

Imatest - Troubleshooting

Troubleshooting— what to do when Imatest fails

[Installation problems](#) – [Version 3.6+ changes](#) – [Problems after install](#) – [Missing DLLs](#) – [Runtime problems](#) – [Corrupted INI file](#) – [Command \(DOS\) window](#) – [Diagnostics runs](#) – [Path conflicts](#)

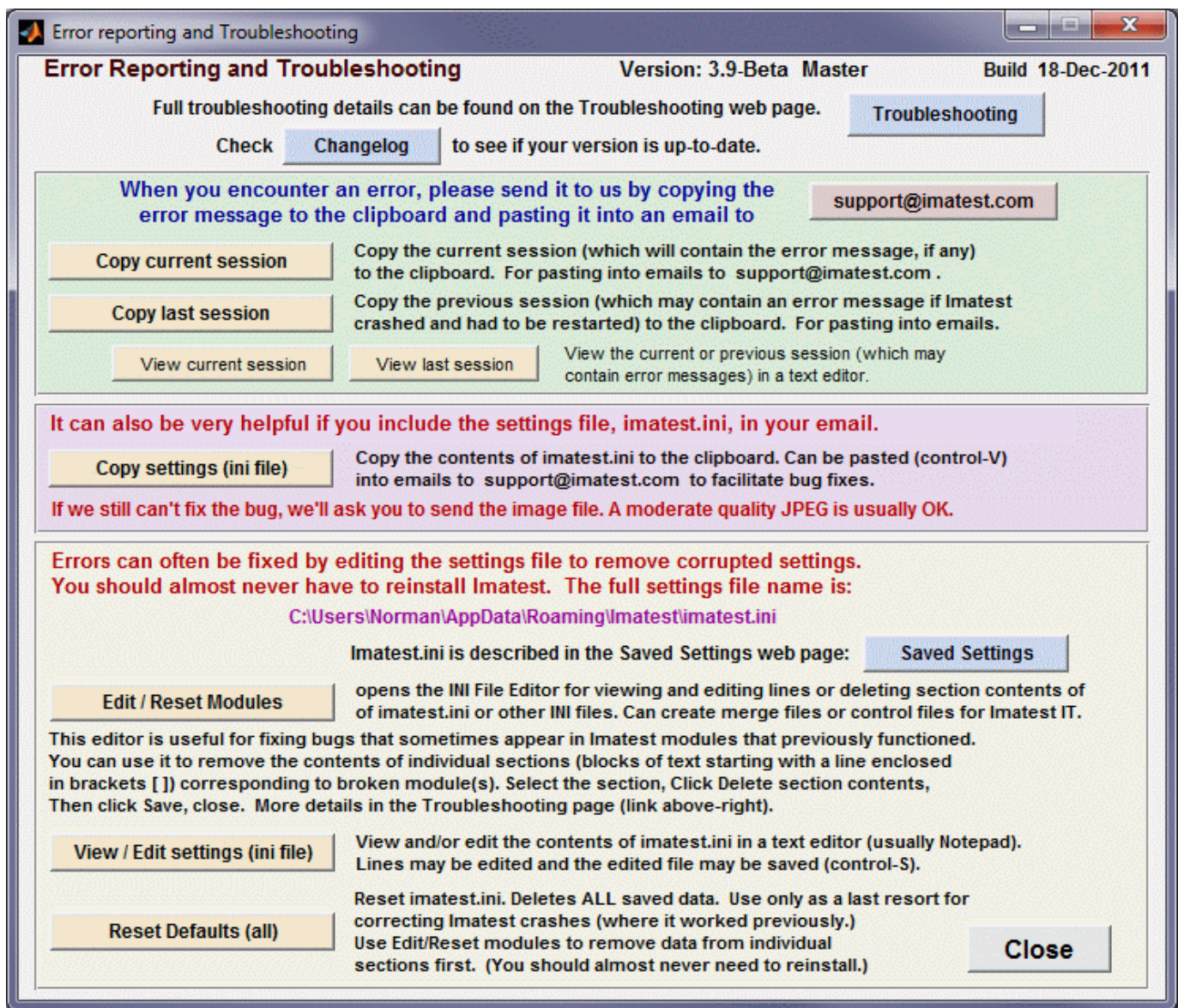
Version

If possible we recommend that you run the current Imatest version. You should always run the most recent version allowed by your license (you can [activate](#) versions released up to one year from the date of purchase: see the [Change Log](#)). Newer versions contain fixes for bugs found in earlier versions as well as enhancements. Because Imatest 3.6+ uses a new compiler with greatly improved error reporting, some paragraphs below are prefixed “**Pre-3.6**” or “**3.6+**”.

