



Regional BATA Interface Control Document

Rev. 1.6.13.5

August 16, 2011



23. Tag Status File – HOT

23.1 File type

Variable length, LF delimited

23.2 File name

<PROGRAM_TYPE>_YYYYMMDD_HHMMSS.etc

Example: ht_20030426_100015.etc
 Tag status file created at 10:00:15 on 04/26/2003

This file will be zipped (ht_20030426_100015_etc.zip) and contain the following files –

Example: gg_20030426_100001.etc
 at_20030426_100002.etc
 srat_20041025_030205.tag
 tcat_20030426_100006.tag
 cvat_20030426_100009.tag
 sdat_20030426_100013.tag

23.3 File use

The Tag Status File shall be created by the VECTOR CSC to inform the HOT Host as to the status of each tag associated with an account held by BATA or CTOC customers. This file shall then be used by the HOT Host to generate a tag status file for the HOT lanes.

CSC will generate tag status file for CALTRANS tag range, GGBD tag range separately. Transmission from CSC to HOT host will include 1 CALTRANS, 1 GGBD, 1 each CTOC Tag File zipped as one file.

23.4 File layout

Each field in the header, detail and trailer structure will be separated with Delimiter “,” comma.

Table 23-1 Tag Status File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	“#HEADER”
FILE_TYPE	CHAR (4)	“TAGS”
ACTION_CODE	CHAR (4)	“INIT”
SEQUENCE #	CHAR (6)	Sequence # of the Tag Status File. This number is incremented every day. Values 000000 – 999999 Sequence Number will be unique per agency file. Sequence number will be incremented every time a new file is generated for home tag ranges. For files received from away agency, the sequence number will be as received.
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
SOURCE	CHAR (2)	Indicates the file-creating agency. “at” for BATA (CALTRANS AND GGBD) and corresponding CTOC agency names for the CTOC files.
DESTINATION	CHAR (2)	Indicates the destination entity. “ht” for HOT (for HOME tag files) and “at” for CTOC tag files
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	54	

Table 23-2 Tag Status File - Detail Structure

Field Name	Type/Size	Description/Valid Values
ETC_TAG_ID	CHAR (8)	Tag Id in HEX Values: 00000000-0FFFE3FF
ACTION_CODE	CHAR (1)	Always “A”
TAG_TYPE	CHAR (1)	Values N – Non-Revenue, V – Valid, I – Invalid
SUBTYPE_1	CHAR (1)	Values N – Default, L – Lost, S – Stolen, B – Low balance, R – Not Used
SUBTYPE_2	CHAR (1)	N – Not Used
SUBTYPE_3	CHAR (1)	N – Not Used
LINEFEED	CHAR (1)	LF
Record Total	14	

Table 23-3 Tag Status File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	“#TRAILER”
SEQUENCE #	CHAR (6)	Same as Header
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
LINEFEED	CHAR (1)	LF
Record Total	33	

23.5 Processing requirements

1. The VECTOR CSC shall complete the transmission of the comprehensive tag status file to the HOT Host drop-box as defined in Section 2 of the ICD.
2. In the event that an invalid header record is encountered (e.g., character data in a numeric field, etc.), the HOT Host shall reject the file and notify the VECTOR CSC via the Acknowledgement File defined in Section 10 of this document.
3. The RCSC will send one zipped tag status file to HOT. The zipped file will contain 6 separate files (AT; GG; TCA; SNDG; SR91 and CTV). If any of the 6 individual files received are bad, HOT Host will send ACK file to the RCSC with a status of 01. HOT Host will make an attempt to process any of the individual valid files and download to the lanes as per their current processing rules. In the case of a BAD CTOC file, the HOT Host will use their existing mechanism of using the latest CTOC Tag file and ignoring the BAD CTOC file. RCSC will log the problem upon receiving the ACK file (01) from the HOT Host. Upon received notification of an ACK file with a status of 01, the ACS System Admin will log and escalate the issue. They contact the HOT System Admin for detailed information. Once a decision has been reached appropriate action will be taken.
4. In the event that an invalid detail record is encountered (e.g., inappropriate TAG_STATUS, etc.), the HOT Host shall skip the complete file and notify the VECTOR CSC via the Acknowledgement File. Please refer to Appendix C for processing rules on error data in files.
5. The HOT Host shall perform the appropriate sanity checks on the Tag Status File prior to its transmission to the lanes. Such sanity checks should include, but not be limited to:
 - a. Unusual growth in the number of tags from previous version
 - b. Unusual change in number of tags with a particular tag status
6. One form of validation by the Host could be an upper limit of 10% increase and a lower limit of 2%, as compared to previous file. This check can be lifted on notification from CSC. This can happen if the CSC receives large Tag Inventory. As per the current Business Rules, there is no reason for Tag Status file to decrease in size when compared to previous file. GGBD will perform this check on each individual file (CALTRANS range, GGBD range and on each CTOC agency files).
7. The CHP are currently the only full non-revenue account for HOT

