

There are programming samples in the *COM_SAMPLES* sub folder of your Freight+ installation

Overview of Freight+ API (Application Programming Interface)

The Freight+ API (Application Programming Interface) object allows you to integrate Freight+ into your applications as a pop-up window and ship from any Microsoft compatible language. VFP, VB, .Net, Jscript, VB.NET, ASP, C++. Any language that can access a Microsoft COMAPI can use the Freight+ API to integrate Freight+ as part of your application.

Two API Processing Methods

1. Process the shipment immediately when posted from the API inside your application. A Freight+ window will open (just like the sample below) inside your application. Freight+ will appear as if it's part of your application.
2. Post transactions to Freight+ using the API to be processed by the shipping clerk when the package is ready to process, which may not be at the same time you created the transaction using the API.

Freight+ API can pop-up the Freight+ Transaction Screen inside your application as if it was one of your standard transaction screens. Example: Freight+ API screen popping up from inside of a application.

The screenshot displays the 'Freight+ Manifest Systems' interface. The main window is titled 'Ship-To Address' and 'Transaction'. The 'Ship-To Address' section includes a table for Box # 1 of 1, with fields for Weight (23.00 LBS), Shipping (23.45), Order Amt (2531.55), Other (2.35), and Pkg Total (2557.35). It also shows a 'Desc' field with 'R7F2791201787513' and a 'Ledger' field with 'DROP / COLL 898989 / AH:\$2.35/RATED FM: 46975'. The 'Transaction' section features a list of services with checkboxes, including 'Sat Delivery', 'UPS Handling', 'COD', 'Confirmation', 'Signature', 'Adult Signature', 'No Signature', 'Gift', 'Samples', 'Return Goods', 'Pip', 'POD', 'Saturday Pickup', 'No Charge', 'Cash', 'Check', 'Currency', 'Pre Paid', 'Collect', and '3rd Party'. A 'Ref #'s' table shows values for 'Fixed' (0.00), 'Additional' (2.35), 'Return' (0.00), and 'Surcharge' (0.00). The UPS logo is prominently displayed in the center of the interface.

Configure FREIGHT+ API to process form YOUR applications in real-time (default)

Open Freight+ Shipping Manifest System and go to "Setup" then "General Setup" from the Main Menu. On the "General Setup" screen check the box labeled "Process API transactions as posted" (located on left hand side ¾ way down screen this is the default during installation). This tells Freight+ to process transactions immediately when posted from the API. You could leave this field unchecked and use the function `x.frt_process_now()` to force a single transaction to process immediately. This gives you the flexibility of processing some quotes/shipments when entered from the API and other API transactions can just be posted to Freight+ to be shipped at later date.

REGISTERING FREIGHT+ API IN WINDOWS

When installing Freight+ for the first time the Freight+ API (FRTOBJ.EXE) object is automatically registered in windows. To manually register the API (FRTOBJ.EXE) run the following command from the windows RUN command. Substitute the Freight+ path for the sample path.

TESTING and SAMPLE APPLICATIONS FOR VB, VB.NET, JSCRIPT, ASP, C++

We have provided sample applications with source code so you can see how to call Freight+ API from several popular programming languages. Samples are located in the Freight+ COM_SAMPLES directory.

Steps to test Freight+ API on your machine:

1. You must install and run Freight+ one time before you run the Freight+ API
2. Sample applications with source code are provided for VB, VB.NET, Jscript, C++, ASP are in the COM_SAMPLES directory.
3. Using Windows Explorer navigate to the Freight+ COM_SAMPLES directory and select from the sub directory your programming language of choice.
4. Open the Readme.txt file for instructions on how to run the sample application then click on the application to run a test in the chosen language.
5. The application will make a sample shipment post using the Freight+ API and Freight+ will pop-up and allow you to process the shipment.

WORKSTATION SETUP

If accessing Freight+ API from a workstation that was not the original Freight+ installation workstation you must run the Workstation.exe setup program to configure Freight+ on the workstation prior to using the Freight+ API on the new workstation.

The remainder of this document contains a list of functions available to you when accessing the Freight+ API libraries for all compatible languages and sample code.

ACCESSING Freight+ API object from any MS application.

There are 4 steps required to creating a shipping transaction in Freight+ using the COMAPI.

1. Create an instance of the COM object in your language of choice
2. Post a ship-to address using FRT_HEADER() function
3. Optionally - Post line items using FRT_TRANS_TAX (this is optional you do not have to post line items)
4. Commit the shipment and process real-time using FRT_COMMIT_GET()

All other data is optional.

