

DMA Client

for

ICO/AIO & Worldgroup/NT

and

The MajorBBS and Worldgroup

by Vircom Inc.

Installation Guide

version 1.02

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Contacting us

If you need assistance or have suggestions concerning our products, don't hesitate to call or write us. Our offices are open from 9AM to 5PM Eastern time, weekdays.

Majornet electronic mail	Support@GMS
Majornet support forum	MAJORBBS.DEV.TCP
E-mail: Technical support	support@vircom.com or majortcpip@vircom.com
E-mail: Suggestion box	suggest@vircom.com
You can also finger us	finger info@www.vircom.com
And surf the web to us	http://www.vircom.com
Our tech support line	(514) 990-2532, weekdays, 9AM to 5PM eastern.
Our support BBS	(514) 523-7979 internet: bbs.vircom.com (port 23, Binary) When you logon for the first time, one of the menu options you'll be offered is [M]ajorTCP/IP client registration. What we need from you is your MajorBBS/Worldgroup registration number and your outgoing activation code for MajorTCP/IP. The registration module is automatic and will grant you full client access if the information given is valid
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DMA Client Configuration

Overview

Definitions

- DMA** Stands for "Distributed MajorBBS Architecture".
- MasterBBS** Your main server, where your callers first connect (your BBS).
- SubBBS** Your secondary machine running MajorTCP/IP's DMA Server software, or a remote DMA Server that you wish to access over the internet.
- DMA Client** The means by which a MasterBBS can connect to a SubBBS running MajorTCP/IP's DMA Server is called a **DMA Client**. It lets BBSes running either MajorTCP/IP or AIO/ICO connect to a SubBBS on your local LAN or to a remote DMA Server over the internet. The DMA Client comes built-into the MajorTCP/IP Internet connectivity suite. It must be purchased separately for ICO/AIO, unless you purchased MajorTCP/IP's DMA Server 2.1 which comes with a free copy of the DMA Client for ICO/AIO & Worldgroup/NT.
- DMA Server** The secondary server (sometimes referred to as a **SubBBS**), where the modules you wish to access are located. You can run your own server using **MajorTCP/IP's DMA Server 2.1** or access someone else's server via the internet.

What is a DMA Client?

The DMA client you have here will let you connect to an external DMA Server. This feature is often used these days to run "Game-Nets" where a DMA "Service Provider" runs several games on his DMA Server and offers access to them for a fee to Worldgroup sysops who run either MajorTCP/IP, ICO/AIO or Worldgroup/NT. For the ICO/AIO DMA Client, you need to run Worldgroup 1.01 or better, and ICO 2.0 or AIO. For Worldgroup/NT, the DMA Client for NT will work fine as-is. Your DMA Server (or the external server you are connecting to) needs to be running version 2.1 of DMA at least.

What about a DMA Server?

MajorTCP/IP's DMA Server version 2.1 allows you to move modules from your **MasterBBS** onto a **DMA Server**, and make these changes transparent to your users. **DMA2.1** takes care of automatically creating accounts when a user access facilities on the **DMA server** for the first time, permits transparent (invisible) logins and logouts and special echo control depending on the modules running on the **DMA Server**. Furthermore, the **DMA server** will automatically whisk the user to whichever module you've specified on the **MasterBBS**. Security-wise, **DMA2.1** is a secure environment, as long as you set it up properly with prudence. **(Please note that DMA Server version 2.1 is a separate product that must be purchased separately, should you wish to run one).**

The benefits of operating a DMA Server are many:

- **Ability to go beyond the 16 megabyte barrier:** you can offload modules to the DMA Server, hence, splitting the load to two systems. Each could conceivably have 16 megs of RAM, making it possible for you to run 32 megs worth of modules.