Table 23-4 Valid Tag Status Values for HOT Host

Item #	Tag Status	Account Status	Financial Status	Discount Plan	Regional - CSC GGBD Tag Type	Regional - CSC GGBD Sub Type 1
1	INVENTORY	N/A	N/A	N/A	I	N
2	RETURNED	N/A	N/A	N/A	I	N
3	DAMAGED	N/A	N/A	N/A	I	N
4	RETURNDEF	N/A	N/A	N/A	I	N
5	SHIPVEND	N/A	N/A	N/A	I	N

6	TESTED	N/A	N/A	N/A	I	N
7	EXPIRED	N/A	N/A	N/A	I	N
8	LOST	Active	N/A	N/A	I	L
9	STOLEN	Active	N/A	N/A	I	S
10	ACTIVE	Active	Good Balance	Standard	V	N
11	ACTIVE	Active	Low Balance (Cash/Check)	Standard	V	B
12	ACTIVE	Active	Zero Balance (Cash/Check)	Standard	I	B
13	ACTIVE	Active	Revoked Warning (Cash/Check)	Standard	I	B
14	ACTIVE	Active	Good Balance	Non Revenue	N	N
15	ACTIVE	Active	Low Balance (Cash/Check)	Non Revenue	N	N
16	ACTIVE	Active	Zero Balance (Cash/Check)	Non Revenue	N	N
17	ACTIVE	Active	Revoked Warning (Cash/Check)	Non Revenue	N	N
18	N/A	Closed Pending	N/A	N/A	I	N

Table 23-5 CTOC Tag Status Mapping Values for HOT Host

Item #	CTOC Tag Type	CTOC Sub Type 1	Regional - CSC GGBD Tag Type	Regional - CSC GGBD Sub Type 1
1	N – Non Revenue (Universal to all entities)	N – Not Used	N – Non Revenue	N
2	V – Valid	N – Not Used	V – Valid	N
3	I - Invalid	N – Not Used	I – Invalid	N

23.6 Sample files

CALTRANS Tag File for HOT Lanes

at_20040508_100002.etc

#HEADER,TAGS,INIT,000967,05/08/2004,at,gg,05/08/2004,22:45:03

0FE00001,A,V,N,R,R

0FE00006,A,V,N,R,R

0FE00008,A,V,N,R,R

0FE0000A,A,I,L,R,R

.

.

#TRAILER,000967,05/08/2004,00315464

SR-91 Tag File for HOT Lanes

srat_20041025_030205.tag

#HEADER,TAGS,INIT,000907,05/08/2004,sr,at,05/08/2004,22:45:03

08100000,A,V,N,N,N

08100001,A,V,N,N,N

08100002,A,V,N,N,N

08100003,A,V,N,N,N

.

.

#TRAILER,000907,05/08/2004,00315464



24. ETC Transaction File – HOT

24.1 File type

Variable length, LF delimited

24.2 File name

680_YYYYMMDDHHMMSS.hreq

Example: 680_20020928044100.hreq
HOT transactions to VECTOR CSC created at 04:41:00 on 09/28/02

24.3 File use

The Transaction File shall be created by the HOT Host to inform the VECTOR CSC of all toll transactions occurring at HOT lanes. This file shall contain tagged transactions on HOT lanes due to BATA customers or CTOC customers with both valid and invalid statuses.

24.4 File layout

Each field in the header, detail and trailer structure will be separated with Delimiter “,” comma.

Figure 24-1 ETC Transaction File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	“#HEADER”
FILE_TYPE	CHAR (4)	“HREQ”
SEQUENCE #	CHAR (6)	Sequence # of the Transaction File. This unique number is incremented for every file. Values 000000 – 999999
BUSINESS_DATE	CHAR (10)	This field will be populated with the transaction date of the first transaction in the file. Format MM/DD/YYYY
SOURCE	CHAR (2)	Indicates the file-creating agency. “H1” for HOT
DESTINATION	CHAR (2)	Indicates the destination entity. “AT” for BATA
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF

Header Total	50	
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Figure 24-2 ETC Transaction File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	Unique transaction number for each ETC transaction. Used to identify the transaction in the ETC reconciliation process. Values 0000000000 to 9999999999
TOL_TRX_TYPE	CHAR (1)	Type of transaction. 1 – ETC. This is the default value.
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. Values: 0000-1023
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. Values: 000000-262143
ENTRY_TOL_PLAZA_ID	CHAR (3)	The entry plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7 (other HOT agencies will be given a new Plaza Id)
ENTRY_TOL_LANE_ID	CHAR (2)	The entry lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
ENTRY_TOL_TRX_DATE	CHAR (10)	The date of the occurrence of the transaction at ENTRY_TOL_LANE_ID. Format: MM/DD/YYYY. This toll transaction date information shall be shown on customer statements.
ENTRY_TOL_TRX_TIME	CHAR (8)	The time of the occurrence of the transaction at ENTRY_TOL_LANE_ID. Format: HH:MM:SS. This toll transaction time information shall be shown on customer statements.
EXIT_TOL_PLAZA_ID	CHAR (3)	The exit plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7 (other HOT agencies will be given a new Plaza Id)
EXIT_TOL_LANE_ID	CHAR (2)	The exit lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
EXIT_TOL_TRX_DATE	CHAR (10)	The date of the occurrence of the transaction at EXIT_TOL_LANE_ID. Format: MM/DD/YYYY. This toll transaction date information shall be shown on customer statements.
EXIT_TOL_TRX_TIME	CHAR (8)	The time of the occurrence of the transaction at EXIT_TOL_LANE_ID. Format: HH:MM:SS. This toll transaction time information shall be shown on customer statements.
TOL_FARE_ETC_AMT	CHAR (5,2)	The toll due as calculated by the HOT Lane / Host. This is the amount to be posted to the ETC home or away account, posting by Tag. Values: 00000 (\$000.00) – 99999 (\$999.99)

Field Name	Type/Size	Description/Valid Values
TOL_MSG_FLAG	CHAR (2)	The message buffer status flag. This field indicates whether or not a transaction was buffered. Values: 00-99. 1 – Toll packet transaction. 2 – Buffered tag transaction
TOL_AVC_CLASS	CHAR (2)	The class of the vehicle involved in the transaction. This field shall contain AVC class or as overridden by the collector classification. Values: Default 02
LANE_TX_SEQUENCE_NUMBER	CHAR (8)	The unique vehicle transaction sequence number generated by lane (Lane sequence number). Values:00000000 – 99999999
TOL_TAG_STATUS	CHAR (1)	The status of the tag at the time of the transaction. Values: 0 – 9 0 - Invalid 1 – Good 2 – Lost 3 – Stolen 4 – Low Balance 8 – Non-revenue vehicle (NRV)
TOL_DST_FLAG	CHAR (1)	The daylight savings time. The contents of this field shall be used to govern certain processing rules at the VECTOR CSC This field will always default to asterisk (*)
TOL_TRX_SPEED	CHAR (3)	The transaction speed as reported by the lane. Values 000 – 999
VIOL_NUMBER/ORIG_TRX_NUMBER	CHAR (10)	For ETC transactions this field will contain 0000000000
RESOLV_CODE	CHAR (2)	Default to 00
LINEFEED	CHAR (1)	LF
Detail Record Total	84	

Figure 24-3 ETC Transaction File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	"#TRAILER"
SEQUENCE #	CHAR (6)	Same as Header
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
DETAIL_TRANS_AMOUNT	CHAR (10)	Total Amount of the Amount Due field for all the transactions in the file
LINEFEED	CHAR (1)	LF
Trailer Total	43	

24.5 Processing requirements

1. The RCSC shall receive and process ETC Transaction Files from the HOT Host multiple times a day at predetermined intervals (viz. every 0.5hrs, 1hr etc to be determined later).
2. There are no violation transactions from the HOT lanes

3. Please refer to Appendix D for all transaction-processing rules.
4. ETC transactions in this file will have a unique transaction number for each record in the file.
5. All transactions coming in this interface will be processed and the resolve code values will be ignored.
6. The RCSC shall perform sanity checks on the ETC Transaction File to look for formatting errors, record count mismatch between header and detail records etc. In the event the file fails on these sanity checks, the VECTOR CSC shall notify the HOT Host of the anomaly by means of the acknowledgment file.
7. If the RCSC determines an error in a detail record, the VECTOR CSC shall reject the transaction record with the error and process the remainder of the transaction file and notify the HOT Host of the error via the acknowledgment file. The ACK file shall have a corresponding error code indicative of the error.
8. The RCSC shall not compute toll amounts for ETC transactions received from the HOT Host. The toll amount calculated at the HOT Host as supplied in the TOL_FARE_ETC_AMT field of the transaction file shall be used to debit the BATA Regional CSC accounts. This shall include transactions due to non-revenue customers also
9. RCSC has the capability of rejecting transaction based on the age of the transaction. VECTOR will set 180 days for all incoming transactions from Away Agency (TCA, SR91 or SNDG) and 365 days for all incoming transactions from Home Agencies (CALTRANS, GGBD, HOT). This value can be changed on BATA direction.
10. The RCSC shall first check its own customer base to see if the transaction can be applied to one of its own accounts before including the transaction in a Transaction File destined for another CTOC agency.
11. TOLL_DST_FLAG is not part of the unique key for toll transactions and there shall not be any duplicate values as a result of asterisks (*). Added to ICD 1.4.1
12. Agency/Facility/Plaza IDs:
 - A. CTOC: RCSC sends the entry details (lane, plaza date and time) to CTOC as per CTOC ICD.
 - B. Mail House: CSC sends both entry & exit information to the mail house and the mail house prints the entry and exit plazas and entry time detail on the customer statement.
 - C. Fastrak Website: The customer accounts statement page will have the entry and exit plazas and entry time information available for I-680 and SR 237 transactions. Entry is entry and exit is exit. The plaza descriptions for the web will be (maximum of 20 characters): SR237/I880 ExpressWB and SR237/I880 ExpressEB.
 - D. Vector Online: The exit plaza/lane/date & time and entry plaza/lane/date & time will be listed.
 - E. Reports: RCSC reports only show the exit plaza.

