



BLOOMBERG DESKTOP CONTRIBUTION APPLICATION INSTALLATION & TECHNICAL REFERENCE

Date: September 2016
Version: 4.0.0.84

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System Requirements

- Microsoft Windows 7 32/64 bit, or above
- Microsoft Excel 2007 32, Excel 2010 32/64 bit, Excel 2013 32/64
- Operational NIC (Network Interface Card), Ethernet.
- 4 MBs of Ram

Note that DCAP is implemented as a Microsoft Office automation project and therefore does not require admin rights for initial installation or to install an update provided the following pre-requisites are already installed in the PC:

- Microsoft .NET Framework 4.5 (x86 and x64)
- Microsoft Visual Studio 2010 Tools for Office Runtime (x86 and x64)
- Microsoft Windows Installer 4.5

If any of these pre-requisites are missing, the DCAP installer can install these for you, but in that case local admin rights are required for the initial install.

Upgrading to Desktop Contribution Application (DCAP) from Price-link

If you want to upgrade to the DCAP from any version of Price-link, please contact your Bloomberg representative and ask to be setup with a new feed. The DCAP client software is NOT compatible with the existing Price-link server software, so a new feed will have to be setup for the transition. When the new feed is ready, your Bloomberg representative will provide you with new configuration details consisting of a network area (Americas, EMEA, and APAC for connectivity over terminal leased lines or Internet, Internet2, Internet3 for connectivity over the internet), and environment (Beta or Production), a Username, and a Password. Once you receive the DCAP configuration details, you are ready to start the installation process. Your DCAP client software can be installed in a PC that is already running the Price-link software. However, since the formula signatures are practically identical, you will need to load the DCAP add-in and unload the Price-link add in to test DCAP, and unload the DCAP add-in and load the Price-link add-in to go back to Price-link.

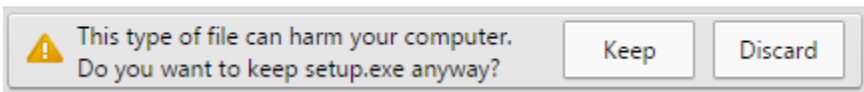
Installing DCAP

As discussed in the system requirements section, running the DCAP installer does not require local PC admin rights if all the pre-requisites are already installed. If they are not installed, you will need to be granted admin rights to run the installer, or get an admin to run the installer for you. Take the following steps to install DCAP. Skipping any of the installation steps described below may result in an incomplete installation and may require DCAP to be uninstalled and reinstalled again for proper operation.

1. Ensure that there are no instances of Excel running.
2. Download the installer from:

<http://contributions.bloomberg.com/>

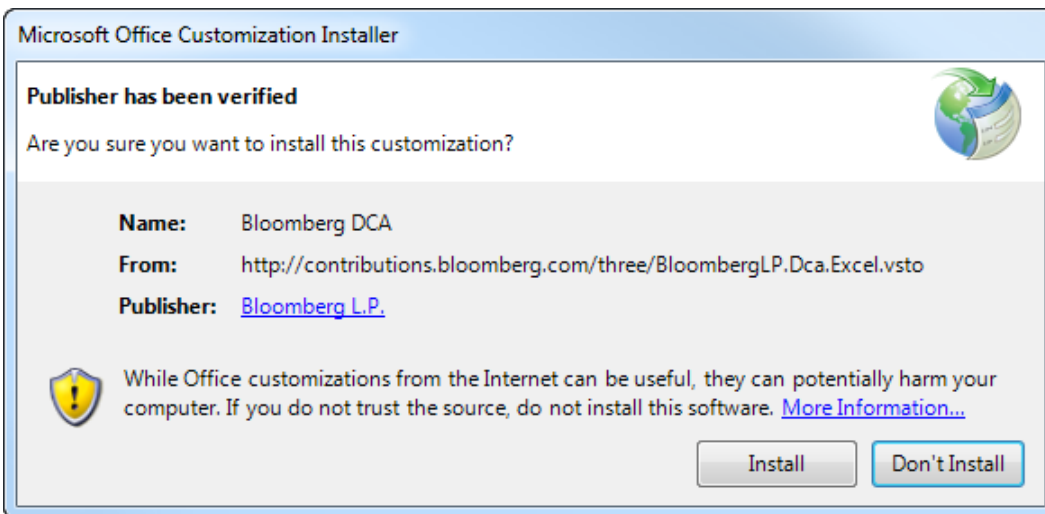
Depending on the browser used, you may receive a warning indicating that the file being downloaded could be harmful to your computer and give the user the option to Keep or Discard.



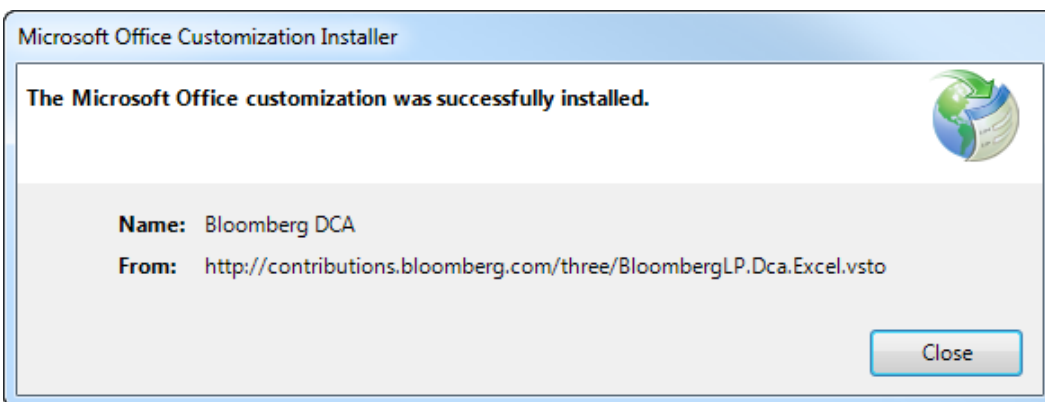
3. Select Keep, and chose to run the installer or save in and then run



4. A dialog box will be displayed confirming that the Publisher (Bloomberg L.P.) has been verified. Click in Install to proceed with the installation.



5. Upon completion of the installation process a new dialog will be displayed confirming installation has been completed. At this point everything is ready for you to start configuring the software.



Configuring DCAP

Once the DCAP Excel Addin has been installed, the next step is to configure the connectivity options. There are two choices;

Direct TCP/IP

Connectivity in this case is direct from the user's desktop back to Bloomberg. As a result, your Bloomberg representative will have to assign login credentials in the form of a Trader Identifier and a Password.

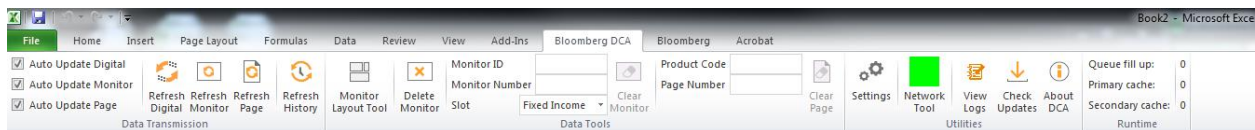
nb: It may also be the case that your firm has opted out of this mode, and only the following is available;

Enterprise Platform

Choosing this option causes the DCAP Addin to connect to a set of servers in your firm known as 'appliances'. These servers are part of your firm's Enterprise Platform offering. Your system administrator will need to entitle your existing desktop credentials for access to perform contributions.

To configure DCAP take the following steps:

1. Open Excel, and go to the Bloomberg DCA ribbon.



2. Click in the Settings button to open the configuration user interface

Configuring DCAP for Direct TCP/IP

The screenshot shows a 'Settings' dialog box with two tabs: 'General' and 'Advanced'. The 'Direct TCP/IP' radio button is selected. The 'General' tab contains the following fields and controls:

- Trader:** Text input field containing '200475'.
- Password:** Password input field with masked characters '*****'.
- Region:** Dropdown menu set to 'Internet2'.
- Environment:** Dropdown menu set to 'BETA', with a 'Test' button to its right.
- Override Hosts:** A checkbox that is currently unchecked.
- Primary host:** Two text input fields containing '127.0.0.1' and '11011'.
- Secondary host:** Two text input fields containing '69.191.229.74' and '11011'.
- Load:** Two radio buttons: 'DCA Addin' (selected) and 'Pricelink Addin'.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

The **Direct TCP/IP** option should be selected, and you should populate the fields in the General tab with the configuration details provided by the contributions rep. The Primary and Secondary host IP addresses and ports will be populated automatically based on your selection of Region and Environment. However if you need to route connectivity over a proxy server, you have the option to manually override those IPs/Ports and configure your proxy to forward connectivity to the original IPs/Ports displayed.

Configuring DCAP for Enterprise Platform

The screenshot shows the 'Settings' dialog box for DCAP. The 'Enterprise Platform' option is selected. The 'General' tab is active. The 'Primary IP' and 'Port' fields are highlighted with red boxes. The 'Authentication' section has 'Windows Login' selected. The 'Page Data' section has a checkbox for 'Page Data' and fields for 'Contributor Id' and 'Service Name'. A table with columns 'Slot' and 'ServiceName' is at the bottom.

The **Enterprise Platform** option should be selected. Your system administrator will provide all of the pertinent field values, but the following fields will need to be set up before proceeding;

Primary/Secondary IP An Enterprise Platform configuration consists of at least two appliances/servers. This setting requires that the IP addresses and ports are stipulated for the Primary and Secondary devices. The Port is typically 8196. If there are additional servers, these should be configured by clicking on the ellipsis button.

Authentication This setting configures whether the DCAP Excel Addin will use entitlements based on the users Windows login, or, an Active Directory object (eg "mail").

The above settings ensure that the DCAP Excel Addin can connect to the Enterprise Platform with the appropriate credentials. Once this has been achieved, there is a need to set up the Enterprise Platform *services* that will be used by DCAP formulas. These *services* allow the DCAP formulas to target different asset classes using corresponding pricing sources (where applicable).

Page Data If there is an intention to access GPGX/text pages using the `PIContribPage()` formula, then this checkbox needs to be ticked. When checked, you must supply the Contributor Identifier (ConID) of the GPGX in question, and, the

service name that will be associated/leveraged by the `PIContribPage()` formula. An example might be; `//mybank/c-gdco`.

Slot/ServiceName

Most DCAP formulas will require a reference to a *slot*. Typically, in a **Direct TCP/IP** environment, these slots will drive which contribution channels are used during pricing updates. Examples of slots include; “Forex”, “Bond”, “Spread”, etc. In an **Enterprise Platform** configuration, these *slots* drive which Enterprise Platform *services* are targeted.

To set up a slot, double-click in a blank cell under the “Slot” column, then select one of the slots from the drop down list box, eg Forex. Once selected, double-click in the cell to the right and proceed to type an Enterprise Platform service name, eg `//mybank/fx-treasury-desk`. No validation is performed at this point.

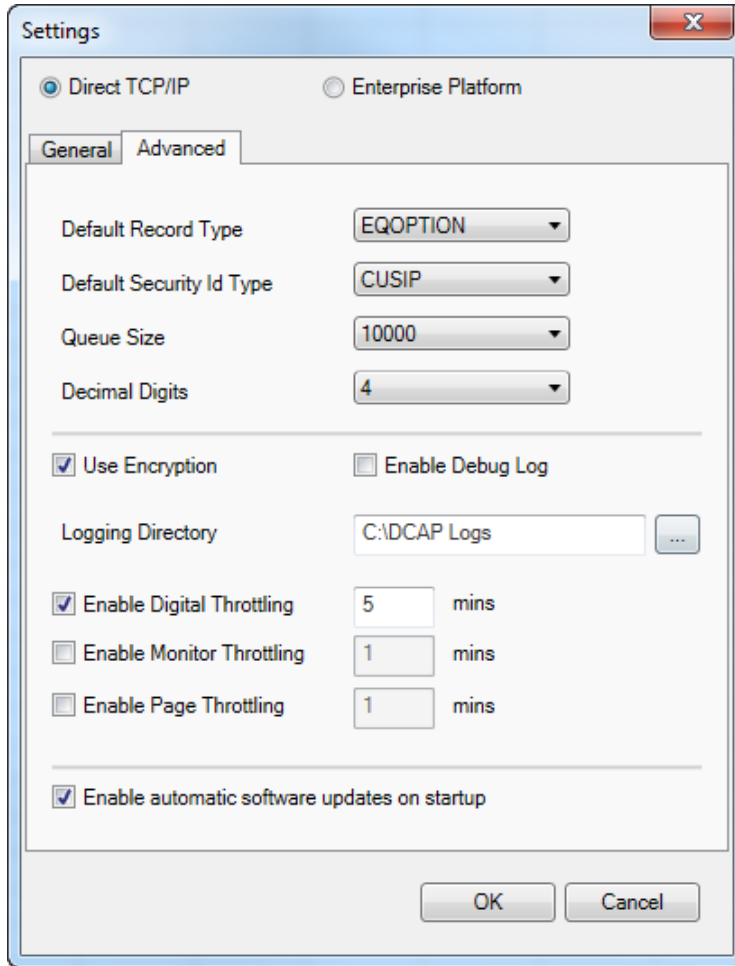
For every associated *slot* that will be in use in the spreadsheet/workbook, build an association with an Enterprise Platform service.