The version number appears in the top bar of the Imatest main window, and the build date (relevant if you’re running the latest Beta version) appears when you press **Help, About**. If your version is older than the latest version shown in the [Change Log](#), we recommend that you [download](#), [install](#), and run the latest version. It’s usually unnecessary to uninstall a previous version.

If Imatest stops working, the problem is often a bad entry in imatest.ini, described [below](#).

Uninstalling Imatest rarely helps, and reinstalling it only helps in rare cases where system files go missing. **Imatest.ini issues should *always* be addressed first**. Clicking on at the bottom of the Imatest main window opens the window shown below, which has concise instructions on how to deal with errors as well as direct links.



Click on the button on the bottom of the Imatest main window to open the Error reporting and Troubleshooting window, which has concise instructions and direct links.

Installation

Update installations do not normally require an uninstall of the previous version, but if you encounter difficulties you may want to uninstall and reinstall Imatest. The Uninstaller is accessible from the Start menu (**Start, All programs, Imatest, Uninstall**) or from the Add or Remove Programs function of the Control Panel. It gives you the option of keeping or removing the Matlab runtime library archive ([Imatest-lib.exe](#) in versions prior to 3.6). (Keep is the default; you have to check the box to remove it.) Keeping it speeds up reinstallation. Remove it only if you don't plan to reinstall Imatest or if you have good reason to suspect it may be corrupted (a rare occurrence). Click [here](#) for full installation instructions.

Important changes with Imatest 3.6+

[Imatest 3.6](#) and later use new Matlab compilers (Versions 4.11+) in place of the old R13 compiler (Version 3.0.1). The new compilers require a much larger library download: the ~200MB **Matlab Component Runtime (MCR)** (a sort of virtual machine). Imatest is normally compiled as a 32-bit application, which runs on 32 and 64-bit computers. (64-bit applications have little performance advantage and won't run on 32-bit computers.)

Imatest Matlab library (MCR) locations

Imatest Version	Compiler/Library	Typical location (Environment variable and file name for 64-bit English installations) [Substitute C:\Program Files for C:\Program files (x86) in 32-bit computers.]
before 3.6	Compiler 3	%ProgramFiles%\Imatest\toolbox\matlab C:\Program Files (x86)\Imatest\toolbox\matlab
3.6	Compiler 4.11/V711	%ProgramFiles%\MATLAB\MATLAB Compiler Runtime\v711\ C:\Program Files (x86)\MATLAB\MATLAB Compiler Runtime\v711\
3.7-3.9	Compiler 4.14/V714	%ProgramFiles%\MATLAB\MATLAB Compiler Runtime\v714\ C:\Program Files (x86)\MATLAB\MATLAB Compiler Runtime\v714\
<p>Note: Matlab's nomenclature can be <i>extremely</i> confusing. For example, Matlab R2010b (7.11) uses Matlab Component Runtime 7.14 and Compiler 4.14, See http://www.mathworks.com/support/solutions/en/data/1-4GSNCF/?solution=1-4GSNCF</p>		

The MCR is included in all 3.6+ [downloads](#). The download and installation may take several minutes each. When the installation is finished,

- The MCR should be located in %ProgramFiles%\MATLAB\MATLAB Compiler Runtime\v714 (for Imatest 3.7+; ... \V711 for 3.6) in 32-bit systems (%ProgramFiles% is C:\Program Files in English-language Win32 installations) or %ProgramFiles(x86)%\MATLAB\MATLAB Compiler Runtime\v714 (or ... \V711) in 64-bit systems (%ProgramFiles(x86)% is C:\Program Files (x86) in English-language Win64 installations)
- Imatest is located in %ProgramFiles%\Imatest\Imatest in 32-bit systems (%ProgramFiles is C:\Program Files in English-language Win32 installations) or %ProgramFiles(x86)%\Imatest\Imatest in 64-bit systems (%ProgramFiles(x86) is C:\Program Files (x86) in English-language Win64 installations)

The first time you install Imatest 3.6+ with a new library (V7111, V714, etc.), you should make sure that **Matlab Libraries** is checked in the **Choose Components** window. Library installation takes several minutes. Once the correct MCR for your version has been installed, you don't need to check this box when updating Imatest.

