Bloomberg

BLOOMBERG DESKTOP CONTRIBUTION APPLICATION

User Guide

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1 About Bloomberg DCA

Bloomberg Desktop Contributions Application (also called DCAP) is an Excel® add-in that enables firms to publish data to their pages on the Bloomberg Terminal®. This software is intended only for publishing indicative, real-time data to Bloomberg. Please note that Bloomberg DCA can only be used to publish data to the Terminal and cannot be used to download market data from Bloomberg. This software is subject to our Software Terms and Conditions, which can be found here.

2 System Requirements

2.1 Minimum System Requirements and Prerequisites

- >8 GB RAM, >4 core CPU, >8 GB free disk space
- Network connectivity
- 64-bit Windows 10 or above
- Microsoft Excel 2013 or above
- Microsoft Visual Studio 2010 Tools for Office Runtime

2.2 Network Requirements

Depending on how your feed is configured, DCAP will use **one** pair of the IPs in the table and communicate over TCP. Please check with your Bloomberg Account Manager for the IP addresses to connect to. Bloomberg accepts all incoming connections on these IP addresses, and no whitelisting is needed on our part.

Region	IP: PORT			
AMFR	69.184.4.23:11011			
AIVIER	69.184.5.15:11011			
APAC.	69.184.68.18:11011			
AIAC	69.184.69.28:11011			
EMEA	69.184.36.14:11011			
EIVIEA	69.184.37.18:11011			
Internet	69.191.193.148:11011			
memet	69.191.229.73:11011			
Internet2	69.191.193.174:11011			
mternetz	69.191.229.119:11011			
Internet3	69.191.193.175:11011			
miemeis	69.191.229.120:11011			

3 Installing DCAP

Installing DCAP does not require local PC admin rights if the prerequisites are already installed.

DCAP installer should be run by the profile that will be using it. If the prerequisites 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 while you stay logged in to Windows on the specific user's login. Please ensure this is not installed on the admin's login.

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 reinstalled for proper operation.

Step 1: Close all Excel instances

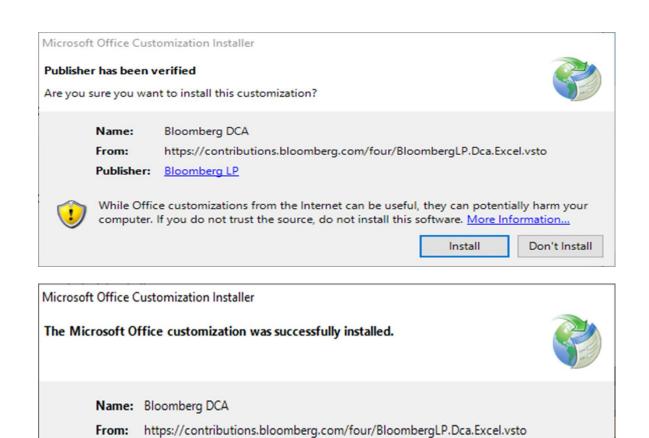
Step 2: Download the installer from: https://contributions.bloomberg.com/

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.



Step 3: Select Keep, and choose to run the installer, or save it and then run the downloaded file.

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



Step 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.

Close

Step 6: Open Excel and you should be able to see "Bloomberg DCA" in the Excel Ribbon. If you do not see the Bloomberg DCA tab, please refer to Missing Add-In

4 Getting Support

If you face issues during installation, setup, or use of Bloomberg DCA, please first refer to the <u>Troubleshooting</u> section of this manual to fix some common issues.

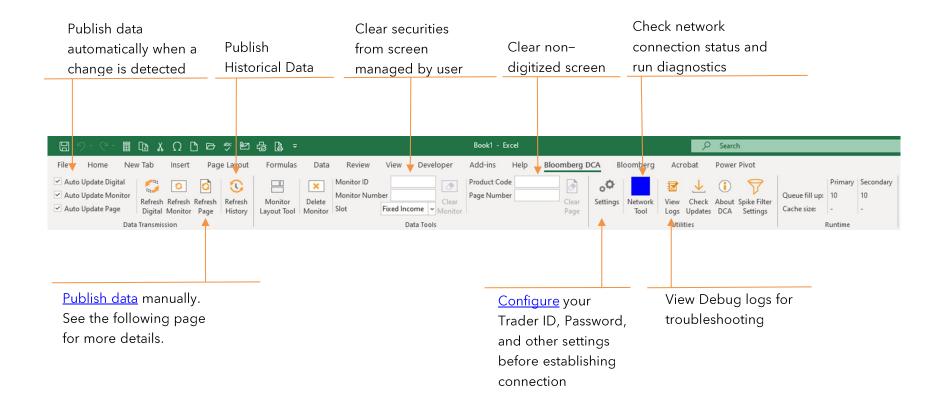
If this doesn't resolve the problem, you can get in touch with our 24x7 Help Desk by pressing F1 twice on the Bloomberg Terminal. Non-Terminal data contributors can reach out to their firm's Bloomberg Contributions Account Manager through their email.

