptable</p>	<p>b7E</p>
<p>Modality</p>	<p>Less than [] of the submitted images are incorrectly identified as face images. [] scar, mark, or tattoo images [] were included in this dataset. Only face images should have been included.</p>	<p>Good</p>	<p>b7E</p>

Improvement Opportunities

Image Resolution

b7E

The median image resolution for this image collection was MP (megapixels) which is well below the recommended image resolution of 0.75 MP. If possible, the FBI recommends the purchase of new image capture devices capable of capturing images at resolutions exceeding 1.3MP. Such devices are available for under \$100. Submitting images at a resolution of 1.3MP would improve the score in this category from “Insufficient” to “Good.”

Lighting

It is difficult to create an ideal lighting environment, but it is important to create a lighting environment in which the detail of the subject’s face is not lost in highlights or shadows. Figure 2, below, may be used as a reference for adequately illuminating the subject without introducing shadows on the subject’s face. Review the detailed assessment of the lighting category for additional improvement suggestions.

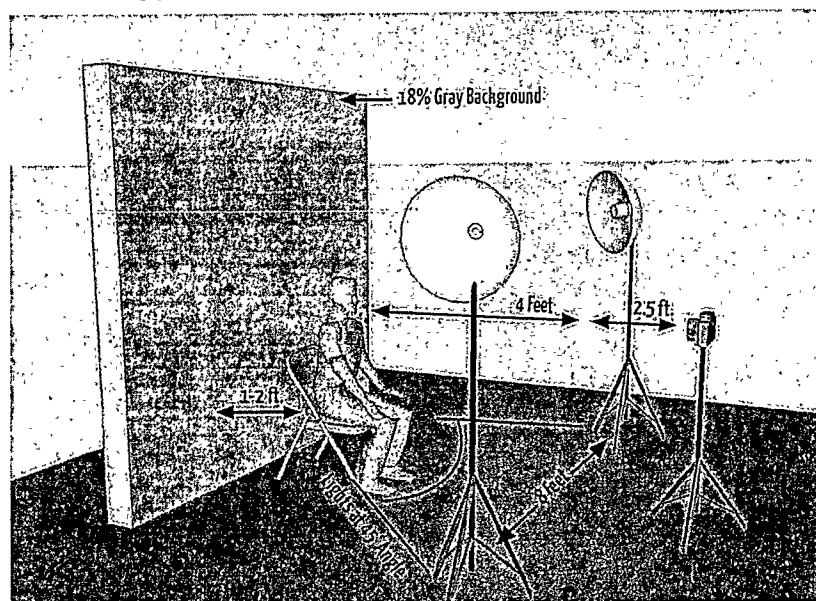


Figure 2: A sample lighting arrangement.

Interference

b7E

The most common deficiency in this category is background behind a subject; it accounts for of all interference-related feedback items identified by the face examiners. This deficiency can be addressed by positioning the subject in front of a uniform gray, matte (dull, flat, and without texture) surface prior to taking the picture. It is possible to produce a satisfactory surface by purchasing a portrait background for approximately \$50 or painting a surface using a paint that simulates an 18% uniform gray background.⁵

⁵ ANSI/NIST-ITL 1-2011 indicates that Olympic’s Premium Interior Latex Eggshell, Base 3 - 72403, 101-1Y31.5, 109-8.5 and Benjamin Moore & Co.’s Premium Interior Latex Flat Finish Wall Satin, Medium Base 215 2B, Formula: OY-8½ RX-3/4 BK-21 GY-4 WH-10, Area/Tint Code: B can satisfactorily approximate an 18% gray surface.

Face Report Card

If all instances of background deficiencies were to be corrected, the percentage of acceptable images for this component would increase from [] This would, in turn, result in an improved score of "Acceptable" for this component.

b7E

The second most common deficiency in this component is the presence of hair which obscures the face (facial hair is not included). This deficiency accounted for [] of all interference-related feedback items, but it can be effectively corrected simply by positioning the subject's hair so that it does not obscure the face. If, in addition to correcting the deficiencies in background interference, all instances of hair-related feedback items were corrected, the percentage of acceptable images for this component would increase from []

DETAILED ASSESSMENTS BY CATEGORY

Image Resolution

Image resolution measures how much detail is stored in a digital image. It is generally measured in megapixels (MP) where 1 MP is approximately equal to 1 million pixels. For images taken with a digital camera, image resolution can be estimated by multiplying the image's width and height (in pixels) and dividing by 1,048,576.