If you try running Imatest before the MCR has been installed the following message may appear. Reinstalling with the **Matlab Libraries** box checked will fix the problem.

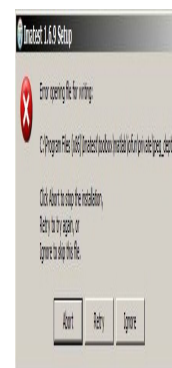
This application has failed to start because mclmcr714.dll was not found.

Problems during installation

Installation or registration can fail if

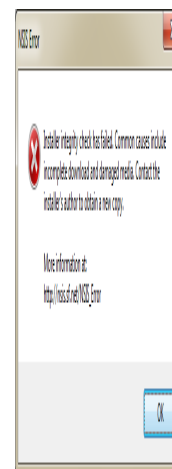
- You don't have **administrator privileges** on your computer.
- Your computer is behind a strong corporate **firewall**.

Pre-3.6: This message sometimes appears in systems that have strong firewalls. It can usually be corrected by making sure the Matlab runtime library, [Imatest-lib.exe](#), available from the [Download page](#), is in the same folder as the Imatest installation file. You may need to temporarily disable your firewall and manually download the library file.



Here is another error message that appeared as a result of a strong firewall. The customer had no problem when he downloaded from home.

The solution: Download Imatest outside the office, then bring in a CD or USB device.

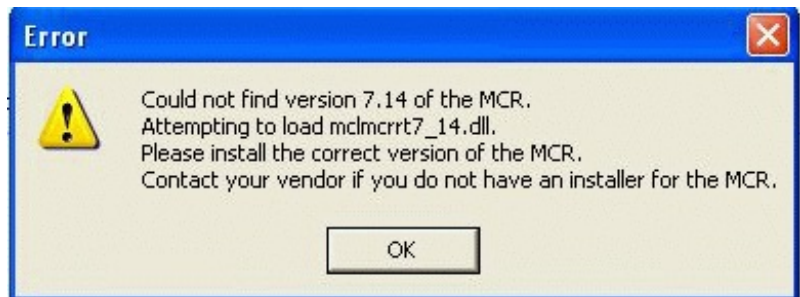


If you have receive an indication of a “DNS error” (very rare), try clicking , Run... Enter ipconfig /flushdns in the Open... box, then click .

Problems following installation

Error: Could not find version m.n of the MCR.

This problem is generally related to the path specified in the bat file used to run lmatest. It is most likely to occur in lmatest 3.7 and early builds of 3.8 when



- the Matlab Libraries were not installed the first time you installed this version of lmatest. You will need to reinstall lmatest with **Matlab Libraries** should be checked in the **Choose Components** window. (this only needs to be done once, on the first installation).
- lmatest has been installed on a system that has another version of Matlab installed. The bat file is found in the folder used to run your version of lmatest.

In my 64-bit Windows 7 English-language installation, the lmatest installation folder is C:\Program Files (x86)\lmatest\Master_3.8\. This folder may be different for different versions of lmatest, operating systems, and languages. You should locate it on your system.

The path is set in file run_lmatest.bat in the lmatest installation folder. You will need to open it with Administrator privileges in order to save changes. The key line with the path information (in my system) is

```
@path="C:\Program Files (x86)\lmatest\Master_3.8;C:\Program Files  
(x86)\lmatest\Master_3.8\bin;C:\Program Files (x86)\MATLAB\MATLAB Compiler  
Runtime\v714\runtime\win32;C:\Program Files (x86)\MATLAB\MATLAB Compiler  
Runtime\v714;%path%"
```

The highlighted entries in this line are the Matlab Runtime library (MCR) folders. If the folder **C:\Program Files (x86)\MATLAB\MATLAB Compiler Runtime\v714** (or its equivalent on your system) is not on this line, it should be added.

3.6: If you get a message similar to “**This application has failed to start because mclmcr711.dll was not found,**” you’ll need to [download](#) and install the **FULL** version, which contains the Matlab Runtime library (the MCR). This only needs to be done *once* for lmatest 3.6. The download and installation may take several minutes each. Upgrade downloads and installations are *much* faster.

