Contents

First Time Login

Step 1 – Confirm System Requirements

1.   Confirm that you have:

- The following z/OS components:
    - IBM z/OS 1.12 or later
    - JES2 (JES3 not supported)
    - A z/OS TSO userid with access rights to use the z/OS FTP server (FTP over SSL not supported)
    - TCP/IP connection to the z/OS host via a LAN or VPN connection
- A supported web browser:
    - Microsoft Internet Explorer v11 or later
    - Microsoft Edge v38 or later
    - Mozilla Firefox v34 or later
    - Google Chrome 43.0.2357.130m or later
- Windows 7 or later
- Java Runtime version 8 or later
    - Recommend installing the latest Java Runtime version fixes due to the known Java Issue with scroll bars:
    http://bugs.java.com/bugdatabase/view_bug.do?bug_id=8134828

2.   Verify that you can run Java Applications on the PC via Java Web Start:

a. Follow this link to test on the Oracle tutorial page:
https://docs.oracle.com/javase/tutorial/deployment/webstart/running.html

b. On the "Running a Java Web Start Application From a Browser" heading click "Try it now: Run Notepad"

c. Follow the prompts to open and run Notepad.

3.   Verify the TCP/IP connectivity and access to the z/OS FTP server by logging onto the z/OS FTP server using the workstation's FTP client program.

Step 2 – Collect Your Registration Details

To register as a Mainframe Cloud user, you need the following information.

Email
> The email address that Mainframe Cloud uses to identify this user. Mainframe Cloud recommends using your work email address.

Password
> An alphanumeric password for your Mainframe Cloud login. This should not be the same as your z/OS TSO password.

Confirm Password
> Confirm the password for your Mainframe Cloud login.

First name
> An alphanumeric first name.

Surname
> An alphanumeric last name.

Company
> An alphanumeric Company name.

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Step 3 – Collect Your z/OS System Login Details

To access your z/OS mainframe you need the following information.

User ID

> The z/OS TSO User ID you normally log in with.

Password

> The password for the z/OS TSO User ID.

Host Name/Address

> The Host Name/Address of the z/OS system to log in to. Obtain this from your network administrator or via the TSO command "NETSTAT HOME" where the Address required has the **Flg** "**P**" or PRIMARY.

FTP Port

> The FTP Port number of the FTP Server on the selected z/OS system to log in to. DEFAULT uses the well-known FTP port 21.

> If in doubt, consult your network/system administrator.

Host Label

> The host label for the selected Host Name/Address that appears on the navigation tree. This should be simple and easy to recognize and must be unique within the list.

System ID

> The System ID of the z/OS system that will execute the MFC Agent Job. This is the 1 to 4 alphanumeric System ID of one of the systems in the JES multi-access spool configuration.

> The System ID identifies the system on which the agent runs when in a multi-access spool configuration (SYSAFF parameter in JCL).

> The System ID is normally displayed in the **ISPF Primary Option Menu**.

```
                          ISPF Primary Option Menu
 Option ===> _

 0   Settings      Terminal and user parameters     User ID . : MFUSER1
 1   View          Display source data or listings  Time. . . : 10:12
 2   Edit          Create or change source data     Terminal. : 3278
 3   Utilities     Perform utility functions        Screen. . : 1
 4   Foreground    Interactive language processing  Language. : ENGLISH
 5   Batch         Submit job for language processing  Appl ID . : ISR
 6   Command       Enter TSO or Workstation commands  TSO logon : ISPFPROC
 7   Dialog Test   Perform dialog testing           TSO prefix: MFUSER1
 9   IBM Products  IBM program development products System ID : XXXX
 10  SCLM          SW Configuration Library Manager MVS acct. : ACCT#
 11  Workplace     ISPF Object/Action Workplace     Release . : ISPF 7.1
 M   More          Additional IBM Products
```

Agent TCP/IP Port

> The Agent TCP/IP port the agent listens for requests on. Assign a port number between 1024 to 65535 that is not used by another application.

