

# Freight+ COM/API Instructions

There are programming samples contained at the end of this document for several languages.

## Overview of Freight+ COM/API (Application Programming Interface)

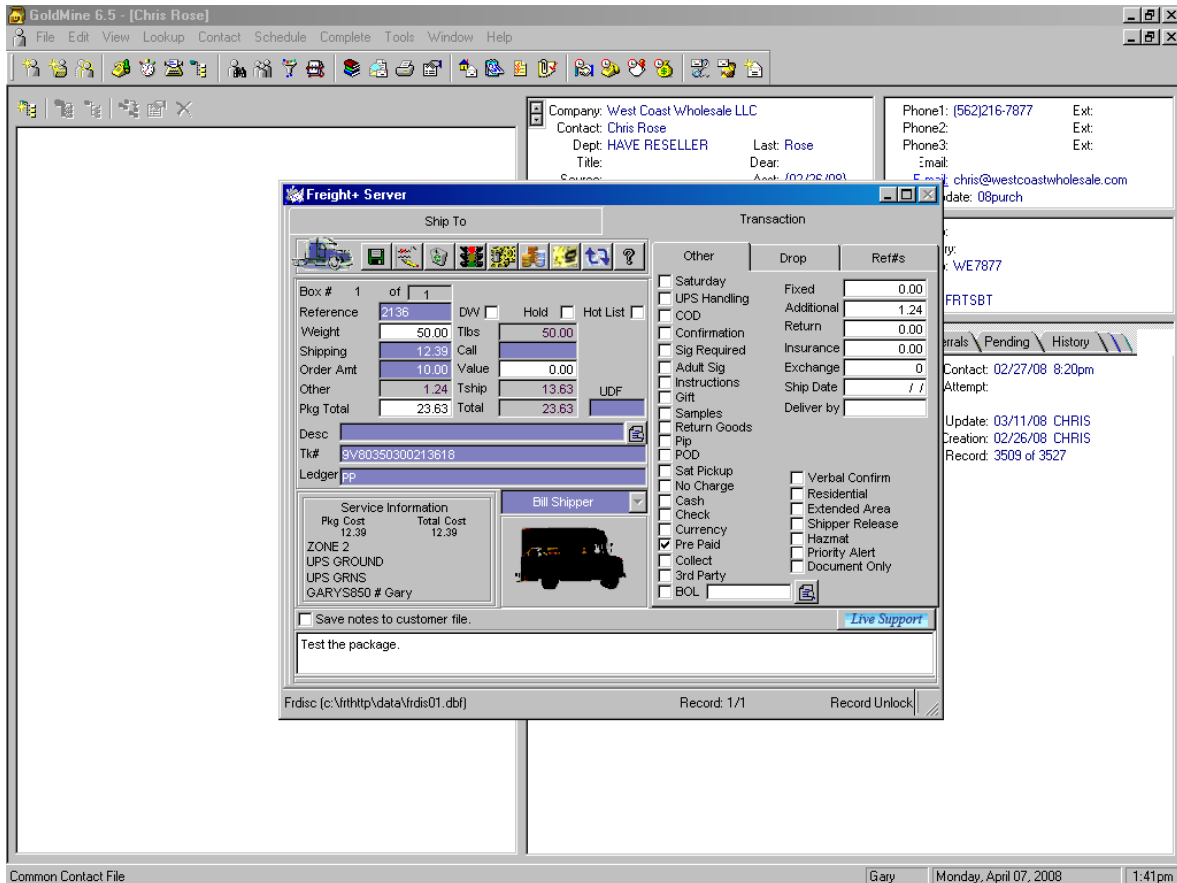
The Freight+ COM/API (Application Programming Interface) object allows you to post shipping transactions to Freight+ from any Microsoft compatible language. VFP, VB, .Net, Jscript, VB.NET, ASP, C++. Any language that can access a Microsoft COM/API can use the Freight+ API to enter shipments real-time from any application.

The Freight+ COM/API can process shipments or simply post new shipping transactions to the Freight+ database to be processed by the shipping clerk using the Freight+ user interface.

### Two API Processing Methods

1. Process the shipment immediately when posted from the API inside 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 popping up from inside of a application.



## Configure FREIGHT+ API to Process Form YOUR Applications Real Time

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 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+ COMAPI IN WINDOWS

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

```
f:\frtplus\frtobj.exe /regserver
```

## TESTING and SAMPLE APPLICATIONS FOR VB, VB.NET, JSCRIPT, ASP

We have provided sample applications so you can see samples of the API and Freight+ Server running on your computer before you start any development. Samples are located in the Freight+ COM\_SAMPLES directory.

### Steps to test Freight+ COMAPI on your machine:

1. We have posted a transaction in the sample database, so when call the API for the first time the server screen will pop-up just as it will in your application.
2. Sample applications for VB, VB.NET, Jscript and 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. Click on the "registerdll.bat" to register 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+ COMAPI and Freight+ will pop-up and allow you to process the shipment.