3.6+: mllapack.dll Procedure could not be found (mllapack.dll La procédure spécifiée est introuvable en Français) Imatest starts normally, but terminates with this message displayed in a box. We have seen this problem twice. It was not easy to track down. A solution that worked for one customer (but required some effort) was found at the end of [this Google post](#) and also [this Matlab Central post](#).

“I found that the error comes from a dll version problem (as suspected). An older “libmmd.dll” was present in windows/system32 directory. The version that comes with the Matlab Runtime bin/win32 directory was not used. Getting rid of the older version solved the problem. I haven’t figured out yet why it was there and why it doesn’t get updated in the windows directory when installing the vc_redist. What a pain.”

One other piece of advice may be worth exploring if this doesn’t work. [This Matlab post](#) states that “The crash is caused by an incompatibility between MATLAB and the CPU. This can happen if the processor does not support the [SSE2 instruction set](#), for example, the Athlon XP 2200+ CPU.” This problem should not occur on computers manufactured after 2003.

Pre-3.6: The most common installation problem is a failure of the Matlab runtime library, [lmatest-lib.exe](#), to download or install properly. This results in an error message of the form,

“The procedure entry point ... could not be located in the dynamic link librarydll.”

If you get such a message, check to see if file [lmatest-lib.exe](#) has been downloaded correctly. Also, check the status of your firewall. Strong firewalls have caused this problem.

- If it was downloaded automatically (during installation) there should be a copy in the Imatest installation folder (C:\Program files\Imatest\Imatest in typical win32 English language installations).
- If you downloaded it manually (usually required in systems with firewalls), there should be a copy in the same folder as the Imatest installer program, Imatest-x.x.exe.

Windows XP Explorer reports its size as 8,513 kB, but the tooltip that appears when you move the cursor over the file name reports its size as 8.31 MB (go figure). If the download failed, a smaller size may be reported.

If you fail to find Imatest-lib.exe or if you suspect that it was downloaded incorrectly, download it by right-clicking [here](#) or on any of the links in this section, then [reinstall](#) Imatest. Imatest-lib.exe is a self extracting zip file that places the Matlab runtime library in subfolder bin\win32 and toolbox\matlab of the Imatest installation folder. If problems persist, check to see that these folders are populated, then send e-mail to [Imatest support](#) with the text of the error message, if any, that appears in the DOS window.

Pre-3.6: Missing DLL files In rare instances, four DLL files, jpeg_depth.dll, dataread.dll, imjpg8.dll, and rjpg8c.dll, may be missing from subfolder toolbox\matlab\iofun\private\ of the Imatest installation folder. Because they are not included in [Imatest-lib.exe](#) they are installed using a different procedure, which fails in fewer than 1% of installations. If you get a message that indicates they may be missing, you should check for them in the subfolder and install them manually if they are absent.

- In **Imatest 3.1 or later**, the four files are installed to the Imatest installation folder as well as the subfolder. They can be copied to the subfolder (\toolbox\matlab\iofun\private\; C:\Program Files\Imatest\toolbox\matlab\iofun\private\ in English language installations) if they are missing.
- For **earlier versions** you can download [jpegdlls.zip](#) and copy the contents to the subfolder.

Runtime errors

An image file cannot be read. Matlab often can't read image files that have nonstandard headers or other irregularities. Such files are rare in commercial cameras, but may crop up in prototype or development systems. You can often "launder" them using Lrfanview, which you can download for free from [Lrfanview.com](#). It's a valuable utility! Read the file into Lrfanview, then save it. (You can use a different file name if you need to keep the original.)

If Imatest does not run as expected, the DOS window that normally stays minimized may contain helpful information. You can open it by clicking on the Imatest DOS Window icon in the taskbar. Here are some potential problems.



- An Imatest run may fail if the image file path name contains non-Latin characters. We have seen such a failure with Chinese characters. The error message was
The error message caught was : Invalid file identifier.
- **Imatest.ini**, the file that contains settings stored when modules are run, may have gotten corrupted.

Corrupted ini file

We believe this problem has been fixed in builds of Imatest 3.9 released after June 15, 2012. These new builds use UTF-8 character encoding for the ini files, which should be able to handle non-Latin characters. You may need to go through the repair procedure (following the recommendations that appear on your screen) one time.