Click OK to complete the configuration. The DCAP Excel Addin will immediately attempt connections to the nominated servers.

Advanced Options

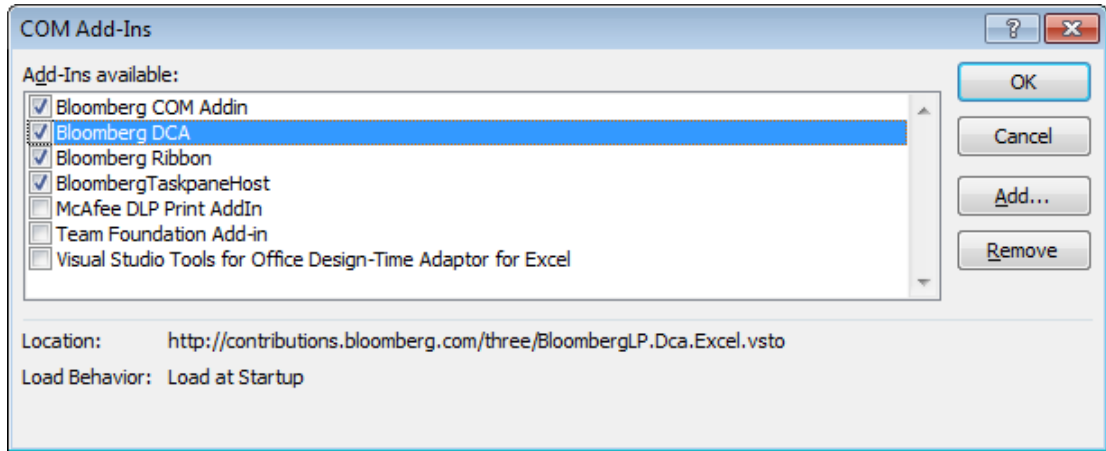
1. The Advanced tab allows you to define default values for the software so that a simplified version of the formulas can be used. Your Bloomberg representative will tell you if you need to change the default settings. In this tab you can also enable debug logging to assist with troubleshooting purposes, as well as define the directory/folder where you want those log files stored. Please make sure you have write access to the directory/folder you select. For optimal throughput and secure transmission, you should select the Use Encryption box. It is also recommended that you keep the Enable automatic software update on startup box to ensure you always have the latest version of the software and have access to new features as they get rolled out.



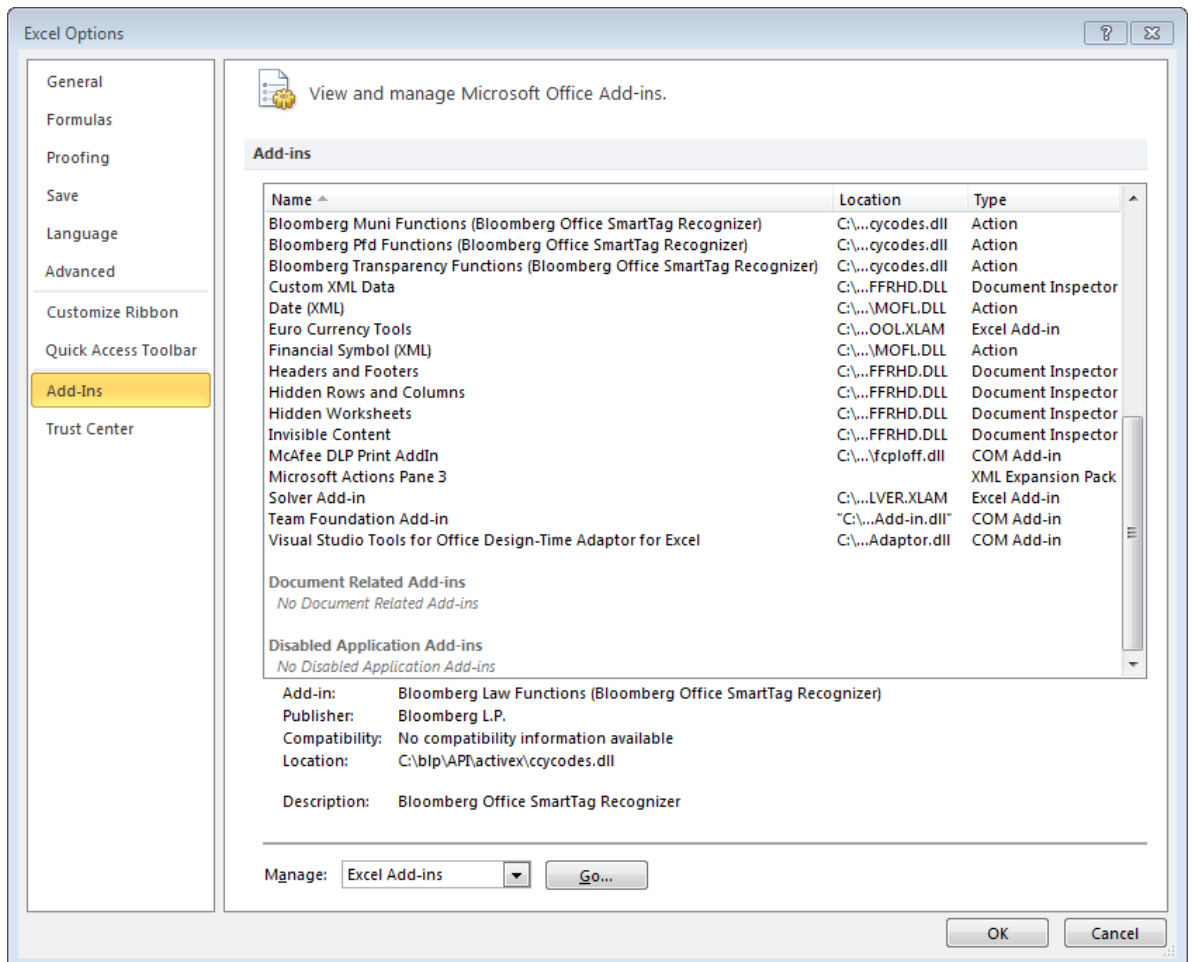


2. DCAP has now been successfully configured, please click in OK to save the settings and exit the user configuration. Configuration changes take effect immediately without the need to restart the PC or Excel and may result in a brief disconnection from the server.
3. If an admin login was used to install the software, the end-user may have to manually load the add-in in Excel. To do this, in Excel go to File, Options, Manage: COM Add-ins, and tick the Bloomberg DCA box.





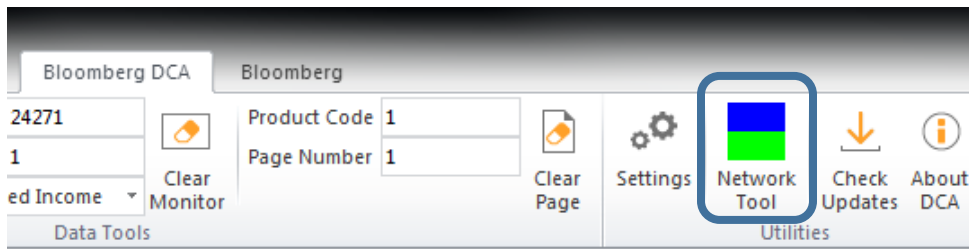
If you have difficulties loading the Bloomberg DCA add-in, please check if the add-in displays in the Disabled Application Add-ins section.



If you find the add-in in the Disabled Application Add-ins section, go to Manage: Disabled Item, click in Bloomberg DCA and click in the enable button. Then go back to Manage: COM Add-ins and tick the Bloomberg DCA box.

Monitoring the Connection Status

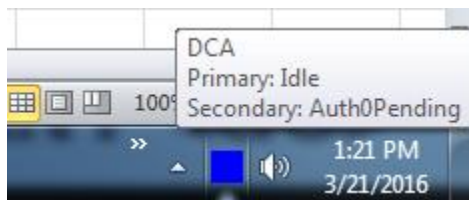
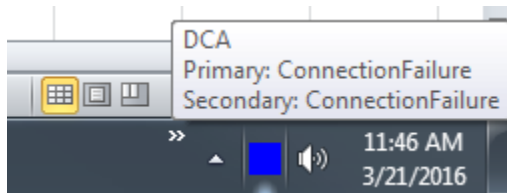
The state of the connection can be monitored directly in the Bloomberg DCA ribbon in Excel with the Network Tool button.



The box is split in two because DCAP in production connects to two separate servers for redundancy, so each half indicates the connectivity status to each server. In the image above, blue in the box indicates no connection and green indicates active connection. In Beta, there is only one server, so when your DCAP is configured with Beta as the Environment in the general tab of the configuration screen, it is normal to have a split box that is half green half blue. However, once you get configured to go to production the entire box should be green.

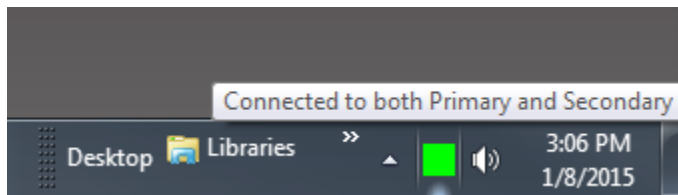
There is also the Desktop Notification Tool which will display as an icon in your system tray that reflects the status of your connection. In the case connection is lost for any reason periodically a bubble message will alert you of the issue with the connection. In addition, hovering with the mouse over the icon will display the status in a tooltip.

1. If the icon is blue



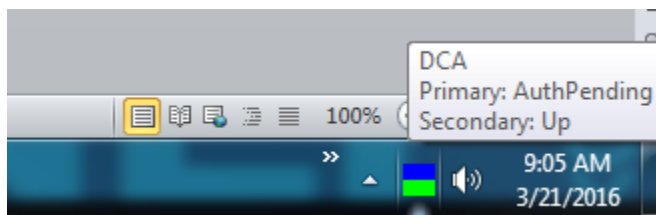
The contribution session could not establish a connection to the IP addresses specified in the General configuration tab or the contribution session has not been authenticated to the server. This is could be caused by a firewall issue or by having incorrect credentials in the configuration. You can use the DCAP Network tool to try to determine if the connection is being blocked. Please contact your firewall administrator to make sure that the IP addresses and ports specified in the network configuration tab have been cleared in your firewall. If the connection is not being blocked by a firewall, please contact your Bloomberg representative to confirm the credentials you entered in the configuration screen are correct.

2. If the icon is green



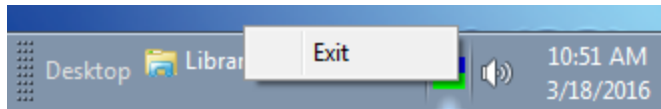
The contribution session has been successfully established and is ready to accept pricing contributions.

Since DCAP Desktop Notification monitors two connections it is possible to have mix connectivity status.



From time to time the status of the connection may change which will be reflected by the notification tool – if for any reason the contribution session becomes disconnected prices can still be submitted but they will be queued until the session is re-established. If the disconnected state persists for any length of time then you should request assistance from your Bloomberg representative.