Please share the following with the Help Desk to assist in resolving issues efficiently:

- Software Name: Bloomberg DCA
- Trader ID (if available): The Trader ID in your <u>Settings</u> window
- Page that you are pricing
- A short description of the problem



5 Quick Overview of the Bloomberg DCA UI



6 Configuring DCAP

To configure Bloomberg DCA, four pieces of information are required:

1. Trader ID 3. Region

2. Password 4. Environment

The Trader ID and Password are used to authenticate users for publishing data to Bloomberg. Each Trader ID/Password pair is stored in the Windows login profile, so when using a different PC or different login ID on the same PC, you will require another Trader ID/Password. The Region and Environment will be provided to you by your Bloomberg Contributions Account Manager.

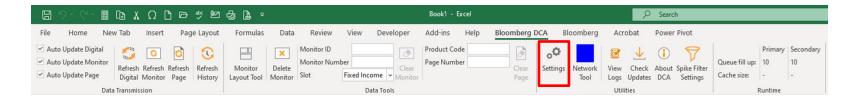
Bloomberg Terminal users are required to manage their own Trader IDs using our self-service tools. These tools will allow admins to create, delete or reset Trader IDs for your firm. For more information please refer to the <u>Self-Service</u> section.

6.1 DCA Settings

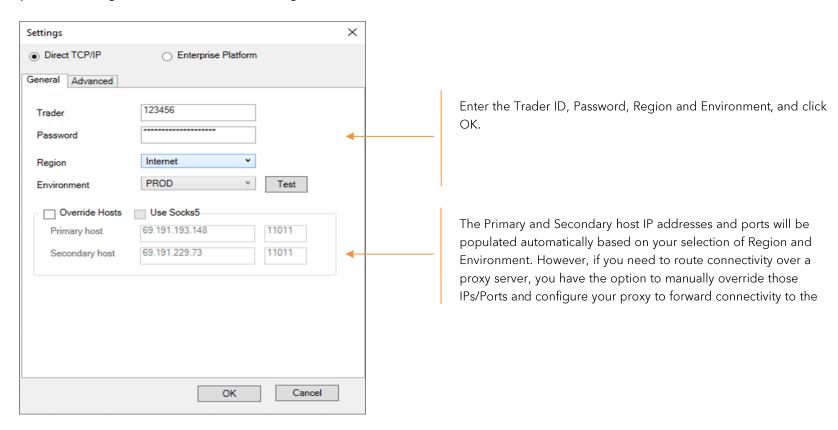
To configure DCAP take the following steps:

Step 1: Open Excel and go to the Bloomberg DCA ribbon.

Step 2: Click on the Settings button to open the configuration user interface (if Settings is not present, click Utilities first)



The **Direct TCP/IP** option should be selected, and you should populate the fields in the General tab with the configuration details provided by your Bloomberg Contributions Account Manager.

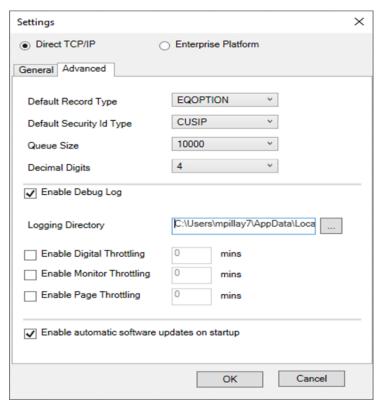


6.2 Advanced Options

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 Contributions Account Manager will tell you if you need to change the default settings.

You can also enable debug logging to assist with troubleshooting purposes, as well as define the folder to store log files in. Please make sure you have write-access to the folder you select.

It is recommended that you keep the "Enable automatic software updates on startup" box checked to ensure you always have the latest version of the software and have access to new features as they get rolled out.



DCAP has now been successfully configured, so please click on 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.

6.3 Software Updates

DCAP will automatically receive an update whenever a new version is available. The application will show a prompt requiring your permission to proceed with the update, and an Excel restart might be needed.

7 Sending Data to Bloomberg

DCAP allows contributors to send Page-Based Data (Data for View Only purpose) and Digital Prices (sending real-time and historical data that can run analytics) and to maintain the list of securities on their monitors. Once your Bloomberg Contributions Account Manager sends the Excel sheet with the formulas for each function you will be able to manage your data on the Bloomberg Terminal.

When the Auto Update flags are enabled, any changes to the sheet are detected and published automatically. Disable these flags and click on the Refresh buttons to publish prices manually.



Refresh Digital: Sends all the digital prices in the spreadsheet to Bloomberg. If the Auto Update Digital flag is enabled, the prices will be sent automatically as soon as they change in the spreadsheet. Functions associated with this button: PLContribQuote

Refresh Monitor: Maintain securities in monitors with the Refresh Monitor button and the Auto Update Monitor flag. NOTE: Enabling the Auto Update Monitor option may result in an excessive number of unnecessary updates, causing monitors to "blink" and, in extreme cases, causes slowness on the feed. Functions associated with this button: PLMonitorFull and PLBenchmark

