**MQCCI-GUI** User Guide

le View Tools	Help		
General Show	v Structures		
General			
Active	Yes 🔻		
Description			
License			
LicenseFile	C:\Capitalware\MQCCI\mqcci_licenses.ini		
UsePureCSV	No 🔻		
AddDiscMessage	Yes   IncludeTag Yes  IncludeDurationTime No		
CSV Data to File –			
CSVFile	%QM%-%DATE%.csv		
CSV Data to a Que	eue		
UseCSVQueue	No  CSVQueue		
.ogging			
LogMode	Normal		
LogFile	C:\Capitalware\MQCCI\mqcci.log		
-	Yes V BackupLogFileCount 9		
RotateLogDaily			



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### MQCCI-GUI User Guide

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# **1** Introduction

## 1.1 Overview

*MQCCI-GUI* application allows the user to create or update MQCCI IniFiles. MQCCI-GUI can run on any platform that supports Java v1.6 (or higher): Linux, Mac OS X, and Windows Vista/7/8/8.1/10.

MQ Channel Connection Inspector (MQCCI) is a solution that allows a company to track and/or audit what information a client application or remote queue manager is exchanging with the local queue manager when a connection is made.

MQCCI is comprised of an MQ Channel Security Exit. A channel security exit is ONLY invoked/called by the queue manager's MCA (Message Channel Agent) for MQCONN/X and MQDISC API calls (so it is very light-weight).

MQCCI will operate with IBM MQ v7.1, v7.5, v8.0, v9.0, v9.1 and v9.2 in Windows, Unix, IBM i and Linux environments. It works with Server Connection, Receiver, Requester, Sender, Server, Cluster-Sender and Cluster-Receiver channels of IBM MQ queue manager.

MQCCI is designed to provide the MQAdmin with any or all of the fields of the MQCD and MQCXP structures in a "human readable" format. Human readable implies that it will convert binary fields into their MQ defined names (i.e. SSLClientAuth=MQSCA\_REQUIRED). The user can control the fields that are outputted for each of the following MQ structures: MQCD and MQCXP.

MQCCI is designed to output 1 line per API call (1 long line). The output information is written to plain text CSV (Comma Separate Value) files. The user can choose to have the output information written to a local or remote queue rather than to a file.

On IBM i, Linux, Unix and Windows, MQCCI can be configured and used with a non-default installation of MQ in a multi-install MQ environment.

# 2 Installation

This chapter will describe the installation and configuration (optional) of MQCCI-GUI. For Windows users, the installation of MQCCI-GUI is very simple and straightforward. For other Operating Systems, it is necessary to unzip the software package.

# 2.1 Prerequisites

This section lists the required hardware and software components needed to run the MQCCI-GUI application.

## 2.2 Software

The following third party software components must be installed in order to properly run MQCCI-GUI:

> Java Runtime Environment (JRE) 1.6 (or higher) or Java 2 SDK, Standard Edition (J2SE) v1.6 (or higher)

# 2.3 Hardware / OS

MQCCI-GUI is capable of running on the following hardware platforms that support Java v1.6 (or higher):

- > Linux
- Mac OS X
- Windows Vista, 7, 8, 8.1 & 10

# 2.4 Setting Up and Running the Application

The following section provides instructions on installing and running the MQCCI-GUI application.

### 2.4.1 For Windows Users:

> Run the install program called: mqccigui-setup-withjre.exe

 $\succ$  The installer should follow the standard Windows install procedures and provide default values for the users.

> When the install program has installed MQCCI-GUI, there will be a newly created folder under Start -> All Programs called MQCCI-GUI.

> To run MQCCI-GUI, select the MQCCI-GUI icon from within the MQCCI-GUI folder.

### 2.4.2 For Linux and Max OS X (requires JRE/JDK):

- > MQCCI-GUI is provided as a zip file: mqccigui.zip
- > To unzip the file, open a shell prompt and execute the following commands:

#### unzip mqccigui.zip

> When the unzip command has finished, there should be a directory tree as follows:

#### Capitalware/MQCCI-GUI

> Change directory by typing the following:

### cd Capitalware/MQCCI-GUI

> Before running MQCCI-GUI for the first time, you need to add the execute attribute to the mqccigui.sh shell scripts. Type the following:

#### chmod +x mqccigui.sh

> To run MQCCI-GUI from the Capitalware/MQCCI-GUI directory, then type the following:

### ./mqccigui.sh

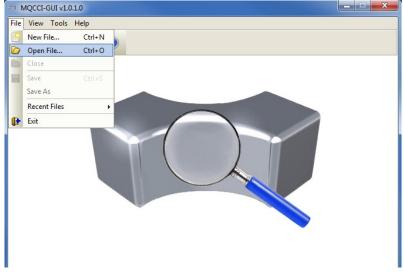
# 3 Creating or Updating IniFiles

This chapter will describe the how to create or update IniFiles.

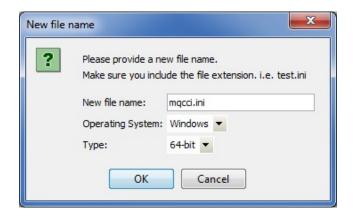
### 3.1 New IniFile

This section will describe how to create a new MQCCI IniFile. The IniFile can be for a local or remote MQCCI implementation.