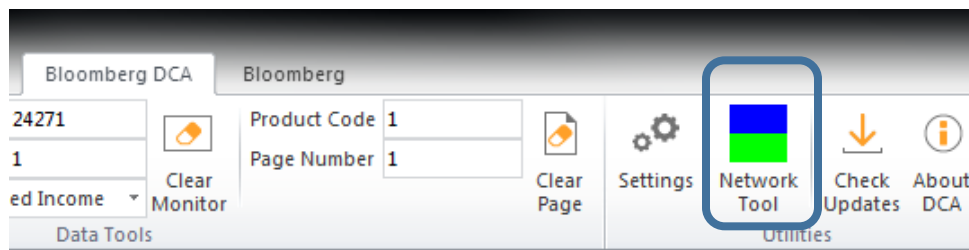
If you want to exit the notification tool, simply right click on it, and select Exit



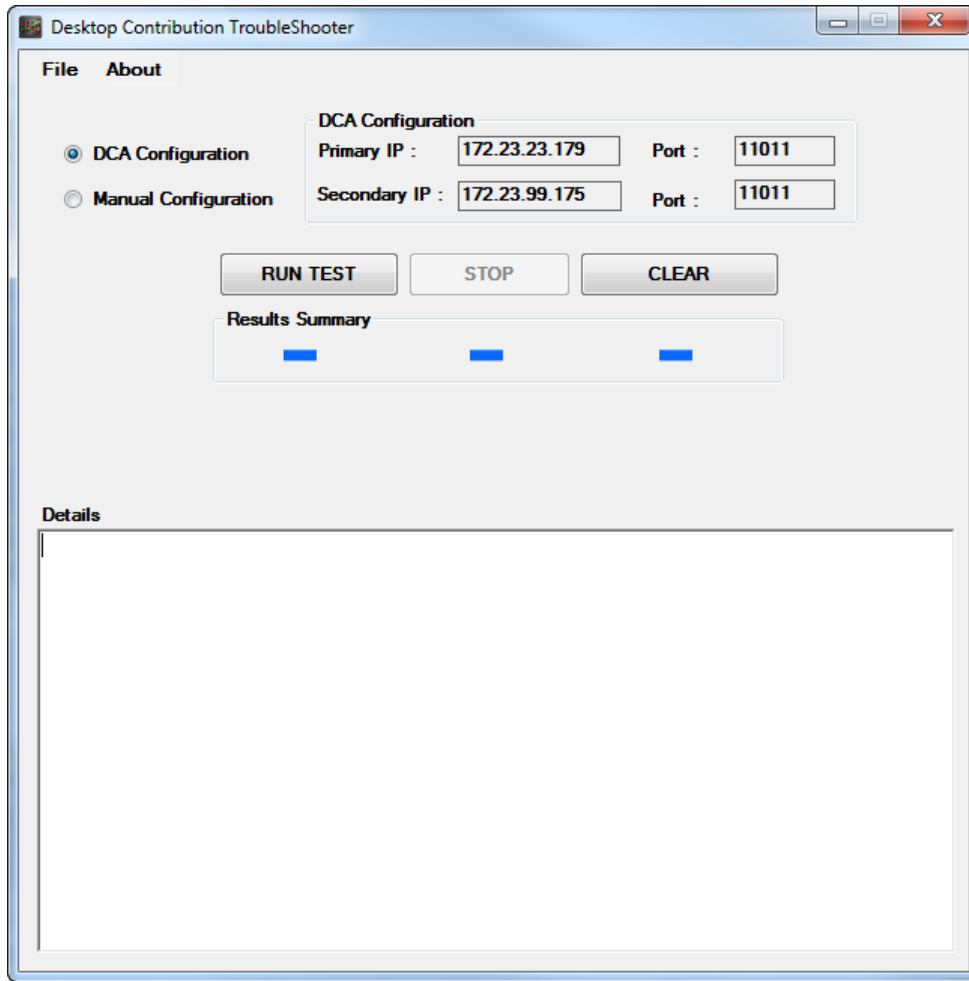
If you want to start the notification tool again you can double-click on the Bloomberg DCA shortcut in the Startup folder.

[DCAP Network troubleshooting tool](#)

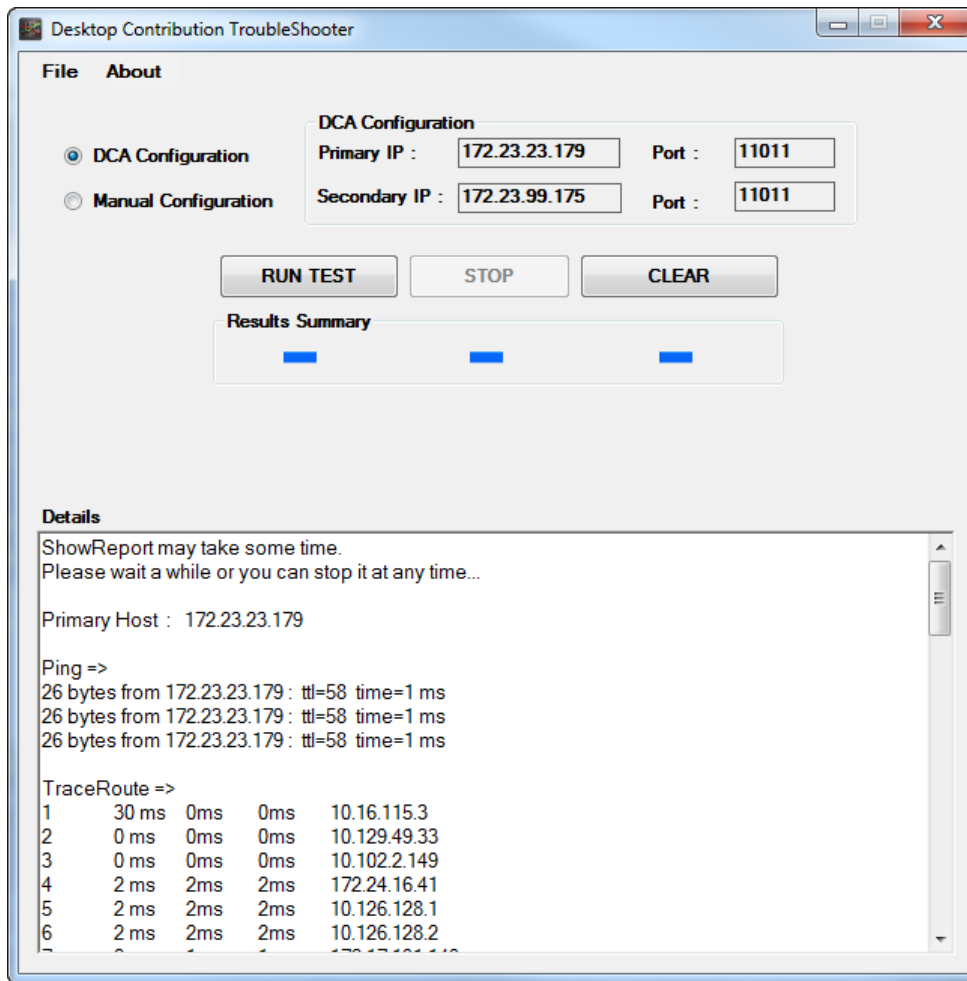
This tool only allows connectivity in a **Direct TCP/IP** configuration to be tested. It offers a network troubleshooting tool to help you determine if/where the connection is being blocked. To launch the tool you can click in the Network Tool button in the Bloomberg DCA ribbon in Excel.



Once you click in either option you should see the following screen:



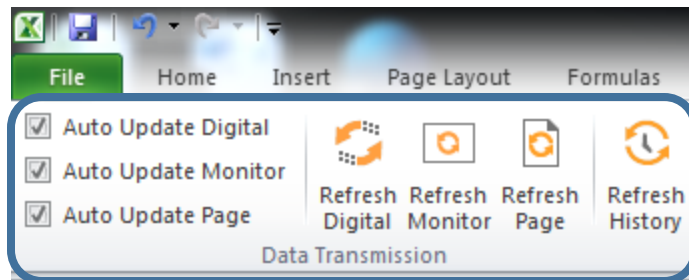
Your configured DCAP IP addresses and port should be automatically populated with the values you see in the General tab of the configuration screen. You also have the option to manually enter different IP addresses and ports by selecting the Manual Configuration option. Confirm the values are correct and click in the RUN TEST button. This will run ping, tracert, and telnet to the selected IPs/Ports. The results of the tests should display in the Details section of the screen.



You have the option to select the test results from the Details box and copy them in the clipboard to later send them to your Bloomberg representative and your Firewall administrator for analysis.

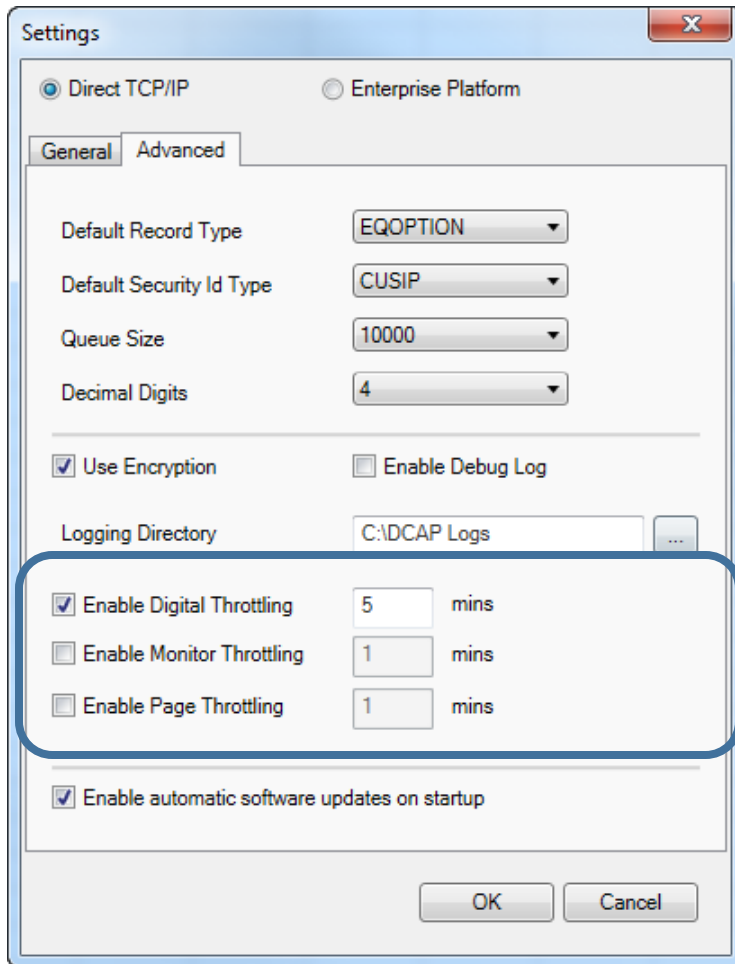
Sending Data to Bloomberg

DCAP allows contributors to send page-based data, digital prices (current day and historic), and to maintain the list of securities in their monitors. This can be done manually, by clicking in the different Refresh buttons in the DCAP ribbon in Excel, or automatically, when the different Auto Update flags have been checked off. In addition, DCAP offers the option to automatically send updates at specified time intervals set via the throttling settings in the advanced tab in the configuration screen.



Clicking in the Refresh Digital button will force send all the digital prices in the spreadsheet to Bloomberg. On the other hand, if the Auto Update Digital flag is checked off, the prices will be sent out automatically as soon as they change in the spreadsheet. The same principle applies for page-based data with the Refresh Page button and the Auto Update Page flag and for the maintenance of the list of securities in monitors with the Refresh Monitor button and the Auto Update Monitor flag. Bloomberg does not recommend the use of the Auto Update Monitor flag as this may result in excessive number of unnecessary updates being sent, causing monitors to blink frequently and, in extreme cases, slowness on the feed.

In order to setup the automatic updates at specified time intervals you need to go to the advance tab in the configuration screen.



If you select Enable Digital (price) Contributions Throttling and set the interval to every 5 minutes, DCAP will check every 5 minutes if the cells with the values referenced in the formulas have changed and if they have, it will send an update to Bloomberg. The same logic applies for Monitor Contributions and Page Contributions throttling.

N.B.

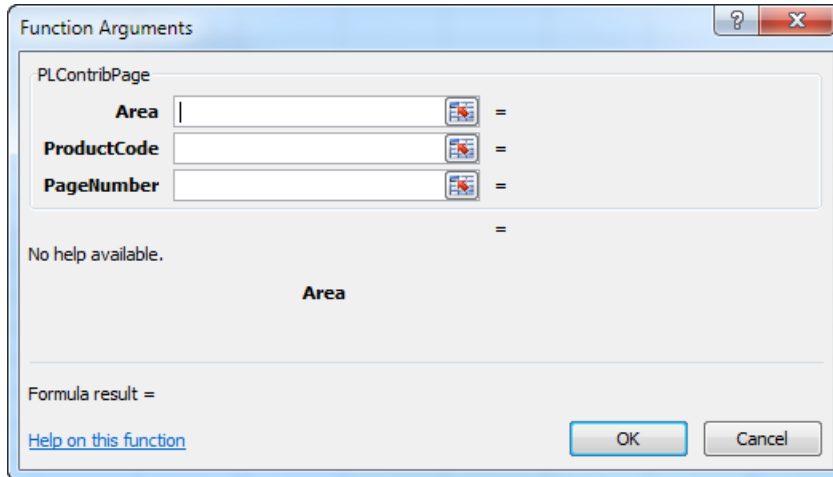
It is very important to note that the throttling settings only apply if you have disabled all 3 Auto Update Flags in the DCAP Ribbon in Excel. If any of the Auto Update Flags is on, the Throttling settings will not take effect.

Sending Page-based Data

PLContribPage Function

This formula allows you to send page-based data. This formula is subject to the Auto Update Page flag.

PLContribPage(Area, Product Code, PageNumber)



Return value:

Returns the number of cells contributed followed by the timestamp in parentheses ().

