



-  *ISS45 Trickle Feed User Reference*
-  *ISS45 8.1.1.0*
- 
- 
- 

## ISS45 Trickle Feed User Reference

Date of Issue	Product Identification Number	Part Number	Brief Description
June 2005	45001/094	89000225	Initial Release
January 2006	45001/094	89000274	8.1.1.0 Release

**© Copyright StoreNext Retail Technologies LLC 1995-2006  
All rights reserved**

This publication is protected by federal copyright law. No part of this publication may be reproduced or transmitted into any human or computer language in any form or by any means, stored in a retrieval system, transmitted, redistributed, translated or disclosed to third parties, or de-compiled in any way including, but not limited to, photocopy, photograph, electronic, mechanical, magnetic or manual without the express written permission of StoreNext Retail Technologies LLC or its licensors, if any. All copies, so authorized, shall contain a full copy of this copyright notice.

StoreNext Retail Technologies LLC endeavors to ensure that the information in this document is correct and fairly stated but does not accept liability for any error or omission. StoreNext Retail Technologies LLC makes no representation or warranties with respect to the contents hereof, and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose or non-infringement. No commitments by StoreNext or its suppliers are made from this documentation which is provided for information only.

Development of StoreNext products and documentation is continuous: StoreNext Retail Technologies LLC reserves the right to revise this publication and to make changes from time to time in the contents hereof or in the products herein described or discussed without notice and without any obligation of StoreNext Retail Technologies LLC to notify any person or organization of such revision or changes. Information published in this document will likely become obsolete over time and it is recommended that users regularly check for updates and newer versions.

StoreNext Retail Technologies LLC has prepared this manual for use by users, authorized third parties and personnel of StoreNext Retail Technologies LLC as a guide to the proper installation, operation, customization and/or maintenance of StoreNext Retail Technologies LLC equipment and software. The drawings and specifications contained herein are the property of StoreNext Retail Technologies LLC and/or its licensors.

Third-party products, services, or company names referenced in this document may be trademarked or copyrighted by their respective owners, and are for identification purposes only.

Copyrights, trademarks and license agreements shall be governed and construed in accordance with the laws of the State of Texas and the Federal Arbitration Act, and shall benefit Retailix, its successors, and assigns.

Address comments and corrections to:

StoreNext Retail Technologies LLC  
Software Program Director  
6100 Tennyson Parkway  
Suite 130  
Plano, Texas 75024

# Table of Contents

- Trickle Feed Overview .....4**
- TF\_Params.XML File .....5**
  - System Parameters .....5
  - Transaction Header .....7
  - Transaction Fields.....7
  - Table of fields convert type: .....8
  - Value.....8
  - Convert Type .....8
  - Remarks .....8
  - Tail Field .....9
- Modes for TF Server.....9**
  - Reprocess mode:..... 10
- Trading date identifier (not TV) .....10**

## Trickle Feed Overview

ISS45 trickle feed, of the transaction file (transact.qdx), allows user defined output files to be created from the current transaction file at timed intervals throughout the day and as part of the EOD process. These files can be either in XML or ASCII format and contain only the transactions and their specific fields as defined to the trickle feed mechanism.

All Trickle Feed parameters and the extracts that determine the contents of the output files will be held in an XML file named c:\pcmaster\tf\_param.xml. As defined in this file, every set period of time, transactions will be converted to the selected format and copied to a file that will be located on the local computer. Trickle Feed can also write the content of the output file to the MQseries Queue. Trickle Feed supports up to 10 Queues.

Trickle feed generated files will include only transactions that belong to complete tickets, or transactions between tickets. A partial ticket will not be converted and an error will be written to c:\pcmaster\log\tf.log.

For control, a Trickle Feed log (c:\pcmaster\log\tf.log) will be updated continuously (successful writes or errors).

There are different output formats depending on setup or type of file. The name of the output files are as follows:

- EOD file:
  - TREODYYYYMMDD.DAT for ASCII files
  - TREODYYYYMMDD.XML for XML files
  - YYYYYMMDD is the working day date
    - Example: TREOD20040123.XML
  
- Online files:
  - TRPERYYYYMMDDSNNN.DAT for ASCII files
  - TRPERYYYYMMDDSNNN.XML for XML files
  - YYYYYMMDD is the working day date, S is serial number (A – Z) NNN – sequence number of file (1 – 999).
    - Example: TRPER20040123A003.DAT,  
TRPER20040123A001.XML

To assist with verifying the completeness of a full day's transaction file, a file will be created during the End-Of-Day process and will include all the transactions for the finished working day. This will aid head-office systems to validate that the whole file has arrived, and that a recovery process is not required.

The user performs housekeeping of the Trickle Feed files.

## TF\_Params.XML File

When the services start, the TF\_Params. XML file is searched. The XML file is the key for the Trickle Feed process. If there is no XML file, or if the **TFinSystem** parameter is set to 0, the Trickle Feed process will not run and the information will be written in the c:\pcmaster\log\tf.log. In the XML the parameters and file contents to be output will be defined as elements.

The parameters can be changed in the XML file or through notepad or another text editor.