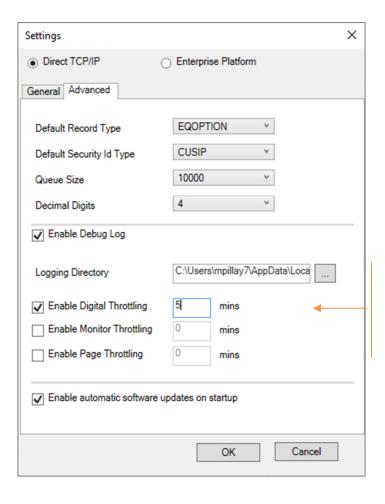
Refresh Page: Sends all page-based data in the spreadsheet to Bloomberg. If the Auto Update Page option is enabled, any text content will be sent automatically as soon as a change is detected. Functions associated with this button: PLContribPage

Refresh History: Sends digital prices to past dates to Bloomberg. Functions associated with this button: <u>PLSendHistory</u>

7.1 Throttling

To set up the automatic updates at specified time intervals you need to go to the "Advanced" tab in the configuration screen.

If you select Enable Digital 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.



Throttling settings only apply if all three Auto Update Flags in the DCAP Ribbon have been disabled. If any of the Auto Update Flags are on, the Throttling settings will not take effect.

7.2 Sending Page-based Data

7.2.1 PLContribPage

This formula allows you to send text data to your contributions page (GPGX). Contributions pages only support ASCII text and cannot be used for analytical functions. This formula is subject to the Auto Update Page flag.

Formula: PLContribPage(Area, Product Code, PageNumber)

Sample formula: =PLContribPage(A1:H12,2,1)

Translation: Send all text within cells A1:H12 to Product Code:2, Page:1

Output Sample: 142 Cells (16:00:00.00000) [142 cells of data were sent successfully at 16:00]

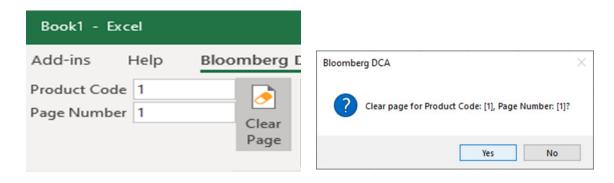
7.2.1.1 **PLContribPage Arguments**

Argument	Description	Valid Values
Area	Reference to the area of the spreadsheet that you wish to contribute as a page.	Example, A1:H12 .
ProductCode item (on the Bloomberg page display system) the page will appear		Valid number corresponding to a menu item on the Bloomberg Terminal. Your Bloomberg Contributions Account Manager provides this.
Page Number	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 Terminal. Your Bloomberg Contributions Account Manager provides this.

NOTE: PLContribPage will automatically align text within the cells, such that the text is displayed in columns. This function is limited to 23 rows of text, with 80 ASCII characters in each. Adding ">" at the beginning of the text in a cell will override the automatic alignment functionality.

7.3 Clearing Page-based Data

To clear the page, simply enter the Product Code and Page Number in the Bloomberg DCA ribbon in Excel and hit Enter; this will enable the Clear Page button. You can obtain the Product Code from your Bloomberg Contributions Account Manager. Then click on the Clear Page button. A dialog will display for you to confirm that you want to proceed.



7.4 <u>Sending Digital Prices</u>

7.4.1 PLContribQuote

This function sends prices for the current day to Bloomberg. It can also send an optional Size associated with the price. This formula is subject to the Auto Update Digital flag.

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

Sample Formula: =PLContribQuote("4.5324", "Bid", "MRY", "FOREX", "TICKER",, "4")

Translation: Sends Value of 4.5324 on Bid for Ticker MYR Curncy with 4 Decimal Point

Output Sample: 4.5324 (16:53:32.494162) [The formula returns the value and the timestamp at which it was sent]

7.4.1.1 **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, BLPSPRDTOBENCHBIDRT, BLPSPRDTOBENCHASKRT, 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 contains the Security ID.	A valid ISIN, CUSIP, or SEDOL number OR value pointing to the cell containing the Security ID.	

Argument	Description		Valid Values	
RecordType	Any valid record types.	Refer to <u>Table 3</u> .		
SecurityIdType	Standard used in identifying the securities contributed to Bloomberg.	Refer to <u>Table 4</u> .		
Precision	Specifies the maximum number of digits after the decimal point. To use the default precision set up in your contribution system 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 Contributions Account Manager to get a list of valid firm identifiers.	Any string, limited to 4 characters.		
	This parameter is optional. It represents a condition code for this price.	Condition Code	Value Represents	
		Firm	The BID or ASK is Firm.	
ConditionCode		Clear	If the BID or the ASK are zeroes, this indicates that the contributor wants to clear the data.	
		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 num	ber, e.g., E3.	

7.4.2 PLSendHistory

This formula allows you to send historical values up to 30 days back. To publish historical prices for >30 days, please contact your Bloomberg Contributions Account Manager. This formula is NOT subject to the Auto Update Digital setting, and you must always click the Refresh History button in the DCAP ribbon in Excel.

Formula: PLSendHistory(SecurityId, Value, TransactionType, PastDate, RecordType, SecurityIdType, Precision)

Sample: =PLSendHistory("MS190004", 100.5023, "BID", "04/23/2021", "BOND", "CUSIP", 4)

Translation: Sending historical rate for 04/23/2021 for CUSIP MS190004 on Bid with 4 decimals

Output Sample: 100.5023 - 7/25/2021 (16:27:34.414759) [Value 100.5023 published to date 7/25/2021 at timestamp in the brackets]

7.4.2.1 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 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.