From the main menu of MQCCI-GUI, select File then New File



The following is the New IniFile panel:



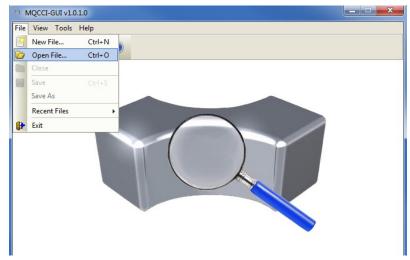
Fill in the following information:

- Input a file name including the file extension of '.ini'
- Select the Operating System
- Choose between a 32-bit or 64-bit environment

Finally, click the **Ok** button to create and open the new MQCCI IniFile.

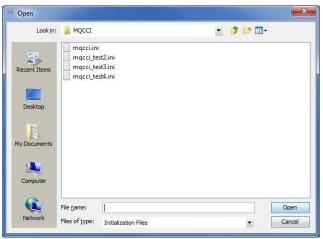
## 3.2 Open an IniFile

This section will describe how to open a MQCCI IniFile to be viewed or edited. The IniFile can be for a local or remote MQCCI implementation.



From the main menu of MQCCI-GUI, select File then Open File

The following is the **Open** dialog box:



Select the IniFile that you wish to view or edit and then click the **Open** button.

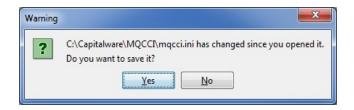
## 3.3 Close an IniFile

This section will describe how to close a MQCCI IniFile.

	01. 0. (04	pitalware	A/MQCCI/mqcci.ini
le View	Tools H	elp	
New Fil			
👂 Open Fi	ile	Ctrl+O	
Close			
Save		Ctrl+S	
Save As	;		
Recent	Files		MQCCI/mqcci_licenses.ini
Exit			
Active	Yes	•	
AddDiscMes	sage Yes	•	
UsePureCS\	V No	-	
CSV Data to	et.		
CSV Data to			
CSV Data to			
UseCSVQue	ue No	•	CSVQueue
Logging			
LogMode	Nor	mal •	•
LogFile	C:\0	Capitalwar	e\MQCCI\mqcci.log
Logi ile			ckupLogFileCount 9
	aily Yes	🔻 Bac	
	aily Yes	▼ Bac	
	aily Yes	▼ Bac	
	Daily Yes	▼ Bac	
	Daily Yes	• Bac	
	Daily Yes	▼ Bac	
	Daily Yes	▼ Bac	
	Daily Yes	▼ Bac	
	Daily Yes	▼ Bac	
	Daily Yes	▼ Bac	
	Daily Yes	▼ Bac	
	Daily Yes	▼ Bac	
	Daily Yes	▼ Bac	

From the main menu of MQCCI-GUI, select File then Close

If the user has altered the IniFile then the user will be presented with the following dialog box:



Select Yes to save the changes; otherwise select No.

The MQCCI-GUI program will make a backup of the original file in the same directory and call it: *{inifilename}.backup* 

## 3.4 Save IniFile

This section will describe how to save an open MQCCI IniFile.

From	the main	menu	of MQC	CCI-GUI,	select	File then	Save
------	----------	------	--------	----------	--------	-----------	------

aa N	AQCCI-GUI : C	:\Capitalware\MQCCI\mqcci.ini	X
File	View Tools	Help	
P	New File	Ctrl +N	
	Open File	Ctrl+O	
$\sim$	Close		
	Save	Ctrl+S	
	Save As		
	Recent Files	MQCCI/mqcci_licenses.ini	
	Exit		
Ac	tive	Yes 🔻	
Ac	ldDiscMessage	Yes 🔻	
Us	ePureCSV	No 💌	
	V Data to File - SVFile		
	V Data to a Que		
Us	eCSVQueue	No CSVQueue	
Log	iging		
Lo	gMode	Normal 🔻	
Lo	gFile	C:\Capitalware\MQCCI\mqcci.log	
Ro	tateLogDaily	Yes V BackupLogFileCount 9	

The parameter information will be saved to the IniFile.

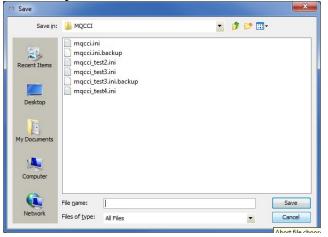
The MQCCI-GUI program will make a backup of the original file in the same directory and call it: *{inifilename}.backup* 

## 3.5 Save As IniFile

This section will describe how to save an open MQCCI IniFile with a new file name. From the main menu of MQCCI-GUI, select **File** then **Save As** 

MQCCI-GUI : C	:\Capitalware\MQCCI\mqcci.ini	_ <b>_</b> ×
File View Tools	; Help	
New File	Ctrl+N	
Dpen File	Ctrl+O	
Close		
Save	Ctrl+S	
Save As		
Recent Files	MQCCI\mqcci_licenses.ini	
🕞 Exit		
Active	Yes 🔻	
AddDiscMessage	Yes 🔻	
UsePureCSV	No 🕶	
	-	
CSV Data to File -		
CSVFile		
CSV Data to a Que		
UseCSVQueue	No CSVQueue	
Logging		
LogMode	Normal 🔻	
LogFile	C:\Capitalware\MQCCI\mqcci.log	
	Yes V BackupLogFileCount 9	
,, <u>, .</u> ,		

Select or input the IniFile name that you wish to use then click the Save button.