The instructions for the conversion and file layout are defined as elements, each with its own attributes. The transactions converted will be based on the data-dictionary, stored in the XML file, which define which op-codes to extract, and the layout for each op-code.

### System Parameters

The system parameter defines how the system works.

```
<SystemParamters>
  <MQSeriesActive>0</MQSeriesActive>
  < MQSeriesDetails>
    < QueueDetails>
      <QueueManagerName>QueueManager1</QueueManagerName>
      <QueueName>QueueName1</QueueName>
      <ChunkSizeInBytes>100000</ChunkSizeInBytes>
      <IsQueueActive>1</IsQueueActive>
    </ QueueDetails>
    < QueueDetails>
      <QueueManagerName>QueueManager2</QueueManagerName>
      <QueueName>QueueName2</QueueName>
      <ChunkSizeInBytes>0</ChunkSizeInBytes>
      <IsQueueActive>0</IsQueueActive>
    </ QueueDetails>
  </ MQSeriesDetails>
  <TFinSystem>0</TFinSystem>
  <OutPutFilePath>c:\Pcmaster\tmp\<</OutPutFilePath>
  <LoopTime>5</LoopTime>
  <Delimiter>,</Delimiter>
  <ConvertType>Xml</ConvertType>
  <CreateEODFile>0</CreateEODFile>
  <SendEODFileToMQSeries>0</SendEODFileToMQSeries>
  <SendProcessingVerificationRecordInEOD>0</SendProcessing
    VerificationRecordInEOD>
  <CreateOnlineFiles>1</CreateOnlineFiles>
  < NoOfBytesForOutputFiles>0</ NoOfBytesForOutputFiles>
</SystemParamters>
```

MQSeriesActive	Tells TF if it needs to send files to a queue or not. 0 or 1
TFInSystem	Tells if Trickle Feed is within the system or not. Valid values in this element are 1 or 0.
OutPutFilePath	Sets the path in which the files created will be saved. Can only be a local folder.
LoopTime	Indicates the number of minutes the system will generate files.
Delimiter	Enables the user to choose the delimiter for the ASCII file. Can have values between 1 and 256 (ASCII characters). The delimiter can be more than one character. If the delimiter is found in a string field, it will be replaced by a space. Example: the delimiter used is a comma (',') and there is a field that includes a customer name, where a comma divides the first and last names. In this case the comma inside that string will be replaced by a space "Smith, John" will be changed to " Smith John".
ConvertType	Indicates the format of the output file; ASCII or XML. Valid values in this element are Xml or Ascii.
CreateEODFile	If its value is 0 then the EOD file will not be created. Valid values in this element are 0 or 1.
SendEODFileToMQSeries	If its value is 1 then the EOD file will be sent by MQSeries. Valid values in this element are 0 or 1.
SendProcessingVerificationRecordInEOD	Creates an EOD file that contains information about the EOD.
CreateOnlineFiles	Create online files. Valid values in this element are 0 or 1. If the element value is 1 than online files will be created.
NoOfBytesForOutputFiles	Max size of output file. 0 means no limit to the size of the output file.
MQSeriesDetails	Section which contains the elements of the MQ Series settings.
QueueDetails	Section which contains the elements of the MQ Series queue settings.
QueueManagerName	Manager Name of the queue.
QueueName	Name of the queue.
ChunkSizeInBytes	If the data written to the queue is too large

	to transmit, Trickle Feed will divide it into smaller chunks. This parameter sets the chunk size in bytes. If the element value is 0 than the Trickle Feed will not chunk the data.
IsQueueActive	Is Queue active. If the element value is 0 than Trickle Feed will ignore this queue. Valid values in this element are 0 or 1.

## Transaction Header

The transaction header defines which op codes will be translated.

```

<TransactionHeader>
  <Number>2</Number>
  <TrsOpcode>2</TrsOpcode>
  <TrsSubOpcode1>0</TrsSubOpcode1>
  <TrsSubOpcode2>0</TrsSubOpcode2>
  <SubOpcode1Flg>0</SubOpcode1Flg>
  <SubOpcode2Flg>0</SubOpcode2Flg>
  <XmlElementName>DepartmentSale</XmlElementName>
  <Description>Sale Department Transaction</Description>
  <IgnoreTransaction>0</IgnoreTransaction>
</TransactionHeader>

```

Number	Sequence number that represents the transaction.
TrsOpcode	Transaction opcode to convert. It is 10 base and not Hex value.
TrsSubOpcode1	Transaction sub opcode to convert. It is 10 base and not Hex value.
TrsSubOpcode2	Transaction sub sub opcode to convert. It is 10 base and not Hex value.
SubOpcode1Flg	Allows the option to include the TrsSubOpcode1 as part of the conversion.
SubOpcode2Flg	Allows the option to include the TrsSubOpcode2 as part of the conversion.
XmlElementName	Element name of this transaction.
Description	Description of this transaction.
IgnoreTransaction	Ignores the conversion of this transaction. Valid values in this element are 0 or 1.