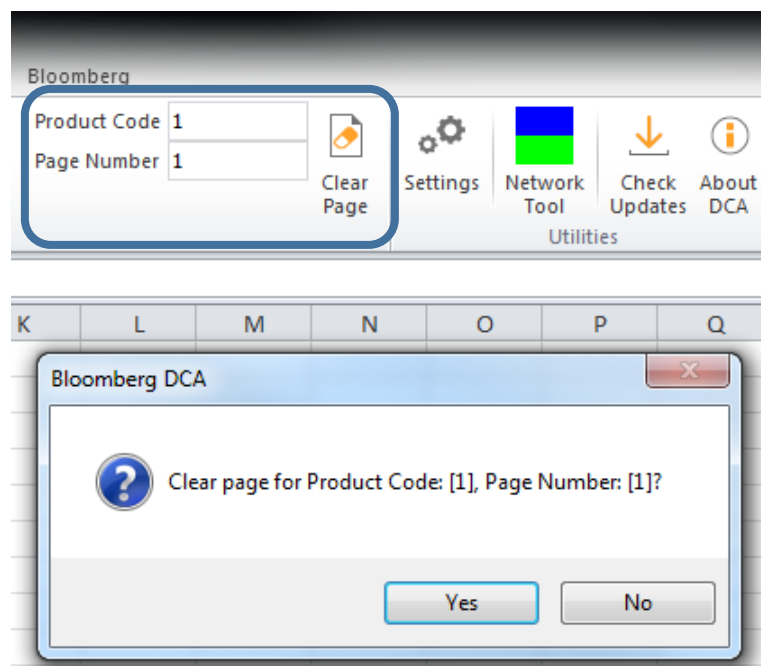
If an error occurs, the function returns:

Error Message	Description
Error: queue is full	The DCAP local PC queue is full. This can be caused by connectivity issues or the contribution data rate exceeding the capacity of the software for an extended period of time.
Skip Page	The referenced value has changed but the data has not been sent to Bloomberg because the Auto Update Page flag is not on and the Refresh Page button in the DCAP ribbon hasn't been clicked to send the data.
Invalid Product Code	The value assigned to the ProductCode parameter in the formula is invalid.
Invalid Page Number	The value assigned to the PageNumber parameter in the formula is invalid

Arguments:

Argument	Description	Valid Values
Area	Reference to the area of the spreadsheet that you wish to contribute as a page.	Example, A1:H12
ProductCode	A numeric value defining under which menu item (on the Bloomberg page display system) the page will appear.	Valid number corresponding to a menu item on the Bloomberg. Your Bloomberg Representative provides this!
PageNumber	A numeric value defining under which page number (within a menu item) the page will appear.	Valid number corresponding to a page number (within a menu item) on the Bloomberg. Your Bloomberg Representative provides this!

To clear the page, simply enter the Product Code and Page Number button in the Bloomberg DCA ribbon in Excel and hit Enter, this will enable the Clear Page button. Then click in the Clear Page button. A dialog will display for you to confirm that you want to proceed.



[Sending Digital Prices](#)

PLContribQuote

This formula allows you to send current day Prices and Sizes. This formula is subject to the Auto Update Digital flag.

PLContribQuote(Value, TransactionType, SecurityId, RecordType, SecurityIdType, Size, Precision, FirmID, ConditionCode)

Function Arguments

PLContribQuote

Value	<input type="text"/>	=
TransactionType	<input type="text"/>	=
SecurityId	<input type="text"/>	=
RecordType	<input type="text"/>	=
SecurityIdType	<input type="text"/>	=

No help available.

Value

Formula result =

[Help on this function](#)

Function Arguments

PLContribQuote

SecurityIdType	<input type="text"/>	=
Size	<input type="text"/>	=
Precision	<input type="text"/>	=
FirmId	<input type="text"/>	=
ConditionCode	<input type="text"/>	=

No help available.

SecurityIdType

Formula result =

[Help on this function](#)

Return value:

Returns the Price contributed followed by the timestamp in parentheses (). This function automatically filters duplicates updates. If a contribution is duplicated the return value is preceded by an asterix (*).

Error Message	Description
Error: queue is full	The DCAP local PC queue is full. This can be caused by connectivity issues or the contribution data rate exceeding the capacity of the software for an extended period of time.
Skip Digital	The referenced value has changed but the data has not been sent to Bloomberg because the Auto Update Digital flag is not on and the Update Digital button in the DCAP ribbon hasn't been clicked to send the data.
Invalid Transaction Type	The value provided in the TransactionType parameter in the formula is not supported.
Invalid Security Id Type	The value provided in the SecurityIdType parameter in the formula is not supported.
Invalid SecId Length	The length of the string provided in the SecurityId parameter in the formula is not consistent with the value provided in the SecurityIdType (e.g. Isins should be 12 characters long)
Invalid Record Type	The value provided in the RecordType parameter in the formula is not supported.
Invalid condition code	The value provided in the ConditionCode parameter in the formula is not supported.
Duplicate Value	The update is a duplicate and has been filtered.
Blank Skipped	The cell referenced in the Value parameter in the formula is blank/empty.

PLContribQuote Arguments:

Argument	Description	Valid Values
Value	Normally a cell reference, defining the location of the value (price) to be contributed from the spreadsheet.	Any cell number, e.g. E3

TransactionType	Defines what the value represents, e.g. Bid or Ask price. It accepts a set of standard keywords.	This formula is specific to handle BID, ASK, BLSPRDTOBENCHBIDRT, BLSPRDTOBENCHASKRT, and accompanying sizes.	
SecurityId	The Security ID string used by Bloomberg to identify which security the price refers to. Normally SecId is a cell reference, which actually contains the Security ID.	A valid ISIN, CUSIP, or SEDOL number OR value pointing to the cell containing the SecID.	
RecordType	Any valid record types	Record Type	Value Represents
		FOREX	Foreign Exchange
		Bond	Bond
		ODDBOND	Odd Bond
		Slot41-Slot49	Additional slots
SecurityIdType	Standard used in identifying the securities contributed to Bloomberg	<ul style="list-style-type: none"> • Parsekey • SEDOL • ISIN • CUSIP • TICKER • VALOREN • WPKN • FRENCHNUM • JAPANNUM • OPTION 	
Precision	Specifies the maximum number of digits after the decimal point. To use the default precision set up in your contribution system (see User Configuration), set Precision to -1(or any negative number).	Any number between 0 and 9.	

FirmId	This parameter is optional. It represents an ID that uniquely identifies a firm for this price. Contact your Bloomberg Representative to get a list of valid firm identifiers.	Any string, limited to 4 characters	
ConditionCode	This parameter is optional. It represents a condition code for this price.	Condition Code	Value Represents
		Firm	The BID or ASK is Firm
		Clear	If the BID or the ASK are zeroes, this indicates that the contributor wants to clear the data from ticker-plant.
		Valid	If the BID or the ASK are zeroes, this indicates that the actual Bid or Ask has a (valid) zero value
Size	This parameter is optional. Normally a cell reference, defining the location of the amount bid or offered.	Any cell number, e.g. E3	



PLContribFull Function

This formula allows you to send current day prices. This formula is subject to the Auto Update Digital flag.

PLContribFull(Value, TransactionType, SecurityId, RecordType, SecurityIdType, Precision, FirmID, ConditionCode, Status)

Function Arguments

PLContribFull

Value | =

TransactionType =

SecurityId =

RecordType =

SecurityIdType =

No help available.

Value

Formula result =

[Help on this function](#)

OK Cancel

Function Arguments

PLContribFull

SecurityIdType | =

Precision =

FirmId =

ConditionCode =

Status =

No help available.

SecurityIdType

Formula result =

[Help on this function](#)

OK Cancel

Return value:

Returns the Price contributed followed by the timestamp in parentheses ().

This function automatically filters duplicates updates. If a contribution is duplicated the return value is preceded by an asterisk (*).

If an error occurs, the function returns:

Error Message	Description
Error: queue is full	The DCAP local PC queue is full. This can be caused by connectivity issues or the contribution data rate exceeding the capacity of the software for an extended period of time.
Skip Digital	The referenced value has changed but the data has not been sent to Bloomberg because the Auto Update Digital flag is not on and the Update Digital button in the DCAP ribbon hasn't been clicked to send the data.
Invalid Transaction Type	The value provided in the TransactionType parameter in the formula is not supported.
Invalid Security Id Type	The value provided in the SecurityIdType parameter in the formula is not supported.
Invalid SecId Length	The length of the string provided in the SecurityId parameter in the formula is not consistent with the value provided in the SecurityIdType (e.g. Isins should be 12 characters long)
Invalid Record Type	The value provided in the RecordType parameter in the formula is not supported.
Invalid condition code	The value provided in the ConditionCode parameter in the formula is not supported.
Duplicate Value	The update is a duplicate and has been filtered.
Blank Skipped	The cell referenced in the Value parameter in the formula is blank/empty.

PLContribFull Arguments:

Argument	Description	Valid Values	
Value	Normally a cell reference, defining the location of the value (price) to be contributed from the spreadsheet.	Any cell number, e.g. E3	
TransactionType	Defines what the value represents, e.g. Bid or Ask price. It accepts a set of standard keywords.	See DCAP Transaction Table (Table 1) for a full list of valid entries. The most common values are BID, ASK, TRADE, BIDYIELD, ASKYIELD For contributing Sizes along with Prices, use PLContribQuote instead.	
SecurityId	The Security ID string used by Bloomberg to identify which security the price refers to. Normally SecId is a cell reference, which actually contains the Security ID.	A valid ISIN, CUSIP, or SEDOL number OR value pointing to the cell containing the SecID.	
RecordType	Any valid record types	Record Type	Value Represents
		FOREX	Foreign Exchange
		BOND	Bond
		ODDBOND	Odd Bond
		Slot41- Slot49	Additional slots
SecurityIdType	Standard used in identifying the securities contributed to Bloomberg	<ul style="list-style-type: none"> • Parsekey • SEDOL • ISIN • CUSIP • TICKER • VALOREN • WPKN • FRENCHNUM • JAPANNUM • OPTION 	

Precision	Specifies the maximum number of digits after the decimal point. To use the default precision set up in your contribution system (see User Configuration), set Precision to -1(or any negative number).	Any number between 0 and 9.	
FirmId	This parameter is optional. It represents an ID that uniquely identifies a firm for this price. Contact your Bloomberg Representative to get a list of valid firm identifiers.	Any string, limited to 4 characters	
ConditionCode	This parameter is optional. It represents a condition code for this price and should only be used if agreed upon with your Bloomberg representative.	Condition Code	Represents
		Firm	The BID or ASK is Firm
		Clear	If the BID or the ASK are zeroes, this indicates that the contributor wants to clear the data from ticker-plant.
		Valid	If the BID or the ASK are zeroes, this indicates that they are valid zeroes and that the prices are meant to be Firm.
Status	This parameter is optional. It represents the status of the "market" at the time the price was generated.	This should only be used if agreed upon with your Bloomberg representative	



PLSendHistory Function

This formula allows you to send historical values up to 30 days back. Before using this formula, contact your Bloomberg representative to make sure your feed has been configured to allow historic updates. This formula is NOT subject to the Auto Update Digital setting and in order to send the data you must always push the Refresh History button in the DCAP ribbon in Excel.

PLSendHistory(SecurityId, Value, TransType, PastDate, RecordType, SecurityIdType)

Function Arguments

PLSendHistory

SecurityId | =

Value =

TransactionType =

PastDate =

RecordType =

= "Invalid Date (09:10:46.400)"

Sends digital data.

SecurityId

Formula result = Invalid Date (09:10:46.400)

[Help on this function](#) OK Cancel

Function Arguments

PLSendHistory

TransactionType | =

PastDate =

RecordType =

SecurityIdType =

Precision =

= "Invalid Date (09:11:46.072)"

Sends digital data.

TransactionType

Formula result = Invalid Date (09:10:46.400)

[Help on this function](#) OK Cancel

Return value:

Returns the Price contributed followed by the timestamp in parentheses ().

Error Message	Description
Error: queue is full	The DCAP local PC queue is full. This can be caused by connectivity issues or the contribution data rate exceeding the capacity of the software for an extended period of time.
Skip History	The referenced value has changed but the data has not been sent to Bloomberg because the Update History button in the DCAP ribbon in Excel hasn't been clicked to send the data. Note that PLSendHistory is NOT subject to any Auto Update flags and the data needs to be pushed out manually with the Update History button in the DCAP ribbon in Excel.
Invalid Transaction Type	The value provided in the TransactionType parameter in the formula is not supported.
Invalid Date	The value provided in the PastDate parameter in the formula is not supported.
Invalid Security Id Type	The value provided in the SecurityIdType parameter in the formula is not supported.
Invalid SecId Length	The length of the string provided in the SecurityId parameter in the formula is not consistent with the value provided in the SecurityIdType (e.g. Isins should be 12 characters long)
Invalid Record Type	The value provided in the RecordType parameter in the formula is not supported.
Duplicate Value	The update is a duplicate and has been filtered

PLSendHistory Arguments:

Argument	Description	Valid Values
SecurityId	The Security ID string used by Bloomberg to identify which security the price refers to. Normally SecId is a cell reference, which actually contains the Security ID.	A valid ISIN, CUSIP, or SEDOL number OR value pointing to the cell containing the security identifier.