Applicable Specifications

The ANSI/NIST-ITL 1-2011 standard specifies face images must be at least 480 pixels in width and 600 pixels in height; however, the FBI's EBTS prefers images which meet the Subject Acquisition Profile Level 40. SAP-40 images must be at least 768 pixels in width and 1024 pixels in height.

Scoring

The score for this section is determined by calculating the median image resolution from the entire collection of images your agency submitted to the FBI.

Table 3: Image Resolution Metrics

Resolution (MP)	< .30	.30 - .75	.75+	Median
Frequency				

b7E

Table 4: Image Resolution Scoring Criteria

Score	Criteria
Good	The median image resolution is greater than or equal to .75 MP.
Acceptable	The median image resolution is greater than or equal to .30 MP but less than .75 MP (the preferred image resolution according to the FBI's EBTS).
Insufficient	The median image resolution is less than .30 MP (the minimum image resolution according to ANSI/NIST-ITL 1-2011).

Improvement Suggestions

Lighting

The Lighting category evaluates the ways poor lighting environments negatively impact the quality of submitted images.

Applicable Specifications

ANSI/NIST-ITL 1-2011 provides the following guidance for image lighting:

- Subject illumination shall be accomplished using a minimum of three (3) point-balanced illumination sources.
- Appropriate diffusion techniques shall be employed and lights positioned to minimize shadows and eliminate hot spots on the facial image.
- The region of the face, from the crown to the base of the chin, and from ear-to-ear, shall be clearly visible and free of shadows. In particular, there shall be no dark shadows in the eye-sockets due to the brow, and the iris and pupil of the eyes shall be clearly visible.
- Proper lighting shall contribute to the uniformity of illumination of the background.
- There should be no shadows visible on the background behind the face image.
- Unnaturally colored lighting is not allowed. The lighting shall produce a face image with natural looking skin tones when viewed in typical examination environments. "Red-eye" is not acceptable.

Scoring

b7E



Table 5: Lighting Metrics

Lighting	Harsh Lighting	Low Lighting	Other	Total
Frequency				

Table 6: Lighting Scoring Criteria

Score	Criteria
Good	The percentage of images that is negatively impacted by lighting conditions is less than 10%.
Acceptable	The percentage of images that is negatively impacted by lighting conditions is greater than or equal to 10% but less than 25%.
Insufficient	The percentage of images that is negatively impacted by lighting conditions is greater than or equal to 25%.

Examples of Unacceptable Images

Figure 3: Examples of Unacceptable Images (Lighting)



b6
b7C

Low Lighting

Harsh Lighting

Unnatural Color

Improvement Suggestions



b7E

Pose



Applicable Specifications

ANSI/NIST-ITL 1-2011 provides the following specifications regarding the subject's pose in a mugshot:

- The full-face or frontal pose is the most commonly used pose in photo lineups and shall always be captured.
- For full profile images, the entire body should be rotated with the head.
- The uncertainty in the Yaw pose angle determination shall be less than 5 degrees of the frontal photograph.
- The uncertainty in the Pitch and Roll angles shall be less than 5 degrees.