SAMPLE CREATING A VISUAL BASIC TANSACTION

Dim x As Object

'1. Create an instance of the COM Object

Set x = CreateObject("frtobj.frtobj1")

'2. Create the ship-to address record in Freight+

Call x.frt_header("Gary", "TEST COMP", "32808 Alderbrook", "", "Wildomar", "CA", "92595", "9096784545", "USA", "UPS GRNC", "", "VERBAL", "11221", "ACP1", 5, 1, True)

3. Commit the transaction to Freight+ Shipping System and process.

x.frt_commit_get()

FREIGHT+ API FUNCTIONS

The following describes all of the functions that are available in the Freight+ API.

The Freight+ API "FRTOBJ.EXE" must be registered in windows (see above procedure)

You will need to create an instance of the API component in your chosen language.

VFP (Visual Foxpro)

x = Createobject("frtobj.frtobj1")

.NET

Dim x As frtobj.frtobj1

x = New frtobj.frtobj1

Visual Basic

Dim x As Object

Set x = CreateObject("frtobj.frtobj1")

Jscript

var x;

x = WScript.CreateObject("frtobj.frtobj1");

ASP

SET x = Nothing

Set x = Server.CREATEOBJECT("frtobj.frtobj1")

FRT_HEADER FUNCTION TO POST THE SHIP-TO ADDRESS

Use FRT_HEADER function to add a ship-to address to the current transaction you are building.

Sample: Add a ship-to address.

```
x.frt_header("Gary","Your Shipto Company","32808 Alderbrook ","","Wildomar","CA","92595","(909) 678-4545","USA","UPS GRNC","","VERBAL","T122","ACP1",5,1,.t.)
```

FRT_HEADERS PARAMETERS

Field	Name	Type	Length	Optional or Required	Comments
1	Contact Person	C	25	O	
2	Company	C	35	R	
3	Address 1	C	35	R	
4	Address 2	C	35		
5	City	C	30	R	
6	State	C	20	R	Use short 2 character or Long State Name
7	Zip Code	C	10	R	
8	Phone	C	15	O	Required when shipping COD's
9	Country	C	25	O	Required when shipping international shipments
10	Carrier Service	C	20	R	See Carrier Service Codes in this document
11	COD	C	1	O	
12	PO #	C	30	O	
13	Order #	C	20	R	Reference used to refer to this shipment
14	Account #	C	20	R	
15	Weight	N	8.2	O	Supply weight or weigh when shipping
16	Boxes	N	4.0	O	Pass 1 (use frt_add_box to add additional boxes)
17	Screens On	L	1	.t. or .f.	.t. will POP-UP Transaction screen when FRT_COMMIT is called. .f. will background process.

USE FRT_TRANS_TAX() FUNCTION TO ADD LINE ITEMS (OPTIONAL)

To add line items to the current shipping transaction you are building.
The same line of code works for VFP, .NET, Visual Basic, Jscript, C++ etc..

Sample: x.frt_trans_tax("11221","ITEM1","Sample Item",1,5,10,5,1,0,5,7.25)

Line items are OPTIONAL you do not have to add line items to ship. But if you want to have Freight+ fill-out International Shipping Documents, create Advanced E-mail notifications or print Thermal Packing Slips from Freight+ you must provide Line Item information.

FRT_TRANS_TAX PARAMETERS

Field	Name	Type	Length		Description
1	Order #	C	20	R	Order # used to create the Ship-to address.
2	Item	C	20	R	Item number
3	Description	C	60	R	Description of Item shipping
4	Box #	N	4.0	O	Box item is contained in. Will default to 1 if left blank.
5	Weight	N	8.2	O	Single unit weight of item being shipped.
6	Qty Ordered	N	12.3	R	Quantity Ordered
7	Qty Shipped	N	12.3	R	Quantity Shipped
8	Item Price	N	10.2	O	Unit Price of Item
9	Discount %	N	6.2	O	Discount % used when Frt+ is recalculating totals
10	Extended Price	N	10.2	O	Extended Price = Qty Shipped * Price - Discount
11	Tax %	N	8.2	O	Tax percent %

After adding ship-to address and any line items or additional services you need to call a function FRT_COMMIT_GET() to commit the new shipment to the Freight+ database.