Value	Normally a cell reference, defining the location of the value (price) to be contributed from the spreadsheet.	Any cell number, e.g. E3	
TransactionType	Defines what the value represents, e.g. Bid or Ask price. It accepts a set of standard keywords.	See DCAP Transaction Table (Table 1) for a full list of valid entries. The most common values are BID, ASK, and TRADE	
PastDate	Defines the date for historical data	Any date in mm/dd/yyyy format or reference to a cell containing that date. Ideally the referenced cell is in Excel date format, as opposed to text format.	
RecordType	Any valid record types	Record Type	Value Represents
		FOREX	Foreign Exchange
		BOND	Bond
		ODDBOND	Odd Bond
		Slot41-Slot49	Additional slots
SecurityIDType	Standard used in identifying the securities contributed to Bloomberg	<ul style="list-style-type: none"> • Parsekey • SEDOL • ISIN • CUSIP • TICKER • VALOREN • WPKN • FRENCHNUM • JAPANNUM • OPTION 	
Precision	Specifies the maximum number of digits after the decimal point. To use the default precision set up in your contribution system (see User Configuration), set Precision to -1(or any negative number).	Any number between 0 and 9.	

Maintaining the List of Instruments in a Monitor

PLMonitorFull Function

PLMonitorFull(SecurityId, SecurityIdType, MonitorID, MonitorNumber, MonitorPage, MonitorLine, YellowKey, AccessType)

Function Arguments

PLMonitorFull

SecurityId	<input type="text"/>	=
SecurityIdType	<input type="text"/>	=
MonitorID	<input type="text"/>	=
MonitorNumber	<input type="text"/>	=
MonitorPage	<input type="text"/>	=

No help available.

SecurityId

Formula result =

[Help on this function](#)

OK Cancel

Function Arguments

PLMonitorFull

MonitorNumber	<input type="text"/>	=
MonitorPage	<input type="text"/>	=
MonitorLine	<input type="text"/>	=
YellowKey	<input type="text"/>	=
AccessType	<input type="text"/>	=

No help available.

MonitorNumber

Formula result =

[Help on this function](#)

OK Cancel

Return value:

Returns the Security ID contributed followed by the timestamp in parentheses ().

In an error occurs, the function returns:

Error Message	Description
Error: queue is full	The DCAP local PC queue is full. This can be caused by connectivity issues or the contribution data rate exceeding the capacity of the software for an extended period of time.
Skip Monitor	The referenced value has changed but the data has not been sent to Bloomberg because the Auto Update Monitor flag is not on and Refresh Monitor button in the DCAP ribbon in Excel hasn't been clicked to send the data.
Invalid Security Id Type	The value provided in the SecurityIdType parameter in the formula is not supported.
Invalid SecId Length	The length of the string provided in the SecurityId parameter in the formula is not consistent with the value provided in the SecirityIdType (e.g. Isins should be 12 characters long)
Invalid Access Type	The value provided in the AccesType parameter in the formula is not supported.
Invalid Yellow Key	The value provided in the YellowKey parameter in the formula is not supported.

PLMonitorFull Arguments:

Argument	Description	Valid Values
SecurityId	The Security ID string used by Bloomberg to identify which security the price refers to. Normally this is a number (or sequence of letters and numbers) defined using the ISIN, CUSIP or SEDOL standards. SecId can also be a cell reference, pointing to another cell containing the actual Security ID.	A valid ISIN, CUSIP, or SEDOL number or value pointing to the cell containing the SecID.

SecurityIdType	Standard used in identifying the securities contributed to Bloomberg	<ul style="list-style-type: none"> • SEDOL • ISIN • CUSIP • TICKER • VALOREN • WPKN • FRENCHNUM • JAPANNUM • OPTION 	
MonitorID	This is a unique number identifying the contributor's Bloomberg Monitor page.	This numeric identifier is provided by your Bloomberg Representative.	
MonitorNumber	A numeric identifier dedicated to an individual Contributor per Monitor ID.	This numeric identifier is provided by your Bloomberg Representative.	
MonitorPage	A numeric identifier pointing to a specific "page" within each Monitor Number (MonNum) per Monitor ID (MonID).	Any valid page number	
MonitorLine	Allows you to specify which line, within the "page", your security contribution should appear.	Any number between 1 to 40 depending on how many instruments per page the monitor has been setup for. In addition, "M" can also be sent, if Bloomberg is to sort the instruments by maturity.	
YellowKey	A name specifying the type of Security or Yellow Key you are contributing.	<ul style="list-style-type: none"> • Comdty • Equity • Muni • Pfd • Client • M-Mkt • Govt • Corp • Index • Crncy • Mtge 	
AccessType	A number that specifies the identifier type in use. For a complete list of valid Access Types refer to Table 2.	Access Type	Value Represents
		23	CUSIP
		31	TICKER
		33	ISIN

PLBenchmark Function

PLBenchmark(Slot, SecurityID, AccessType, MonitorId, MonitorNumber, PageNumber, LineNumber, UpdateDelete, YellowKey, ShortName, Comment, BnchmkSecId, BnchmkAccessType, BnchmkDesc)

Function Arguments

PLBenchmark

Slot =

SecurityId =

AccessType =

MonitorID =

MonitorNumber =

No help available.

Slot

Formula result =

[Help on this function](#) OK Cancel

Function Arguments

PLBenchmark

MonitorNumber =

PageNumber =

LineNumber =

UpdateDelete =

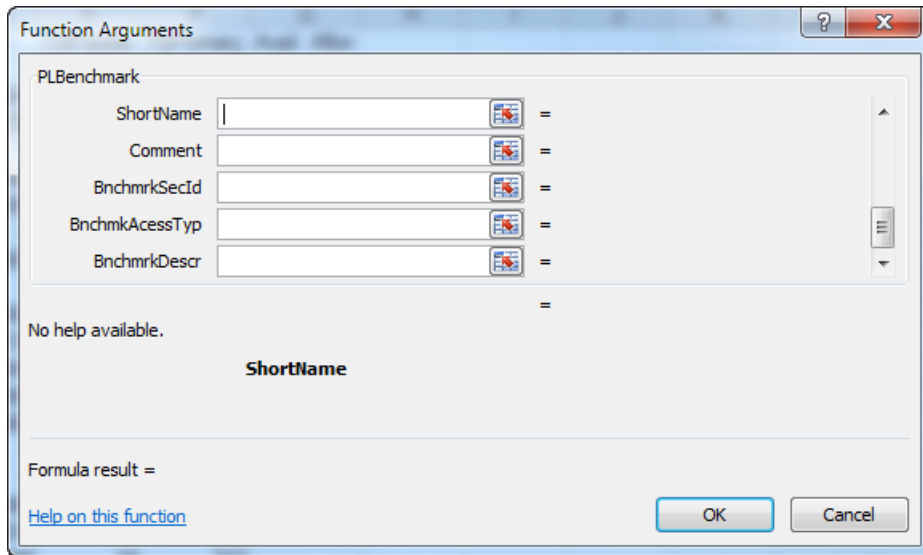
YellowKey =

No help available.

MonitorNumber

Formula result =

[Help on this function](#) OK Cancel



Return value:

Returns the Security ID contributed followed by the timestamp in parentheses ().

In an error occurs the function returns:

Error Message	Description
Error: queue is full	The DCAP local PC queue is full. This can be caused by connectivity issues or the contribution data rate exceeding the capacity of the software for an extended period of time.
Skip Monitor	The referenced value has changed but the data has not been sent to Bloomberg because the Auto Update Monitor flag is not on and Refresh Monitor button in the DCAP ribbon in Excel hasn't been clicked to send the data.
Invalid slot	The value provided in the Slot parameter in the formula is not supported.
Invalid Security Id Type	The value provided in the SecurityIdType parameter in the formula is not supported.
Invalid SecId Length	The length of the string provided in the SecurityId parameter in the formula is not consistent with the value provided in the SecurityIdType (e.g. Isins should be 12 characters long)
Invalid Access Type	The value provided in the AccesType parameter in the formula is not supported.
Invalid Yellow Key	The value provided in the YellowKey parameter in the formula is not supported.

Invalid Benchmark Access Type	The value provided in the BnchmkAccessTyp parameter in the formula is not supported.
-------------------------------	--

PLBenchmark Arguments:

Argument	Description	Valid Values	
		Slot	Value Represents
Slot	The Slot is used by Bloomberg to identify what pricing source you want to feed using this formula. This is a one character field that tells Bloomberg if you will feed your primary or secondary fixed income pricing or your currency pricing source	F	Bond
		O	OddBond
		C	Currency
		41-49	Additional slots
SecurityId	The Security ID string used by Bloomberg to identify which security the price refers to. Normally this is a number (or sequence of letters and numbers) defined using the ISIN, CUSIP or SEDOL standards. SecId can also be a cell reference, pointing to another cell containing the actual Security ID.	A valid ISIN, CUSIP, or SEDOL number or value pointing to the cell containing the SecID.	
AccessType	A number that specifies the identifier type in use. For a complete list of valid Access Types refer to Table 2.	Access Type	Value Represents
		23	CUSIP
		31	TICKER
		33	ISIN
MonitorID	This is a unique number identifying the contributor's Bloomberg Monitor page.	This numeric identifier is provided by your Bloomberg Representative.	
MonitorNumber	A numeric identifier dedicated to an individual Contributor per Monitor ID.	This numeric identifier is provided by your Bloomberg Representative.	
PageNumber	A numeric identifier pointing to a specific "page" within each Monitor Number	Any valid page number	

	(MonNum) per Monitor ID (MonID).																									
LineNumber	Allows you to specify which line, within the "page", your security contribution should appear.	Any number between 1 to 40 depending on how many instruments per page the monitor has been setup for. In addition, "M" can also be sent, if Bloomberg is to sort the instruments by maturity.																								
UpdateDelete	One character field that tells Bloomberg if the instrument needs to be updated or deleted from the monitor.	<table border="1"> <thead> <tr> <th>LoadInd</th> <th>Value Represents</th> </tr> </thead> <tbody> <tr> <td>U</td> <td>Update</td> </tr> <tr> <td>D</td> <td>Delete</td> </tr> </tbody> </table>	LoadInd	Value Represents	U	Update	D	Delete																		
		LoadInd	Value Represents																							
		U	Update																							
D	Delete																									
YellowKey	A one character field specifying the type of Security or Yellow Key you are contributing.	<table border="1"> <thead> <tr> <th>YellowKey</th> <th>Value Represents</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Cmdty</td> </tr> <tr> <td>2</td> <td>Equity</td> </tr> <tr> <td>3</td> <td>Muni</td> </tr> <tr> <td>4</td> <td>Pfd</td> </tr> <tr> <td>5</td> <td>Client</td> </tr> <tr> <td>6</td> <td>M-Mkt</td> </tr> <tr> <td>7</td> <td>Govt</td> </tr> <tr> <td>8</td> <td>Corp</td> </tr> <tr> <td>9</td> <td>Index</td> </tr> <tr> <td>10</td> <td>Crcncy</td> </tr> <tr> <td>11</td> <td>Mtge</td> </tr> </tbody> </table>	YellowKey	Value Represents	1	Cmdty	2	Equity	3	Muni	4	Pfd	5	Client	6	M-Mkt	7	Govt	8	Corp	9	Index	10	Crcncy	11	Mtge
		YellowKey	Value Represents																							
		1	Cmdty																							
		2	Equity																							
		3	Muni																							
		4	Pfd																							
		5	Client																							
		6	M-Mkt																							
		7	Govt																							
		8	Corp																							
		9	Index																							
10	Crcncy																									
11	Mtge																									
ShortName	This parameter is optional. It represents the description of the instrument.	Any string, limited to 14 characters																								
Comment	This parameter is optional. It can be used to send any comments pertaining to the instrument.	Any string, limited to 30 characters																								
BnchmkSecId	This parameter is optional. The BenchmarkId string is used by Bloomberg to identify what the benchmark for the instrument referenced in the formula is. Normally this is a number (or sequence of letters and numbers) defined	A valid ISIN, CUSIP, or SEDOL number or value pointing to the cell containing the BenchmarkId.																								