Scoring

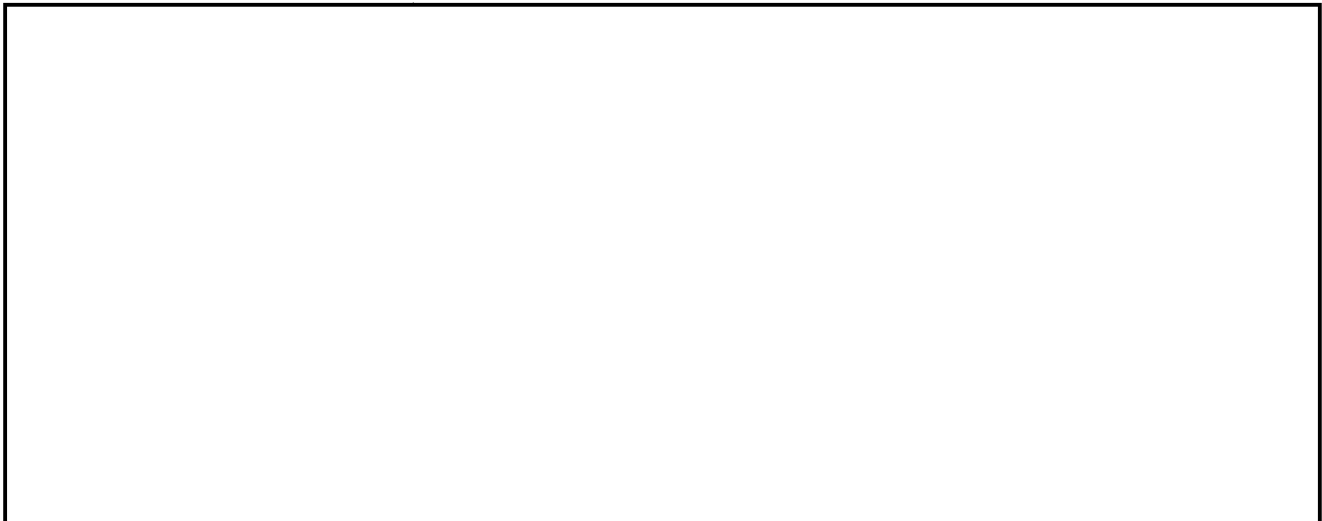


Table 7: Pose Metrics

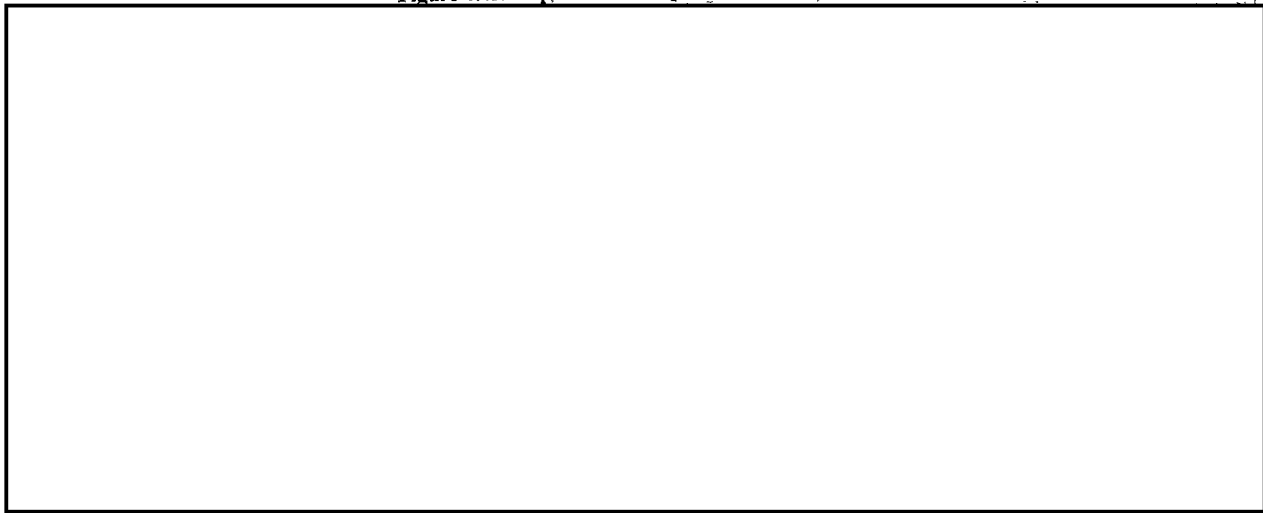
Pose	Pitch	Roll	Yaw	Total
Frequency				

Table 8: Pose Scoring Criteria

Score	Criteria
Good	Less than 10% of the images are negatively impacted by improper pose.
Acceptable	Between 10% and 25% of the images are negatively impacted by improper pose.
Insufficient	More than 25% of the submitted images are negatively impacted by improper pose.

Examples of Unacceptable Images

Figure 4: Examples of Unacceptable Images (Pose)



b6
b7C

Pitch

Yaw

Roll

Improvement Suggestions

b7E



Interference

b7E

Applicable Specifications

ANSI/NIST-ITL 1-2011 provides the following recommendations for limiting the amount of disruptions in an image:

- Ensure that the background completely fills the image frame behind the subject. If possible, avoid the presence of any visible shadows and other objects in the background, such as a clock face.
- Head coverings, including hats and scarves, shall not be worn. The full face and ears must be displayed.
- The subject's hair shall be moved to reveal the full face and ears. If hair covers the ears, then when possible, two photographs shall be captured – one with hair in its normal state, and one with hair pulled back behind the ears.
- For subjects who normally wear eyeglasses, every effort should be made to capture the mugshots with the glasses on. If significant glare in the glasses is evident in the photograph, then a second frontal mugshot image should be captured of the subject without glasses.
- The subject's face should not be presented with heavy makeup, dirt, blood, etc.
- Only one face per image is allowed.
- If bruising, injuries, bandages, or medical conditions exist, these shall be captured as is.