COMMIT the shipment and GET results in real-time (preferred method of shipment)

FRT_COMMIT_GET() - Commits the transaction to the Freight+ Shipping system and processes the shipment real-time.

Sample function call: Return_String = frt_commit_get()

Contents of Return_String: 9.54,8.34,1ZTA02170300338218, UPS GRNC,1,,_3N00GR40C

Return field value descriptions:

9.54 = Shipping Price

8.34 = Shipping Cost

1ZTA02170300338218 = Tracking # of first box in shipment

UPS GRNC = Carrier and Service

1 = Total number of boxes in shipment (Use FRT_GET_TRACKING() to retrieve additional tracking #'s from a multi box shipment.

_3N00GR40C = a unique shipment identifier automatically assigned to the transaction by Freight+ and must be used with several other Freight+ to inquire about this shipment.

When entering multiple shipments on the same order in one day there would be the possibility that the wrong tracking # will be returned when calling the FRT_GET_TRACKING() function. The unique identifier ensures the correct tracking # is returned regardless of the number of shipments of one order in a single day.

GET TRACKING # AND PRICE BACK FROM FREIGHT+

The lead tracking # for a multi box shipment is returned in the FRT_COMMIT_GET() function but if you have multiple boxes shipping on a single order you will need to use the FRT_GET_TRACK() function to retrieve any additional tracking #'s from a shipment.

FRT_GET_TRACKING Request

Field	Name	Type	Length		Description
1	Order #	C	20	R	Order # you want to get Tracking #'s for
2	Box #	N	8.0	O	Box # you want tracking # for. If blank returns tracking # for box# 1.
3	Returned String	C			Total Shipping, Shipping for current box , Tracking #, Carrier, # of Packages, Errors
4	Unique Identifier	C	10	O	Pass unique ID that was returned to you when you called FRT_COMMIT_GET(). If you omit this field the first box that matches the Order # and Box # will be returned.

Example using unique id : `x.frt_get_tracking("11926",1,return_string_place_holder,"_2FA0ZEXFA")`

Example without unique id : `x.frt_get_tracking("11926",1,return_string_place_holder)`

You will need to parse the returned string.

FRT_GET_TRACKING() RETURNED VALUES

Field	Name	Type			Description
1	Total Shipping	C			Total Shipping for ALL boxes
2	Price	C			Shipping Price for requested Box. If only 1 box shipped will be the same as field 1.
3	Tracking #	C			Tracking # for requested package or lead package
4	Carrier	C			Name of selected Carriers ie. UPS
5	Total # Packages	C			Number of Packages in shipment. Use this field to see if you need to make more calls to Freight+ to get additional tracking #'s.
6	Error	C	50		Description of any errors returned

Example returned string from Freight+ FRT_GET_TRACKING call: 3505,1603, 102930393039, UPS, 3,

Sample code call to `frt_get_tracking`

.Net code to retrieve the tracking #, cost and price from Freight+ for package 2 in a two box shipment

```
Dim x As frtobj.frtobj1
x = New frtobj.frtobj1
Dim frtreturn As String
x.frt_get_tracking("9999", 2, frtreturn, "_2FA0ZEXFA")
```

9999 is the Shipment reference # and 2 is the box to get tracking # for, frtreturn is a variable to hold the returned value and "_2FA0ZEFA" is the unique truncation identifier assigned to the shipment by Freight+.

VFP code to retrieve tracking #, cost and price from Freight+ for package 1 in shipment

```
x = CREATEOBJECT("frtobj.frtobj1")
frtreturn=""
x.frt_get_tracking("9999",1,@frtreturn,"_2FA0ZEXFA")
```

OPTIONAL SERVICE FUNCTIONS

Depending on your needs there are many additional Freight+ API functions that are available.

Function	Service		#	Description	Example
FRT_PROCESS_NOW()				Forces API transaction to process real-time as you post. Only required if Process API real-time is disabled on the Freight+ "General Setup" screen.	<code>x.frt_process_now()</code>
FRT_LAST_ERROR				Returns Last Error	<code>x.frt_last_error(returned_error)</code>
FRT_CLEAR_ERROR				Clear Last Error	<code>x.frt_clear_error()</code>
FRT_COD	COD	C	1	Pass "1" for COD, "2" for one COD tag for entire shipment or "0" to remove COD flag	<code>x.frt_cod("1")</code>
F_CASH	COD	C	1	Pass "1" for Cashiers Check or "0" to Remove Cashiers Flag.	<code>x.frt_cash("1")</code>
F_CHECK	COD	C	1	Pass "1" to Company Check Ok or "0" to Remove Company Check Ok flag.	<code>x.frt_check("1")</code>
FRT BOL	BOL	C	1	Pass '1' to mark shipment requiring a Bill of Lading. Or '0' to	<code>x.frt_bol("1")</code>