# 4 Tabs

This chapter will describe the various parameters on each tab.

## 4.1 General Tab

This section will describe various parameters on the General tab of a MQCCI IniFile. The following is a General Tab with default values:

MQCCI-GUI:	C:\Capitalware\MQCCI\mqcci.ini	—	×
File View Tools	; Help		
General Shor	w Structures		
General			
Active	Yes		
Description			
License			
LicenseFile	C:\Capitalware\MQCCI\mqcci_licenses.ini		
UsePureCSV	No 🔻		
AddDiscMessage	Yes   IncludeTag Yes  IncludeDurationTime No  IncludeTag Yes  IncludeDurationTime No  IncludeTag Yes  IncludeDurationTime No  IncludeTag Yes  IncludeTag Yes		
CSV Data to File -			
CSVFile	%QM%-%DATE%.csv		
CSV Data to a Que	eue		
UseCSVQueue	No  CSVQueue		
Logging			
LogMode	Normal		
LogFile	C:\Capitalware\MQCCI\mqcci.log		
RotateLogDaily	Yes V BackupLogFileCount 9		
RotateLogDally			

The IniFile keywords and their values on the General Tab are discussed below.

### 4.1.1 General

This section describes the general keywords and their values.

> Active controls enabling or disabling MQCCI.

**Description** parameter is optional and is not used by MQCCI. It can be used to provide a brief description / purpose of the IniFile.

**License key** is provided by Capitalware Inc. The license is for a particular queue manager. Your license will look something like: 1000-AAAA-BBBBBBBB (Note: This is a sample license only and will NOT work).

LicenseFile specifies the location of License file that contains all of the customer's license keys. The following are the default values for LicenseFile:

- For Windows: C:\Capitalware\MQCCI\mqcci\_licenses.ini
- For IBM MQ 32-bit on Unix & Linux: /var/mqm/exits/mqcci\_licenses.ini
- For IBM MQ 64-bit on Unix and Linux: /var/mqm/exits64/mqcci\_licenses.ini
- For IBM i: /QIBM/UserData/mqm/mqcci/mqcci\_licenses.ini

**UsePureCSV** specifies that MQCCI should also create the CSV record as a pure CSV record. It supports 2 values [Y / N]. The default value is N.

AddDiscMessage specifies that MQCCI should also create a CSV record when the application disconnects from the queue manager. It supports 2 values [Y / N]. The default value is N.

**IncludeTag** specifies whether or not MQCCI will include a 16 character tag on both the "CONN" and "DISC" records. The default value is Yes. Note: Only used if AddDiscMessage is set to 'Y'.

**IncludeDurationTime** specifies whether or not MQCCI will include the duration time on the "DISC" record. The default value is No. Note: Only used if AddDiscMessage is set to 'Y'.

### 4.1.2 CSV Data to a File

This section describes the keywords related to CSVFile handling.

**CSVFile** specifies the location of the CSV file. The default is as follows:

For Windows: CSVFile=C:\Capitalware\MQCCI\%QM%-%DATE%.csv

For IBM MQ 32-bit on Linux: CSVFile=/var/mqm/exits/%QM%-%DATE%.csv

For IBM MQ 64-bit on Unix and Linux: CSVFile=/var/mqm/exits64/%QM%-%DATE%.csv

For IBM MQ on IBM i: CSVFile=/QIBM/UserData/mqm/mqcci/%QM%-%DATE%.csv

#### 4.1.3 CSV Data to a Queue

This section describes the keywords related to directing the audit data to an CSV Queue.

- **UseCSVQueue** controls the use of CSVQueue. Set to Y to activate feature.
- **CSVQueue** is either a local or remote queue of where the audit data is to be outputted to.

#### 4.1.4 Logging

This section describes the keywords related to logging and their values.

**LogMode** specifies what type of logging the user wishes to use. LogMode supports 4 values: Q (Quiet), N (Normal), V (Verbose) and D (Debug). The default value is N.

- **LogFile** specifies the location of the log file. The default values are as follows:
  - For Windows: C:\Capitalware\MQCCI\mqcci.log
  - For IBM MQ 32-bit on Linux: /var/mqm/exits/mqcci.log
  - For IBM MQ 64-bit on Unix and Linux: /var/mqm/exits64/mqcci.log
  - For IBM I: /QIBM/UserData/mqm/mqcci/mqcci.log

**RotateLogDaily** specifies whether or not the daily log file rotation should take place. The default value is Y (Yes).

**BackupLogFileCount** specifies the number of backup log files to be kept / retained by MQCCI. The default value is 9.

## 4.2 Show Structures Tab

This section will describe various parameters on the Show Structures tab of a MQCCI IniFile.