- **Improved system performance:** by offloading heavy resource grabbers to a DMA Server, this improves performance on the MasterBBS.
- **Reduced downtime:** If you put your unstable modules on your DMA Server, this will reduce the amount of system downtime your system may occasionally suffer from. If the DMA Server crashes, the MasterBBS keeps running normally. This is especially useful with crash-prone games.
- **Ability to create networks of BBSes:** DMA technology has created a whole new industry of "Game Nets". You can let other MasterBBSes connect to your DMA Server, even over the internet. What this means is you could potentially have dozens of BBSes all sharing the same modules on your DMA server, making it possible to have large numbers of users in those modules, coming from all over the world.

This is just scratching the surface.

Limitations of DMA

Currently, the DMA server will only let you offload modules that run in A/A (Ascii/Ansi) mode. C/S modules that have an Ansi/Ascii interface should work as well.

Installation procedure for the DMA Client

Simply follow these steps to do the installation of the module. You can mark off those steps you've done in the box provided below.

STEP	Description	Done
#1	Install the DMA Client from your distribution disk	
#2	Configure parameters in Worldgroup and TCPDMAIC.MSG	
#3	Setup the link from your BBS to the target DMA Server	

Install the DMA Client for ICO/AIO from your distribution disk

This is thankfully the easiest part of the process. The installation program that comes with the module is the standard Galacticcomm install program, so you should already be familiar with it's basic layout.

STEP	Description	Done
#1	Place the distribution disk in the floppy drive (drive a: is assumed)	
#2	Type in the following at the DOS prompt: A:INSTALL	
#3	When asked for a directory to install the software in, the program defaults to C:\WGSERV which is the Worldgroup default directory. If you are running MajorBBS and are using the C:\BBSV6, you should change the entry accordingly. This also applies if you installed the software in a directory that you named yourself.	

If you downloaded MajorTCP/IP from our support BBS, follow this procedure instead:

STEP	Description	Done
#1	Copy the TCPDMAIC.ZIP file to a temporary directory on the same drive as MajorBBS or Worldgroup.	
#2	Unzip TCPDMAIC.ZIP in the directory you created using PKUNZIP or UNZIP.	
#3	Go into that directory and type in the following at the DOS prompt: INSTALL	
#4	When asked for a directory to install the software in, the program defaults to C:\WGSERV which is the Worldgroup default directory. If you are running MajorBBS and are using the C:\BBSV6, you should change the entry accordingly. This also applies if you installed the software in a directory that you named yourself.	

Should the installation process fail and the DMA Client interferes with the proper functioning of the BBS, you can deactivate the module using option **#7: Basic Utilities** in the main configuration menu. You need to use the **BBSDMOD** program if you are running MajorBBS. The equivalent under worldgroup is called **WGSMOD**.

The module to deactivate temporarily is:

Module name	Filename	Description
ICO DMA Client	TCPDMAIC	The ICO DMA Client module

Configure parameters via the CNF in Worldgroup and TCPDMAIC.MSG

Changing SGNUSZ

If you are connecting to a SubBBS (DMA Server) that handles more than a single client, chances are that you'll need to use a prefix during login that identifies your system to the target system. This prefix is associated with each userID. Therefore, you need to change the maximum size of userID's on your system to 27 characters (as opposed to 29).

Go to **level 4** configuration in the CNF (**General configuration options**), use **F8-search** to look for the **SGNUSZ** parameter. Once found, **change it to 27** and press **F10-Save and Exit** to return to the main CNF Menu.

Changing MAXCAT

This parameter controls the maximum number of concatenated commands in Worldgroup. The DMA Client adds functionality to the standard Rlogin client that comes with your TCP/IP stack, which is invoked with a long command string containing several parameters. The normal setting of MAXCAT is insufficient to allow for all these parameters.

Go to **level 4** configuration in the CNF (**Configuration options**), use **F8-search** to look for the **MAXCAT** parameter. Once found, **change it to 20** and press **F10-Save and Exit** to return to the main CNF Menu.

Now, it's time to configure the parameters specific to the DMA Client.

Level 3 - Security and Accounting configuration

- From the main configuration menu (CNF), select **F3 - Accounting and Security**
- Press on **F8 - Search**, type **TCPDMAIC.MSG**
- The first item you should find is the **ACTCODE** parameter.
- Edit each item as described below, moving from item to item using the arrow keys.
- Once done, press on **F10 Save and Exit** to go back to the main configuration menu.

