



April 30, 2009

Federal Reserve Banks Announce Check 21 Validation Changes in Test Environment

To prepare for the industry adoption of new Check 21 standards and practices, the Federal Reserve will be making changes to our **PRE-PRODUCTION (test)** environment. **These changes will not impact the Production environment which processes your Check 21 file deposits.** While these changes are being implemented, we recommend customers delay or minimize testing between May 11 and May 18 until the changes are fully implemented and validated.

Beginning May 11, 2009, the Federal Reserve Banks' **test** environment will be updated to include an expanded set of file validations on Image Cash Letter Deposits. Validation will be performed on a broader spectrum of fields and records, including TIFF image analysis. The expanded file validation will align Federal Reserve Check 21 deposit requirements with practices outlined in the Universal Companion Document (UCD) developed by the CheckImage Collaborative (<http://www.checkimagecentral.org>). The TIFF validation will align Federal Reserve Check 21 deposit requirements with ASC X9.100-181-2007, the Specification for TIFF Image Format for Image Exchange (<http://www.X9.org>).

With the May 11 implementation date, customers submitting **test** files will receive new and expanded file validation results. Test customers may notice an increase in the number of errors displayed by the File Acknowledgement Accept/Reject Notices. The validation results may require participants to make customer based parameter changes to their image or item processing software. Some may even require vendor contact or technical assistance. Any TIFF validation errors will be shared separately by Federal Reserve Bank Implementation Managers. Detailed information on the TIFF validation requirements as well as a sample of the revised File Acknowledgement Accept/Reject Notices is attached. Please share with others within your organization responsible for the technical aspects of this initiative.

For your information, the Federal Reserve Banks have been working closely with the Check 21 vendor community on this initiative. If you require vendor assistance to answer questions related to File Acknowledgement Accept/Reject Notices or TIFF edits, they should be able to assist you. Also prior to this announcement, we worked closely with a sample of "early implementers" to review the impact.

The Federal Reserve Banks have not yet established a production date for the new file validation and TIFF edits. Our plan is to monitor customer test results and industry adoption to ensure all participants are prepared for live implementation. All customers will be provided notice of the Production implementation date well in advance. Federal Reserve Bank Implementation Managers are available to work with customers who may need assistance in adopting the new validation practices and test changes to achieve compliance.

We appreciate your cooperation and support of this initiative to enable the entire check clearing industry to become more efficient. Again, these changes are being implemented in the Federal

Reserve **Pre-Production** environment and will have no impact on our Production system. For further information, please contact your Check 21 Implementation Manager or Check 21 Customer Support at (800) 762-0713.

Attachments



Federal Reserve Banks
Tagged Image File Format (TIFF) Specifications
Defect Detection Failure Points
 Updated April 30, 2009

General Information

All TIFF tags must be in Ascending Order
No duplicate tags are allowed
Required tags must be present and adhere to the listed specifications
If present, Optional tags must adhere to the listed specifications
Pointers must be valid and no two pointers may be set to the same location
Valid End Of Facsimile Block (EOFB) must be present
Number of Extra Pad Characters must be 0 to 8

Header

Little Endian Format
Single Page/Single Image File Directory (IFD)
Valid Image File Directory (IFD)

Required TIFF Tags

	Tag Number	Data Type	Values
Image Width	256	Short or Long	> 0
Image Length	257	Short or Long	> 0
Compression	259	Short	= 4
Photometric Interpretation	262	Short	= 0 or 1
Strip Offset	273	Short or Long	> 0
Rows Per Strip	278	Short or Long	> 0
Strip Byte Count	279	Short or Long	> 0
X-Resolution	282	Rational	200 or 240
Y-Resolution	283	Rational	200 or 240 - Must equal Tag 282

Optional TIFF Tags

	Tag Number	Data Type	Values
New Subfile Type	254	Long	= 0
Bits Per Sample	258	Short	= 1
Thresholding	263	Short	= 1
Fill Order	266	Short	= 1 or 2
Orientation	274	Short	= 1, 3, or 4
Samples per Pixel	277	Short	= 1
T6 Options	293	Long	= 0
Resolution Unit	296	Short	= 2

All other tags are not evaluated and are treated as user-defined.