FRT_CON	Confirmation of Delivery	C	1		remove BOL flag "1" to Add Confirmation of Delivery .or. "0" to remove CON flag	x.frt_con("1")
FRT_EMAIL	Email	C	2	1	Advance email notification. Pass "1" to add or "0" to remove	x.frt_email("1","yourname@here.com")
	Email Address	C		2	Recipient Email address	
FRT_NC		C			No Charge to Customer Flag. Pass '1' to add or '0' to remove flag.	x.frt_no_charge("1")
FRT_ORDER		C			Returns the name of the unique temporary file being built in the Freight+ temp directory for your transaction.	x.frt_order()
FRT_POD	Proof of Delivery	C		1	"1" to add POD (email Proof of Delivery or "0" to remove POD	x.frt_pod("1","yourname@here.com")
		C		2	Email address for POD	
FRT_SAT	Saturday	C			"1" to add Saturday Delivery or "0" to remove Sat flag	x.frt_sat("1")
FRT_SIG	Signature	C			"1" signature required, "2" adult signature or "0" to remove sig flag	x.frt_sig("1")
FRT_VOID	Void	C			Pass SO # or Reference # of shipment to Void	x.frt_void("10393")
FRT_QUOTE	Quote	C	1		"1" make a quote not a shipment .or "0" (The default) to create shipment.	x.frt_quote("1")
FRT_TAG	Print Tag	C			"1" to not print Tag	x.frt_tag("1")
FRT_INVAMT	Invoice Amount	N	8.2		Amount of Invoice	x.frt_invamt(1500.00)
FRT_VALUE	Declared Value	N	8.2		Enter Value used to calculate Insurance.	x.frt_value(1500.00)
FRT_CHANGE_VALUE	Change Value	N	8.2		Change the Value of exiting Shipment. Parameters are: SO#, Box and new value.	x.frt_change_value("1020",1,1000.50)
FRT_PIP	Private Insurance	C	1		Flag as Alternate Insurance Carrier Used. Requires a Declared Value.	x.frt_pip('1')
FRT_REF2	2 nd Ref#	C	35		Added 2 nd Reference Number to Label	x.frt_ref2("192020")
FRT_DESC	User defined	C	40		User defined field prints on bottom of labels created in Freight+. Will not print on FedEx.	x.frt_desc("Sample descripton to print on bottom")
FRT_ADD_BOX					Add a box to shipment. Parameters are Weight, Value, COD Flag ,Length, Width, Height	x.frt_add_box(12.5,1500.00,"1",12.5,5,3)
FRT_PRINTURL	Printer URL or IP	C	50		Pass the Printer URL to Freight+. Can be IP of network printer or local printer name.	x.frt_printurl("192.168.1.12/ELTRON")
FRT_DIM	Dimensions	C			Box Dimensions for First Box	x.frt_dim(12.5,5.0,3.25)
FRT_DICSOUNT	Discount	N	8.2		Order discount %	x.frt_discount(10.00)

FRT_DROP used to set Ship From Address

Use this function to set a alternate return address on all Freight+ documents.

1	Drop	N	1		"1" to flag as Drop Ship			
2	Company	C	35					
3	Address 1	C	35					
4	Address 2	C	35					
5	City	C	30					
6	State	C	2					
7	Zip	C	10					
8	Attention	C	30					
9	Phone	C	15					

Example: x.frt_drop(1,"Carrera Computers ","32999 Alderbrook Rd","","Wildomar","NJ","66666","gary",9516784522)

FRT_BILL Type of billing Pre-Paid, Collect, Bill 3rd Party, Consignee. Not required if Pre-Paid (defalut)

1	Bill Type	C	1		1=Pre-Paid,2= 3 rd Party,3=Collect, 4=Consignee	Billing Type	
2	Carrier Acct #	C	11		UPS/FedEx Account #	Required if Bill Type 2 or 3	
3	Company	C	35		Company Name	Required if 3 rd Party	
4	Address 1	C	35		Address 1	Required if 3 rd Party	
5	Address 2	C	35			Required if 3 rd Party	
6	City	C	30			Required if 3 rd Party	
7	State	C	2			Required if 3 rd party	
8	Zip	C	10			Required if 3 rd party	
9	Phone	C	15			Required if 3 rd Party	
9	Attention	C	30				
10	Country	C	30			Required if not US	

