Information Engineering Technology

Install Guide - Clients

Release 8.8.4

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Introduction

Architecture

The IET DevOps Suite products are Gen developed *client/server* applications. This means that there are two parts to the install process: the *clients* which are deployed on each workstation; and *servers* which reside on the same server as the Gen encyclopaedia.

As with any Gen developed client/server application, you will require communications software (*middleware*) so that the client programs can talk to the servers.

Server Platform	Middleware Options
Windows / UNIX / Linux (Transaction Enabler)	- TCP/IP - Web Services (Part of Transaction Enabler)
MVS (CICS)	- TCP/IP Direct Connect - MQ - ECI - Web Services (IET provided option) - Client Manager via Comms Bridge
MVS (IMS/DC)	- TCP/IP Direct Connect - Client Manager via Comms Bridge

For further details on appropriate middleware, consult your Gen documentation.

About the Installation Guides

There are a number of documents to help you with the install process. Below is a quick summary of what they are and which ones you will need to use.

Note that references below to GuardIEn in relation to the installation are synonymous with the IET DevOps suite. Earlier releases of the software referred to GuardIEn although this included other IET products like VerifIEr, genIE and pathvIEw.

- *THIS DOCUMENT*: You always need to perform Client Installs for each workstation regardless of server platform.
- *Install Guide - <Platform/Ency>.doc*: You will also need to perform a Server Install. Choose the appropriate one depending on your encyclopaedia platform. The server software should always be installed on the same server as your encyclopaedia. If you eventually intend to use GuardIEn with multiple encyclopaedias then you should choose the server most capable of handling the workload for the first, or *main*, install. There are different versions of this install guide for each server platform
- *Verification*: The server install guides also include chapters on how to verify that the installation is ok and perform essential initial customisation. You *MUST* work through these sections after you have performed the client and server installs.

There are also further documents available that may be relevant to you. These increase the flexibility and automation possible using GuardIEn:

- *Multiple Encyclopaedias.doc*: If you have multiple encyclopaedias (Windows CSE only), this document shows you how to configure GuardIEn to access and manage them.
- *Remote Builds.doc*: If you intend to perform construction (generation/installation) using GuardIEn, and your application's target platform is *not* the same as your encyclopaedia platform, then you can use this guide to see how you can complete the configuration to allow fully automated remote builds. These instructions are included in the online help installed with the GuardIEn client.
- *Technical Papers*: There are also *v*arious papers on technical issues which you may wish to tackle with your GuardIEn install. These documents are included in the online help installed with the GuardIEn client.

Software for Download

All IET software is available for download from the IET support centre: https://support.iet.co.uk. Software is secured on the web site, so you will need register and then request access.

Download the relevant files for your platforms (client + one server) into a temporary directory on a workstation. The individual install chapters in this guide detail the files you will need and what you should do with them.

Client Install

Client Installs needs to be performed on each of the workstations where you intend you use the IET DevOps suite products.

Pre-Requisites

- Windows 7 or higher
- Minimum screen resolution of 1024x768
- Communications Bridge or Direct TCP/IP connection to server, or MQS to IMS/CICS
- Windows Appearance 'border padding' setting should be set to 0 (Windows 7 only – not relevant for Windows 8 and above)
- The %APPDATA% location cannot use a UNC path name

For the installation of the DevOps Studio products (Studio Developer and DevOps Studio) as plug-ins to Gen Studio:
- Ideally all PTFs issued after for Gen 8.6 should be applied, but specifically you must apply:
  - TSN86101, TSN86121 and TSN86202 as well as GSN86201 to update the version of Eclipse used by Gen Studio.
- Ensure your GEN86JRE environment variable references a Java 8 32bit JRE, for example:
  SET GEN86JRE=C:\JVM\jdk8-32\jre\.
  This can be defined in the sdenv.bat file.
- It is recommended that you increase the JVM memory allocated to Gen Studio. Edit the Gen\GenStudio\GenStudio.ini file and change the -Xmx parameter to `–Xmx1024m`

Download Files

Download IETCLNTxxx.exe (where xxx is the version required) from the web site into a temporary directory.

Install Software

- Execute IETCLNTxxx.EXE. This extracts the set-up files into a temporary directory and then automatically launches a set-up program that installs the client software.