The following is the Show Structures Tab with sample values:

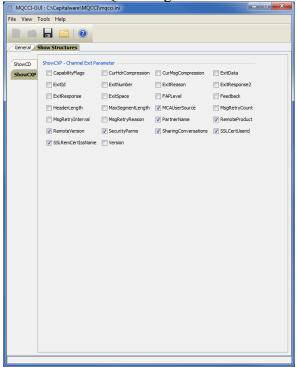
MQCCI-0	GUI : C:\Capitalware\MQCCI\n	nqcci.ini		
File View	Tools Help			
General	Show Structures			
ShowCD	ShowCD - Channel Definition -			
ShowCXP	BatchDataLimit	BatchHeartbeat	BatchInterval	BatchSize
	CertificateLabel	ChannelMonitoring	ChannelStatistics	ChannelType
	ClientChannelWeight	ClusterPtr	ClustersDefined	CLWLChannelPriority
	CLWLChannelRank	CLWLChannelWeight	ConnectionAffinity	DataConversion
	DefReconnect	Description	DiscInterval	ExitDataLength
	ExitNameLength	HdrCompList	HeartbeatInterval	KeepAliveInterval
	CocalAddress	LongMCAUserId	LongRemoteUserId	LongRetryCount
	LongRetryInterval	MaxInstances	MaxInstancesPerClient	📝 MaxMsgLength
	MCAName	MCASecurityId	MCAType	MCAUserIdentifier
	ModeName	MsgCompList	MsgExit	MsgExitPtr
	MsgExitsDefined	MsgRetryCount	MsgRetryExit	MsgRetryInterval
	MsgRetryUserData	MsgUserData	MsgUserDataPtr	NetworkPriority
	NonPersistentMsgSpeed	Password	PropertyControl	V PutAuthority
	ReceiveExit	ReceiveExitPtr	ReceiveExitsDefined	ReceiveUserData
	ReceiveUserDataPtr	RemotePassword	RemoteSecurityId	RemoteUserIdentifier
	SecurityExit	SecurityUserData	SendExit	SendExitPtr
	SendExitsDefined	SendUserData	SendUserDataPtr	SeqNumberWrap
	SharingConversations	ShortConnectionName	ShortRetryCount	ShortRetryInterval
	SSLCipherSpec	SSLClientAuth	SSLPeerName	TpName
	TransportType	UseDLQ	UserIdentifier	Version
	MitQName			

The parameters on the Show Structures Tab are as follows:

ShowCD specifies the MQCD (Channel Definition) fields of the MQCONN / MQCONNX API calls that the user wants MQCCI to generate in the audit information.

MQCCI-GUI : C:\Capitalware\MQCCI\mqcci.ini											
File View	Tools Help										
General	Show Structures										
ShowCD	ShowCD - Channel Definition -										
ShowCXP	BatchDataLimit	BatchHeartbeat	BatchInterval	BatchSize							
	CertificateLabel	ChannelMonitoring	ChannelStatistics	ChannelType							
	ClientChannelWeight	ClusterPtr	ClustersDefined	CLWLChannelPriority							
	CLWLChannelRank	CLWLChannelWeight	ConnectionAffinity	DataConversion							
	DefReconnect	Description	DiscInterval	ExitDataLength							
	ExitNameLength	HdrCompList	HeartbeatInterval	KeepAliveInterval							
	LocalAddress	LongMCAUserId	LongRemoteUserId	LongRetryCount							
	LongRetryInterval	MaxInstances	MaxInstancesPerClient	MaxMsgLength							
	MCAName	MCASecurityId	MCAType	MCAUserIdentifier							
	ModeName	MsgCompList	MsgExit	MsgExitPtr							
	MsgExitsDefined	MsgRetryCount	MsgRetryExit	MsgRetryInterval							
	MsgRetryUserData	MsgUserData	MsgUserDataPtr	NetworkPriority							
	NonPersistentMsgSpeed	Password	PropertyControl	V PutAuthority							
	ReceiveExit	ReceiveExitPtr	ReceiveExitsDefined	ReceiveUserData							
	ReceiveUserDataPtr	RemotePassword	RemoteSecurityId	RemoteUserIdentifier							
	SecurityExit	SecurityUserData	SendExit	SendExitPtr							
	SendExitsDefined	SendUserData	SendUserDataPtr	SeqNumberWrap							
	SharingConversations	ShortConnectionName	ShortRetryCount	ShortRetryInterval							
	SSLCipherSpec	SSLClientAuth	SSLPeerName	TpName							
	TransportType	UseDLQ	UserIdentifier	Version							
	XmitQName										

ShowCXP specifies the MQCD (Channel Exit Parameters) fields of the MQCONN / MQCONNX API calls that the user wants MQCCI to generate in the audit information.



# 5 Other Tools

This chapter will describes how the other tools included with MQCCI-GUI.

## 5.1 Hex Converter

This section will describe how to invoke and use the Hex Converter tool. Hex Converter tool can convert a hexadecimal number to its corresponding string representation and vice versa. i.e. 0x'3132333041424344' to '1230ABCD'.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQCCI-GUI.