Example 3rd Party Billing: x.frt_bill("2","123456","Carrera Computers","32808 Alderbrook Rd","","Wildomar ","CA","92595","9516784522","Gary Mathis","")

Example Collect Billing: x.frt_bill("3","123456","","","","","","","","","")

SAMPLE TANSACTIONS

.NET code to create COM object, enter a shipping address, add two line items and call Freight+.

```
Dim x As frtobj.frtobj1
```

```
'1. Create an instance of the COM Object  
x = New frtobj.frtobj1
```

```
'2. Create the ship-to address record in Freight+  
x.frt_header("Gary", "TEST COMP", "32808 Alderbrk", "x", "Wildomar", "CA", "92595", "9096784545", "USA", "UPS GRNC", "x", "VERBAL", "11221", "ACP1", 5, 1,  
True)
```

```
'3. Add any line items to be shipped.  
x.frt_trans("11221", "TEST1", "test desc 1", 1, 5, 10, 5, 1, 0, 5)  
x.frt_trans("11221", "TEST2", "test desc 2", 1, 5, 10, 5, 1, 0, 5)
```

```
'4. Commit the transaction to Freight+ Shipping System.  
x.frt_commit_get()
```

.Net Code to Retrieve additional Tracking #'s for a multi box shipment

```
Dim x As frtobj.frtobj1  
x = New frtobj.frtobj1  
Dim frtreturn As String  
x.frt_get_tracking("9999", 2, frtreturn, "_ZA43948T")
```

9999 is the Shipment reference # and 2 is the box to get tracking # for. see frt_get_tracking() function above for parameters

SAMPLE VISUAL BASIC TANSACTION

VB Code to create COM object, enter a shipping address, add two line items and call Freight+.

```
Dim x As Object
```

```
'1. Create an instance of the COM Object  
Set x = CreateObject("frtobj.frtobj1")
```

```
'2. Create the ship-to address record in Freight+  
Call x.frt_header("Gary", "TEST COMP", "32808 Alderbrk", "", "Wildomar", "CA", "92595", "9096784545", "USA", "UPS GRNC", "", "VERBAL", "11221", "ACP1", 5, 1,  
True)
```

```
'3. Add any line items to be shipped.  
Call x.frt_trans("11221", "TEST1", "test desc 1", 1, 5, 10, 5, 1, 0, 5)
```

```
'4. Commit the transaction to Freight+ Shipping System.  
x.frt_commit_get()
```

SAMPLE VISUAL FOXPRO TRANSACTION

Sample four lines of code in VFP to Create a COM object, enter a shipping address, add one line item and call Freight+.

```
x = CREATEOBJECT("frtobj.frtobj1")
```

```
x.frt_header("Gary","Your Company Name Here","32808 Iderbrook","","Wildomar","CA","92595","9096784545","USA","UPS  
GRNC","","VERBAL","11221","ACP1",5,1,t.)
```

```
x.frt_trans("11221","ITEM1","ITEM1 Description",1,5,10,5,1,0,5)
```

```
x.frt_commit_get()
```

SAMPLE ASP TRANSACTION

```
<OBJECT RUNAT=SERVER ID=frtweb1.frtc  
CLASSID="B1EB247E-50C1-434D-BEE7-C5B88C379C81"></OBJECT>
```

```
<html>
```

```
<title>Frtplus ASP</title>
```

```
<%
```

```
SET oServer = Nothing  
Set oServer = Server.CREATEOBJECT("frtobj.frtobj1")
```

```
mystring= oServer.frt_header("Gary","Your Shipto Company","32808 Alderbrook","","Wildomar", "CA", "92595", "9096784545", "USA", "UPS GRNC", "",  
"VERBAL", "11221", "ACP1", 5, 1, false)
```

```
x.frt_trans_tax("T122","ITEM1","Sample Item ",1,5,10,5,1,0,5,0)  
x.frt_trans_tax("T122","ITEM2","Sample Item 2",2,5,10,5,1,0,5,0)
```

```
mystring= oServer.frt_trans("11221","ITEM1","ITEM1 Description",1,5,10,5,1,0,5)  
mystring= oServer.frt_commit_get()
```

```
Response.Write mystring%>  
</html>
```