## Transaction Fields

The transaction fields define which fields within the op code will be translated.

```

<TransactionField>
  <Number>1</Number>
  <FieldOrder>15</FieldOrder>
  <ConvertType>1</ConvertType>
  <TrsFieldOffset>8</TrsFieldOffset>
  <TrsFieldLength>1</TrsFieldLength>
  <BitsFieldOffset>1</BitsFieldOffset>
  <XmlAttributeName>Subtract</XmlAttributeName>
  <Description>Subtract</Description>
  <IgnoreField>0</IgnoreField>
</TransactionField>

```

Number	Sequence number that represents the transaction.
FieldOrder	The order of the field in the ASCII \ XML output.
ConvertType	The field type (long, short..). See the attached convert types table.
TrsFieldOffset	The offset of the field in the transaction.
TrsFieldLength	The length of the field in the transaction. If it contains a bit is is the number of bits within the field.
BitsFieldOffset	The offset of the bit within the byte.
XmlAttributeName	The attribute name that will represent the field in the XML output.
Description	Field description.
IgnoreField	Ignore the conversion of this field. Legal values in this element are 0 or 1.

**Table of fields convert type:**

Value	Convert Type	Remarks
1	Bits to ascii.	Need to give offset in the byte (values 0 – 7) and the bit number (values 1 – 8).
2	Char to ascii	
3	Uchar to ascii	
4	Short to ascii	
5	Ushort to ascii	
6	Long to ascii	
7	Ulong to ascii	
8	Char[6] to ascii	
9	Int64 to ascii	
10	String to ascii	Need to give field length.

11	Pak date to YYYY-MM-DD	
12	Pak time to HH:MM:SS	
13	Bcd to string	Need to give field length.
14	Add the unique number of date	Used to add an unique working date number. There is no need to define an offset because the data is not taken from the transaction. This field is defined as a tail record.
15	Add store – number untill four digits with leading zeroes.	
16	Add working date	Given either through command line or system

### Tail Field

Since the transaction tail fields are valid for all transactions, they only need to be configured once. The configuration is like any other transaction field.

```

<TailField>
  <FieldOrder>1</FieldOrder>
  <ConvertType>5</ConvertType>
  <TrsFieldOffset>48</TrsFieldOffset>
  <TrsFieldLength>2</TrsFieldLength>
  <BitsFieldOffset>0</BitsFieldOffset>
  <XmlAttributeNames>TicketNumber</XmlAttributeNames>
  <Description>Ticket Number</Description>
  <IgnoreField>0</IgnoreField>
</TailField>

```

### Modes for TF Server

/zero	Resets all pointers within the CMOS file. Launched from e-of-day.bat.
/EOD	Runs on transaction file and creates file for entire day. Launched from e-of-day.bat.
/service	Every x minutes (defined by Loop Time) information is extracted from the temp file and put in the output file. Launched from srvstart.bat and e-of-day.bat
/reprocess	Able to run anywhere, but requires a command line The goal of this mode is to reprocess a full TLOG on any PC for support and debug purposes. See the parameters listed below.

## Reprocess mode:

The goal of this mode is to reprocess full TLOG on any PC for support and debug. Some of the customers use this to convert TLOGS in the HOSTS to XML.

The command – line is:

```
"Tfserver /REPROCESS OUTPUTFILEPATH=c:\pcmaster\tmp\Transact.xml  
INPUTFILEPATH=c:\pcmaster\bak\transact.qdx TV=1 UNIQUE=11  
WORKINGDATE=01/01/2001 STORENUMBER=1234"
```

OUTPUTFILEPATH	Path and name of the output file.
INPUTFILEPATH	Path and name of the TLOG file that will be converted.
TV	TV number of the working day of the TLOG. Used to calculate the Trading date identifier. If Trading date identifier is not used any value between 0 to 15 can be used.
UNIQUE	Trading date identifier of the working day of the TLOG. If Trading date identifier is not used any value greater than 15.
WORKINGDATE	Working day of the TLOG
STORENUMBER	Store number

## Trading date identifier (not TV)

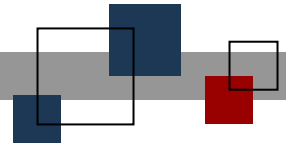
Since the transaction version number is re-started every 16 days (0 – 15), a non-resettable number is used to identify a day's transaction.

The trading date identifier is kept in the CMOS file (ISS45's file that saves critical information like pointers and flags) and is increased by one every End Of Day.

The trading date identifier is fully synchronized with the TV number. A validation process is performed every End Of Day to check that the TV number matches the Trading date identifier.

The trading date identifier is appears only in the converted output files (trperCCYYMMDDSNNN.dat and treodCCYYMMDD.dat.) according to the definitions in the XML file: the number is in the header of the file and as part of the TAIL in all the transactions.





**© StoreNext Retail Technologies LLC 2006**

StoreNext Retail Technologies LLC endeavors to ensure that the information in this document is correct and fairly stated but does not accept liability for any error or omission.

The development of StoreNext products and services is continuous and published information may not be up to date. It is important to check the current position with StoreNext. This document is not part of a contract or license save insofar as may be expressly agreed.