

CALCRATE (Version 4.9.22)

Order Entry Interface – Returns a file of POTENTIAL CARRIERS – Optional

The output created by CalcRate can be employed to provide on-line carrier and costing information and/or to automatically recommend/select specific carrier(s) based upon passed program parameters and user controlled (in CalcRate) criteria.

- Load the ORDERIP **OR** SHIPIP File.
 - Note:** Use the SHIPIP File only if you plan to send multi-stop trucks to CalcRate during the order entry process (CALC50C is replaced by CALC55C and ORDEROP is replaced by SHIPOP). If you opt to use SHIPIP, call an ARTC representative.
- Call CALC50C with the following parameters: Carrier (&PCARR, 4A), Mode (&PMODE, 1A), Equipment (&PEQUP, 2A), Transit Time (&PDAYS, 15,5N), Display Flag (&PDISP, 1A), Return Error Code (&PERRR, 7A), Return Carrier (&PCRRR, 4A), Return Actual Amount (&PRTE1, 15, 5N) and Return Adjusted Amount (&PRTE2, 15, 5N). When calling CALC50C, leave the last four parameters blank
 - If successful, The output can be found in the ORDEROP File (*See output table below*)
 - If unsuccessful, a value will be returned in the Return Error Code will return and orders will be written to ORDERIH file, including the error code and description.
- If the Display Flag is “Y”, when either CALC50C is called, a CalcRate Rate Comparison screen will display for the user from which a specific carrier may be selected.
 - If the user selects a specific carrier, that carrier, together with its rates are returned to your “calling” program.
 - If unsuccessful, no records are written to the output files and the Error Code is returned to your calling program.

Output File Table:

<u>Carrier</u>	<u>Mode</u>	<u>EO Type</u>	<u>Transit</u>	<u>Output (ORDEROP/SHIPOP)</u>
N	N	N	N	Rates for all carriers.
Y	N	N	N	Rates for single carrier passed.
N	Y	N	N	Only rates or excludes for mode*
N	N	Y	N	Only rates for EQ passed.
N	N	N	Y	Only rates for carriers that meet or exceed transit time passed.
Y	Y	N	N	Only rates/excludes for carrier and mode* passed.

* mode values: Preferences: A=Air L= LTL P=Parcel T=Truckload
Exclusions: 1=Air 2=LTL 3= Parcel 4= Truckload

Order Entry Interface – Returns a file of A SINGLE CARRIER ONLY – Optional

The input/output parameters and file structures are identical to description above.
However, in order to return ONLY ONE CARRIER in the output, Call CALC150C.
The program will return the cheapest PREFERRED (Primary/Secondary) as defined in CalcRate’s Option 20.

Pro # Assignment – Optional

- Call CALC74R with the following parameters: Carrier Code (@CARR, 4A), Warehouse Code (@WHSE, 6A), Assigned PRO Number (@PRO, 15A) and Return Error Code(@ERRR, 7A).
- If successful, CalcRate will return a pro # (15A), and update the pro # file (shown in option 31). If unsuccessful, an error message (@ERRR, 7A) will return. The meaning of this value can be located in the message file CALCMSGF.

Shipment Confirmation Interface – Rates Shipments

Note: If order detail is passed, CalcRate will allocate the freight costs to each line item.

- Load the FREIGHTP File.*
- Call CALC51C* (Allocates customer freight charges for multi-stop truckloads by weight) or CALC53C (Allocates freight by a combination of “weight and distance” OR “cube and distance” traveled) with the following parameters: Carrier Code (&PCARR, 4A), Equipment Type (&PEQUP, 2A), Return Error Code (&PERRR, 7A).
See attached freight allocation schedule as example.

Note: For customers using CALC53C only, the data area in CalcRate (PROARA, 4A) defaults to “WGHT” indicating freight allocation by weight and distance. The user should change this value to “CUBE” in order to have CalcRate allocate by cube and distance.

- If successfully rated:
 - A. CalcRate will return a freight amount (&PRTE1, 15,5N) and a freight adjusted amount (&PRTE2, 15,5N).
 - B. All records from the FREIGHTP file, including the rates, will be output to the BLRTEP File.
- If unsuccessful:
 - A. an error message (@ERRR, 7A) will return. The meaning of this value can be located in the message file CALCMSGF.
 - B. shipments will be written to FREIGHTH file, including the error code and description.

*** If purchased and installed, CalcBOL automatically accomplishes these tasks.**

Freight Payment Process – Optional

- In order to approve bills for payment, the user will release the bills from the CalcRate accrual file (option 34 or 35). The data is then moved from BLRTEP to BLHSTP.
- The BLHSTP File includes a field (BLFLG, 1A) for each record. This field is automatically set at blank upon receipt from the BLRTEP File. If using CalcRate to pay freight bills in-house, a user may query BLHSTP for all records where the field BLFLG is blank.
- These records may be copied to the internal A/P System. The BLFLG indicator may then be populated with a value (i.e. “Y”) indicating that this record has been processed.