Argument	Description	Valid Values	
RecordType	Any valid record types.	Refer to <u>Table 3</u> .	
SecurityIDType	Standard used in identifying the securities contributed to Bloomberg.	Refer to <u>Table 4</u> .	
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.	

7.5 Sending a List of Instruments to a Monitor

7.5.1 PLMonitorFull

This function sends a list of tickers to be displayed on the Contributions page (GDCO).

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

Sample: =PLMonitorfull("AM7669089", "CUSIP", "35720", "1", "1", "1", "8","23")

Translation: Updating security AM7669089 to GDCO 35720 on Page 1, Line 1

Output Sample: AM7669089 (18:08:16.881942) [Updates security to GDCO at timestamp in the brackets]

7.5.1.1 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.	Refer to <u>Table 4</u> .
MonitorID	This is a unique number identifying the contributor's Bloomberg Monitor page.	This numeric identifier is provided by your Bloomberg Contributions Account Manager.

Argument	Description	Valid Values		
MonitorNumber	A numeric identifier dedicated to an individual Contributor per Monitor ID.	This numeric identifier is provided by your Bloomberg Contributions Account Manager.		
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 set up 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.	Please refer to <u>Table 5</u> .		
AccessType	A number that specifies the identifier type in use. For a complete list of valid Access Types refer to <u>Table 2</u> .	Please refer to <u>Table 2</u> .		

7.5.2 PLBenchmark

This formula can also be used to maintain a list of securities on a monitor (GDCO). This allows for fine-grained deletion/updates of securities on each line of the monitor.

Formula: PLBenchmark(Slot, SecurityID, AccessType, MonitorId, MonitorNumber, PageNumber, LineNumber, UpdateDelete, YellowKey, ShortName, Comment, BnchmkSecId, BnchmkAccessTyp, BnchmkDescr)

Sample: =PLBenchmark("F", "AM7669089", "23", "35720", "1", "1", "U", "8")

Translation: Updating security AM7669089 to GDCO 35720 on Page 1, Line 1

Output Sample: PLBenchmark(17:51:44.807667) [Updates security to GDCO at timestamp in the brackets]

7.5.2.1 PLBenchmark Arguments

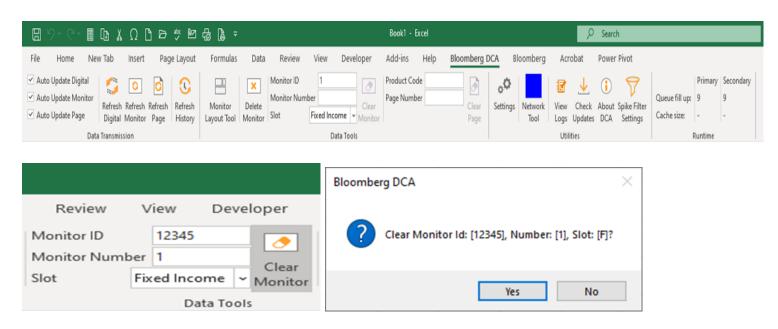
Argument	Description	Valid Values	
	The Slot is used by Bloomberg to identify what pricing source you want to	Slot	Value Represents
		Bond	F
	feed using this formula. This is a one-	OddBond	0
Slot	character field that tells Bloomberg if	Currency	С
	you will feed your primary or secondary	Additional	41-49
	fixed income pricing or your currency	slots	
	pricing source.		
	The Security ID string used by		
	Bloomberg to identify which security the	A valid ISIN, CUSIP or SEDOL number or value pointing to the cell containing the Security ID.	
	price refers to. Normally this is a number		
Coounitrald	(or sequence of letters and numbers)		
SecurityId	defined using the ISIN, CUSIP or SEDOL		
	standards. SecId can also be a cell		-
	reference, pointing to another cell		
	containing the actual Security ID.		

Argument	Description		Valid Values
AccessType	A number that specifies the identifier type in use. For a complete list of valid Access Types refer to <u>Table 2</u> .	Please refer to <u>Table 2</u> .	
MonitorID	This is a unique number identifying the contributor's Bloomberg Monitor page.	This numeric identifier is provided by your Bloomberg Contributions Account Manager.	
MonitorNumber	A numeric identifier dedicated to an individual Contributor per Monitor ID.		identifier is provided by your Bloomberg s Account Manager.
PageNumber	A numeric identifier pointing to a specific "page" within each Monitor Number (MonNum) per Monitor ID (MonID).	Any valid page number.	
LineNumber	Allows you to specify which line, within the "page" your security contribution should appear.	Any number between 1 to 20 depending on how mare instruments per page the monitor has been set up for addition, "M" can also be sent if Bloomberg is to sort instruments by maturity.	
	One-character field that tells Bloomberg	Value	Value Represents
UpdateDelete	if the instrument needs to be updated or deleted from the monitor.	U D	Update Delete
YellowKey	A one-character field specifying the type of Security or Yellow Key you are contributing.	Please refer to <u>Table 5</u> .	
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	A valid ISIN, CUSIP or SEDOL number or value pointing to the cell containing the BenchmarkId.	

