X9 REGISTRY FOR CHECK IMAGE TESTS

FSTC Piggyback Document #012.00

Check Image Test Status: A

Where:
A = Active (approved for use)
W = Withdrawn (not for use)
S = Superseded (not for use - replaced by specified test)

Check Image Test Summary:

Field/ Element	Defined Values	Recommended Value	Data Units
Image Test Name	FSTC Piggyback Document		
Image Test Number	012.00		
Image Test Version	00		
Image Test Results (Ref. #):			
Piggyback Image (R1)	0,1		Boolean
Image Test Parameters (Ref #):	This test has no Test Parameters		

1.0	Applicant Information	
1.1	Organization Name:	**Financial Service Technology Consortium**
1.2	Organization Address:	**44 Wall St. 12th Floor New York, NY 10005**
1.3	Organization Web Site URL:	www.fstc.org

2.0	Image Test Description	
2.1	**Image Test Name:**	FSTC Piggyback Document
2.2	**Image Test XML Name:**	PiggybackDocument
2.3	**Image Test Definition:**	A piggyback image defect occurs when two or more documents are present and overlapped within the document image.
2.4	**Image Test Applicability:**	☒*Front Image* ☒ *Rear Image* ☒*B/W Image* ☒*Grayscale Image* ☒ *Color Image*
2.5	**Intended Use:** Intended business use/ application, business context, and business impact when test fails.	FSTC recommends this metric for use as part of a general system-health monitoring and image quality assurance program. The Piggyback Document metric is used to flag the presence of an image which may contain more than one document. The business impact may include: - Information in one or more data fields can be obscured by the overlapping document. - Legibility problems may occur depending on the degree of overlap and the alignment of the documents within the image. - Piggyback documents are an indicator that a document is missing in the image capture process. - Piggyback documents may expose one customer's information to another customer in the statementing or image viewing process. This may be considered a privacy breach. - Reconciling outages. - Differences from transit items dispatched "free". - Increased adjustment rate affecting downstream partners.

		- Potential losses due to lost information. - Potential for missing/extra items in customer statements (Day 2 impact). - Creating a missing item charge. - The piggybacked item will not be charged to either an on us account or out the door as a transit item. - No information on the piggybacked item (item behind) since the only part you can see on film is the back. - If the item information can be obtained either from the system or the depositor, and it is a transit item, a collection letter will need to be sent to verify if the item has been paid. - If the original item has not been paid you will need to send a substitute documentary draft to collect the funds.
2.6	**Possible Causes for Condition Being Tested:**	Overlapped or piggybacked documents are generally due to: - Poor document quality, including sticky materials or abrasions. - Poor document work preparation prior to sorting/capture. - Mechanical handling and control problems within the document transport feeder or track.
2.7	**Additional (or Repetitive) Information:**	**XML Names**: FSTC defined XML names as needed for its project. FSTC is not submitting these XML names, and instead requests that the RMG or X9B assign appropriate XML names and data structures for the metrics. **Margin of Error**: FSTC established a margin of error for use during the FSTC Image Quality and Usability Phase 2 project. This margin of error is included in the recommendations below. It was established based on the expertise of the project's membership, the potential for various algorithms to produce slightly different results for a given metric, and the observed precision of the results submitted during accuracy testing of metric implementations. **Value Reporting**: The value of this metric will be reported under all image quality flag conditions. If the defect condition is "not tested" or "indeterminate", the value of the image metric(s) reported for this defect will be set to zero (0).

2.8	**Test Results Reported**
	A test result is the outcome realized from executing an image test. The outcome will typically be the observed or measured value of some attribute pertaining to the image being tested.
	Any dependency of a test result on an image side (front or rear), image rendition (B/W, Gray, Color), or other condition shall be fully defined in the Additional Information section.
	Data types allowed are as defined in ANS X9.100-180-2006, but are typically alphabetic, numeric, alphanumeric, signed numeric (using "+" and "-" to denote sign), etc.