From the main panel of MQCCI-GUI, select Tools, then Hex Converter.

This is the main panel of the Hex Converter.

b Hex Converter v1.0.0	
<u>File E</u> dit <u>V</u> iew <u>T</u> ools <u>H</u> elp	
Input Value:	
5468697320697320612074657374206D657373616765	
Conversion Type:	
Output:	
This is a test message	

- The user first selects the Conversion type: "Hex to Character" or "Character to Hex"
- Input the value hex or character value into the "Input Value" field
- Click the Convert button to convert the data

## 5.2 Hex Editor

This section will describe how to invoke and use the Hex Editor tool. The Hex Editor is a simple multipurpose hex editor. The Hex Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQCCI-GUI.

From the main panel of MQCCI-GUI, select Tools, then Hex Editor.

This is the main panel of the Hex Editor and it has 3 open files.

	E:\TestData\Text\message_0001.txt																	
	🗐 message	_000	1.tx	tХ	(		mes	sage	.txt	х	c	one_i	ness	age_	smal	l.txt	X	- 🗖
	Address	0	1	2	3	4	5	6	7	8	9	Α	в	с	D	Е	F	Text
	00000000	49	6E	20	4D	51	53	65	72	69	65	73	2C	20	69	6E	74	In MQSeries, int 🔺
L	00000010	65	72	63	6F	6D	6D	75	6E	69	63	61	74	69	6F	6E	20	ercommunication 🔲
	00000020	6D	65	61	6E	73	20	73	65	6E	64	69	6E	67	20	6D	65	means sending me
	0000030	73	73	61	67	65	73	20	66	72	6F	6D	20	6F	6E	65	20	ssages from one
	00000040	71			75	65												queue manager to
	00000050			6E	-				72									another. The r
	00000060	65	63															eceiving queue m
1	00000070	61		61														anager could be
	00000080		_	20														on the same mach
	00000090																	ine or another;
L	000000A0	6E		61		62	79		6F									nearby or on the
L	000000B0	20							73									other side of t
L	00000C0	68																he world. It co
L	000000D0	75 6F	6C			62			72									uld be running o
L	000000E0 000000F0		20			65												n the same platf
L	000000000000000000000000000000000000000				65	75	65		6D									orm as the local
L	00000100		72															queue manager, or could be on a
L	00000110		79															ny of the platfo
L	00000120	72	6D		20													rms supported by
	00000130	20		51	_				65									MOSeries. This
	00000140								6C									is called a dis
1	00000160																	tributed environ
1	00000170		65		74		20		4D					69		73		ment. MOSeries
1	00000180		61	6E		6C												handles communic
	00000190	61																ation in a distr
	000001A0	69	62	75	74	65	64		65			69						ibuted environme
	000001B0	6E	74	20	73	75	63	68	20	61	73	20	74	68	69	73	20	nt such as this
	000001C0	75	73	69	6E	67	20	44	69	73	74	72	69	62	75	74	65	using Distribute
	000001D0	64	20	51	75	65	75	65	20	4D	61	6E	61	67	65	6D	65	d Queue Manageme
	000001E0	6E	74	20	28	44	51	4D	29	2E	0A	54	68	65	20	6C	6F	nt (DQM). The lo
	000001F0	63	61	6C	20	71	75	65	75	65	20	6D	61	6E	61	67	65	cal queue manage
	00000200	72	20	69	73	20	73	6F	6D	65	74	69	6D	65	73	20	63	r is sometimes c 🔻

- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

## 5.3 Tail File

This section will describe how to invoke and use the Tail File tool. The Tail File is a simple multipurpose file monitoring viewer. The Tail File supports monitoring of multiple files at the same time.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQCCI-GUI.

From the main panel of MQCCI-GUI, select Tools, then Tail File.

This is the main panel of the Tail File and it has 3 open files.

D:\Program Files (x86)\UBM\WebSphere MQ\errors\AMQERR01.LOG	- • ×			
Eile Edit View Iools Help				
mqausx.mqwtilog X AMQERR01LOG X UFM.log X	- 5			
mass.mewrlig X       AMGERROLLOG X       UFM.log X         mass.mewrlig X       AMGERROLLOG X       UFM.log X         mass.remover       Mass.remover       Mass.remover         15312       LEXELANATION:       ISS.         15313       LEXELANATION:       ISS.         15314       Am error occurred receiving data from 's Web020me (1414)' over TCP/IP. The         15315       Distribution       Iss.         15315       Distribution       Iss.         15316       Distribution       Iss.         15317       The channel name is 'WT.TEST.EXIT'; in some cases it cannot be determined and         15326       Marcon       Iss.         15321       Marcon       Iss.         15322       Marcon       Iss.         15332       Marcon       Iss.         15332       Marcon       Iss.         15332       Marcon       Iss.         15333       Low Statemetric       Iss.         15334       Marcon       Iss.         15335       Marcon       Iss.         15334       Control       Iss.         15335       Marcon       Iss.         15334       Control       Iss.         15335<	- 8			
19554 values and contact your systems administrator. The return code from TCP/IP is 19585 1006 (X'2740'). The reason for the failure may be that this host cannot reach 19586 the destination host. It may also be possible that the listening program at 19577 host '1' converse (1414) 'was not running. If this is the case, perform the				
15380  -elevant operations to start the TCP/IP listening program, and try again. 15389   amqccita.c : 1209 15380	-			
Total Rows=15360 Wrap Text=Off Follow File=On				

- Opening of multiple files
- Wrap Text and Recent File List
- Copy, Find, Find Next and Print

### 5.4 Text Editor

This section will describe how to invoke and use the Text Editor tool. The Text Editor is a simple multipurpose plain-text editor. The Text Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQCCI-GUI.