Scoring

b7E

Table 9: Interference Metrics

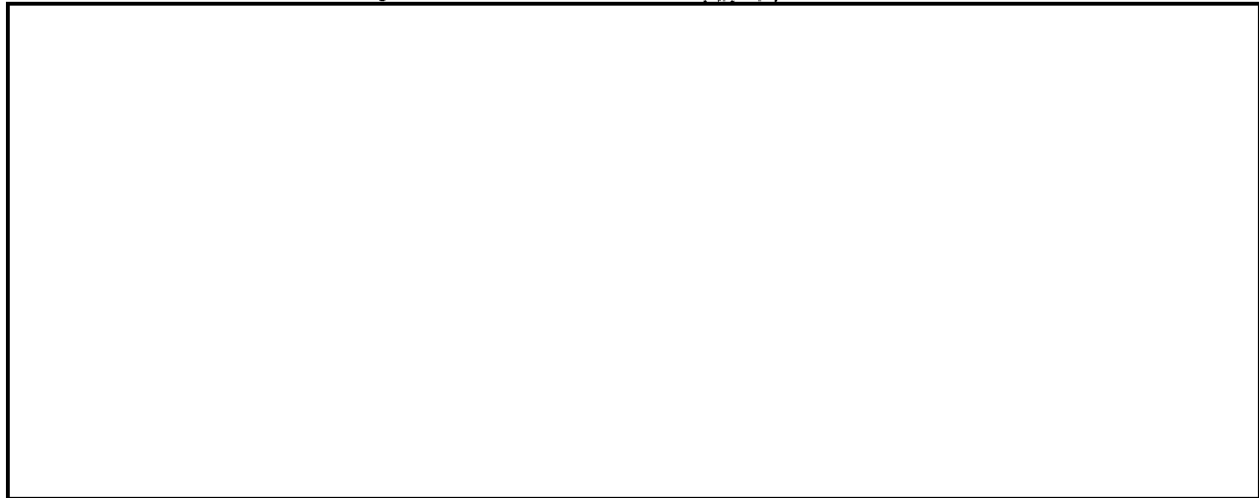
Obstruction	Burka/Hair/Hat	Glasses	Background	Other	Total
Frequency					

Table 10: Interference Scoring Criteria

Score	Criteria
Good	Less than 10% of the images are negatively impacted by obstructions.
Acceptable	Between 10% and 25% of the images are negatively impacted by obstructions.
Insufficient	More than 25% of the submitted images are negatively impacted by obstructions.

Examples of Unacceptable Images

Figure 5: Examples of Unacceptable Images (Interference)



b6
b7C

Background

Dark or Tinted Glasses

Hair Obscures Face

Improvement Suggestions



b7E

7(E)