## WORKSTATION SETUP

If accessing Freight+ COMAPI (FRTOBJ.EXE) from a workstation that was not the original Freight+ installation workstation you must read "Workstation Setup Instructions PDF" located on the "Docs and Tips" menu in Freight+. Freight+ COMAPI will not operate until you finish the workstation setup instructions.

The remainder of this document contains a list of functions available to you when accessing the Freight+ COM/API libraries for all compatible languages and sample code to access the API from VFP, Visual Basic, Jscript, .NET.

## ACCESSING Freight+ COMAPI 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 COMAPI 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 using FRT\_COMMIT\_GET() or use FRT\_COMMIT() to commit the transaction to Freight+ to be processed at a later date.

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.  
x.frt\_commit\_get()

## FREIGHT+ COMAPI FUNCTIONS

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

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

You will need to create an instance of the COMAPI 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 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.

## 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 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 %

## COMMIT YOUR SHIPMENT TO FREIGHT+

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

Sample: `x.frt_commit()`

Returned is a unique identifier string.

Sample of a "unique Identifier" returned string from `frt_commit` : `_2FA0ZEXFA`

A unique transaction identifier will be returned. Use this unique identifier in the `FRT_GET_TRACKING()` call to ensure you are getting the correct tracking #.

When entering multiple shipments on the same order in one day there is 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 on a one order in a single day.

## COMMIT and GET Results in one function call

This function combines `frt_commit()` and `frt_Get_tracking()` into a single commit that returns the `frt_get_tracking()` results without having to call `frt_get_tracking()`. If you use `frt_commit_get()` Freight+ API does not return to your application until it gets either a shipping price or an error. Where the `frt_commit()` function just posts the transaction and you can call the `frt_get_tracking()` when ever your ready.

Example: `Return_string = frt_commit_get()`

## GET TRACKING # AND PRICE BACK FROM FREIGHT+

### 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 <code>FRT_COMMIT()</code> . 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,

Read this note: You can retrieve the tracking # for each box shipped. Call FRT\_GET\_TRACKING and Freight+ will respond with the following fields: Total Shipping Price for all boxes shipped, Shipping Price for single box, Tracking# for single box, Carrier Name, Total # of Packages in shipment, Any error that occurred during shipment.

If Total # Packages returned is > 1 you will need to call FRT\_GET\_TRACKING for each additional package to retrieve the Price and Tracking #.

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)
```

9999 is the Shipment reference # and 2 is the box to get tracking # for.

### 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)
```

## OPTIONAL SERVICE FUNCTIONS

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.	x.frt_process_now()
FRT_LAST_ERROR				Returns Last Error	x.frt_last_error(returned_error)
FRT_CLEAR_ERROR				Clear Last Error	x.frt_clear_error()
FRT_COD	COD	C	1	Pass "1" for COD, "2" for one COD tag for entire shipment or "0" to remove COD flag	x.frt_cod("1")
F_CASH	COD	C	1	Pass "1" for Cashiers Check or "0" to Remove Cashiers Flag.	x.frt_cash("1")
F_CHECK	COD	C	1	Pass "1" to Company Check Ok or "0" to Remove Company Check Ok flag.	x.frt_check("1")
FRT_BOL	BOL	C	1	Pass '1' to mark shipment requiring a Bill of Lading. Or '0' to remove BOL flag	x.frt_bol("1")
FRT_CON	Confirmation of Delivery	C	1	"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"," <a href="#">yourname@here.com</a> ")
		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	Chang 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 <sup>nd</sup> Ref#	C	35	Added 2 <sup>nd</sup> 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

1	Drop	<b>N</b>	1	<b>"1" to flag as Drop Ship</b>			
2	Company	<b>C</b>	35				
3	Address 1	<b>C</b>	35				
4	Address 2	<b>C</b>	35				
5	City	<b>C</b>	30				
6	State	<b>C</b>	2				
7	Zip	<b>C</b>	10				
8	Attention	<b>C</b>	30				
9	Phone	<b>C</b>	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 3<sup>rd</sup> Party, Consignee. Not required if Pre-Paid

(default)

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

Example 3<sup>rd</sup> 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()
```

**.Net Code to Retrieve Tracking #, Cost and Price from Freight+ for each package Shipped.**

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

```
x = New frtobj.frtobj1
```

```
Dim frtreturn As String
```

```
x.frt_get_tracking("9999", 2, frtreturn)
```

9999 is the Shipment reference # and 2 is the box to get tracking # for.

## 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

### 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  
Alderbrook", "", "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
```

### VFP Code to Retrieve Tracking #, Cost and Price from Freight+ for each package shipped

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

```
frtreturn=""
```

```
x.frt_get_tracking("9999", 1, @frtreturn)
```

### 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)
```

```
mystring = oServer.frt_headerr("Gary","Your Shipto Company", "32808 Alderbrook ", "", "Wildomar", "CA", "92595", "(909  
678-4545", "USA", "UPS GRNC", "", "VERBAL", "T122", "ACP1", 5, 1, true)
```

```
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_printurl("ELTRON")
```

```
mystring= oServer.frt_commit_get()
```

```
Response.Write mystring%>
```

```
</html>
```