Note: BLHSTP also contains fields for check #, date, and amount. If required, these fields may be populated within. Multiple check #'s, dates, and amounts for the same bill of lading may be recorded.

Batch/EDI Freight Payment Process – Optional

- For each group of batches, load the BLEDIP File replacing any existing data.
- From the EDI Posting CalcRate submenu (option 37), the user will select “EDI Match Pay” (option 1) which will automatically pass shipment transactions found in the accrual file (BLRTEP), that are within the defined payment tolerance, to the history file (BLHSTP). These “passed bills” are automatically deleted from the BLRTEP and BLEDIP files.
- Two reports (see User Manual Appendix) will be generated when “EDI Match Pay” (option 1) is called by the user: one displays all passed bills while the other shows bills remaining in the BLEDIP file along with the reason.
- Records not passing will be accessible by the user in “B/L EDI Inquiry” (sub-option 2) and may be passed manually.

Self Invoice Freight Payment Process – Optional

Self Invoicing will move records from BLRTEP to BLHSTP Automatically.

- For each carrier/warehouse combination for which self-invoicing is desired, the user must indicate through CalcRate Option 2 (Carrier Maintenance), Sub-Option 1 (Carrier Master File), F6=Self Pay. The user must enter a two position aging factor (# of days) and a one position Self Invoice flag (“Y”).
- Call CALC60R. No parameters are needed.

Note: It is recommended that CALC60R be called on a fixed basis by job scheduler. (i.e. weekly)

Freight Charge Allocation Example for Multi-Stop Truckloads:

<u>Load Description</u>	<u>Stop 1</u>		<u>Stop 2</u>		<u>Stop 3</u>	
	<u>Pounds</u>	<u>% Load</u>	<u>Pounds</u>	<u>% Load</u>	<u>Pounds</u>	<u>% Load</u>
Customer #1	20,000	50%				
Customer #2	15,000	38%	15,000	75%		
Customer #3	5,000	12%	5,000	25%	5,000	100%
Totals	40,000	100%	20,000	100%	5,000	100%

CALC51C (Proportioned by weight)

	<u>Stop 1</u>	<u>Stop 2</u>	<u>Stop 3</u>
Origin to Stop 1 \$1,143.00(.50)=	\$571.50		
Stop 1 to Stop 2 \$1,143.00(.38)=		\$428.63	
Stop 2 to Stop 3 \$1,143.00(.12)=			\$142.88
Cost Per Pound	\$0.029	\$0.029	\$0.029

CALC53C (Proportioned by “weight and distance” OR “cube and distance”)

	<u>Stop 1</u>		<u>Stop 2</u>		<u>Stop 3</u>	
	<u>Cost</u>	<u>% Total</u>	<u>Cost</u>	<u>% Total</u>	<u>Cost</u>	<u>% Total</u>
Origin to Stop 1 531 Miles(\$1.30)=\$690.30	\$345.35	50%	\$259.01	38%	\$86.34	12%
Stop 1 to Stop 2 192 Miles(\$1.30)=\$249.60			\$187.20	75%	\$62.40	25%
Stop 2 to Stop 3 79 Miles(\$1.30)=\$102.70					\$102.70	100%
Stop Off Charges			\$50.00		\$50.00	
Delivery Cost Per Customer	\$345.35		\$496.21		\$301.44	
Grand Total			\$1,143.00			
Cost Per Pound	\$0.017		\$0.033		\$0.060	

CalcRate includes a program called CLRFILES.

If run, will clear out all of the data stored in the following files.