ACTCODE

<Empty>

DMA Client for ICO Activation code.

Enter your DMA Client for ICO/AIO Activation code. If you have a DMA server running on the SAME Worldgroup registration number, you have to enter the DMA Server activation code that was given to you for that server. (It starts with letters "DN"). If you have just purchased the DMA Client for ICO for your BBS, then you enter that activation code (It starts with the letters "DI").

If you have lost your activation code, you can contact the dealer where you purchased this software from, or contact Vircom at 514-990-2532.

LGNCHG

0

Additional credits per minute for outgoing DMA.

How many extra credits per minute should users be charged when using DMA to go out over the Internet from your system? Make this number 0 if you want DMA Client usage to cost the same as your normal credit rate, as specified by the Level 4 Configuration Option MMUCRR.

LGNKCHG

0

Charge per 1K byte traffic via outgoing DMA.

Do you want to charge DMA Client users based upon how much traffic they add to your Internet connection? This option specifies the connection traffic charge, in credits, for every 1024 bytes that pass over outgoing DMA connections, in either direction.

Level 4 - System options configuration

- From the main configuration menu (CNF), select **F4 - Configuration options**
- Press on **F8 - Search**, type **TCPDMAIC.MSG**
- The first item you should find is the **CONTWT** parameter.
- Edit each item as described below, moving from item to item using the arrow keys.
- Once done, press on **F10 Save and Exit** to go back to the main configuration menu

CONTWT
90

Outbound DMA connection timeout (in seconds).

When trying to connect to a host on the Internet using DMA, how long should we wait before giving up and returning the user to your system? (Users will always be able to give up sooner by hitting RETURN.). Set this option to 0 to wait forever.

Setup the link from your BBS to the target DMA Server

Create an RLogin module page in an appropriate place in your menu tree, in both the Terminal and C/S mode if you are running WorldGroup. Protect it with the key your users must have to enter this module. Put the name of the module that you'll be using on the SubBBS (DMA Server) as the name or description of that page to help users know what this page do.

Use the following procedure to create the Rlogin page on your BBS (MasterBBS)

- From the main configuration menu (CNF), select **F2 - Design Menu Tree**
- Make sure that the menu item cursor is located in the menu you will create the option in.
- Select **F2 Edit** to change that menu page.
- Go to the menu options area and **add a new option**, say [T] for TradeWars (example)
- In the **EDIT OPTION** window ...
 - Short Description could be "[T] Enter Trade Wars"
 - Key required for this option..... Lets say **NORMAL (or PAYING)**
 - Destination page..... could be called **TRADEWARS**
 - **Save the menu.** A new page in the menu tree should've been created.
- Move the cursor to the new page called **TRADEWARS**.
- Press **F2 Edit** to configure this module page.
 - Allow go to this page should be set to **YES**
 - Key required **NORMAL or PAYING.**
 - Select module window, you should chose the **RLogin Module**
 - Display header should be set to **YES**
 - **The command string should be composed as below ...**
 - Save the resulting page.
- That's it!

Details about the command string.

Enter a Command String in the page, using the following format:

d dmapassword suffix ipaddress luser ruser autolof autospc echo mode gopage #desc

If you're subscribing to a Game-net or other DMA service provider, they should supply you with the appropriate string. The information below simply explains what the whole thing means.

d Indicates DMA2.1

dmapassword Value of DMAPWD (DMA Password) on the destination **DMA Server**.