24.6 Sample file

680_20110304020010_hreq



```
#HEADER, HREQ, 000239, 03/04/2011, H1, AT, 03/04/2011, 02:00:10
0000219959, 1, 0305, 145006, WSH, 01, 03/03/2011, 05:07:07, MIS, 01, 03/03/2011, 05:08:04, 00100, 01, 02, 00000000, 1, *, 000, 0000000000, 00
0000219960, 1, 0103, 261404, AND, 01, 03/03/2011, 05:14:47, MIS, 01, 03/03/2011, 05:19:51, 00125, 01, 02, 00000000, 1, *, 000, 0000000000, 00
0000219961, 1, 0132, 261882, AND, 01, 03/03/2011, 05:20:18, CAL, 01, 03/03/2011, 05:28:24, 00150, 01, 02, 00000000, 1, *, 000, 0000000000, 00
0000219962, 1, 0667, 145001, WSH, 01, 03/03/2011, 05:21:38, MIS, 01, 03/03/2011, 05:22:35, 00100, 01, 02, 00000000, 1, *, 000, 0000000000, 00
0000219963, 1, 0834, 261834, AND, 01, 03/03/2011, 05:25:48, MIS, 01, 03/03/2011, 05:30:34, 00125, 01, 02, 00000000, 1, *, 000, 0000000000, 00
0000219964, 1, 0885, 261379, WSH, 01, 03/03/2011, 05:29:55, MIS, 01, 03/03/2011, 05:30:56, 00100, 01, 02, 00000000, 1, *, 000, 0000000000, 00
0000219965, 1, 0289, 261242, AND, 01, 03/03/2011, 05:34:28, MIS, 01, 03/03/2011, 05:39:19, 00150, 01, 02, 00000000, 1, *, 000, 0000000000, 00
0000221358, 1, 0159, 262047, MIS, 01, 03/03/2011, 19:43:26, CAL, 01, 03/03/2011, 19:47:09, 00030, 01, 02, 00000000, 1, *, 000, 0000000000, 00
#TRAILER, 000239, 03/04/2011, 000000008, 0000000880
```

24.7 Plaza Id & Entry/Exit Mapping for RCSC

Below plaza-id & entry/exit mapping will be used by the RCSC for Vector view, statement processing & exchanging transactions with CTOC agencies.

Entry/Exit Point	Statement				CTOC Plaza ID
	Facility	Plaza	Lane	Facility Description	
Andrade Entry	I-680	AND	1	I-680 South Andrade	5010
Washington Entry	I-680	WSH	1	I-680 South Washington	5011
Mission Entry/Exit	I-680	MIS	1	I-680 South Mission	5012
Calaveras Exit	I-680	CAL	1	I-680 South Calaveras	5013

Valid Trip combinations

Trip	RCSC File Entry Plaza	RCSC File Exit Plaza	CTOC File Entry Plaza	CTOC File Entry Plaza	DPH Entry Plaza	DPH Exit Plaza
Andrade to Mission	AND	MIS	5010	5012	AND	WSH
Andrade to Calaveras	AND	CAL	5010	5013	AND	MIS
Washington to Mission	WSH	MIS	5011	5012	WSH	WSH
Washington to Calaveras	WSH	CAL	5011	5013	WSH	MIS
Mission to Calaveras	MIS	CAL	5012	5013	MIS	MIS

SR 237/I-880

Entry/Exit Point	Statement				CTOC Plaza ID
	Facility	Plaza	Lane	Facility Description	
SR 237/I-880 Express Connector WB	SR 237	CLW	1	SR 237/I-880 Connector WB	5110
SR 237 First WB	SR 237	FSW	1	SR 237 First WB	5111
SR 237 First EB	SR 237	FSE	1	SR 237 First EB	5118