This occasionally happens in systems that contain folders or files with non-Latin characters (Chinese, Korean, Japanese, Hebrew, etc.) A typical message in the DOS window has the

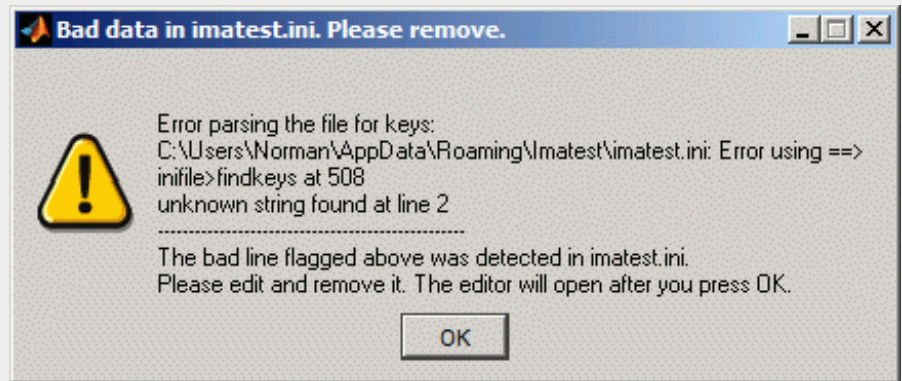
form,

**Error parsing the file for keys: C:\Doc ... \Imatest\imatest.ini: Error using ==>
infile>findkeys at 508
Unknown string at line 38
The bad line flagged above was found in imatest.ini.**

Here are some windows that may appear (in Imatest 3.8 or 3.9).

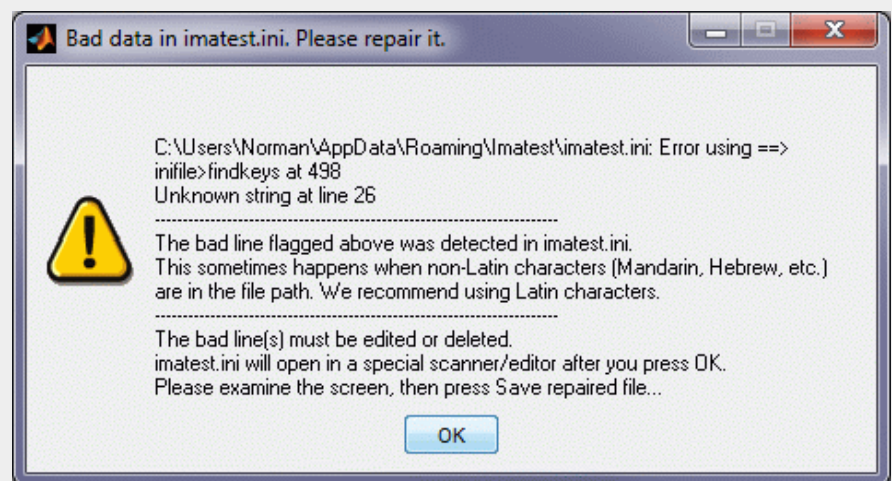
Corrupted imatest.ini
message in Imatest 3.7

The message indicates that there is an error on line 2. After is pressed, the ini file opens in Notepad. Delete or correct the offending line (see the explanation below), then save the file. You can close Notepad and restart Imatest.



Corrupted imatest.ini
message in Imatest 3.9+

The message indicates that there is an error on line 26. After is pressed, a special editor opens that detects corrupted lines, lets you review them and then save the corrected file. This is much more convenient than 3.7 and earlier.



Imatest.ini (and also **rescharts.ini**, **multicharts.ini**, etc.) contain saved settings used in Imatest runs. They are created when Imatest is first run. Settings include regions of interest (ROIs), plot selections, plot scales, calculation techniques, and more.

Ini files are text files formatted so that each line

- is a section title enclosed within brackets ([...]), e.g., [sfr], or
- has the form, name = value, e.g., nwid_save = 2601.

An error is detected when a line does not conform to this structure. The equal sign is missing in most erroneous lines. If you receive an error message, follow the instructions in the dialog box. If the error persists,

1. Close Imatest
2. Either
 1. Delete the INI file, which is typically located here:

%USERPROFILE%\AppData\Roaming\Imatest\imatest.ini

The actual file name may vary for different operating systems and languages.