Composition

--

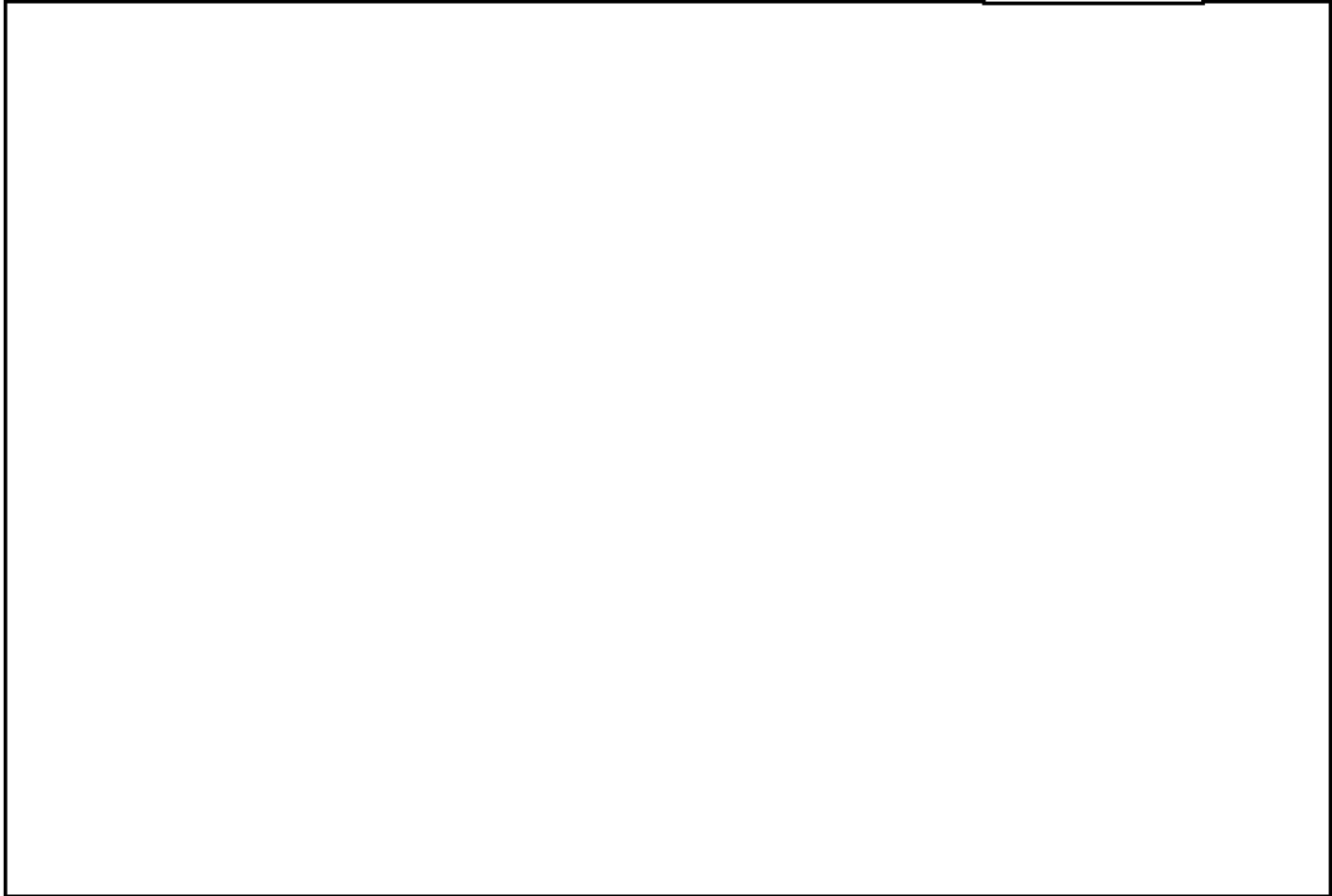


Table 11: Composition Metrics

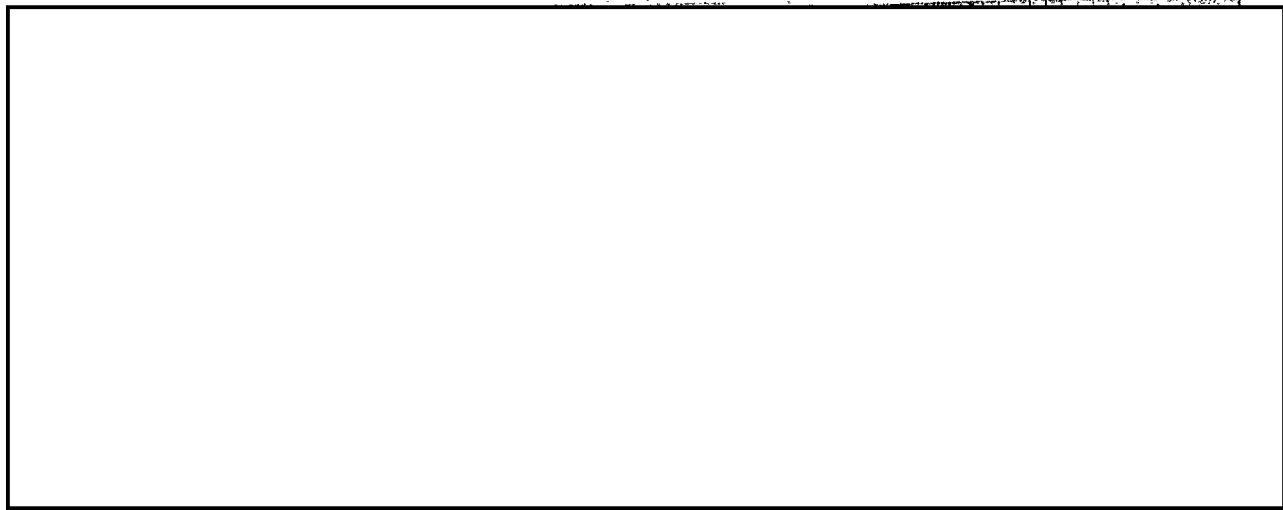
Obstruction	Facial Expression	Not Centered	Total
Frequency			

Table 12: Composition Scoring Criteria

Score	Criteria
Good	Less than 10% of the images are negatively impacted by improper composition characteristics.
Acceptable	Between 10% and 25% of the images are negatively impacted by improper composition characteristics.
Insufficient	More than 25% of the submitted images are negatively impacted by improper composition characteristics.