> If in doubt, consult your network/system administrator.

> Valid Range: A port number from 1024 to 65535

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```
//jobname JOB accinfo,               (1)
//        CLASS=A,                   (2)
//        MSGCLASS=X,                (3)
//        MSGLEVEL=(0,1),REGION=0M,USER=userid
```

JOB Account Information *(1)*

The site assigned JOB Accounting Information to be used by the MFC Agent Job.

Note: The information must be keyed in exactly how it would appear in a JCL JOB statement. This field is case sensitive.

Every JCL job must include special accounting and identifying information. The way this information is specified varies between z/OS installations.

JOB Class *(2)*

The site assigned JOB Class to be used by the MFC Agent Job.

Note: The assigned class should allow the MFC Agent Job to execute for an extended period, preferably with an attribute of "TIME=NOLIMIT".

The class depends on the characteristics of the job and your installation's rules for assigning classes.

JOB Message Class *(3)*

The JOB Message Output Class that processes the MFC Agent Job log.

Note: Select an output class that allows later retrieval of the MFC Agent Job log.

DB2 Load Library

The dataset name of the main APF authorized DB2 load module library used by the z/OS system. (Required only when a DB2 interface is used.)
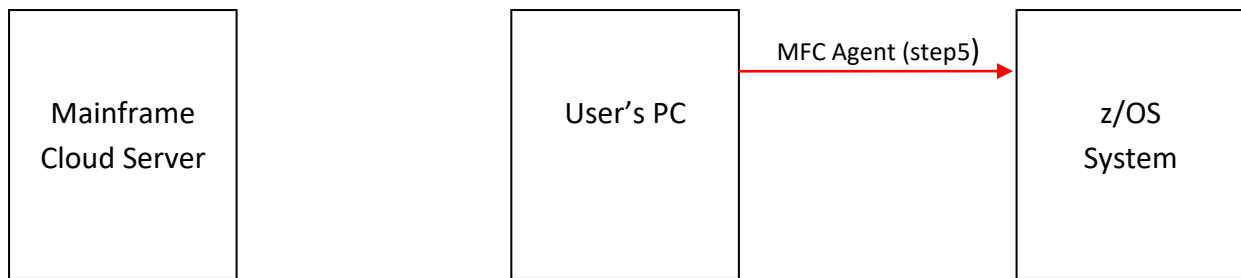
If in doubt, consult your system administrator/programmer.

Step 4 – Register with Mainframe Cloud

Mainframe Cloud Server	User's PC		z/OS System

User Details (step 1)

Java (step 6)
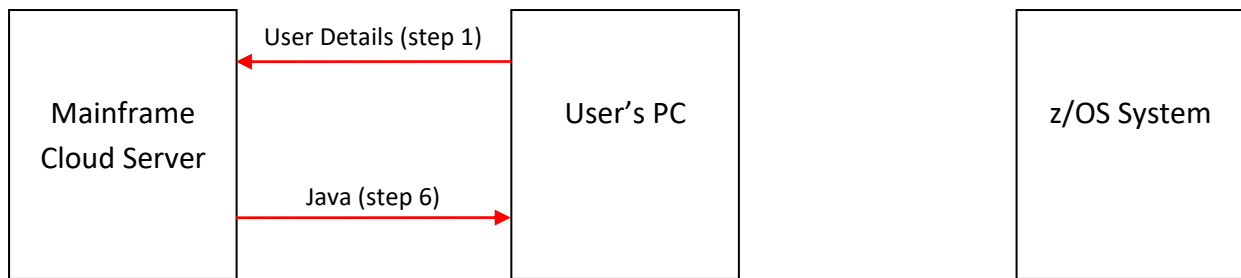
1. Dependant on your site setup, either navigate to www.mainframecloud.com or to your site's on-prem mainframe cloud platform server.

    - The mainframe cloud window opens.

2. Click Register/Login.

    - The Mainframe Cloud Platform window is displayed.

3. Click Register now to get started.

    - The settings dialog opens.

4. Enter your user details collected in Step 2–Collect Your Registration Details and click Save.

    - Your details are registered with MFC

    - You are logged on to the MFC server

    - The launch dialog is displayed

5. Click on the LAUNCH button.

    - A browser warning appears.

6. Allow the action to open and run the file (with Java Web Start Launcher).

    - The Java downloads onto your PC.

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Step 5 – Log In to the z/OS System

Mainframe Cloud Server	User's PC	z/OS System
		MFC Agent (step5) →

1. Close down your browser.

    - You are disconnected from the Mainframe Cloud server.