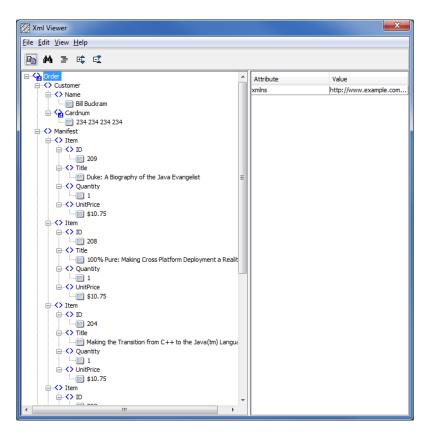
From the main panel of MQCCI-GUI, select Tools, then Text Editor.

This is the main panel of the Text Editor and it has 3 open files.

	ve_load_data_0001.txt	
le <u>E</u> dit <u>V</u> iew <u>T</u> ools		
message_0001.txt >	C 🗐 mqve_load_data_0001.txt 🗙 one_message_small.txt 🗙	- 5
	Huffham Dickens, 1812-1870	
4 full schedule 5 energy. In a 6 journalism an 7 numerous amat	ns led a very active life, always setting a for himself which he pursued with extreme ddition to working on his novels, weekly d public readings, he produced and appeared in eur theatrical productions and had a busy	
9 family and wa 10 Victoria and 11 charitable or 12 would walk lo	He had a wide circle of friends, a large s admired by such different people as Queen Dostoevsky. He also was active in several ganizations. Ironically, for relaxation, he ng distances at a fast pace.	
15 his novels sh 16 that probably 17 For example, 18 Charles was o	ad a flamboyant and high-spirited personality, ow a distinctive blend of comedy and tragedy stems in part from his own life experiences. his father was imprisoned for indebtedness when nly 12. Because of their impoverished s whole family was forced to move into a	
20 debtor's pris 21 warehouse. 22	on and Charles was sent to work in a blacking s, his busy schedule began to affect his	E
25 America, Dick 26 public readin 27 not fully rec 28 while working	r an exhausting tour of public readings in ens was left physically weakened. He continued his gs on his return to England even though he had overed. The result was that in June 1870, on his novel, Edwin Drood, Dickens suffered a fatal	
29 stroke. He w 30 Abbey. 31	as buried in the Poet's Corner in Westminster	
32 1833	Reporter of parliamentary debates	
33 1833-1835 34 1834	Sketches by Boz Morning Chronicle, reporter	
35 1836-1837	Pickwick Papers	
36 1837	Oliver Twist	
37 1838-1839 38 1840-1841	Nicholas Nickleby The Old Curiosity Shop	
39 1841	Barnaby Rudge	
40 1842	American Notes	
41 1843 42 1843	Beginning of the Christmas Book series A Christmas Carol	
43 1843-1844	Martin Chuzzlewit	
44 1846	Editor of Daily News	
45 1846-1848 46 1849-1850	Dombey and Son David Copperfield	
47 18505	Household Words, a magazine	
48 1851-1853	A Child's History of England	-

- Open / editing of multiple files
- Builtin XML Viewer, Wrap Text
- Recent File List
- Cut, Copy, Paste, Find and Find Next
- Save, Save As and Print

The following shows the Text Editor's builtin XML Viewer.



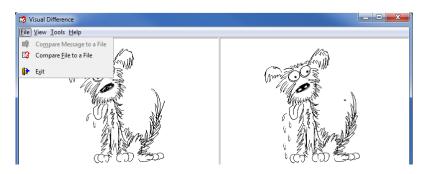
## 5.5 Visual Difference

This section will describe how to invoke and use the Visual Difference tool. The Visual Difference is a simple file to file comparison tool.

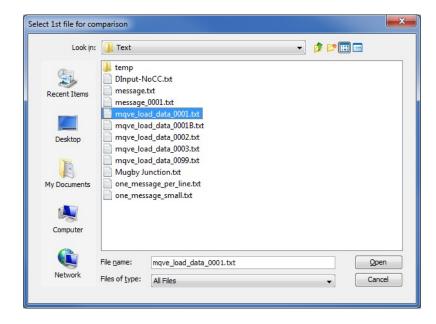
For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQCCI-GUI.

From the main panel of MQCCI-GUI, select Tools, then Visual Difference.

This is the main panel of the Visual Difference. To initiate the file comparison process, click File and then click Compare File to File



First the user needs to select the first file for the comparison.



Next, the user needs to select the second file for the comparison.