Examples of Unacceptable Images

Figure 7: Examples of Unacceptable Images (Composition)



b6
b7C

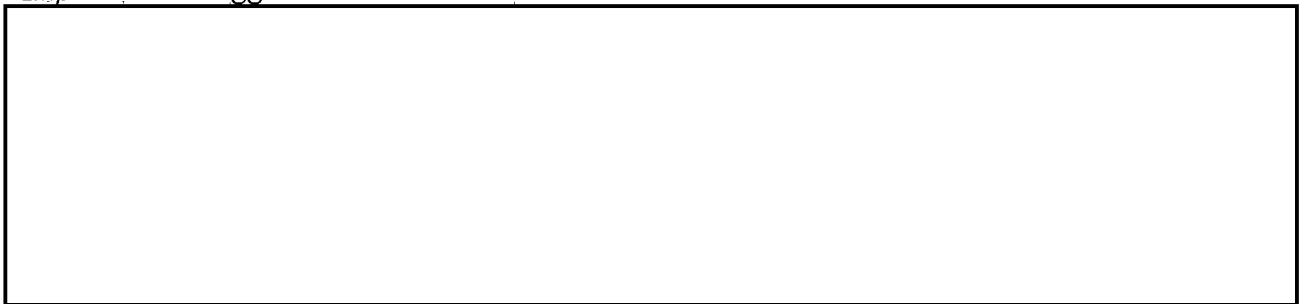
Clipped

Facial Expression

Other - Rotated Image

Improvement Suggestions

b7E



Modality

The modality component of the Face Report Card measures, as a percentage, the number of images which should not have been submitted as Type-10 Face record. Type-10 Face record is characterized as having a value of FACE in the 10.003 field of the record per the EBTS. If the image included in a Type-10 Face record is not a face image, it is considered unacceptable, and it should not have been included in the submission.

Scoring

Scoring for this component is determined using the following process:

1. Face examiners review the images included in Type-10 Face records and mark any images that are not faces as a **fingerprint, palm print, iris, SMT, or other modality**.
2. The count of images identified as non-face images is multiplied by 100 and then divided by the total number of images in the collection. The value is rounded to the nearest integer; values which have a fractional component of ½ are rounded to the nearest even number (e.g. 83.3 rounds to 83, 83.5 rounds to 84, and 84.5 rounds to 84).

OK

Table 13: Modality Metrics

Modality	Finger/Palm	Iris	SMT	Total
Frequency				

b7E

Table 14: Modality Scoring Criteria

Score	Criteria
Good	Less than 5% of the images are incorrectly categorized according to the 10.003 field.
Acceptable	Between 5% and 10% of the images are incorrectly categorized according to the 10.003 field.
Insufficient	More than 10% of the submitted images are incorrectly categorized according to the 10.003 field.

b7E

Improvement Suggestions

--

Universal Facial Workstation Frequently Asked Questions

The Universal Face Workstation (UFW) software has been developed unilaterally with the facial recognition search function of the NGI Interstate Photo System initiative. The UFW software is being provided to law enforcement free of charge. UFW will provide law enforcement agencies without established facial recognition systems the ability to send, receive, and view facial recognition transactions and participate in the FBI's Interstate Photo System Facial Recognition Pilot (IPSFRP) and eventually Increment 4 full operating capability.

1. Please describe the Universal Facial Workstation (what it consists of)
UFW is software that allows users to make photo enhancements, submit probe images to the FBI for a facial recognition search and receive candidate list in return.
2. Is the FBI/CJIS providing the hardware and software or just the software?
Software
3. Is there any hardware, software, network or security requirement to participate in this Project?
The UFW software can be installed on multiple operating platforms but needs to access the CJIS WAN for submissions. The UFW meets criteria delineated in the CJIS Security Policy.
4. If the State is providing the technology, could the State be assigned more than one unit?
Upon release of the 1.0 version this summer, multiple copies of the UFW software can be delivered.
5. Would training be provided?
Yes
6. How soon the training will take place?
It can be conducted during delivery of the UFW software this summer.
7. Any limit number of State/agency staff to receive training?
No (within reason)
8. Would the FBI/CJIS provide the system support?
Yes, minor configuration will need performed on UFW and will be handled remotely from CJIS.
9. Would the State be able to access the entire database or be limited to just the mug shots we have submitted?
The State/local agency would have access to the IPSFRP repository which is approximately 12.5 million mug shots.
10. Would there be a Help Desk toll free number where to call to report problems and answer questions regarding the use of the unit(s)?
Several numbers will be provided for assistance but none are toll free.
11. Would the UFWs be using the existing connection (CJIS WAN) used by AFIS to connect with the FBI?
Yes
12. Would the FBI/CJIS staff be responsible for connecting the workstation(s) to the FBI?
FBI staff can install the UFW on site at the State/local agency if requested but it is preferred that State/local agency technical Staff perform the installation.