2.8.1 First Image Test Result (R1)

Test Result Name: Piggyback Image

Test Result XML Name:	Data Type:	Data Units:	Data Range:	Margin of Error (in Data Units) (Where Applicable):
PiggybackImage	Numeric	Boolean	0, 1	
Description:	A test result indicating that a piggyback condition was detected on the image view of the check. Defined Values: "0" A piggyback condition was not detected on the image view "1" A piggyback condition was detected on the image view			
Formula and/ or Algorithm:				
Additional Information:	See section 2.7			

2.9	Test Parameters Reported
	Examples of image test parameters are threshold values used to compute a pass/fail image test flag condition, and constant values used in a formula or algorithm to compute an image test result.
	Any dependency of a test parameter on an image side (front or rear), image rendition (B/W, Gray, Color), or other condition shall be fully defined in the Additional Information section.
	Any dependency of recommended values on an image side (front or rear), image rendition (B/W, Gray, Color), or other condition shall be fully defined in the Recommended Values section.
	Data types allowed are as defined in ANS X9.100-180-2006, but are typically alphabetic, numeric, alphanumeric, signed numeric (using "+" and "-" to denote sign), etc.

This Test has no Test Parameters defined.

2.10	Image Test Flag Pass/Fail Criteria: *The Image Test Flag (see ANS X9.100-40-1-2006 for details) will convey one of the following four test conditions:* • *Condition not tested* • *Condition tested and result = fail* • *Condition tested and result = pass* • *Condition tested and result=indeterminate*	Results are reported independently for the Front and Rear image renditions. Selection of the threshold value corresponding to the image view (front or rear) is the responsibility of the implementer. The numbers in the parentheses in the formulae below refer to the section of this document where each result is defined. If condition not tested then **flag=not tested** If condition tested then **flag = fail** if the following condition is present: $$\text{Piggyback Image (2.8.1)} = 1$$ If condition tested and none of the fail conditions is present then **flag=pass** If condition tested but could not determine pass or fail for any reason then **flag=indeterminate**

3.0	Restrictions & Intellectual Property	
3.1	Are there any known restrictions in the use of the submitted check image test and related technology (technical, performance, legal, business, platform, etc.)?	☒ No ☐ Yes - *please provide details:*
3.2	Are proprietary Intellectual Property (IP) rights in the form of Patents associated with the description and use of the submitted check image test?	☒ No ☐ Yes – *Please provide patent and/or patent application numbers and indicate who owns the IP. Also provide evidence that the patent holder agrees to comply with the X9 Procedures including the X9 patent policy:*
3.3	Are proprietary Intellectual Property (IP) rights in the form of proprietary material and/or other intellectual property (e.g. specific to a vendor tool, device, or product) associated with the description and use of the submitted check image test?	☒ No ☐ Yes – *Please provide evidence that the owner agrees to provide the Proprietary IP Holder Statement contained in Annex B of ANS X9.100-40-2006 Part 2:*

4.0	Other Information

| 4.1 | | While FSTC does not provide specific implementation methodologies, the following possible approaches may be used:

• Presence of document transport signaling information ("feed check", double document detection, etc.).
    o Items identified as possible piggyback or "double document" by the capture hardware or capture software.
• Document images with more than one document.
    o Two or more items overlap as they travel through the capture hardware transport. An item is attached to the back of another item and processed without ever being separated from the first item. Items are partially or completely stacked behind another item.
• Portion of the MICR code line, endorsement, or customer name/address obscured on the image.
• Detected multiple document heights within the document image.
    o More than one item aligned at the bottom, but different heights. More than one item not aligned at bottom
• Detected multiple MICR code lines.
• Detected multiple "data fields" on within the document image.
    o More than one "Pay to the Order of" words. More than one courtesy amount. More than one "memo" or "for" words.
• Problems reading the documents MICR code line.
    o MICR line capture may or may not be affected depending on where on the sorter track the overlapping occurs.

• Endorsement (present on the rear of the document) does not match the information on the front (face) of the document. If an item is completely piggybacked it may still be recognized if the endorsement information doesn't match the front of the item. |

Notice: *By accepting a check image test for registration, ASC X9 is not endorsing, certifying validity, certifying performance, nor providing any warranty for the registered check image test. The organization using the test shall determine which test(s) to use based on their own business needs, perceived benefit, and validation/ assessment of any test results provided by the check image test supplier, their own testing, or a third party.*