Argument	Description	Valid Values
	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 the actual Benchmark ID.	
	A number that specifies the identifier	
BnchmkAccessTyp	type in use for the benchmark. For a	Please refer to Table 2.
	complete list of valid Access Types refer	
	to <u>Table 2</u> .	
BnchmkkDescr	This parameter is optional. It represents	Any string, limited to 20 characters.
DittillikkDesti	the description of the benchmark.	Any string, inflited to 20 characters.

7.6 Clearing Securities from Monitor

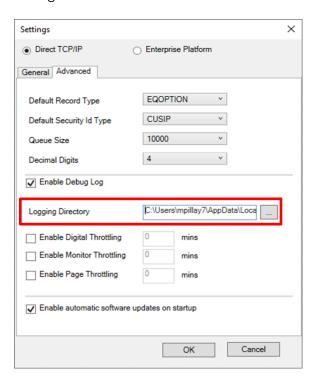
To clear your Monitor, simply enter the Monitor ID, the Monitor Number and the Slot on the Bloomberg DCA ribbon in Excel and hit Enter. This will enable the Clear Monitor button. Then click on the Clear Monitor button. A dialog will display for you to confirm that you want to proceed.



Please check with your Bloomberg Contributions Account Manager on the Slot.

8 Logs

DCAP offers different levels 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 mainly with changes in connectivity status. If data logs or more verbose logs are required to aid troubleshooting, your Bloomberg Contributions Account Manager may ask you to tick the Enable Debug Log box. The logs will be stored 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 a restart of Excel may be required for DCAP to start writing to the debug log.

The current log file will be named **dcacsvc_date.log** (i.e., **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. The "View Logs" button in the Bloomberg DCA ribbon opens the selected logging folder.

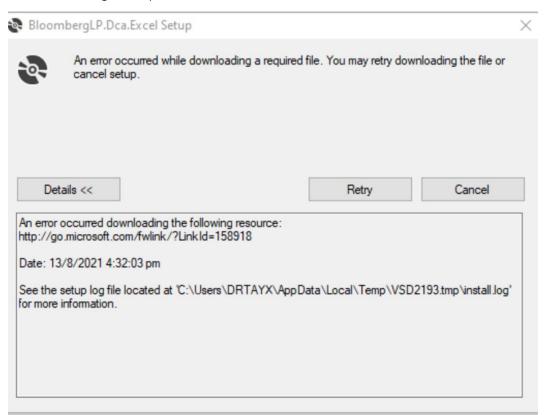
9 Troubleshooting DCAP Issues

This section details issues that users have run into and some common troubleshooting steps. We have categorized these into three subsections:

- Installation issues
- Post-installation issues
- Connectivity issues

9.1 Installation Issues

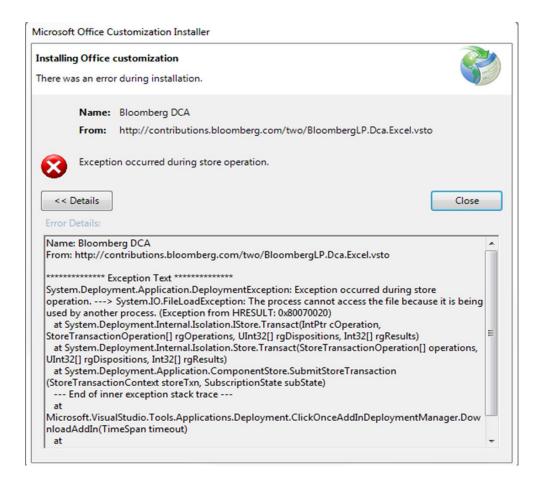
9.1.1 Missing Component



Missing prerequisites when installing DCA.

- 1. Download and install
 Microsoft Visual Studio 2010
 Tools for Office Runtime (x86
 and x64) directly from
 Microsoft website:
 https://www.microsoft.com/e
 n-
 us/download/details.aspx?id=48217
- 2. Run the DCAP installer again.

9.1.2 Exception during store operation



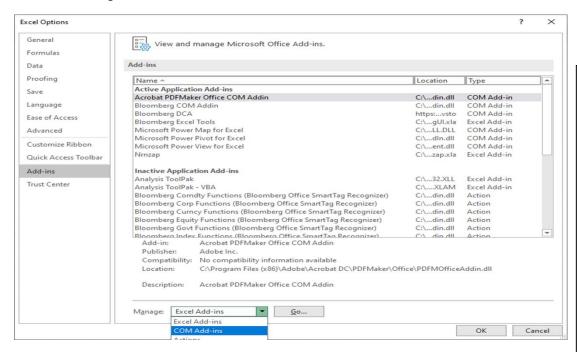
This issue is caused by remnant DCAP files from a previous version being installed.