2. Enter your z/OS user login information collected in <u>Step 3–Collect Your z/OS System Login Details</u> and click Login.

    - The Welcome dialog is displayed.

3. Click OK.

    - The Host and Agent Settings dialog is displayed.

4. Enter the Host and Agent information collected in <u>Step 3–Collect Your z/OS System Login Details</u> and click Save.

    - The MFC App opens
    - You logged into the specified z/OS system

5. Click on Host Label.

    - The MFC agent downloads onto the specified z/OS system
    - The agent starts and your dataset list is displayed

Note: For subsequent logins, open the MFC website and login with your email address and password.

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Tutorials

For information and tutorials on how to use Mainframe Cloud products follow the links to You Tube Tutorials for:

- Explore^{TM} here

- Command^{TM} here

For information on how to use Mainframe Cloud MainSpace^{TM} and other useful links go to the Mainframe Cloud website here and download the help.

Maintain z/OS System Entries

This release supports one or many hosts (z/OS system entries) on a single site.

To add, update or delete z/OS system entries:

1. From the MFC App menu bar select Settings, Host and Agent Settings.

2. Specify the following port and JCL attributes fields:

Host Label

> The host label that appears on the navigation tree. This should be:
> - Simple and easy to recognize
> - Unique within the list

Host Name/Address

> The Host Name/Address of the z/OS system to log in to. Obtain this from your network administrator or via the TSO command "NETSTAT HOME" where the Address required has the **Flg** "**P**" or PRIMARY.

System ID

> The System ID of the z/OS system that will execute the MFC Agent Job. This is the 1 to 4 alphanumeric System ID of one of the systems in the JES multi-access spool configuration.
>
> The System ID identifies the system on which the agent runs when in a multi-access spool configuration (SYSAFF parameter in JCL).
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   3    Utilities     Perform utility functions           Screen. . : 1
   4    Foreground    Interactive language processing     Language. : ENGLISH
   5    Batch         Submit job for language processing  Appl ID . : ISR
   6    Command       Enter TSO or Workstation commands   TSO logon : ISPFPROC
   7    Dialog Test   Perform dialog testing              TSO prefix: MFUSER1
   9    IBM Products  IBM program development products    System ID : XXXX
   10   SCLM          SW Configuration Library Manager    MVS acct. : ACCT#
   11   Workplace     ISPF Object/Action Workplace        Release . : ISPF 7.1
   M    More          Additional IBM Products
```