2. Use a text editor to remove the bad line (typically missing the = symbol) from the INI file.
3. Restart Imatest
4. When you save results, make sure to use a folder name that has no non-Latin (Mandarin, Hebrew, etc.) characters in it, for example, "Results".

Root causes? We suspect that the problem is related to [Locale Settings](#). Here are some items from [How the MATLAB Process Uses Locale Settings](#):

- **Default Locale Setting** — If the user-specified locale is not supported, MATLAB uses the default locale en_US.US-ASCII. *(This could cause trouble for non-Latin characters.)*
- **UI Language Setting** — The UI language setting should be set to either the same language as the user-specified locale or to US-English. Otherwise, non-7-bit ASCII characters might not display properly.
- **Supported Character Set** — MATLAB supports the character set specified by the user locale setting. However, MATLAB might not properly handle character codes greater than 2 bytes.
- **Script Compatibility** — Non-7-bit ASCII characters in MATLAB scripts created with one locale setting might not be compatible with a different locale setting.

See also [Setting the Locale](#) and [Troubleshooting I18n Messages and Settings](#), which contains this interesting statement: "The user locale and system locale must be the same value on the Microsoft Windows platform. If these values are not the same, you might see garbled text or incorrect characters."

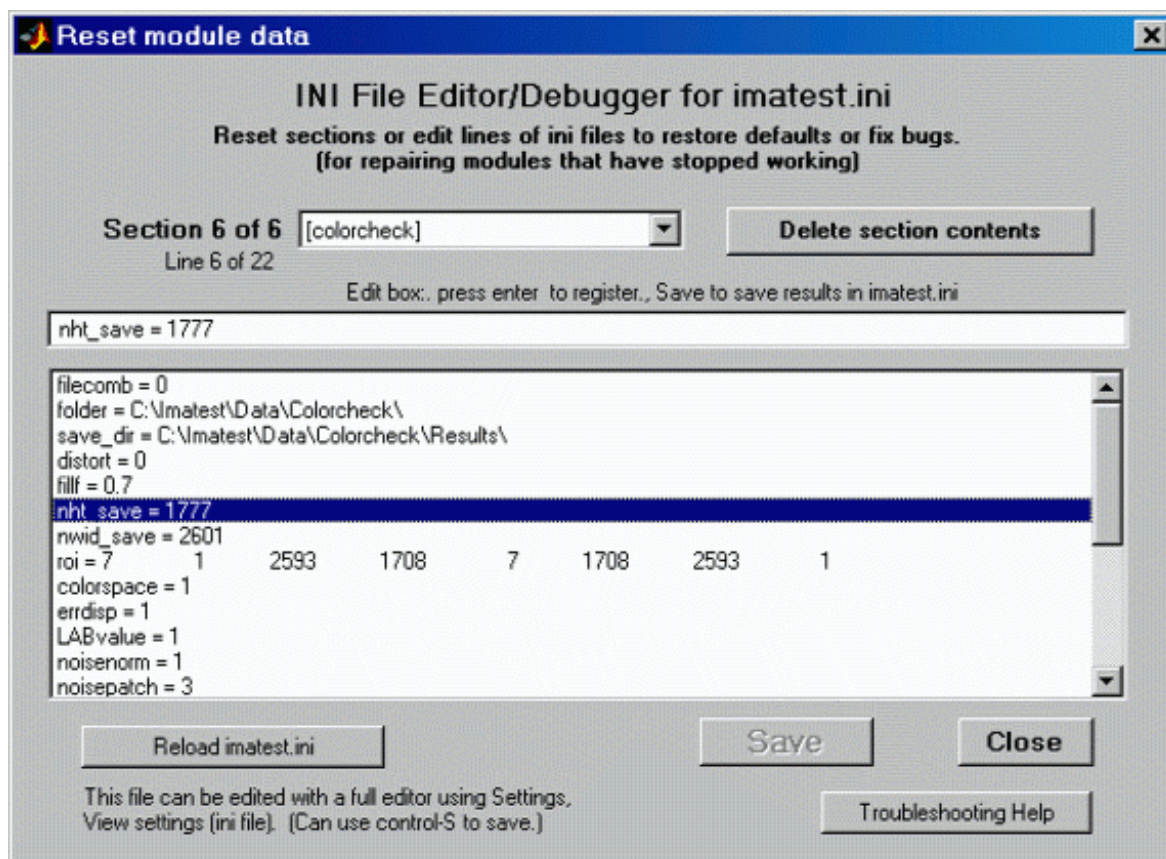
Pre 3.7: If Imatest crashes and you receive a message that resembles, "ERROR: Error in parsing the file for keys: C:", imatest.ini has been corrupted. It may contain some text that does not correspond to the standard ini file format. You'll need to open imatest.ini (location below) and remove the offending code. Or delete (or rename) it if you can't find the bad text.