Look in:	🕕 Text		- 🗊 🕫	
Recent Items	temp DInput-N message. message.	txt		
Desktop	mqve_loa	ad_data_0001B.txt ad_data_0002.txt ad_data_0003.txt		
My Documents	Mugby Ju	ad_data_0099.bct unction.bct sage_per_line.bct sage_small.bct		
Computer				
	File <u>n</u> ame:	mqve_load_data_0001B.txt		Open
Network	Files of type:			Cancel

The following shows the difference between 2 files. Differences are highlighted: Green for inserts, Red for deletions and Blue for changes.

😰 Visual Difference	
<u>File View Tools Help</u>	
E:\TestData\Text\mqve_load_data_0001.txt	E:\TestData\Text\mqve_load_data_0001B.txt
000: Charles John Huffham Dickens, 1812-1870	000: Charles John Huffham Dickens, 1812-1870
001:	001:
002: Charles Dickens led a very active life, always se	002: Charles Dickens led a very active life, always se
003: full schedule for himself which he pursued with e	003: full schedule for himself which he pursued with e
004: energy. In addition to working on his nov	004: energy. In addition to working on his novel
005: journalism and public readings, he produced and a	005: journalism and public readings, he produced and a
006: numerous amateur theatrical productions and had a	006: numerous amateur theatrical productions and had a
007: social life. He had a wide circle of frie	007: social life He had a wide circle of fr
008: family and was admired by such different people a	008: family and was admired by such different people a
009: Victoria and Dostoevsky. He also was active in s	009: Victoria and Dostoevsky. He also was active in s
010: charitable organizations. Ironically, for relaxa =	010: charitable organizations. Ironically, for relaxa
011: would walk long distances at a fast pace.	011: would walk long distances at a fast pace.
012:	012:
013: Although he had a flamboyant and high-spirited pe	013: This is a test.
014: his novels show a distinctive blend of comedy and	014:
015: that probably stems in part from his own life exp	015: Although he had a flamboyant and high-spirited pe
016: For example, his father was imprisoned for indebt	016: his novels show a distinctive blend of comedy and
017: Charles was only 12. Because of their impoverish	017: that probably stems in part from his own life exp
018: situation, his whole family was forced to move in	018: For example, his father was imprisoned for indebt
019: debtor's prison and Charles was sent to work in a 020: warehouse.	019: Charles was only 12. Because of their impoverish
020: warehouse. 021:	020: situation, his whole family was forced to move ir 021: debtor's prison and Charles was sent to work in a
	021: deptor's prison and Charles was sent to work in a 022: warehouse.
022: In later years, his busy schedule began to 023: health. After an exhausting tour of publi	022: warenouse. 023:
024: America, Dickens was left physically weake	025:
025: public readings on his return to England e	
026: not fully recovered. The result was that	
027: while working on his novel. Edwin Drood. D	
028: stroke. He was buried in the Poet's Corne	
029: Abbey.	
030:	
031: 1833 Reporter of parliamentary	
032: 1833-1835 Sketches by Boz	
033: 1834 Mornina Chronicle. reporte	
۲	< ►

## 5.6 XML Editor

This section will describe how to invoke and use the XML Editor tool. The XML Editor is a simple multipurpose plain-text editor. The XML Editor supports multi-file editing.

For the Other Tools, you can have unlimited number of them running (up to what your box can support). Also, while any of the Other Tools are running, the user can still use MQCCI-GUI.

From the main panel of MQCCI-GUI, select Tools, then XML Editor.

This is the main panel of the XML Editor and it has 3 open files.

$\chi$ E:\TestData\XML\book-order2.xml		
<u>File Edit View Tools H</u> elp		
🗀 🔒 📫 👘 🏘 🤻 🗞 🗶	t t i	
book-order2.xml × message_0001.xml × mes	sage_0004.xml 🗙	_ 🗖
⊡ <b>€}</b> Order ▲	Attribute	Value
Customer	xmlns	http://www.example.co
ia -<>> Name		
Bill Buckram		
Cardnum		
209		
🔤 Duke: A Biography of the Java Evangeli		
Quantity		
⊡<> UnitPrice		
\$10.75		
ia		
208		
E ∠00		
100% Pure: Making Cross Platform Depl		
Quantity		
⊡<> UnitPrice		
\$10.75		
Item		
204		
Title     Maline the Tenerities from C + 1 to the '		
Making the Transition from C++ to the : → ◆> Ouantity		
4		

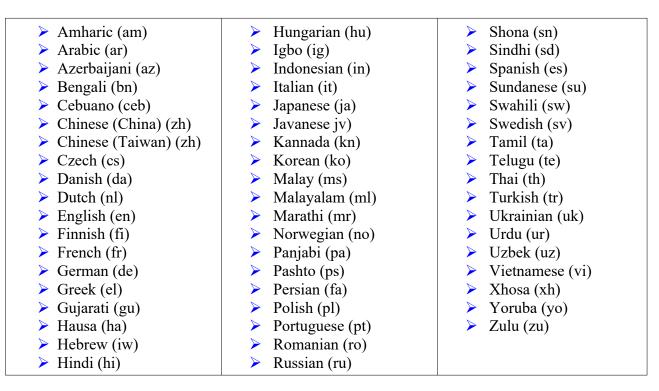
- Open / editing of multiple files
- Recent File List
- Copy, Find and Find Next
- Save, Save As and Print

# 6 Miscellaneous

This chapter will describes how the miscellaneous features of MQCCI-GUI.