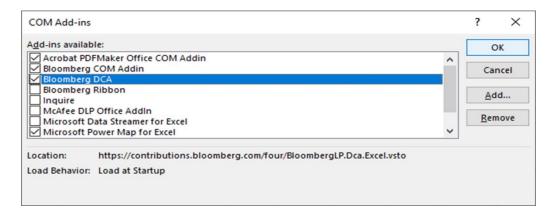
Solution:

- 1. Remove all DCAP files from desktop, including any icons showing on the taskbar.
- 2. Remove registry files from below:
 - a. HKEY_LOCAL_MACHINE\Software\Microsoft\Office\Excel\Addins\BloombergLP.Dca.Excel
 - b. HKEY_LOCAL_MACHINE\Sof tware\Wow6432Node\Micro soft\Office\Excel\Addins\Blo ombergLP.Dca.Excel
- 3. If DCAP has not been installed by IT, have IT install DCAP using their admin credentials.

9.2 Post-Installation Issues

9.2.1 Missing Add-in



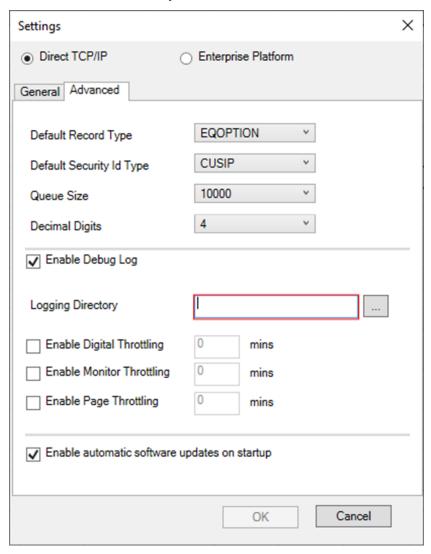


File → Options →Add-ins →Click on the "Manage" drop-down, and select "COM Add-ins" → Click on "Go"

If you find the add-in the Disabled Application Add-ins section, go to Manage: Disabled Item, click in Bloomberg DCA and click on the Enable button.

Then go back to Manage: COM Add-ins and check the Bloomberg DCA add-in.

9.2.2 OK Button Grayed Out



If the OK button is grayed out, please ensure that the Logging Directory is filled in.

Click on the "..." to select the folder where DCA should store logs.

9.3 Connectivity Issues

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



DCAP connects to two separate production servers for redundancy, so each half of the "Network Tool" icon indicates connectivity status to one server. In the images above, green indicates an active connection and blue indicates no connection.

Your configured DCAP IP addresses and port should automatically be populated with the values you see in the General tab of the configuration screen. Click on 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. The following images show samples of test results for successful and unsuccessful connections.

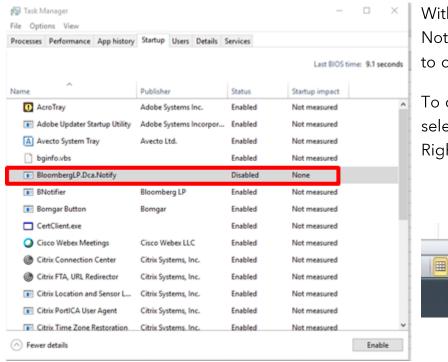
Successful Connection

Unsuccessful Connection

DCA Network Diagnostics – \square X	DCA Network Diagnostics – 🗆 🗙
DCA Configuration	DCA Configuration Primary IP: 127.0.0.1 Port: 11011 Secondary IP: 127.0.0.1 Port: 11011 Run test Clear Copy to Clipboard
Connection Test 1 of 2: Primary IP Attempting to connect to 69.191.193.175:11011 ==> Successfully connected Connection Test 1 of 2: Secondary IP Attempting to connect to 69.191.229.120:11011 ==> Successfully connected	Connection Test 1 of 2: Primary IP Attempting to connect to 127.0.0.1:11011 ==> Unable to establish connection to 127.0.0.1:11011 Connection Test 1 of 2: Secondary IP Attempting to connect to 127.0.0.1:11011 ==> Unable to establish connection to 127.0.0.1:11011 Test Results Unable to establish connection to both of the Bloomberg DCA servers. DCA needs to connect to both Primary and Secondary IP addresses to work normally. Please consult with your IT administrator about the following common causes: 1. Your network firewall is blocking outgoing connections to Bloomberg 2. Your antivirus software is blocking outgoing connections to Bloomberg 3. Your network is not correctly configured to allow connections to Bloomberg Bloomberg DCA servers do not block any incoming network connections.

If your connection is unsuccessful, please check the description in the Test Results and consult with your firm's Networks team for troubleshooting. Bloomberg accepts all incoming connections on these IP addresses, and no whitelisting is needed on our part.

9.3.1 Switching off DCA Notification Tool



With newer versions of DCAP, users will not see the DCA Notification tool on the taskbar. This tool has been known to cause connectivity issues in some environments.

To close this tool, right-click on the icon in the taskbar and select Exit. Next, run Task Manager → Startup tab → Right-click on BloombergLP.Dca.Notify → Disabled



9.3.2 Changing to a different PC

If you have changed to a new PC and wish to use your existing trader ID, please use the self-service options to reset your trader ID from the Bloomberg Terminal. For more information, please refer to the <u>Self-Service</u> section.

10 Self-service tools for Trader ID Management

As mentioned in the Configuring DCAP section, a valid trader ID/Password combination is required to publish data to Bloomberg. This ID/Password combination is specific to a particular Windows login on each PC. Bloomberg provides tools for contributors to manage their Trader IDs using the Terminal.