SR 237/I-880 Express Connector EB	SR 237	CLE	1	SR 237/I-880 Connector EB	5119
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Valid Trip combinations

Trip	RCSC File Entry Plaza	RCSC File Exit Plaza	CTOC File Entry Plaza	CTOC File Exit Plaza
SR 237/I-880 Express Connector WB	CLW	FSW	5110	5111
SR 237/I-880 Express Connector EB	FSE	CLE	5118	5119

25. ETC Response File – HOT

25.1 File type

Variable length, LF delimited

25.2 File name

680_YYYYMMDDHHMMSS.hres

Example: 680_20020928044100.hres Created at 04:41:00 on 09/28/02
Transaction Reconciliation file from VECTOR CSC to HOT Host

25.3 File use

The VECTOR CSC shall create an ETC Response File back to the HOT Host, for each transaction (.req) files received.

25.4 File layout

Each field in the header, detail and trailer structure will be separated with delimiter “,” comma.

Figure 25-1 ETC Response File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	“#HEADER”
FILE_TYPE	CHAR (4)	“HRES”
SEQUENCE #	CHAR (6)	Sequence # of the original Transaction File. Values 000000 – 999999
BUSINESS_DATE	CHAR (10)	The date send in the .req header record, in the BUSINESS_DATE column, will be sent back in this field.
SOURCE	CHAR (2)	Indicates the destination entity. “AT” for BATA
DESTINATION	CHAR (2)	Indicates the file-creating agency. “H1” for HOT
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	50	

Figure 25-2 ETC Response File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	Unique transaction number for which this record is response. Values 0000000000 to 9999999999
TOL_TRX_TYPE	CHAR (1)	Response for the type of transaction received by CSC. 1 – ETC
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. Values: 0000-1023
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. Values: 000000-262143
TOL_POSTED_DATE	CHAR (10)	This is the Date the transaction was processed (Posted or Rejected) on the CSC / Away Agency. Format: MM/DD/YYYY
ENTRY_TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7
ENTRY_TOL_LANE_ID	CHAR (2)	The entry lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
EXIT_TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7
EXIT_TOL_LANE_ID	CHAR (2)	The exit lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
TOL_FARE_POSTED_AMOUNT	CHAR (5,2)	This is the amount posted to the ETC home or away account, posting by Tag. Values: 00000 (\$000.00) – 99999 (\$999.99)
NON_REVENUE_FLAG	CHAR (2)	This field indicates if the transaction was posted against Non Revenue account. Values: 00 – Default Value 01 – Non Revenue Account
PAYMENT_TYPE	CHAR (1)	A – Toll posted successfully to ETC account. E – An Exception occurred while trying to post this toll.
CSC_REASON_CODE	CHAR (3)	Reason toll was not posted. CSC generates this code from its own internal processing and it is sent to the HOT Plaza Host for reference. Values 000 – 999. A detailed listing of the various reason codes is provided in Appendix B.
BUSINESS_DATE	CHAR (10)	The actual business date of the transaction. This field would identify the revenue date of the transaction. Format: MM/DD/YYYY
CSC_BATCH	CHAR (10)	This will be used to reconcile CSC and HOT Plaza Host revenue numbers. This field will contain the original file id (extern_file_id assigned by the RCSC), to map the file in which this transaction was received at the CSC. The contents of this field shall be left padded with zeros. Values: 0000000000 – 9999999999

Field Name	Type/Size	Description/Valid Values
CSC_ACCT_ID	CHAR (16)	Not currently used. Can be populated with home agency account IDs and static value CTOC agency account IDs. Current default value for all home and away agency accounts: 0000000000000000
LINEFEED	CHAR (1)	LF
Detail Record Total	84	

Figure 25-3 ETC Response File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	"#TRAILER"
SEQUENCE #	CHAR (6)	Same as Header
FILE_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
LINEFEED	CHAR (1)	LF
Trailer Total	33	

25.5 Processing requirements

1. All transactions received at the RCSC, via the ETC Transaction File, shall be sent back to the HOT Host in the reconciliation file.
2. All regular transactions TOL_TRX_TYPE = 1 (ETC) received by the CSC, will be reconciled back with final status code. The reconciliation will be at file level. Example CSC receives 100 transactions in file 123, same 100 transactions will be reconciled back to HOT host in one file, no less than once a day.
3. The RCSC shall perform transaction reconciliation at a detail level. i.e. the reconciliation file shall contain details at the transaction level instead of a reconciliation summary.
4. In order to achieve file-to-file reconciliation with HOT, the RCSC will reconcile all transactions (home & away) with reconciled revenue. A reconciliation file will be sent to HOT once all transactions are reconciled (home & away) for each file.
5. In cases when a transaction cannot be posted at the RCSC, the RCSC shall indicate the reason, the transaction was not posted in the CSC_REASON_CODE field. The possible reason codes and the description are provided in Appendix B.
6. The RCSC shall assign a unique integer value to all incoming transaction files from the HOT Host. This unique identifier shall be sent as part of the reconciliation file to the HOT Host for all transactions posted and reconciled against a particular agency. The unique identifier shall be specified in the CSC_BATCH field of the reconciliation file.