## 6.1 Language

This section will describe how to switch MQCCI-GUI's Language Text to another Language Text. MQCCI-GUI has been designed to support Java's multi-language environment. Currently, MQCCI-GUI has language support (menu items, buttons and titles) for the following 55 languages:

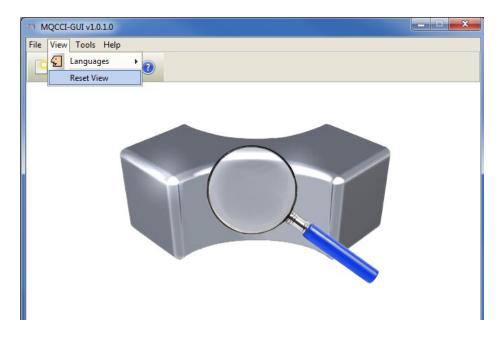


From the main panel of MQCCI-GUI, select View, then Language.

MQCCI-GUI v1.0.1.0				- 🗆 🗙
File View Tools Help				
Image: Contract of the section of	African Languages Eastern Languages East Asia Languages Middle East Languages	+ + +		
	Western Languages	•	Czech (Czech Republic) Danish (Denmark) Dutch (Netherlands) English English (Canada) English (United Kingdom) English (United States) Finnish (Finland) French French (Canada) German	

## 6.2 Reset View

This section will describe how to reset the view of MQCCI-GUI if the display is not correct.



The user can also reset the view from the command line by passing in the RG parameter.

### 6.2.1 Windows Command Line

On Windows, issue the following command to reset the view of MQCCI-GUI:

#### mqccigui.exe RG

### 6.2.2 Linux and macOS Command Line

On Linux and macOS, issue the following command to reset the view of MQCCI-GUI:

### ./mqccigui.sh RG

# 7 Appendix A – Frequently Asked Questions (FAQ)

Q. Can IniFiles be create on Windows for MQCCI on Unix? A. Yes. Once the IniFile has been saved, the user can copy or ftp (in ASCII mode) the file to the remote server.

# 8 Appendix B – MQCCI-GUI Upgrade Procedures

To upgrade an existing installation of MQCCI-GUI, please do the following in the appropriate section below.

## 8.1 Windows Upgrade

- > Stop all instances of MQCCI-GUI
- > Backup any MQCCI-GUI data files in the MQCCI-GUI install directory
- > Go to the Windows Control Panel and select Program and Features
- > Select MQCCI-GUI and then click the Uninstall button
- > Run the install program called: mqccigui-setup-withjre.exe
- The installer follows the standard Windows install procedures and provides default values for the user.
- When the install program has completed execution, there will be a newly created folder under Start -> All Programs called MQCCI-GUI.
- > Restore the MQCCI-GUI data files if necessary
- > To run MQCCI-GUI, select the MQCCI-GUI icon from within the MQCCI-GUI folder.

## 8.2 Linux or macOS Upgrade

- > Stop all instances of MQCCI-GUI
- Backup any MQCCI-GUI data files in the MQCCI-GUI install directory
- Remove the installation i.e. rm -Rf Capitalware/MQCCI-GUI/
- > Unzip the file, open a shell prompt and execute the following commands:

### unzip mqccigui.zip

> When the unzip command has finished, there should be a directory tree as follows:

### Capitalware/MQCCI-GUI

> Change directory by typing the following:

### cd Capitalware/MQCCI-GUI

Before running MQCCI-GUI for the first time, you need to add the execute attribute to the mqccigui.sh shell scripts. Type the following:

#### chmod +x mqccigui.sh

> To run MQCCI-GUI from the Capitalware/MQCCI-GUI directory, then type the following:

### ./mqccigui.sh

# 9 Appendix C – Support

The support for MQCCI-GUI can be found at the following location:

### By email at:

support@capitalware.com

## By regular mail at:

Capitalware Inc. Attn: MQCCI-GUI Support Unit 11, 1673 Richmond Street, PMB524 London, Ontario N6G2N3 Canada

# 10 Appendix D – Summary of Changes

- MQCCI-GUI v1.2.0
  - Rearranged the fields on the General tab.
- ► MQCCI-GUI v1.1.0
  - Added support for IncludeTag keyword
  - Added support for IncludeDurationTime keyword
  - Added the 'Recent Files' menu option under the File menu option.
  - Added images to buttons for more user-friendly display.
  - Added support for 55 languages for the menu options, buttons and titles (not IniFile keywords).
  - Added the 'Reset View' menu option under the View menu option.
  - Added 6 tools under the Tools menu option:
    - Compare File to a File
    - Hex Converter
    - Hex Editor
    - Tail File
    - Text Editor
    - XML Editor

► MQCCI-GUI v1.0.0

• Initial release.

# 11 Appendix E – License Agreement

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