13. What are the requirements to participate in the project?
They are delineated in the IPSFRP MOU and Technical Specification documents.
14. For long the pilot project will last?
The IPSFRP will last until full operating capability (FOC) in 2014.
15. What is next after the pilot project?
FOC will include all enhancements (SMT text based searches, bulk submissions, easy searching of photos, access to special population files) to the NGI Interstate Photo System initiative.
16. After the pilot project is completed, is the State/local agency obligated to anything?
No, participation in the pilot and NGI FOC are on a volunteer bases. State/local agency will be asked to continue to provide success stories and statistical information (if an identity is made from a candidate list and what rank) upon transition from pilot to FOC. General feedback is always welcome.
17. How soon the FBI will be able to provide the workstation(s)?
The UFW 1.0 version is software and will be available this summer.
18. How soon the State/local agency would be able to use the workstation(s)?
The UFW 1.0 version is software and could be used shortly after installation and configuration.
19. Will the program be available to only State/local agency users or to local users too?
The software is for law enforcement agencies only and access should be determined by State/local agency
20. If available to local users, how would they access the information?
Depends on where the software is installed (at the CSA or Local Agency)
21. Can the program be placed on the State/local agency web portal?
No, the software was developed to be a standalone workstation.
22. What are the minimum requirements for the servers involved in this project?
This is TBD, but current development is being done on VM blade servers with dual Intel Xeon 5600 processors and 8GB of RAM. More information will be available as we complete each stage of development.
23. What is the operating system of the software?
Windows, Mac OS, and Redhat/CentOS
24. What operating system will the client run on?
Windows, Mac OS, and Redhat/CentOS
25. What are the implementation instructions?
This will vary from one installation to the next. UFW/BIP is being designed to support Zero Configuration which allows the UFW, at startup time, to find the BIP and to gather all required configuration information from the BIP. This allows for lightweight client installations, and even network based invocation techniques such as Webstart. Documentation will be provided to guide System Administrators through the install process for the 1.0 release. This will also provide a list of open source dependencies that will be required to install/run UFW/BIP. Currently the install guide is specific to our internal CJIS deployment plans.

Classification: UNCLASSIFIED

b6
b7C

Attached below is the latest version of the IPS Renewal PTA. Thank you so much for your assistance in this regard.

From: [redacted] (FBI)
Sent: Tuesday, June 05, 2012 8:55 AM
To: [redacted] (FBI)
Subject:

Classification: UNCLASSIFIED

<< File: version 2 march 12.docx >>

Classification: UNCLASSIFIED

Classification: UNCLASSIFIED

Classification: UNCLASSIFIED

Classification: UNCLASSIFIED

This document is shielded from disclosure by the Attorney Work Product Doctrine, the Attorney-Client Privilege, and/or the Deliberative Process Privilege, and is not to be produced outside of the FBI without the written authorization of the FBI Access Integrity Unit or the FBI Office of General Counsel.

Subject: FW: NGI

We just formatted it differently we sent it over to DOJ.

From: [redacted]
Sent: Monday, July 09, 2012 10:40 AM
To: [redacted]
Subject: NGI

b6
b7c

[redacted] asked me to forward this document to you.

Thanks,

[redacted]

[redacted]

Next Generation Identification Program Office

[redacted]

This document is shielded from disclosure by the Attorney Work Product Doctrine, the Attorney-Client Privilege, and/or the Deliberative Process Privilege, and is not to be produced outside of the FBI without the written authorization of the FBI Access Integrity Unit or the FBI Office of General Counsel.

b7E

[redacted]

To: [Redacted]
Cc: [Redacted]

b6
b7C

Subject: FW: FOIA Request for FBI FR

All,

[Redacted]

b5
b6
b7C

[Redacted]
FBI-CJIS [Redacted]
Sent via BlackBerry [Redacted]

b6
b7C

From: [Redacted]
Sent: Tuesday, June 26, 2012 1:31 PM
To: [Redacted]
Subject: FOIA Request for FBI FR

b6
b7C

[Redacted]