7. The RCSC shall use the toll amount as supplied in the TOL_FARE_CASH_AMT field to process violations. All postable transactions shall use the amount in the TOL_FARE_ETC_AMT field
8. The HOT Host will periodically generate and transmit ETC files to the CSC. HOT will periodically poll the area ACK files are transferred to the Host by the CSC. When an ACK file is received the HOT database will be updated. If the ACK file shows a FAILURE code the HOT Host will regenerate and resend the original file. A failure count will be maintained and after 3 concurrent failures of a single file an email will be sent to the HOT System Operators.
9. A recon file will always be ACKED with a FAILURE code if it is received before the ACK file for the corresponding ETC Transaction File.
10. Any transaction without entry and exit information will be rejected with the appropriate status and not processed at the RCSC.

25.6 Sample File

680_20110304043301.hres

```
#HEADER,HRES,000239,03/04/2011,AT,H1,03/04/2011,04:33:01
0000219959,1,0305,145006,03/04/2011,WSH,01,MIS,01,00100,00,A,001,03/03/2011,0001633478,0000000000000000
0000219960,1,0103,261404,03/04/2011,AND,01,MIS,01,00125,00,A,001,03/03/2011,0001633478,0000000000000000
0000219961,1,0132,261882,03/04/2011,AND,01,CAL,01,00150,00,A,001,03/03/2011,0001633478,0000000000000000
0000219962,1,0667,145001,03/04/2011,WSH,01,MIS,01,00100,00,A,001,03/03/2011,0001633478,0000000000000000
0000219963,1,0834,261834,03/04/2011,AND,01,MIS,01,00125,00,A,001,03/03/2011,0001633478,0000000000000000
0000219964,1,0885,261379,03/04/2011,WSH,01,MIS,01,00100,00,A,001,03/03/2011,0001633478,0000000000000000
0000219965,1,0289,261242,03/04/2011,AND,01,MIS,01,00150,00,A,001,03/03/2011,0001633478,0000000000000000
0000221358,1,0159,262047,03/04/2011,MIS,01,CAL,01,00030,00,A,001,03/03/2011,0001633478,0000000000000000
#TRAILER,000239,03/04/2011,00000008
```

26. ETC Correction Request File – HOT

26.1 File type

Variable length, LF delimited

26.2 File name

<from_agency>_YYYYMMDDHHMMSS.creq

Example: 680_20020928044100.creq
HOT request for correction transactions to VECTOR CSC created at 04:41:00 on
09/28/02

26.3 File use

The correction file shall be created by the HOT Host to request toll posting corrections @ the RCSC. This file shall contain tagged transactions on HOT lanes that were previously reconciled by the RCSC and the HOT agency would be sending a correction request for such transactions.

26.4 File layout

Each field in the header, detail and trailer structure will be separated with Delimiter “,” comma.

Figure 26-1 ETC Correction Transaction Request File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	“#HEADER”
FILE_TYPE	CHAR (4)	“CREQ”
SEQUENCE #	CHAR (6)	Sequence # of the correction request file. This unique number is incremented for every file. Values 000000 – 999999
BUSINESS_DATE	CHAR (10)	This field will be populated with the transaction date of the first transaction in the file. Format MM/DD/YYYY
SOURCE	CHAR (2)	Indicates the file-creating agency. “H1” for HOT

DESTINATION	CHAR (2)	Indicates the destination entity. "AT" for BATA
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	50	