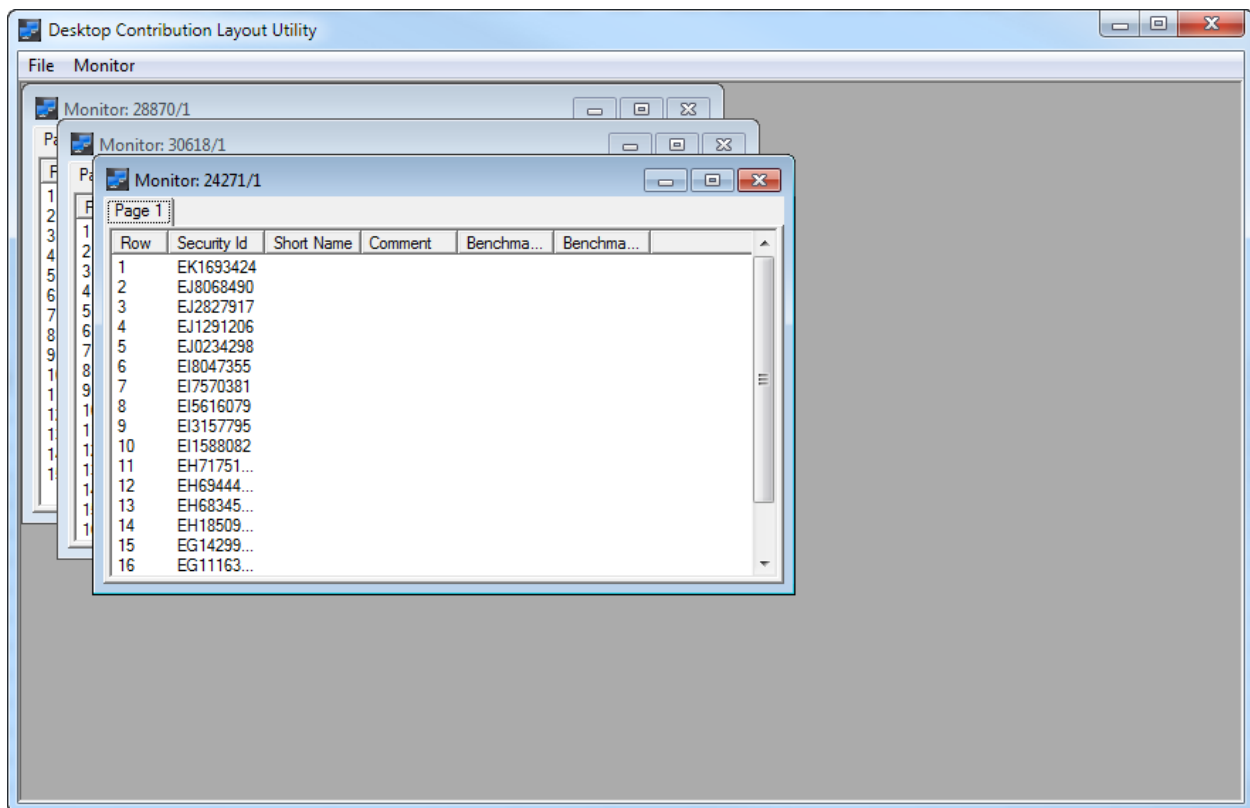
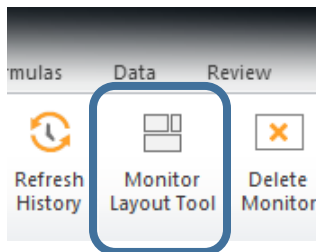
	using the ISIN, CUSIP or SEDOL standards. SecId can also be a cell reference, pointing to another cell containing the actual Benchmark ID.		
BnchmkAccessTyp	A number that specifies the identifier type in use for the benchmark. For a complete list of valid Access Types refer to Table 2.	Access Type	Value Represents
		23	CUSIP
		31	TICKER
		33	ISIN
BnchmkkDescr	This parameter is optional. It represents the description of the benchmark.	Any string, limited to 20 characters	



DCAP Monitor Layout Utility

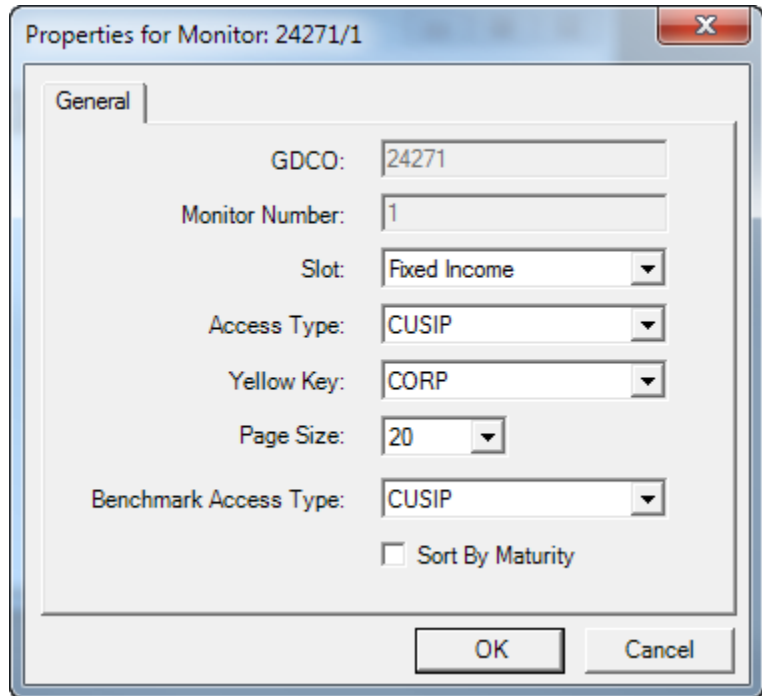
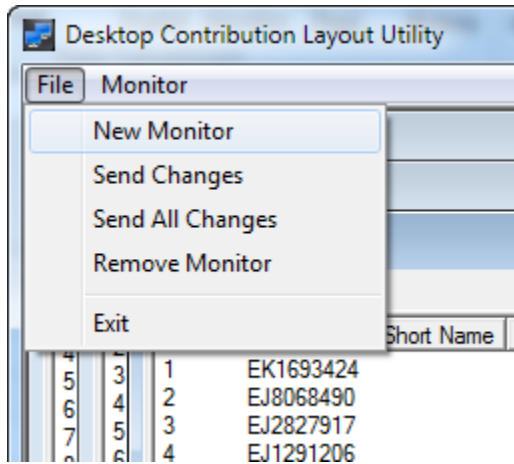
DCAP includes a tool to control the layout of securities on GDCO screens this is the Monitor Layout Utility.

To start the Monitor Layout Utility go to the Start Menu and select Programs -> Bloomberg Desktop Contribution App -> Monitor Layout or you can click in the Monitor Layout Tool button in the DCAP ribbon in Excel.



Creating a new Monitor and Assigning Securities to it.

To create a new Monitor choose File | New Monitor to present the Create New Monitor property sheet

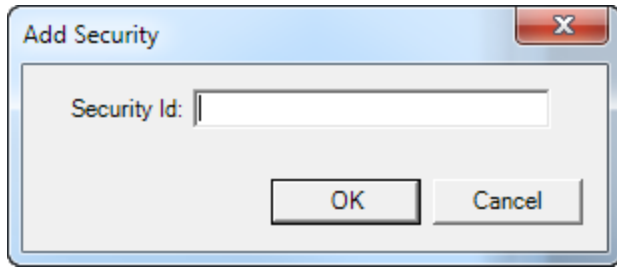


Enter values for the GDCO and the Monitor Number, choose the Slot, the Access Type, the Bloomberg Yellow Key, the desired Page Size, and the Benchmark Access Type. Also check the Sort By Maturity box if you want the instruments automatically sorted in the monitor and click OK.

GDCO	This is a unique number identifying the contributor's Bloomberg Monitor page.	This numeric identifier is provided by your Bloomberg Representative.	
MonitorNumber	A numeric identifier dedicated to an individual Contributor per Monitor ID.	This numeric identifier is provided by your Bloomberg Representative.	
Slot	The Slot is used by Bloomberg to identify what pricing source you want to feed using this formula. This is a one character field that tells Bloomberg if you will feed your primary or secondary fixed income pricing or your currency pricing source	Slot	Value Represents
		F	Bond
		O	OddBond
		C	Currency
		41-49	Additional slots
Access Type	This field specifies the identifier type in use.	Choose from the pick list.	
Yellow Key	This field specifies the type of Security or Yellow Key you are contributing.	Choose from the pick list.	
Page Size	A number indicating how many securities per page you want displayed in the monitor.	15 or 20 for a single column monitor and 30 or 40 for a double column monitor.	
Benchmark Access Type	This field specifies the identifier type in use to identify the Benchmark (if one is being sent).	Choose from the pick list.	

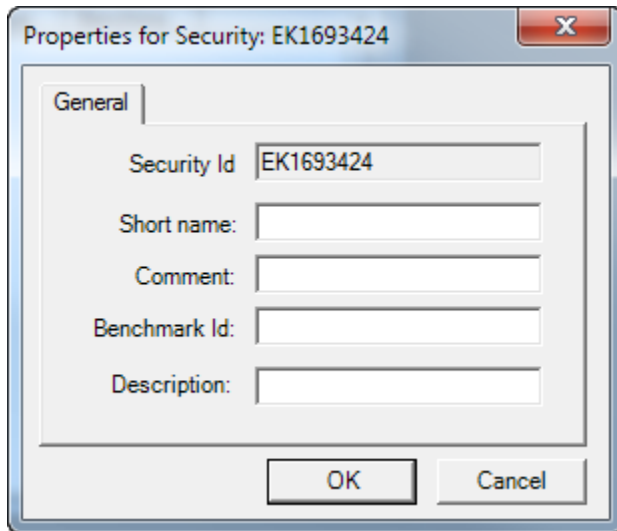
This will add a blank Monitor to the tool. To assign securities to the Monitor you can do one of two things.

1. Choose Monitor | Add Security to present the Add Security Dialog



Enter the Security Id of the security that you want to add to this Monitor and click OK. This will add the security to the end of the Monitor page but it can then be dragged to the location you require.

Once the instrument has been added to the monitor, you can double-click on it to define the security properties and add a Short Name, a Comment, or the Benchmark details if desired.



ShortName	This parameter is optional. It represents the description of the instrument.	Any string, limited to 14 characters
Comment	This parameter is optional. It can be used to send any comments pertaining to the instrument.	Any string, limited to 30 characters
Benchmark Id	This parameter is optional. The BenchmarkId string is used by Bloomberg to identify what the benchmark for the instrument referenced in the formula is. Normally this is a number (or sequence of letters and numbers) defined using the ISIN, CUSIP or SEDOL standards. SecId can also be a cell reference, pointing to another cell containing	A valid ISIN, CUSIP, or SEDOL number or value pointing to the cell containing the BenchmarkId.

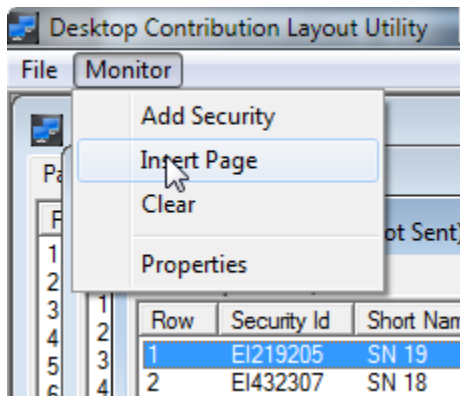
	the actual Benchmark ID.	
Description	This parameter is optional. It represents the description of the benchmark.	Any string, limited to 20 characters

2. Drag the full list of securities, and additional details (if needed) from Excel and drop into the monitor. Note: Exclude the column headers in excel in the range you select to drag and drop.