FTP Port

> The FTP Port number of the FTP Server on the selected z/OS system to log in to.
>
> DEFAULT uses the well known FTP port 21.
>
> If in doubt, consult your network/system administrator.
>
> Set to:
> - 0 or DEFAULT for the default FTP port
> - A port number from 1 to 65535

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Agent TCP/IP Port

The Agent TCP/IP port the agent listens for requests on. Assign a port number between 1024 to 65535 that is not used by another application.

If in doubt, consult your network/system administrator.

Valid Range: A port number from 1024 to 65535

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//jobname  JOB accinfo,                (1)
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JOB Class *(2)*

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Note: The assigned class should allow the MFC Agent Job to execute for an extended period, preferably with an attribute of "TIME=NOLIMIT".

The class depends on the characteristics of the job and your installation's rules for assigning classes.

JOB Message Class *(3)*

The JOB Message Output Class that processes the MFC Agent Job log.

Note: Select an output class that allows later retrieval of the MFC Agent Job log.

DB2 Load Library

The dataset name of the main APF authorized DB2 load module library used by the z/OS system. (Required only when a DB2 interface is used.)

If in doubt, consult your system administrator/programmer.

(S) Agent Job Suffix

An MFC App generated single alphanumeric character that is suffixed to the login z/OS TSO User ID to create the MFC Agent Job Name.

Add Button

Adds a new Host and Agent Settings row to the table after the currently selected (or last) row.

Delete Button

Deletes all the currently selected Host and Agent Settings rows.

Up Button

Moves the selected row up in the list of hosts. The order shown will be the order presented on the navigation tree. Note that this only applies if there is no column sorting in effect.

Down Button

Moves the selected row down in the list of hosts. The order shown will be the order presented on the navigation tree. Note that this only applies if there is no column sorting in effect.

Save Button

Saves the current settings. If this is a first-time login then the settings will be used to create your navigation tree.

Cancel Button

Cancels the changes and close the dialog.

Help Button

Help for Host and Agent Settings.

Supported SDSF Primary Options with Row Actions

The following SDSF Primary Option Menu options are supported with right click row actions:

- DA   Active users
- I   Input queue
- O   Output queue
- H   Held output queue
- ST   Status of jobs

Supported Row Actions:

- S/B   Browse
- A   Release
- C   Cancel
- H   Hold
- P   Purge

MFC Explore™ Supported Datasets

The following table shows the supported dataset types, the allowed actions for files with readable or unreadable data and the permitted drop-down menu actions. Note: ++ Copy/Paste action currently uses IBMs SMCOPY which only supports files with an LRECL<=256.

DSORG	Description	RECFM	READ	SAVE Readable file content	SAVE Unreadable (eg compiled) file content	Copy/ Paste LRECL<=256 ++	Rename	Delete	Model On
PS	Sequential	F,FB	✓	✓	✗	✓	✓	✓	✓
PS	Sequential	V,VB	✓	✓	✗	✓	✓	✓	✓
PS	Sequential	U	✓	✓	✗	✗	✓	✓	✓
PSU	Sequential unmovable	F,FB	✓	✓	✗	✗	✓	✓	✗
PSU	Sequential unmovable	V,VB	✓	✓	✗	✗	✓	✓	✗
PSU	Sequential unmovable	U	✓	✓	✗	✗	✓	✓	✗
PS-L	Sequential Large format	F,FB	✓	✓	✗	✓	✓	✓	✓
PS-L	Sequential Large format	V,VB	✓	✓	✗	✓	✓	✓	✓
PS-L	Sequential Large format	U	✓	✓	✗	✗	✓	✓	✓
PO	Partitioned	F,FB	✓	✓	✗	✓	✓	✓	✓
PO	Partitioned	V,VB	✓	✓	✗	✓	✓	✓	✓
PO	Partitioned	U	✓	✓	✗	✗	✓	✓	✓
POU	Partitioned unmovable	F,FB	✓	✓	✗	✗	✓	✓	✗
POU	Partitioned unmovable	V,VB	✓	✓	✗	✗	✓	✓	✗
POU	Partitioned unmovable	U	✓	✓	✗	✗	✓	✓	✗
PO-E	Partitioned extended (PDSE)	F,FB	✓	✓	✗	✓	✓	✓	✓
PO-E	Partitioned extended (PDSE)	V,VB	✓	✓	✗	✓	✓	✓	✓
PO-E	Partitioned extended (PDSE)	U	✓	✓	✗	✗	✓	✓	✓

Frequently Asked Questions

Why doesn't MFC launch automatically with Google Chrome?