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New Acknowledgement – File Accept

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FEDERAL RESERVE BANK OF DALLAS CHECK21 ACKNOWLEDGEMENT
FILE ACCEPTED BY "FRB TEST – PRE PROD SYSTEM"

** FRB PRE-PROD TEST **** FRB PRE-PROD TEST **** FRB PRE-PROD TEST **** FRB PRE-PROD TEST **

File Accept/Reject          Accept

File Information

File Name:                  PBIK1.DAT2.DTM.R1429.N9933.D090120.T11301
Destination RT:             111000038
Origination RT:             142999332
FRB Receipt Date:          01/20/2009
FRB Receipt Time:          09:20:34
File Creation Date:         01/20/2009
File Creation Time:         11:30
File Id Modifier:           1
File Records:               584
File Items:                 86
File Dollar Amount:         45970111
Cash Letter Count:          1
Is Override:                 N

Cash Letter Information

Cash Letter Sequence:       1
Cash Letter Date:           20080919
Cash Letter Time:           1303
Origination RT:             142999332
Dollar Amount:              45970111
Cash Letter ID:             00000002
Items:                      86

Errors

Critical Errors in File:    0
Items with Threshold Errors: 0
```

File Receipt and Creation dates now appear as MM/DD/YYYY instead of YYYYMMDD.
File Receipt time now contains seconds.

“Is Duplicate” field removed. Duplicates will be identified with an error code below.

Revised fields report Critical and Threshold error counts.

New Acknowledgement – File Reject

**FEDERAL RESERVE BANK OF DALLAS CHECK21 NEGATIVE ACKNOWLEDGEMENT
FILE REJECTED BY "FRB TEST – PRE PROD SYSTEM"**

*** FRB PRE-PROD TEST **** FRB PRE-PROD TEST **** FRB PRE-PROD TEST **** FRB PRE-PROD TEST ***

File Accept/Reject Reject

File Information

File Name:	PBIK1.DAT2.DTM.R1429.N9933.D090120.T17381
Destination RT:	111000038
Origination RT:	142999332
FRB Receipt Date:	01/20/2009
FRB Receipt Time:	09:37:30
File Creation Date:	01/20/2009
File Creation Time:	17:38
File Id Modifier:	1
File Records:	4584
File Items:	300
File Dollar Amount:	611868299
Cash Letter Count:	1
Is Override:	N

File Receipt and Creation dates now appear as MM/DD/YYYY instead of YYYYMMDD.
File Receipt time now contains seconds.

Cash Letter Information

Cash Letter Sequence:	1
Cash Letter Date:	20080919
Cash Letter Time:	1303
Origination RT:	142999332
Dollar Amount:	611868299
Cash Letter ID:	00000001
Items:	300

"Is Duplicate" field removed. Duplicates will be identified with an error code below.

Errors

Critical Errors in File:	1
Items with Threshold Errors:	1

Revised fields report Critical and Threshold error counts.

Error Record #:	1
File Record #:	2
Errors In Record:	1
Error Item Seq #:	NA
Cash Letter ID:	00000001
Bundle ID:	NA
Bundle Seq:	NA
Item RT:	NA
Item Amount:	0

Six digit Error Code identifies Record and Field with error (ex. Record 10, Field 13).

Error #:	101302
Error Description:	Fed Work Type not alphameric

Error Record #:	2
File Record #:	4
Errors In Record:	1
Error Item Seq #:	6610989707
Cash Letter ID:	00000001
Bundle ID:	8743030003
Bundle Seq:	0001
Item RT:	142999332
Item Amount:	225383

Six digit Error Code identifies Record and Field with error (ex. Record 25, Field 05).

Error #:	250502
Error Description:	Payor Bank R/T Check Digit has invalid check digit