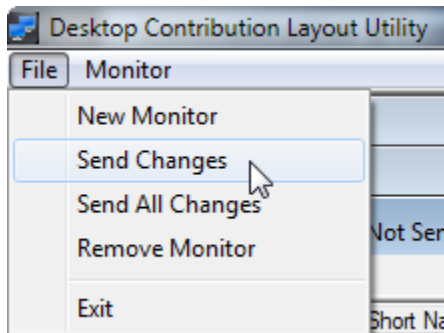
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1														
2			Sec id	Short Name	Comment Bmk		Bmk Des							
3		1	EK315553	SN 1	CMNT 1	MX0MGO0000U2	Bmk1							
4		2	EK259768	SN 2	CMNT 2	MX0MGO0000T4	Bmk2							
5		3	EK040827	SN 3	CMNT 3	MX0MGO0000S6	Bmk3							
6		4	EJ725360	SN 4	CMNT 4	MX0MGO0000R8	Bmk4							
7		5	EJ708486	SN 5	CMNT 5	MX0MGO0000Q0	Bmk5							
8		6	EJ678153	SN 6	CMNT 6	MX0MGO0000P2	Bmk6							
9		7	EJ670430	SN 7	CMNT 7	MX0MGO0000O5	Bmk7							
10		8	EJ552841	SN 8	CMNT 8	MX0MGO0000N7	Bmk8							
11		9	EJ526084	SN 9	CMNT 9	MX0MGO0000M9	Bmk9							
12		10	EJ434396	SN 10	CMNT 10	MX0MGO0000L1	Bmk10							
13		11	EJ412726	SN 11	CMNT 11	MX0MGO0000G1	Bmk11							
14		12	EJ197508	SN 12	CMNT 12	MX0MGO0000J5	Bmk12							
15		13	EJ028756	SN 13	CMNT 13	MX0MGO0000H9	Bmk13							
16		14	EJ009001	SN 14	CMNT 14	MX0MGO0000F3	Bmk14							
17		15	EI846042	SN 15	CMNT 15	MX0MGO0000C0	Bmk15							
18		16	EI755966	SN 16	CMNT 16	MX0MGO0000D8	Bmk16							
19		17	EI575350	SN 17	CMNT 17	MX0MGO0000B2	Bmk17							
20		18	EI432307	SN 18	CMNT 18	MX0MGO000086	Bmk18							
21		19	EI219205	SN 19	CMNT 19	MX0MGO000078	Bmk19							
22														
23														
24														

Row	Security Id	Short Name	Comment	Benchma...	Benchma...
1	EI219205	SN 19	CMNT 19	MX0MGO...	Bmk19
2	EI432307	SN 18	CMNT 18	MX0MGO...	Bmk18
3	EI575350	SN 17	CMNT 17	MX0MGO...	Bmk17
4	EI755966	SN 16	CMNT 16	MX0MGO...	Bmk16
5	EI846042	SN 15	CMNT 15	MX0MGO...	Bmk15
6	EJ009001	SN 14	CMNT 14	MX0MGO...	Bmk14
7	EJ028756	SN 13	CMNT 13	MX0MGO...	Bmk13
8	EJ197508	SN 12	CMNT 12	MX0MGO...	Bmk12
9	EJ412726	SN 11	CMNT 11	MX0MGO...	Bmk11
10	EJ434396	SN 10	CMNT 10	MX0MGO...	Bmk10
11	EJ526084	SN 9	CMNT 9	MX0MGO...	Bmk9
12	EJ552841	SN 8	CMNT 8	MX0MGO...	Bmk8
13	EJ670430	SN 7	CMNT 7	MX0MGO...	Bmk7
14	EJ678153	SN 6	CMNT 6	MX0MGO...	Bmk6
15	EJ708486	SN 5	CMNT 5	MX0MGO...	Bmk5
16	EJ725360	SN 4	CMNT 4	MX0MGO...	Bmk4

To add pages to the Monitor choose Monitor | Insert Page.

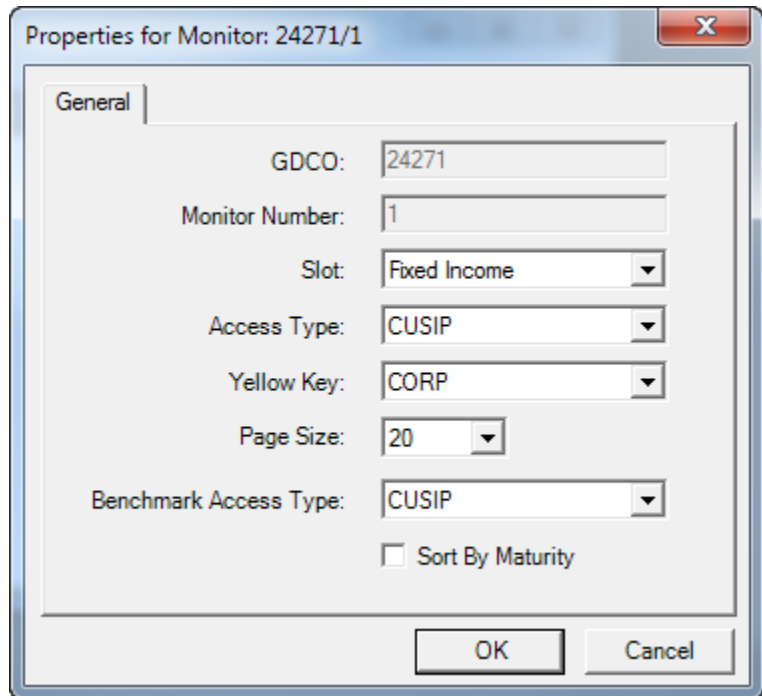
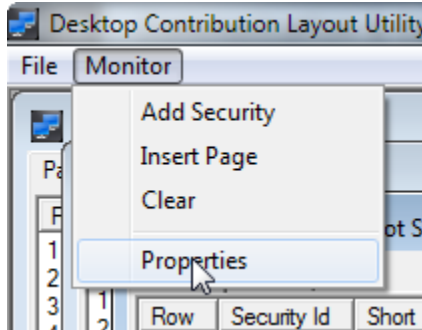


Once you are happy with the layout of the Monitor choose File | Send Changes to send the layout to Bloomberg for the active Monitor or File | Send All Changes to send the layout for all the Monitors you currently have open.



Viewing or Changing a Monitor's Properties

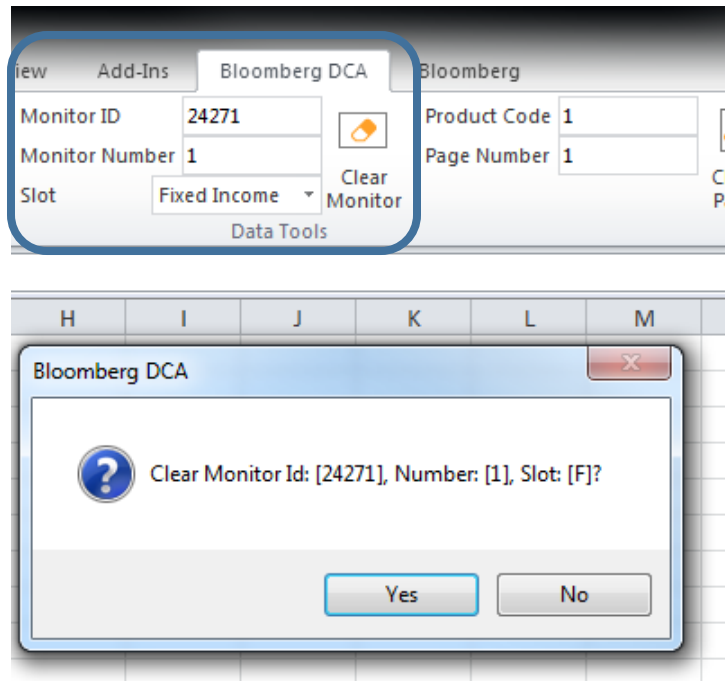
To view or change a Monitor's properties choose Monitor | Properties to display the Monitor Properties Dialog.



Clearing a Monitor

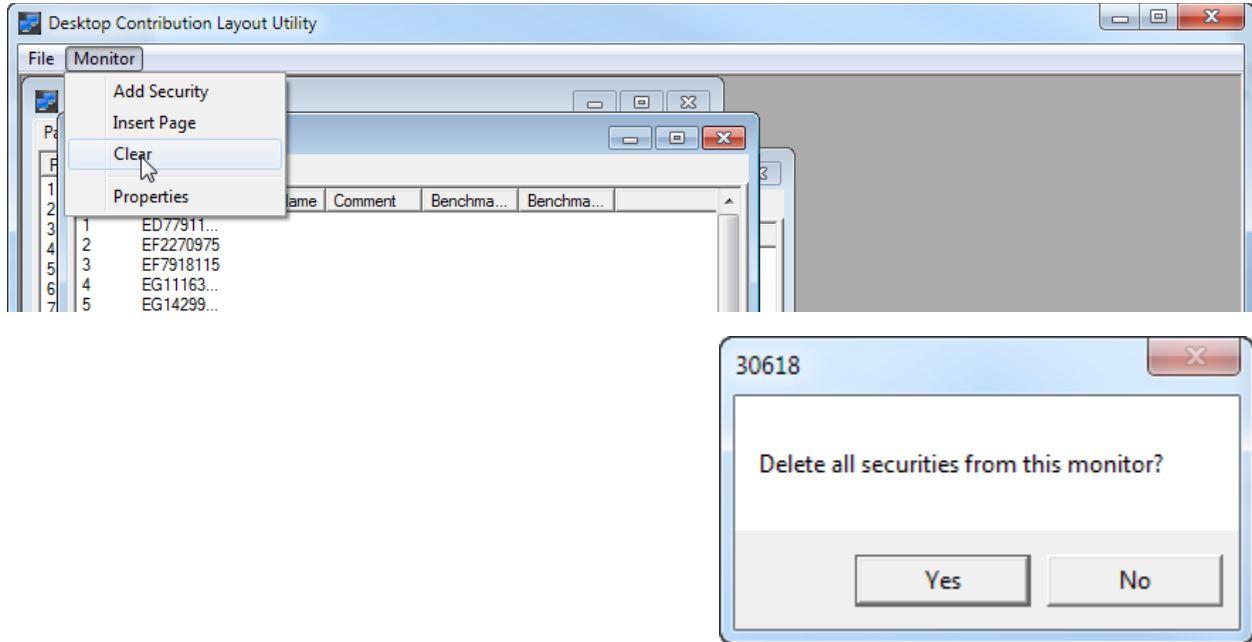
From Excel

To clear your Monitor, simply enter the monitor ID, the monitor number, and the slot in the Bloomberg DCA ribbon in Excel and hit Enter, this will enable the Clear Monitor button. Then click in the Clear Monitor button. A dialog will display for you to confirm that you want to proceed.



From the Monitor Layout Utility

To clear a Monitor of its securities make the Monitor the active Monitor and choose Monitor | Clear, this will prompt you for confirmation, send the changes to Bloomberg immediately and clear the Monitor form to allow you to assign different securities to this Monitor.

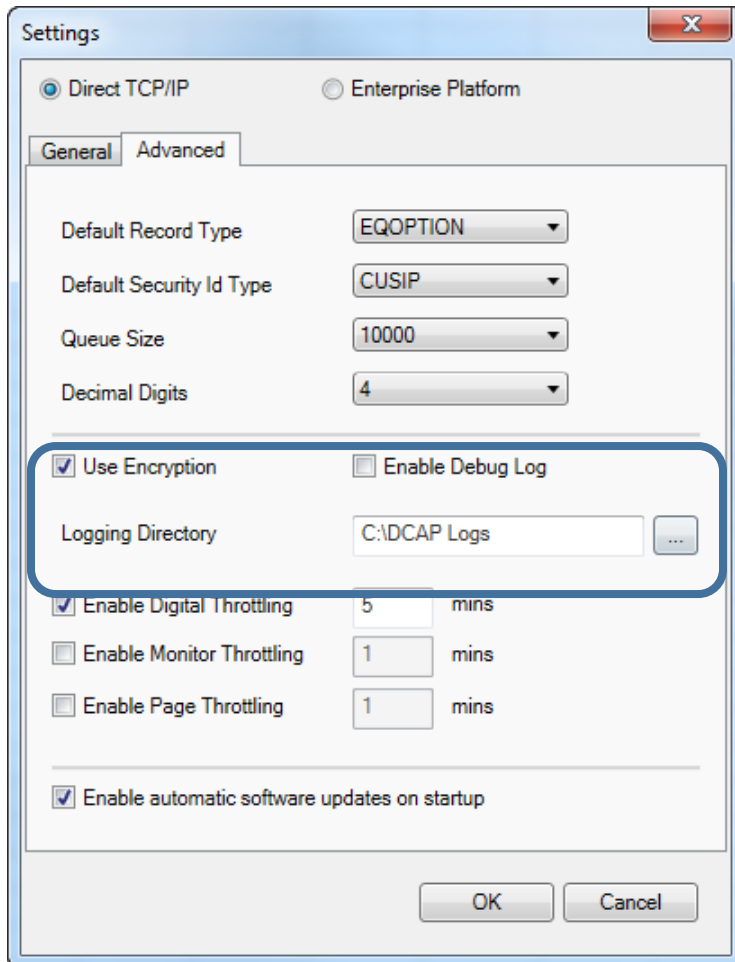


Encryption

DCAP uses the RC2 encryption protocol for the initial login and private key exchanges; it uses a custom protocol along the lines of SSL/TLS using RSA for handshake and session key exchanges and, if Encryption is checked off in the configuration screen, it uses the DES encryption protocol for data transfer.