There are several things you can do if you suspect that an ini file has been corrupted.

- In the Imatest Main window (or in the Rescharts or Multicharts windows), click Settings, Reset defaults (all). This deletes imatest.ini, then recreates it with a few default values. The sections are repopulated when modules are run. Since all settings are lost, this is only recommended as a last resort.
- Click Settings, View settings (ini file). This opens imatest.ini (or rescharts.ini or multicharts.ini if you are running one of those modules) in a simple editor (Notepad) that you can edit (if you have any idea what to change), then save by pressing control-S. You can also copy the contents and paste it into an email to Imatest support, as described below.
- **Imatest 3.6+:** Click Settings, Copy settings (ini file). This copies the ini file to the clipboard. You can paste it directly into an email for us.

A module that formerly worked has stopped working

This can often be fixed by removing the section for the module in imatest.ini. Click Settings, Edit/reset module(s) (or INI File Editor in 3.9+) to open the INI file Editor/Debugger, shown below.



You can select a section to view or delete from the Section dropdown menu. To edit a line, select it in the large window, make the change in the edit window just above the large window, then press Enter. To delete the entire selection, press . When you are ready to save the changes press , which is grayed out until changes are made. If you wish to cancel your changes, press either or .

If you cannot solve the problem, send an e-mail to [Imatest support](#).

- Tell us your **operating system**.
- **Include the contents of imatest.ini**, which may contain helpful information for diagnosing the problem.

You can open imatest.ini (or multicharts.ini or rescharts.ini) by clicking on **Settings, View settings (ini file)** in the Imatest, Multicharts, or Rescharts windows, then you can copy the contents from Notepad and paste them into your e-mail. In Imatest 3.6+ you can copy the contents directly into the clipboard by clicking on **Settings, Copy settings (ini file)**.

The ini files are located in %AppData%\Imatest, where %AppData% is a DOS environment variable whose file name can be determined by entering the command, **dir "%AppData%"** in

a DOS window.

- You don't need to know the actual location unless the error closes the Imatest DOS window. A typical English-language Windows Vista/7 location is **C:\Users\your name\AppData\Roaming**. In installations prior to Imatest 2.3 (the first release compatible with Windows Vista), the full file name was C:\Program files\Imatest\Imatest.ini. (or counterparts in non-English installations, for example, C:\Programme\Imatest\Imatest.ini in Deutsch.) When a version of Imatest prior to 2.3 is replaced with a newer version the file is automatically copied to the new location. Problems may occur when the %AppData% folder name contains non-Latin characters. (We are looking into this. The best solution may be to delete the old Imatest.ini or move it manually.)
- **Send the text of the error message**, if any, that appears in the DOS window. (**Pre-3.6:** See the box below for instructions on getting a screen dump from the DOS window. **3.6+:** The session can be [copied directly](#) from the Imatest window.)

The Command (DOS) window Imatest runs from a Command window (resembling a traditional DOS window) that normally stays minimized. When a run terminates unexpectedly or just stalls, the DOS window may contain useful debugging information. To get the DOS window contents,

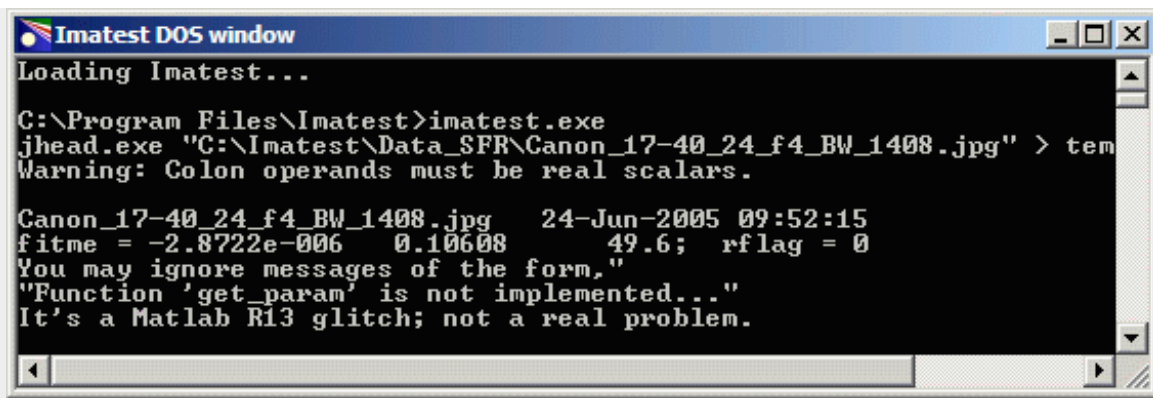
Click on the Imatest icon in the taskbar (usually at the bottom of the screen) to bring up the DOS window.