To access any DMA server, a special password is required, this is where we specify this password on the client side.

suffix	Suffix of your BBS for multiple MasterBBS->DMA Server relationships. Set to 0 for no suffix. The suffix is used to identify your system on the target DMA server. This allows for multiple DMA Clients to access a single server.
ipaddress	IP (numeric) address of DMA Server . (The internet address the DMA Server you're contacting is located at.)
luser	Not used. Set to "." (just a period).
ruser	Username the user should log into on the remote system. Usually set to %u (%u will automatically feed the user's userID to the target system)
autolof	If user should be automatically logged off from the DMA Server and brought back to the main BBS when he exits the module he was sent into. Usually set to Y. In general, autolof should always be set to Y (for Yes).
autospc	Automatically turn the RLogin extended special commands off upon entering the module on the DMA Server . Set it to Y (Yes) as this parameter isn't used with ICO/AIO. It's here solely for compatibility reasons.
echo	Determine the way the echo will be processed on this connection. If set to Y , echo is generated by the DMA Server (the system the DMA Client will connect to). Usually set when mode = Binary or permanent binary. If set to O , echo is generated by the MasterBBS (Your BBS). Usually set when mode = Ascii. If set to N , the DMA Server will use whatever default echo is set for the DMA Server .
mode	A = Ascii. Used for line-based module, modules that always wait until you hit enter before processing the command. Example: Most RPG games like TeleArena, CrossRoads. This mode has the advantage of fast echos and also any globals the user type is executed on the MasterBBS (Your System). So they can still page and be paged from the MasterBBS . B = Binary. Modules that process keys one at a time, like the full screen editor, chatting, All commands typed are processed by the DMA Server . Pages, globals. In other words, everything takes place on the DMA Server . User is set to BUSY mode on the main BBS. P = Same as B, but permanent, 8 bit clean. Used for file transfers and modules like TW2002. Echo should usually be set to O or N for this mode.
gopage	Page that will be executed on the DMA Server (Target system). This must be a module page. (no menu or file pages). User must have access to this page.
#desc	Description that will appear in the online users listing on your MasterBBS if you use the TCP_RL_MOD or TCP_RL_MOD2 text variables in your global handlers on the MasterBBS . (Does not work with ICO/AIO)

Some examples:

TeleArena
d dmapassword 0 199.84.216.2 . %u y y o a TA #TA_5.6

TradeWars
d dmapassword 0 199.84.216.2 . %u y y y p TW2002 #TW2002

FileLibrary
d dmapassword 0 199.84.216.2 . %u y y y p LIB #Library

TroubleShooting

If you see the "DMA Server Refused Connection" Message:

This is a catch-all message. It will appear when:

- Trying to connect to a non-DMA server. (Try telnetting to the IP address. If you get a Unix login prompt or a normal BBS Login that has nothing to do with the system you wish to access, chances are that this isn't the DMA Server you wish to contact).
- Trying to connect to an IP address that is not reachable or that doesn't want to talk to your system (ie: the security on the target system wasn't set to allow your system to connect to it). If you telnet to the target system and do not get to the login prompt, this is probably the case.
- Trying to connect to a DMA Server that doesn't have the SUBBBS configuration option set to YES in TCPLIBM.MSG, level 4 configuration. (Same symptom as previous problem -- you should check with the DMA server's owner).

Release Notes

Mar18/96	Shipping Release. No changes from RC#2. V1.00.
Mar11/96	Fixed problem with lowercase suffixes. Release Candidate#2
Mar07/96	Candidate for release version (1.00)
Mar01/96	Beta 0.5
Mar01/96	DMA22 support for suffixes 10-127.
Feb29/96	Beta 0.4
Feb28/96	Added support for "ascii line mode". That means that the "echo" and "mode" prompts are functional. This bring the DMA Client for ICO at the same level as the DMA Client for MajorTCP/IP. (DMA v2.1 compatibility).
Feb27/96	Added support for module name replacement with '#'
Dec02/95	Added DMAOLDRM protocol. Controlled by DMA Server. (see updated tcpdma.txt on dmaserver for more info.)
Nov30/95	Fixed send sockfd =-1 ASSERTION crash. (I think).
Nov22/95	Started Troubleshooting section at end of file.
Nov22/95	"Assertion Failed" catastro when trying to connect to something that is not a DMA Server has been removed.
Nov21/95	Work Around ICO 2 socket destroying bug.
Nov17/95	Initial Beta Release.

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