Logs

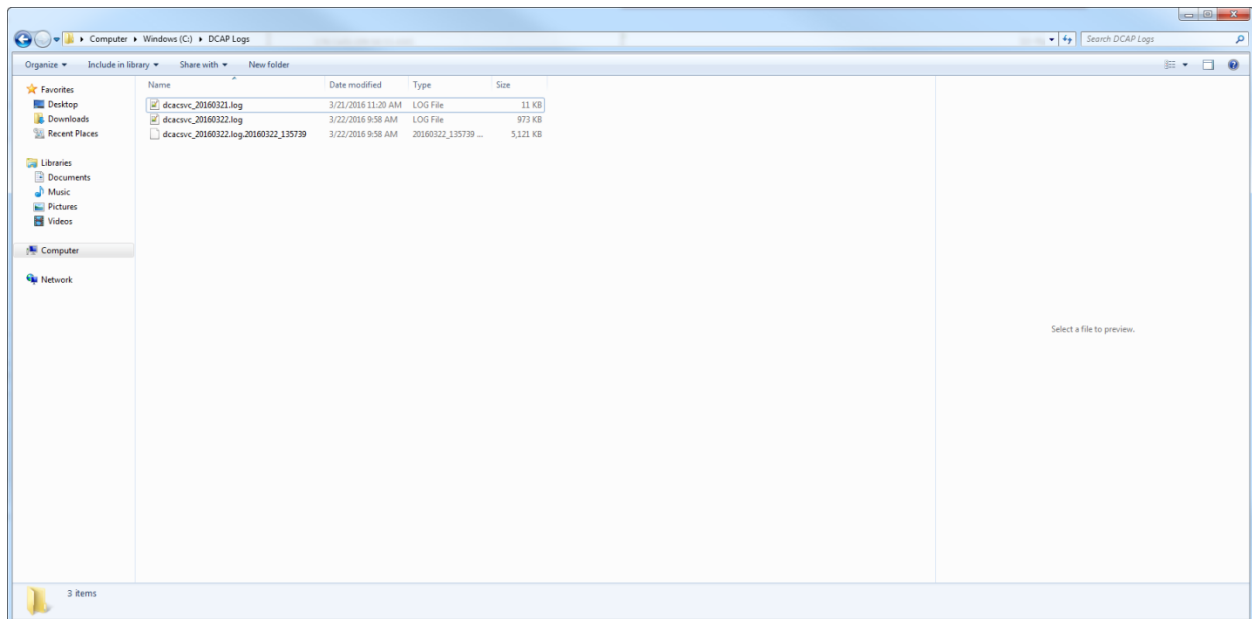
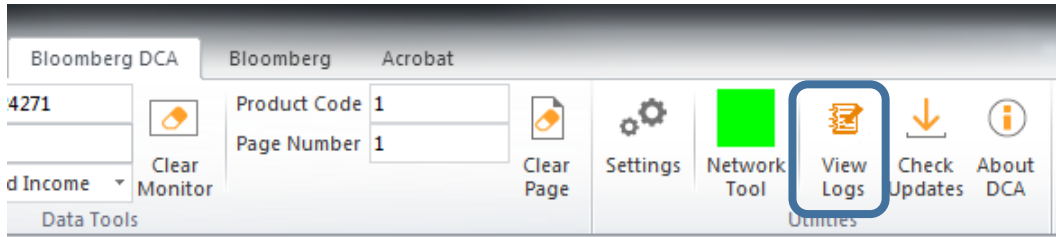
DCAP offers different level of logs to facilitate troubleshooting and they are all set from the advanced tab of the configuration screen.




DCAP by default logs basic protocol level messages exchanged by the DCAP client and server dealing with mainly with changes in connectivity status. If data logs or more verbose logs are required to aid troubleshooting, your Bloomberg representative may ask you to tick the Enable Debug Log box. The logs will be located in the folder you select in the Logging Directory field. Please make sure you have write access to the directory/folder you select. Note that for DCAP to start the debug log, Excel will have to be restarted after the box has been ticked in the configuration screen and the setting saved.

The current log file will be named `dcacsvc_date.log` (ie. `dcacsvc_20160322.log`). If the log reaches a size of 5 MBs there will be a new `dcacsvc_date.log`, and the older logs will be copied to a file named `dcacsvc_date.log.date_timestamp`. To view the content of the files, the use of Notepad++ is recommended. The files can also be opened in Notepad, but the formatting may be off.

For easy access to the log files a button has been added to the Bloomberg DCA ribbon that opens the selected logging folder.



```
CADCAP Log\dcaacsv_20160322.log - Notepad++
File Edit Search View Encoding Language Settings Macro Run Window ?
dcaacsv_20160322.log dcaacsv_20160322.log
1
2 2016-03-22T13:38:24.387Z 12208:8224 INFO dcaapi_clientproxy.cpp.157 DCAXLLD.CLIENTPROXY Logging is initialized from dca.xll
3 2016-03-22T13:38:24.387Z 12208:8224 WARN bacl_loggermanager.cpp.522 BAEL logger manager has already been initialized!
4 2016-03-22T13:38:24.387Z 12208:8224 INFO dcaapi_clientadapter.cpp.152 DCAXLLAD.DCAPICLIENTADAPTER Logging is initialized clientadapter
5 2016-03-22T13:38:25.468Z 12208:6664 DEBUG dcaapi_synchchannel.cpp.178 DCAAPI.SYNCHCHANNEL Channel [8388608] is up
6 2016-03-22T13:38:25.468Z 12208:6664 DEBUG dcaapi_synchchannel.cpp.191 DCAAPI.SYNCHCHANNEL Auto read enabled for channel [8388608]
7 2016-03-22T13:38:31.432Z 12208:6664 DEBUG dcaapi_session.cpp.614 DCAAPI.SESSION Got event: [1]
8 2016-03-22T13:38:30.484Z 12208:9576 DEBUG dcaapi_session.cpp.595 DCAAPI.SESSION Pool state has changed to [2], for channel [0]
9 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 0 total
10 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
11 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 27 row = 1 tota
12 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 9 row = 2 total
13 2016-03-22T13:38:31.432Z 12208:11832 TRACE oclu_messageutil.h.181 CCLU.MESSAGEUTIL message encoded: { contribution = { page = { productCode = 2 pageNumber = 2 column = 0 row = 0
14 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 37 row = 3 tota
15 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 4 total
16 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 5 total
17 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 6 total
18 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 41 row = 7 tota
19 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 41 row = 8 tota
20 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 27 row = 9 tota
21 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 10 tota
22 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 11 tota
23 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 12 tota
24 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 13 tota
25 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 14 tota
26 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 15 tota
27 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
28 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 16 tota
29 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 17 tota
30 2016-03-22T13:38:31.432Z 12208:11832 TRACE oclu_messageutil.h.181 CCLU.MESSAGEUTIL message encoded: { contribution = { page = { productCode = 2 pageNumber = 2 column = 27 row =
31 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 18 tota
32 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 73 row = 19 tot
33 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 73 row = 20 tot
34 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
35 2016-03-22T13:38:31.432Z 12208:11832 TRACE oclu_messageutil.h.181 CCLU.MESSAGEUTIL message encoded: { contribution = { page = { productCode = 2 pageNumber = 2 column = 9 row = 2
36 2016-03-22T13:38:31.432Z 12208:8224 TRACE dcaapi_clientadapter.cpp.515 DCAXLLAD.DCAPICLIENTADAPTER Sent FLContribPage : { productCode = 2 pageNumber = 2 column = 0 row = 21 tota
37 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
38 2016-03-22T13:38:31.432Z 12208:11832 TRACE oclu_messageutil.h.181 CCLU.MESSAGEUTIL message encoded: { contribution = { page = { productCode = 2 pageNumber = 2 column = 37 row =
39 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
40 2016-03-22T13:38:31.432Z 12208:11832 TRACE oclu_messageutil.h.181 CCLU.MESSAGEUTIL message encoded: { contribution = { page = { productCode = 2 pageNumber = 2 column = 0 row = 4
41 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
42 2016-03-22T13:38:31.432Z 12208:11832 TRACE oclu_messageutil.h.181 CCLU.MESSAGEUTIL message encoded: { contribution = { page = { productCode = 2 pageNumber = 2 column = 0 row = 5
43 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
44 2016-03-22T13:38:31.432Z 12208:11832 TRACE oclu_messageutil.h.181 CCLU.MESSAGEUTIL message encoded: { contribution = { page = { productCode = 2 pageNumber = 2 column = 0 row = 6
45 2016-03-22T13:38:31.432Z 12208:11832 TRACE dcaapi_client.cpp.92 DCAAPI.CLIENT Send the message to the transport layer: { contribution = { page = { productCode = 2 pageNumber =
Normal text file length:1380860 lines:5328 Ln:1 Col:1 Sel:0|0 UNIX ANSI INS
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DCAP Example Spreadsheets

Filename (Location)	Long Form
Page.xls (C:\blp\DCA)	An example Workbook file illustrating usage of the PLContribPage function.
Digital.xls (C:\blp\DCA)	An example workbook file serving as a template guiding users on the usage of the functions: PLContribFull
Benchmark.xls (C:\blp\DCA)	An example workbook file serving as a template guiding users on the usage of the functions: PLBenchmark PLContribFull



Table 1 - Transaction Type

Transaction to use in formula	Value it represents, Type
TRADE	Last Trade Price, Float
BID	Bid, Float
ASK	Ask, Float
ASKYIELD	Ask Yield, Float
BIDYIELD	Bid Yield, Float
VOLUME	Total Volume, Integer
RTOPEININTEREST	Open Interest, Integer
BLSPRDTOBENCHBIDRT	Bid Yield Spread, Float
BLSPRDTOBENCHASKRT	Ask Yield Spread, Float
BLSPRDTOBENCHMIDRT	Mid Yield Spread, Float
BLPRTSPRDTOBENCHLASTRT	Last Yield Spread, Float
SPREADBENCHMARKSECURITYTYPE	Benchmark Access Type (Table 2), Integer
YIELD_SPREAD_BNCHMRK	Benchmark identifier, String
EFPRATERT	EFP Rate, Float
EFPCHANGERT	EFP Rate Change on Day, Float
EFPBIDRATEREALTIME	EFP Bid, Float
EFPASKRATEREALTIME	EFP Ask, Float
EFPBIDCHANGEREALTIME	EFP Bid Change on Day, Float
EFPASKCHANGEREALTIME	EFP Ask Change on Day, Float
EFP_BNCHMRK	EFP Benchmark, String
BESPD MIDRT	Mid Breakeven Spread, Float
BECHGONDAYRT	Breakeven Change on Day, Float
BESPD BIDRT	Bid Breakeven Spread, Float
BESPDASKRT	Ask Breakeven Spread, Float
BREAKEVEN_BNCHMRK	Breakeven Benchmark, String
CDSCOUPONRT	CDS Underlying Coupon, Float

Transaction to use in formula	Value it represents, Type
UPFRONTBIDREALTIME	CDS Upfront Bid, Float
UPFRONTASKREALTIME	CDS Upfront Ask, Float
BIDFIRSTLEG	CDS Leg 1 Bid, Float
ASKFIRSTLEG	CDS Leg 1 Ask, Float
BIDSECONDLEG	CDS Leg 2 Bid, Float
ASKSECONDLEG	CDS Leg 2 Ask, Float
BIDFIRSTLEGDV01	CDS Leg 1 DV01 Bid, Float
ASKFIRSTLEGDV01	CDS Leg 1 DVO1 Ask, Float
BIDSECONDLEGDV01	CDS Leg 2 DV01 Bid, Float
ASKSECONDLEGDV01	CDS Leg 2 DV01 Ask, Float
CDSOPTIONDELTAREALTIME	CDS Option Delta, Float
CDSOPTIONREFERENCELEVELRT	CDS Option Reference Value, Float
REPOVWAPREALTIME	Repo VWAP, Float
REPOVWAPVOLUMEREALTIME	Repo VWAP Volume, Float
FUNDNETASSETVALRT	Fund NAV, Float
PRICESCALINGFACTOR	Price Scaling Factor, Integer (from 1 to 7)
VOLUMESCALINGFACTOR	Size Scaling Factor Integer (from 1 to 7)

Table 2 - Access Type

Access Type	Identifier it Represents	Access Type	Identifier it Represents	Access Type	Identifier it Represents
01	CINS	13	Danish	27	Belgian Loan
02	Sedol 1	14	Austrian	28	UK Epic Code
03	Sedol 2	15	Luxembourg	29	Hong Kong
04	Euro Clear Number	16	Misc. Domestic	30	Equity Ticker & Exchange
05	Cedel	17	Norway	31	Ticker
06	Valoren	18	Euro Com	32	Tokyo Special
07	Wertpap	20	Italy	33	New ISIN
08	ISIN	21	Sweden	35	TBA Mortgage Security
09	Japanese	22	Japan Company	36	Malaysian
10	French	23	CUSIP	37	Parsekey
11	Belgian	24	Spain		
12	Dutch	26	Singapore	99	Clear Page