Figure 26-2 ETC Correction Transaction Request File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	This must be the same as the original transaction. Values 0000000000 to 9999999999
TOL_TRX_TYPE	CHAR (1)	Type of transaction. 2 – ETC Correction This is the default value.
TOL_CORRECTION_FLAG	CHAR (1)	A – Corrected Amount
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. Values: 0000-1023
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. Values: 000000-262143
ENTRY_TOL_PLAZA_ID	CHAR (3)	The entry plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7 (other HOT agencies will be given a new Plaza Id)
ENTRY_TOL_LANE_ID	CHAR (2)	The entry lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
ENTRY_TOL_TRX_DATE	CHAR (10)	The date of the occurrence of the transaction at ENTRY_TOL_LANE_ID. Format: MM/DD/YYYY. This toll transaction date information shall be shown on customer statements.
ENTRY_TOL_TRX_TIME	CHAR (8)	The time of the occurrence of the transaction at ENTRY_TOL_LANE_ID. Format: HH:MM:SS. This toll transaction time information shall be shown on customer statements.
EXIT_TOL_PLAZA_ID	CHAR (3)	The exit plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7 Other HOT agencies will be given a new Plaza Id
EXIT_TOL_LANE_ID	CHAR (2)	The exit lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
EXIT_TOL_TRX_DATE	CHAR (10)	The date of the occurrence of the transaction at EXIT_TOL_LANE_ID. Format: MM/DD/YYYY. This toll transaction date information shall be shown on customer statements.

Field Name	Type/Size	Description/Valid Values
EXIT_TOL_TRX_TIME	CHAR (8)	The time of the occurrence of the transaction at EXIT_TOL_LANE_ID. Format: HH:MM:SS. This toll transaction time information shall be shown on customer statements.
TOL_FARE_ETC_AMT	CHAR (5,2)	Original toll due as calculated by the HOT Lane / Host. This is the amount posted to the ETC home account, posting by Tag. Values: 00000 (\$000.00) – 99999 (\$999.99)
TOL_FARE_CORR_ETC_AMT	CHAR (5,2)	The new toll due as calculated by the HOT Lane / Host. Values: 00000 (\$000.00) – 99999 (\$999.99)
TOL_MSG_FLAG	CHAR (2)	The message buffer status flag. This field indicates whether or not a transaction was buffered. Values: 00-99. 01 – Toll packet transaction. 02 – Buffered tag transaction
TOL_AVC_CLASS	CHAR (2)	The class of the vehicle involved in the transaction. This field shall contain AVC class or as overridden by the collector classification. Values: Default 02
LANE_TX_SEQUENCE_NUMBER	CHAR (8)	The unique vehicle transaction sequence number generated by lane (Lane sequence number). Values:00000000 – 99999999
TOL_TAG_STATUS	CHAR (1)	The status of the tag at the time of the transaction. Values: 0 – 9 0 - Invalid 1 – Good 2 – Lost 3 – Stolen 4 – Low Balance 8 – Non-revenue vehicle (NRV)
TOL_DST_FLAG	CHAR (1)	The daylight savings time. The contents of this field shall be used to govern certain processing rules at the VECTOR CSC This field will always default to asterisk (*)
TOL_TRX_SPEED	CHAR (3)	The transaction speed as reported by the lane. Values 000 – 999
VIOL_NUMBER/ORIG_TRX_NUMBER	CHAR (10)	For ETC transactions this field will contain 0000000000
RESOLV_CODE	CHAR (2)	For ETC transactions this field will contain 00
LINEFEED	CHAR (1)	LF
Detail Record Total	84	

Figure 26-3 ETC Correction Transaction Request File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	“#TRAILER”
SEQUENCE #	CHAR (6)	Same as Header
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
DETAIL_TRANS_AMOUNT	CHAR (10)	Total Amount of the Amount Due field for all the transactions in the file
LINEFEED	CHAR (1)	LF
Trailer Total	43	

26.5 Processing requirements

1. This interface is for toll amount correction/update only.
2. HOT system will send a maximum of 1 correction file per day.
3. HOT system will check for posting status of original transactions prior to sending a correction request for the same transaction.
4. HOT system will send original toll posted amount (for validation purposes) along with the corrected amount.
5. RCSC will perform corrections only on transactions that have originally posted to Fastrak customer accounts.
6. This interface is for BATA/Home customers only. In case any CTOC transactions are included in this file, the RCSC will reject the entire file with an ack file status of 01.
7. There will only be 1 adjustment per 1 posted transaction.
8. The RCSC will create 2 new transactions based on this interface.
 - i. Transaction #1 – will be posted to customer account as a reversal amount of the original posted amount.
 - ii. Transaction #2 – will be the new amount received from HOT in the correction file.
9. There is no time limit for creation & processing of a correct file

26.6 Sample file

680_20040202222030.creq

680_20101210020000_creq

```
#HEADER,CREQ,000002,12/10/2010,H1,AT,12/10/2010,02:00:00
0000107830,2,A,0816,260805,AND,01,12/08/2010,19:56:06,MIS,01,12/08/2010,20:01:41,00050,00040,01,02,00
000000,1,*,000,0000000000,00
#TRAILER,000002,12/10/2010,00000001,-000000009
```

27. ETC Correction Response File – HOT

27.1 File type

Variable length, LF delimited

27.2 File name

680_YYYYMMDDHHMMSS.cres

Example: 680_20020928044100.cres Created at 04:41:00 on 09/28/02
Correction transaction reconciliation file from RCSC to HOT Host

27.3 File use

The RCSC shall create a correction response file back to the HOT Host, for each transaction (.cres) files received.