Why do I get messages java.net.ConnectException or java.netSocketException?

Why do I get the message java.net.UnknownHostException in the Java Console when the MFC App is starting?

Why is the progress wheel continually spinning?

How do I change the TCP/IP Port Number or the JCL information for an LPAR?

How do I refresh the Explore or Command list or tree display?

How do I refresh a PDS member list in Explore?

How do I Allocate/Create a New File in Explore?

Why doesn't MODEL ON allocate the new file exactly like the modelled file?

How does 'Set Dataset Prefix' work?

How do I change my z/OS TSO password in MFC Login dialog?

Why does MFC report an invalid password when the password is actually expired?

Why can't I perform SDSF row actions on all commands?

Why can't I edit my file with compiled code or unreadable characters?

Why can't I execute a CLIST or REXX programs?

Why can't I see ISPF PDS Member statistics?

How do I search for a file or member in a PDS?

Why can't I access my files or run commands when it looks like the Agent is still running?

How do I stop a long running task with a file being opened or a command running?

Why are there BAK files in Explore?

Why have my saved commands disappeared from the Command product?

What is Login error: 550 Non-DASD data set *hlq1.userid*.MFC*n* cannot be processed?

How do I look at the status messages in the Status line?

Why has my Scroll Bar disappeared?

What is the Undo limit when editing?

Why can't I copy files across multiple sites?

Why doesn't MFC launch automatically with Google Chrome?

This is a Google Chrome defect that was introduced in July 2015. See:
https://bugs.chromium.org/p/chromium/issues/detail?id=518170

To launch MFC manually:

1. After clicking LAUNCH, click the Keep button.

2. Click the downloaded JNLP file to start the MFC platform.

Why do I get messages java.net.ConnectException or java.netSocketException?

Possible reasons are connectivity issues:

*   The z/OS host is not available (e.g. the TCP/IP stack is not active or the VPN connection has not started)

*   The FTP Server is not active

When the connectivity issues have been resolved, on the MFC Application, right click the Host node and click Check MFC Agent Connection.

Why do I get the message java.net.UnknownHostException in the Java Console when the MFC App is starting?

Possible reason: If the exception message in the Java console contains references to 'proxy'; for example AbstractAuto**Proxy**Handler, there is a problem with the configuration script at your site.

No action is required. When the MFC App is launched it establishes its own mainframe connection within your secure intranet. The MFC App does not work with your configuration script.

Why is the progress wheel continually spinning?

The progress wheel may spin for the following reasons:

*   The application is waiting for a TCP connection to be established

*   A large file is being opened

*   The command being executed has a large number of lines to display

How do I change the TCP/IP Port Number or the JCL information for an LPAR?

In the MFC Application:

1. Stop the agent for the Host you want to update:

    a. Right click on the host node and select Stop MFC Agent.

2. Update the host settings:

    a. Click Settings, Host and Agent Settings.

    b. Select the Host.

    c. Change the port number or JCL information as needed.

3. Click Save.

4. Select OK to restart the MFC Application.

How do I refresh the Explore or Command list or tree display?

Double click the Host node for the Host you are working with to refresh the list or tree display.

How do I refresh a PDS member list in Explore?

Double click the PDS file you are working with to refresh the PDS member list.

How do I Allocate/Create a New File in Explore?

To create a new file in the Explore product use the Model On feature.

1. Select Explore product.

2. Select the file you wish to use as the example.

3. Right click on the file & select **Model On**.

4. Specify the new file name & click **Model On** button.

The new dataset should be visible in the Explore product.

Why doesn't MODEL ON allocate the new file exactly like the modelled file?

MODEL ON uses IBM's TSO ALLOCATE LIKE command. For attributes modelled to the new file execute the HELP ALLOCATE command in the Command product using TSO Command.

How does 'Set Dataset Prefix' work?