Pre-3.6: Procedure 1: Copy and paste text (simple, but a little tricky)

- Right-click inside the DOS window, then click on **Select All** in the context menu.
- Alternately, you can click on the icon on the upper-left of the window, click on Edit, click on Mark, then drag the cursor to select the text to copy.
- Press **Enter** (or **Return**) on the keyboard. This is equivalent to Ctrl-C (Copy) in Windows (which doesn't work in the DOS window).
- Paste the text into your [e-mail](#) using a standard Windows Paste command (Ctrl-V or Edit, Paste).
- It's OK to delete obviously irrelevant text before you send the e-mail.

Pre-3.6: Procedure 2: Copy and paste screen dump image (complex but reliable)

- Click **Alt-PrtSc** or **Alt-PrintScreen**, depending on the keyboard.
- Paste the image (from the clipboard) into an image editor. In most image editors (for example, [IrfanView](#), a great free utility), click Edit, Paste or control-V.
- Save the image as a GIF or PNG file (much smaller than TIFF or BMP and clearer than JPEG).
- Attach the file to the [e-mail](#) (or include it inline).



```
Imatest DOS window
Loading Imatest...

C:\Program Files\Imatest>imatest.exe
jhead.exe "C:\Imatest\Data_SFR\Canon_17-40_24_f4_BW_1408.jpg" > tem
Warning: Colon operands must be real scalars.


Canon_17-40_24_f4_BW_1408.jpg    24-Jun-2005 09:52:15
fitme = -2.8722e-006    0.10608    49.6;  rflag = 0
You may ignore messages of the form,"
"Function 'get_param' is not implemented..."
It's a Matlab R13 glitch; not a real problem.
```

3.6+: Copy and paste the session directly from the Imatest window into an email message.

- If the crash left the Imatest window open, click on **File, Copy current session**, and paste the contents in an [email to Support](#).
- If the crash closed the Imatest window open, reopen Imatest, then click on **File, Copy previous session**, and paste the contents in an [email to Support](#).
- The current or previous session can be examined in Notepad by clicking **File, View current session** or **View last session**.

Diagnostics runs

For Imatest errors that shut down the DOS window (this has become rare), or where extra diagnostic results may help in locating a problem,

- Run Imatest from the Imatest folder (C:\Program files\Imatest\Imatest in typical win32 English installations) by double-clicking Diagnostics  (or diagnostics.bat). This keeps the DOS window open after Imatest terminates so you can view the error message.
- [E-mail](#) the error message to Imatest support. Tell us your Imatest version and operating system.

In some instances you can fix the problem by deleting imatest.ini (or renaming it, which is better because you have a record). Instructions [here](#).

Path conflicts when other versions of Matlab are installed

X The procedure entry point svDoubleSclarRemW could not be located in the dynamic link library libmwservices.dll

If a different version of **Matlab** from the one used for Imatest (6.5.1) has been installed on your system, there is a tiny chance that you may experience a path conflict that causes a similar error message— or Imatest may simply fail to run. ***This rarely happens*** because the batch file that

initiates *lmat* sets the path. Path issues and solutions are discussed in [API/EXE instructions](#).

Bugs and all that

Pre-3.6: The following message appears several times in the DOS window when you try to save data.

Function 'get_param' is not implemented in standalone mode.

This has no effect on the saved images, and it's rarely visible since the DOS window remains in the background. Matlab has described the problem, to be fixed in a future release, [here](#).

More documentation

Instructions for individual ***lmat*** modules can be found in the [lmat Documentation page](#).