[Redacted]

b5
b6
b7C

[Redacted]

b6
b7C

This document is shielded from disclosure by the Attorney Work Product Doctrine, the Attorney-Client Privilege, and/or the Deliberative Process Privilege, and is not to be produced outside of the FBI without the written authorization of the FBI Access Integrity Unit or the FBI Office of General Counsel.

b7E

[Redacted]

FW: FOIA Request for FBI FR

(b)(6)
(b)(7)(C)

b6
b7C

[Redacted]

Sent: Wednesday, June 27, 2012 9:26 AM

To: [Redacted]

Cc: [Redacted]

Attachments: FOIA Electronic Frontier.pdf (62 KB)

b6
b7C

[Redacted]

b5
b6
b7C

Thank you.

[Redacted]

b6
b7C

FBI CJIS Division/Next Generation Identification Program Office
Implementation & Transition Unit

[Redacted]

(Office) b6
(Mobile) b7C

From: [Redacted]

Sent: Tuesday, June 26, 2012 2:36 PM

b6
b7C

To: [Redacted]

Cc: [Redacted]

Subject: FW: FOIA Request for FBI FR

All,

[Redacted]

b5
b6
b7C

[Redacted]

FBI-CJIS [Redacted]
Sent via BlackBerry [Redacted]

b6
b7C

From: [Redacted]

b6
b7C

Sent: Tuesday, June 26, 2012 1:31 PM

To: [Redacted]

Subject: FOIA Request for FBI FR

[Redacted]

[Redacted]

b5
b6
b7C

[Redacted]

b6
b7C

This document is shielded from disclosure by the Attorney Work Product Doctrine, the Attorney-Client Privilege, and/or the Deliberative Process Privilege, and is not to be produced outside of the FBI without the written authorization of the FBI Access Integrity Unit or the FBI Office of General Counsel.

[Redacted]

FW: Facial Recognition Technology Spurs Privacy Concerns for Feds (Government Technology News)

[Redacted]

b6
b7C

Sent: Monday, October 24, 2011 8:56 AM

To: [Redacted]

Landon, James J.

OK for release

FYI, the Senior Senator from WV seems to be concerned about privacy issues associated with facial recognition.....

From: [Redacted]

b6
b7C

Sent: Monday, October 24, 2011 7:38 AM

To: [Redacted]

Subject: Facial Recognition Technology Spurs Privacy Concerns for Feds (Government Technology News)

FYI...

Facial Recognition Technology Spurs Privacy Concerns for Feds
October 21, 2011 By Brian Heaton

Facial recognition software is increasingly being used by both the public and law enforcement. But while the benefits, such as assisting police and federal agencies to keep criminals off the streets, are obvious, at least one member of Congress is concerned about privacy ramifications from the rapidly advancing technology.

According to various news reports, Sen. John D. Rockefeller IV, D-W.Va., asked the Federal Trade Commission (FTC) on Wednesday, Oct. 19, for a report on the security impacts of facial recognition technology. Rockefeller, who is the chairman of the Commerce, Science and Transportation Committee, asked for the FTC's recommendations by Feb. 9, 2012.

"As in many fast growing and changing sectors, public policy has not kept pace with the development of this sort of technology," Rockefeller wrote in a letter to FTC Chairman Jon Leibowitz. "The privacy concerns are evident. As the Commerce Committee considers privacy legislation in the future, we will need to understand the capabilities of this technology as well as the privacy and security concerns raised by their development."

Rockefeller's request is timely, as the FTC is holding a free workshop on Dec. 8 to address facial recognition technology concerns and privacy implications. The workshop will feature guests from consumer protection organizations, academics and business as well as industry representatives and privacy professionals.

Nextgov's Aliya Sternstein reported that the FBI plans to launch a nationwide facial recognition service for law enforcement agencies in various states by January 2012. If the system works as described, authorized personnel will be able to upload a photo of a person and receive a list of mugshots ranked by how similar the features of the person are to those in the photo.

Although the tool won't provide an exact match, it will help to identify hits from the FBI's biometric identification system.

Sean Mullin, CEO of BI2 Technologies, which created the Mobile Offender Recognition Access Integrity Unit or the FBI Office of General Counsel.

is shielded from disclosure by the Attorney Work Product Doctrine, the Attorney-Client Privilege, and/or the Deliberative Process Privilege, and is not to be produced outside of the FBI without the written authorization of the FBI.

[Redacted]