Your Bloomberg Contributions Account Manager will enable one or more users within your firm as Admins, and these users will be able to manage the firm's Trader IDs.

There are three operations that these tools allow:

- 1. Creating a new Trader ID: When additional ID/Passwords are required for new users, or when logging in from a different machine/Windows account.
- 2. Deleting an existing Trader ID: When a certain Trader ID is no longer necessary.
- 3. Reset an existing Trader ID: Resetting a Trader ID will associate that ID to the first PC that connects to Bloomberg after the reset. Use this when you change to a new PC/Windows login or after network changes.

10.1 <u>Create Trader ID</u>

- 1. Run DCAB <GO> on the Bloomberg Terminal. (Please ensure admin rights are enabled for your UUID. Otherwise, please reach out to your Contributions Account Manager).
- **2.** On the DCAB screen, click on the Create Trader button on the top left (**Image 1**). If you are an admin for more than one feed, please ensure you select the correct feed from the drop-down as shown in **Image 2**.

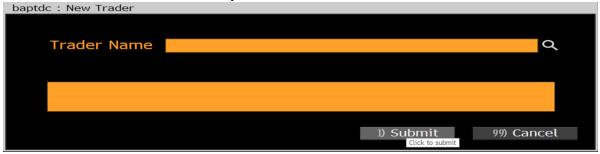
<u>Image 1</u>

1) Create Trader					Desk	top Contr	ibutions	Application
Feed Name								
Trader Id ↑Name	Password	Create	Connect	Last Co	Host Ser	Version	Stage	Client Hos

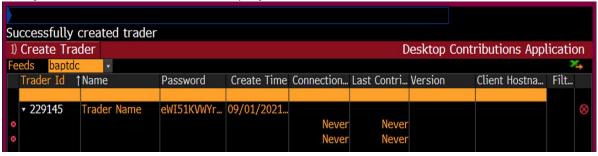
Image 2



3. Click on **Create Trader** and key in the Trader Name and click Submit.



4. Once the Trader ID is created you will see the message "Successfully created trader," and the newly created Trader ID will be displayed in the list.



10.2 Delete Trader ID

- 1. Run DCAB <GO> on the Bloomberg Terminal.
- 2. Right-click on the Trader ID that you want to Delete and select **Delete Trader**.



3. Click on Submit on the prompt "Are you sure you want to delete the trader?"



5. Once the Trader ID is deleted you will see the message "Successfully deleted trader."



10.3 Reset Trader ID

- 1. Run DCA <GO> on the Bloomberg Terminal.
- 2. Right-click on the Trader ID that you want to reset and select **Reset Trader**.

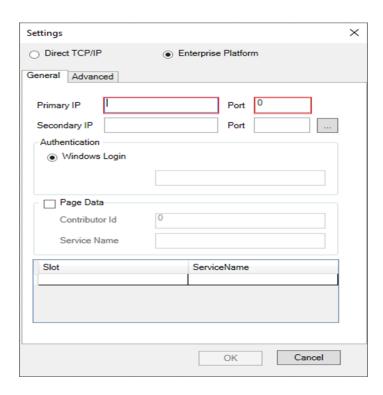


3. Click on Submit on the prompt "Are you sure you want to reset the trader?"



11 DCAP for Enterprise Platform

The **Enterprise Platform** option should be selected when you are using the DCAP-DDM method to connect and contribute. Your system administrator will provide all 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 add-in will use entitlements based on the user's Windows login, or an Active Directory object (e.g., "mail"). The above settings ensure that the DCAP Excel add-in 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 you need to publish GPGX/text pages using the PLContribPage() formula, then this checkbox must 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 PLContribPage() formula. An example might be: //mybank/c-gpgx.

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 (e.g., Forex). Once selected, double-click in the cell to the right and proceed to type an Enterprise Platform service name, e.g., //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 add-in will immediately attempt connections to the nominated servers.

12 Table 1 - Transaction Type

Transaction to Use in Formula	1 '		Value It Represents,
	Туре		Туре
TRADE	Last Trade Price, Float	BIDFIRSTLEGDV01	CDS Leg 1 DV01 Bid,
			Float
BID	Bid, Float	ASKFIRSTLEGDV01	CDS Leg 1 DVO1 Ask,
			Float
ASK	Ask, Float	BECHGONDAYRT	Breakeven Change on
			Day, Float
ASKYIELD	Ask Yield, Float	BESPDBIDRT	Bid Breakeven Spread,
			Float
BIDYIELD	Bid Yield, Float	BESPDASKRT	Ask Breakeven Spread,
			Float
VOLUME	Total Volume, Integer	BREAKEVEN_BNCHMRK	Breakeven Benchmark,
			String
RTOPENINTEREST	Open Interest, Integer	CDSCOUPONRT	CDS Underlying
			Coupon, Float
BLPSPRDTOBENCHBIDRT	Bid Yield Spread, Float	UPFRONTBIDREALTIME	CDS Upfront Bid, Float
BLPSPRDTOBENCHASKRT	Ask Yield Spread, Float	UPFRONTASKREALTIME	CDS Upfront Ask, Float
BLPSPRDTOBENCHMIDRT	Mid Yield Spread, Float	BIDFIRSTLEG	CDS Leg 1 Bid, Float
BLPRTSPRDTOBENCHLASTRT	Last Yield Spread, Float	ASKFIRSTLEG	CDS Leg 1 Ask, Float
SPREADBENCHMARKSECURITYTYPE	Benchmark Access	BIDSECONDLEG	CDS Leg 2 Bid, Float
	Type (Table 2), Integer		
YIELD_SPREAD_BNCHMRK	Benchmark identifier,	ASKSECONDLEG	CDS Leg 2 Ask, Float
	String		
EFPRATERT	EFP Rate, Float	BIDSECONDLEGDV01	CDS Leg 2 DV01 Bid,
			Float
EFPCHANGERT	EFP Rate Change on	ASKSECONDLEGDV01	CDS Leg 2 DV01 Ask,
	Day, Float		Float
EFPBIDRATEREALTIME	EFP Bid, Float	CDSOPTIONDELTAREALTIME	CDS Option Delta,
			Float