FILE(ACCESSP)	Accessorial Code
FILE(ACSCHGP)	Accessorial Charges
FILE(AIRRTEP)	Air Rate
FILE(AIRZNEP)	Air Zone
FILE(ALKZIPPF)	Stored ALK file
FILE(AUDITORP)	Billing Auditor Code
FILE(BLCMNTP)	BL Comments
FILE(BLHISTP)	BL HISTORY FILE 1 of 2
FILE(BLRATEP)	BL ACCRUAL FILE 1 of 2
FILE(BLHSTP)	BL HISTORY FILE 2 of 2
FILE(BLRTEP)	BL ACCRUAL FILE 2 of 2
FILE(CARRFAXP)	Carrier FAK exceptions
FILE(CARRP)	CARRIER MASTERFILE
FILE(CEILINGP)	Carrier Ceiling Cost
FILE(CSTMRKP)	Exception by Customer
FILE(CSTRTEP)	Routing by Customer
FILE(DIMFCTP)	Carrier Dim Factor
FILE(DISCNTP)	DISCOUNT EXCEPTIONS
FILE(EDIFRTP)	EDI Batch records
FILE(EQUCNTP)	Equalization file 1 of 5
FILE(EQUCSTP)	Equalization file 2 of 5
FILE(EQUGRPP)	Equalization file 3 of 5
FILE(EQULOCP)	Equalization file 4 of 5
FILE(EQUOUTP)	Equalization file 5 of 5
FILE(ERRCDEP)	Error Code Billing Codes
FILE(FDXSETP)	FedEx Set-up File for CalcPak
FILE(FREIGHTP)	Shipment Interface
FILE(FRTADJP)	Carrier Billing Adjustments
FILE(FRTCSTP)	Customer Billing Adjustments
FILE(GSTTAXP)	Canada Goods Sales Tax Rate
FILE(HHGWHSEP)	Rand HHG Warehouse Master
FILE(HHGZIPPF)	Rand HHG Stored Zip
FILE(LTLRTEP)	LTL User Stored Rates
FILE(MARKETP)	Carrier Routing Exceptions
FILE(MATCHIP)	EDI Match records
FILE(MILESP)	User Stored Distances
FILE(MINIMP)	FLOOR CHARGE EXCEPTIONS
FILE(ORDERIP)	Interface Input
FILE(ORDEROP)	Interface output
FILE(PRCDSCP)	Parcel Discount
FILE(PRCMLTP)	Parcel Multi-Weight Rates
FILE(PRONUMP)	Carrier Pro Numbers
FILE(ROUTEP)	Customer Routing Preference
FILE(SHIPIP)	Multi-Stop Shipment Interface
FILE(SHIPOP)	Multi-Stop Shipment Output
FILE(SLFPAYP)	Carrier Master Self-Pay

FILE(SURMINP)	Carrier Fuel Surcharge Floor
FILE(TARIFFP)	Tariff Display
FILE(TOLERNCP)	Billing Adjustment
FILE(TRNST1P)	Transit Times By Zip
FILE(TRNST2P)	Transit Times By Distance
FILE(TRUCK1P)	Truckload Rates By State
FILE(TRUCK2P)	Truckload Rates By Distance
FILE(TRUCK3P)	Truckload Rates By Points
FILE(TRUCK4P)	Truckload Rates By Weight Break
FILE(TVQTAXP)	Canada Province Tax Rate
FILE(WHSEP)	Warehouse Location Master

AR TRAFFIC SMC WEB SERVICE - RATEWARE USERS

The software will be made available by ARTC at the following:

<ftp://filetransfers.artraffic.com>

Contact ARTC for login credentials. These are the files that will be applicable:

- calcczar.savf
- smc.jar
- log4.j properties
- webservice.properties
- ISeries.properties

Create library CALCCZAR

Restore objects from calcczar.savf (from the ftp site) into CALCCZAR

In the /home directory create directory ARTRAFFIC

In the /home/ARTRAFFIC directory create directory smc

In the /home/ARTRAFFIC/smc directory place the smc.jar file (from the ftp site)

In the /home/ARTRAFFIC/smc directory create directory src

In the /home/ARTRAFFIC/smc/src directory create directory resources

In the /home/ARTRAFFIC/smc/src/resources directory place the:

log4.j properties, webservice.properties, and ISeries.properties files. (from the ftp site)

AR TRAFFIC RATING WEB SERVICE - CALCAPI USERS

The software will be made available by ARTC at the following: <ftp://filetransfers.artraffic.com>

Contact ARTC for login credentials. These are the files that will be applicable:

- calcapi.savf
- YAJL.savf
- artws.jar
- ISeries.properties

Create library CALCAPI

Restore objects from calcapi.savf (*from the ftp site*) into CALCAPI

Create library YAJL

Restore objects from YAJL.savf (*from the ftp site*) into YAJL

In the /home directory create directory ARTRAFFIC

In the /home/ARTRAFFIC directory create directory **rating**

In the /home/ARTRAFFIC/rating directory place the **artws.jar** file (*from the ftp site*)

In the /home/ARTRAFFIC/rating directory create directory **data**

In the /home/ARTRAFFIC/rating directory place the **ISeries.properties** file (*from the ftp site*)

Note - In order to use the rating API, the CALCAPI library must be above CALCRATE on the user's library list. The YAJL library must also be on the library list, however placement is unimportant.

Note - The /home/ARTRAFFIC/rating/data subdirectory will be populated with two .json files for each rate request. We recommend writing the following three scripts to periodically clear that subdirectory:

```
RMVDIR DIR('home/ARTRAFFIC/data/*ORD*') SUBTREE(*ALL)
RMVDIR DIR('home/ARTRAFFIC/data/*FRGT*') SUBTREE(*ALL)
RMVDIR DIR('home/ARTRAFFIC/data/*BLRT*') SUBTREE(*ALL)
```