Installation Path

The client software is normally installed on your Program Files (x86) under a sub-directory of IET. You may choose a different path during the set-up if you wish

Choose Setup Type

If you are installing Release 8.8 for the first time, choose one of:
- *Install DevOps Suite Clients* to install The DevOps Suite Windows and Studio clients
- *Studio Developer* if you only want to use Studio Developer.

If you are upgrading to the latest 8.8 release from a prior 8.8 release, then the setup will detect the prior installation and proceed to upgrade the software.

Communications Middleware

There are four options for the communications middleware: Direct TCP/IP, Client Manager, MQ Series and Web Services. These are detailed below.

Gen Toolset Plug-ins

Various GuardIEn and genIE functions can be accessed from within a Gen Toolset via the Toolset Plug-in interface and GuardIEn and genIE will be registered as available Plug-in applications. If a new install detects that these Plug-ins are

already registered to a different location, then it will ask you if you want to register this installation instead (overwriting the previous registration).

Local Files

The client stores several user options (i.e. filter settings) in local .ini files. These are normally located in the user's home directory, i.e. C:\Documents and Settings\<user>\Application Data\IET\<release>*.

Local Windows Firewall

If your site requires use of your local windows firewall it may be necessary to explicitly allow the main 'GuardIEn' executable, the GuardIEn launcher 'GDCLLA' through your domain and/or private network firewall ports.

VMWare *ThinApp* Support

The client software can be installed under VMWare's *ThinApp* platform, but may not operate correctly. In particular, windows launched from the main GuardIEn client may not be visible, although they are actually started. To work-around this problem, which is a runtime-behaviour difference of ThinApp, you should set some environment variables in the workstation's general environment:

SET GDN_DO_NOT_MINIMIZE_LAUNCHER=YES
SET GDN_DO_NOT_BLOCK_RESTORES=YES
SET GDN_GDEXWIN_NO_HIDE=YES

This should enable most of GuardIEn's functionality to be used under *ThinApp*, although it is not guaranteed as 100% compatible.

Communications Middleware

GuardIEn Server Selection

By default GuardIEn uses a *Direct TCP/IP* connection from the client to the GuardIEn servers, and so there is no need for the Client Manager. The Gen runtimes use the data in the commcfg.ini file to determine how to connect to the server. The GuardIEn installation will have created a default entry for this file.

If you want to connect to multiple GuardIEn servers, see the GuardIEn Server Select topic in the on-line help documentation for details on how to configure multiple GuardIEn servers.

The GuardIEn Server Select utility is not used if you are using MQ series as the middleware.

TCP/IP
The default communications method is to use a direct TCP/IP connection from the client to the server. This avoids the need to install additional client middleware and is available for all platforms.

For CICS and IMS you will also need to configure the Gen middleware support for TCP/IP direct connect.

Web Services

An alternative to TCP/IP is to use SOAP web services. This option is available for the CSE platform using the Transaction Enabler and also for CICS using the IET supplied web services programs. Additional Gen middleware is not required when using CICS web services.

Client Manager

GuardIEn typically uses *TCP/IP* to directly connect to the server, so there is no need for the Gen *Client Manager*, although you can still use this if you wish.

If you do still wish to use the Client Manager, create a new server entry in Client Manager using the *Server->Config* option. Give it a name of GDN or similar, and provide the other properties as show below. If your site is using directory services (see below), you may need to specify a particular name.
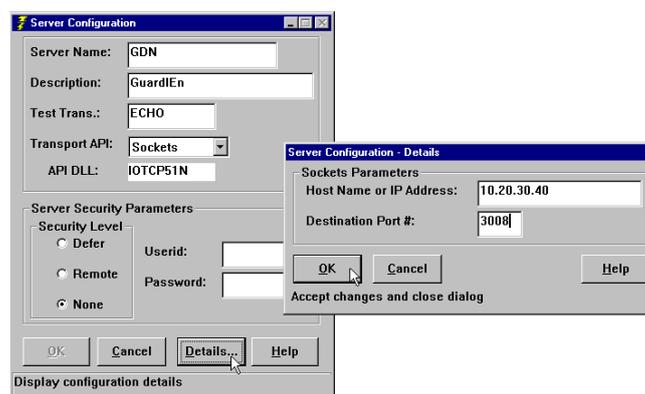
Press *Details…* and provide the following properties. Replace the IP address shown below with the host name or IP address of the server that contains the TE. If this is the only server that you require, you should make it the *default server*.