EFPASKRATEREALTIME	EFP Ask, Float	CDSOPTIONREFERENCELEVELRT	CDS Option Reference
			Value, Float
EFPBIDCHANGEREALTIME	EFP Bid Change on	REPOVWAPREALTIME	Repo VWAP, Float
	Day, Float		
EFPASKCHANGEREALTIME	EFP Ask Change on	REPOVWAPVOLUMEREALTIME	Repo VWAP Volume,
	Day, Float		Float
EFP_BNCHMRK	EFP Benchmark, String	FUNDNETASSETVALRT	Fund NAV, Float
BESPDMIDRT	Mid Breakeven Spread,	PRICESCALINGFACTOR	Price Scaling Factor,
	Float		Integer (from 1 to 7)
VOLUMESCALINGFACTOR	Size Scaling Factor		
	Integer (from 1 to 7)		

13 Table 2 - Access Type

Acces	Identifier It	Acces	Identifier It	Acces	Identifier It
s	Represents	s	Represents	s	Represents
Type		Type		Type	
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	Miss Damastis	30	Equity Ticker &
04	Euro Clear Number	10	Misc. Domestic	30	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
00	ISIIV	2	Sweden	33	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

14 Table 3 - Record Type

Record Type	Value Represents
FOREX	Currency
Bond	FIXEDINCOME
ODDBOND	ODDLOT
Slot41- Slot49	Additional slots
Special	Special

15 Table 4 - SecurityID Type

	SEDOL	WPKN
	ISIN	FRENCHNUM
SecurityID Type	CUSIP	JAPANNUM
	TICKER	OPTION
	VALOREN	

16 Table 5 - Yellow Key

YellowKey	Value Represents	
1	Comdty	
2	Equity	
3	Muni	
4	Pfd	
5	Client	
6	M-Mkt	
7	Govt	
8	Corp	
9	Index	
10	Curncy	
11	Mtge	

17 Table 6 - Error Messages

Error Message	Functions Applicable	Description
Error: queue is full	PLContribPage PLContribQuote PLSendHistory PLMonitorFull PLBenchmark	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	PLContribPage	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 has not been clicked to send the data.
Invalid Product Code	PLContribPage	The value assigned to the ProductCode parameter in the formula is invalid.
Invalid Page Number	PLContribPage	The value assigned to the PageNumber parameter in the formula is invalid.
Skip Digital	PLContribQuote	The 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 has not been clicked to send the data.

Invalid Transaction Type	PLContribQuote PLSendHistory	The value provided in the TransactionType parameter in the formula is not supported.
Invalid Security Id Type	PLContribQuote PLSendHistory PLMonitorFull PLBenchmark	The value provided in the SecurityIdType parameter in the formula is not supported.
Invalid SecId Length	PLContribQuote PLSendHistory PLMonitorFull PLBenchmark	Length of the string provided in SecurityId parameter in the formula is not consistent with the value provided in the SecurityIdType (e.g., ISIN should be 12 characters long)
Invalid Record Type	PLContribQuote PLSendHistory	The value provided in the RecordType parameter in the formula is not supported.
Invalid condition code	PLContribQuote	The value provided in the ConditionCode parameter in the formula is not supported.
Duplicate Value	PLContribQuote PLSendHistory	The update is a duplicate and has not been sent.
Blank Skipped	PLContribQuote PLSendHistory	The cell referenced in the Value parameter in the formula is blank/empty.

Invalid Date	PLSendHistory	The value provided in the PastDate parameter in the formula is not supported.
Skip History	PLSendHistory	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.
Invalid Access Type	PLMonitorFull PLBenchmark	The value provided in the AccessType parameter in the formula is not supported.
Invalid Yellow Key	PLMonitorFull PLBenchmark	The value provided in the YellowKey parameter in the formula is not supported.
Invalid Benchmark Access Type	PLBenchmark	The value provided in the BnchmkAccessTyp parameter in the formula is not supported.
Error: client isn't initialized	All Formula	Error appears when the user has not configured or has incorrectly configured their Trader Id and Password in the Bloomberg DCA Settings screen.

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