27.4 File layout

Each field in the header, detail and trailer structure will be separated with delimiter “,” comma.

Figure 27-1 ETC Correction Response File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	“#HEADER”
FILE_TYPE	CHAR (4)	“CRES”
SEQUENCE #	CHAR (6)	Sequence # of the original correction request File. Values 000000 – 999999
BUSINESS_DATE	CHAR (10)	The date send in the .creq header record, in the BUSINESS_DATE column, will be sent back in this field.
SOURCE	CHAR (2)	Indicates the destination entity. “AT” for BATA
DESTINATION	CHAR (2)	Indicates the file-creating agency. “H1” for HOT
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS

LINEFEED	CHAR (1)	LF
Header Total	50	

Figure 27-2 ETC Correction Response File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	This must be the same as the original transaction. Values 0000000000 to 9999999999
TOL_TRX_TYPE	CHAR (1)	Type of transaction. 2 – ETC Correction This is the default value.
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. Values: 0000-1023
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. Values: 000000-262143
TOL_POSTED_DATE	CHAR (10)	This is the Date the correction transaction was processed (Posted or Rejected) on the CSC. Format: MM/DD/YYYY
ENTRY_TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7
ENTRY_TOL_LANE_ID	CHAR (2)	The entry lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
EXIT_TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = Refer to table 24.7
EXIT_TOL_LANE_ID	CHAR (2)	The exit lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
TOL_FARE_POSTED_AMOUNT	CHAR (5,2)	This is the amount posted to the home customer account (posting by Tag) This is the amount received in the TOL_FARE_CORR_ETC_AMT from the creq file Values: 00000 (\$000.00) – 99999 (\$999.99)
NON_REVENUE_FLAG	CHAR (2)	This field indicates if the transaction was posted against Non Revenue account. Values: 00 – Default Value 01 – Non Revenue Account
PAYMENT_TYPE	CHAR (1)	A – Toll posted successfully to ETC account. E – An Exception occurred while trying to post this toll.
CSC_REASON_CODE	CHAR (3)	Reason toll was not posted. CSC generates this code from its own internal processing and it is sent to the HOT Plaza Host for reference. Values 000 – 999. A detailed listing of the various reason codes is provided in Appendix B.
BUSINESS_DATE	CHAR (10)	The actual business date of the transaction. This field would identify the revenue date of the transaction. Format: MM/DD/YYYY

Field Name	Type/Size	Description/Valid Values
CSC_BATCH	CHAR (10)	This will be used to reconcile CSC and HOT Plaza Host revenue numbers. This field will contain the original file id (extern_file_id assigned by the RCSC), to map the file in which this transaction was received at the CSC. The contents of this field shall be left padded with zeros. Values: 0000000000 – 9999999999
CSC_ACCT_ID	CHAR (16)	Not currently used. Can be populated with home agency account IDs and static value CTOC agency account IDs. Current default value for all home and away agency accounts: 0000000000000000
LINEFEED	CHAR (1)	LF
Detail Record Total	84	

Figure 27-3 ETC Correction Trailer File – Detail Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	“#TRAILER”
SEQUENCE #	CHAR (6)	Same as Header
FILE_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
LINEFEED	CHAR (1)	LF
Trailer Total	33	

27.5 Processing requirements

10. This interface is for toll amount correction/update only.
11. HOT system will send a maximum of 1 correction file per day.
12. HOT system will ensure that at any given point in time, only 1 correction request will be sent for a transaction that is posted to a customers account.
13. HOT system will check for posting status of original transactions prior to sending a correction request for the same transaction.
14. HOT system will send original toll posted amount (for validation purposes) along with the corrected amount.
15. RCSC will perform corrections only on transactions that have originally posted to Fastrak customer accounts.
16. There will only be 1 adjustment per 1 posted transaction.
17. This interface is for BATA/Home customers only. In case any CTOC transactions are included in this file, the RCSC will reject the entire file with an ack file status of 01.
18. The RCSC will create 2 new transactions based on this interface.
 - i. Transaction #1 – will be posted to customer account as a reversal amount of the original posted amount.
 - ii. Transaction #2 – will be the new amount received from HOT in the correction file.
19. There is no time limit for creation & processing of a correct file.

27.6 Sample file

```
#HEADER,CRES,000002,12/10/2010,AT,H1,12/10/2010,07:58:01  
0000107830,2,0816,260805,12/10/2010,AND,01,MIS,01,00040,00,A,001,12/08/2010,0001557351  
,0000000000000000  
#TRAILER,000002,12/10/2010,00000001
```