If you will be connecting to the server via a Comms Bridge, you should enter the *Port* number for the Comms Bridge. Otherwise, enter the *Port* number you wish to use for the *Transaction Enabler* directly. A default server installation on a CSE will use *Port 80880.*

If you are using a CICS or IMS server, then you will normally need to set the security level to Remote and provide your MVS userid and password when prompted to logon to the client manager. Certain MVS installations do not use client manager security and your site may elect to use GuardIEn security instead. Contact your system administrator for information if you are not sure what parameters to use.

Client Manager Directory Services

If you are using the Client Manager and the client needs to connect to multiple servers, for example one for GuardIEn and one for the application being developed using Gen, then you will need to use the Client Manager *directory services* to instruct the Client Manager to use the GDN server for GuardIEn and the *default server* can then be used for your other applications.

Default DLL

The default directory services exit is installed in the sample directory below the directory where the Client Manager was installed. The default exit uses a file containing trancode-to-server mapping. The <GuardIEn>\DIRSVCS directory contains a file called IETDIR.TRN that contains a mapping of the GuardIEn trancodes.

- To enable directory services for your Client Manager:
- Copy the IEFDIRN.DLL file from the Gen sample directory to the Client Manager directory
- Copy the IEFDIR.TRN file from the GuardIEn DIRSVCS directory to the Client Manager directory
- Open the Client Manager set-up dialog box (*File->Setup*)
- Enter the name of the *Dir Svc DLL* file *(IEFDIRN.DLL)*
- Enter the name of the *Dir Svc Input* file *(IEFDIR.TRN)*
- Stop and restart the Client Manager
- Check that directory services is enabled/available in the *File - Setup* dialog box.
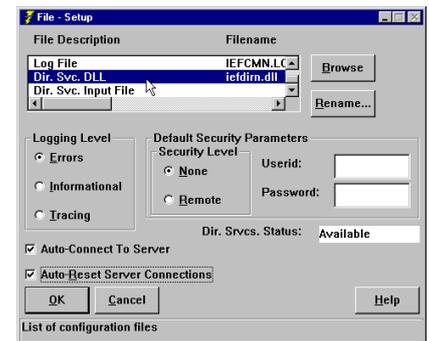
Custom DLL

The default directory services exit uses the IEFDIR.TRN file to map transaction codes to the server. The DIRSVCS directory also contains a customised version of the DLL in the file IEFDIR.C. This is a modified version of the CA-supplied exit that does not require the IEFDIR.TRN file. If the first two characters of the trancode are 'G7', the custom exit returns a server name of *GDN*. The advantage of this exit is that the IEFDIR.TRN files do not have to be updated when new server transaction codes are used in future releases of GuardIEn.

If you want to use the customised version, compile the revised source and create a custom version of the DLL. The MAKENT.BAT batch file will compile and link the DLL.

MQ Series

The GuardIEn client can communicate with GuardIEn servers (on MVS) using MQ Series. This is accomplished through the use of the MQ series client software. There is no need to install a local MQ series Queue Manager on the client workstation.

To enable MQ as the middleware, you should select MQ as the middleware option when installing the GuardIEn client. You will be asked to provide the MQ Queue Manager name. This is the name of the MQ Queue Manager on MVS.

The GuardIEn install will customise the commcfg.ini file in the GuardIEn client \bin directory and add an entry for each transaction. It assumes that there is one MQ Queue for each GuardIEn server. If you wish to use the Gen Transaction Dispatcher for CICS (TDC), then you will need to amend the commcfg.ini file to specify the correct queue name.

The Gen MQ runtimes (MQ*.dll) should be copied into the GuardIEn client \bin directory from a custom Gen 8.6 installation of MQ Series Middleware – and you must be licensed by Broadcom to obtain this product.

You must also ensure that you have installed the MQ series client software. As a minimum, this will probably require you to setup the MQSERVER environment variable. For example, the following setting connects the clients to the SYSTEM.DEF.SVRCONN channel on IP address 19.150.50.102 with port 1414.

SET MQSERVER=SYSTEM.DEF.SVRCONN/TCP/19.150.50.102(1414)