



Federal Reserve Banks

Image Quality Assurance (IQA) Settings

Defect Detection Failure Point Changes

Effective November 17, 2008

This document defines the Image Quality Assurance (IQA) settings. The information below lists the IQA metrics performed on each check processed by the Federal Reserve Banks. It also defines the defect detection failure points (i.e., thresholds) for each metric. These thresholds have been modified several times since the advent of the Check Clearing for the 21st Century Act, Check 21. The anticipated result of the most recent changes to our thresholds is a significant decrease in the number of IQA rejects of Non-Conforming Images (NCIs) without a compromise to the quality of the work we pass.

It is important to note that there is a diverse set of IQA applications in the industry. Each one uses differing technologies to derive information about images and ultimately assess quality. Synchronizing thresholds in different IQA applications (or different versions/levels of the same application) may create varying results. Consequently, changing your IQA setting to that of the Federal Reserve Banks does not guarantee a reduction/elimination of IQA rejects/suspects when exchanging images with the Federal Reserve Banks.

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Federal Reserve Banks Image Quality Assurance (IQA) Settings

Defect Detection Failure Points

November 17, 2008

Length	
Minimum	< 4.10 Inches
Maximum	> 10.50 Inches

Height	
Minimum	< 1.752 Inches
Maximum	> 10.0 Inches

Corners	
Front Lower Right and Back Lower Left Corners ¹	> .8 Inches
Front Upper (both) and Front Lower Left Corners ¹	> 1.0 Inches
Rear Upper (both) and Rear Lower Right Corners ¹	> 3.0 Inches

Document Skew	
Front Skew	> 287.2 Degrees

Darkness (Black and White)			
Front		Back	
Minimum Darkness	< 0.009 Ratio of black pixels to total pixels	Minimum Darkness	< 0.0038 Ratio of black pixels to total pixels
Maximum Darkness	> 0.9 Ratio of black pixels to total pixels	Maximum Darkness	> 0.98 Ratio of black pixels to total pixels

Noise			
Front Noise	> 5,852 Spots considered as noise ² per square inch, on average	Back Noise	> 5,852 Spots considered as noise ² per square inch, on average
Relative Density (Black & White)		Relative Density (Black and White)	

IQA Record Size			
Black & White Compressed Data Size			
Front		Back	
Minimum	250 Bytes	Minimum	250 Bytes
Maximum	200,000 Bytes	Maximum	200,000 Bytes

¹ A missing corner is defined as the length or height of one side of a square, with one corner of that square at the point where the projected corner of a check image should be to the point where the opposing corner of that square actually intersects the check image.

² For binary images of 200 pixels per inch of resolution, a spot is considered any contiguous grouping of black pixels that number less than 20 pixels in count. Black pixel content exceeding 20 pixels is considered legitimate data