In Explore Set Dataset Prefix (right click on the host node) filters on files with the HLQs specified.
* Asterisk indicates a wild card.
% Percent indicates a character can occupy that position.
Asterisk & Percent are not supported in HLQ1.

How do I change my z/OS TSO password in MFC Login dialog?

To change the z/OS TSO password from the MFC Login dialog:

1. Enter the z/OS TSO Userid.

2. In the Password input box, type the old TSO password and then the new TSO password twice separated by a forward slash "/". For example:

```
old_pswd/new_pswd/new_pswd
```

Why does MFC report an invalid password when the password is actually expired?

By default, the z/OS FTP Server does not report old password expiry conditions. For MFC to detect this condition, the z/OS FTP Server configuration statement 'ACCESSERRORMSGS TRUE' has to be added to the server's FTP.DATA configuration dataset. Contact your system administrator to enable this configuration setting in the FTP server.

Why can't I perform SDSF row actions on all commands?

The MFC Application supported SDSF Primary Option Commands are documented here:

Mainframe Cloud – SDSF Supported Primary Options with Row Actions.

MFC will support additional row actions in a future release.

Why can't I edit my file with compiled code or unreadable characters?

The MFC Application does not allow saving of some file types.

Refer to MFC Explore Supported Datasets.

Why can't I execute a CLIST or REXX programs?

The MFC Application does not support execution of REXX/CLIST procedures in this release.

Why can't I see ISPF PDS Member statistics?

ISPF PDS member statistics in the MFC Application are not supported.

How do I search for a file or member in a PDS?

In Explore in the top left-hand corner there are 2 search areas for Datasets and Members.

Start typing in a search string.

*   For Datasets, the Host node tree is filtered using this string.
*   For PDS members, the PDSs that have been opened display the members using the string.

Why can't I access my files or run commands when it looks like the Agent is still running?

The Agent has probably stopped. You must stop the agent and then restart it.

1. Right click on the Host node for the Host you are working on and select Stop MFC Agent.

2. Right click and select Start MFC Agent.

How do I stop a long running task with a file being opened or a command running?

To stop a long running task:

1. Double click the Host node to refresh the tree display.

2. Close the tab of the file or command.

Why are there _BAK files in Explore?

In Explore a `membername_BAK` file is created when an existing membername could possibly be overwritten. The user can save this backup file as a new membername if necessary.

Why have my saved commands disappeared from the Command product?

The commands created in the MFC Application are saved in the file `hlq1.userid.MFCn`. These commands may disappear if the file is deleted.

The MFC Application creates a new `hlq1.userid.MFCn` file with the template SAMPLE commands when you next login to the MFC Application.

If you define hosts over multiple sites all of the MFC commands are saved in the `hlq1.userid.MFCn` file of the first host you logged in to.

What is Login error: 550 Non-DASD data set *hlq1.userid*.MFC*n* cannot be processed?

This error indicates that the MFC file `hlq1.userid.MFCn` has probably been migrated.

Go to TSO and either RECALL the dataset or delete the dataset (which removes any saved commands created in your prior sessions).

If you delete the file the MFC Application creates a new `hlq1.userid.MFCn` file and you continue like a new user with SAMPLE commands and no saved commands in the Command product.

How do I look at the status messages in the Status line?

Click in the Status Line at the bottom of the MFC Application. A dialog appears – Message Log - containing a history of the activity performed in the current MFC session. The log is not remembered across session restarts. To keep the Message Log save it in another application using CTRL+A then CTRL+C.

Why has my Scroll Bar disappeared?

The scroll bar disappears with large output displays. Refer to the Java documented fix:
http://bugs.java.com/bugdatabase/view_bug.do?bug_id=8134828

What is the Undo limit when editing?

The Undo limit in Explore when editing a file is 90 clicks.

Why can't I copy files across multiple sites?

This release of the MFC Application only supports multiple hosts in a single site.