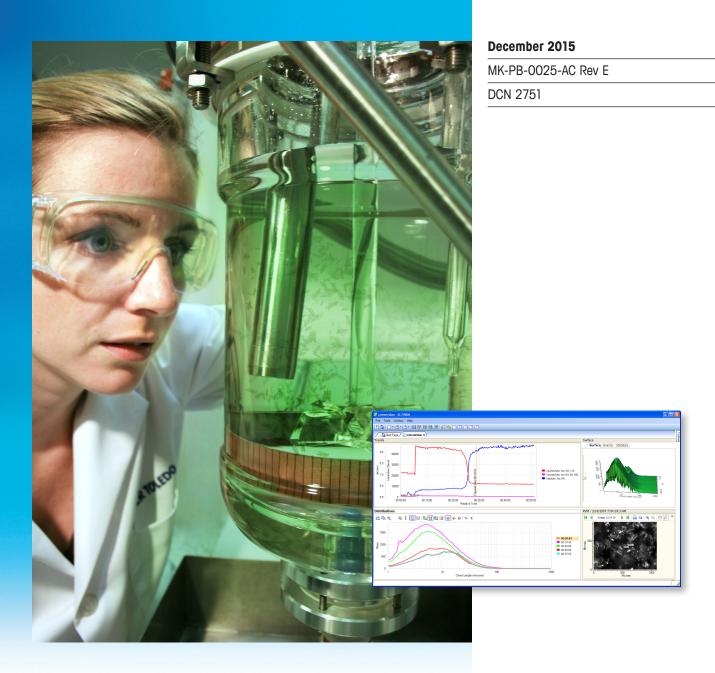
Install Guide for Admins



iC FBRM[™] 4.4 Particle System Characterization



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1 System Requirements

Below are the minimum computer requirements to run iC software plus the recommended specifications for peak performance. Since computer specifications can change, please refer to the "Computer Specifications Guide" on the METTLER TOLEDO AutoChem website (<u>link to guide</u>) for the latest information on the laptop available for shipment with new instruments.

1.1 Minimum Requirements

Each version is tested on a machine meeting these specifications to ensure the software will install and run correctly, but this does not guarantee reasonable performance, particularly when running longer experiments that collect more data. Higher performance processors are recommended to provide the best user experience (see Section 1.2).

Characteristic	One iC / iControl Application		
CPU	Intel [®] Core 2 Duo 2.2 GHz or better		
Memory	2 GB		
Hard Drive	SATA 5400 rpm		
Graphics	SXGA 1280 x 1024 with 3D hardware acceleration		

1.2 Recommendations for Peak Performance

The specifications for laptop computers that we currently ship with new instruments are included below. This setup has been tested with several instruments connected at one time and performs well. This laptop or a similar high end model is a good choice for almost any application using iC software.

Characteristic	Shipped (Dell 6520)
CPU	Intel [®] Core i7-2720QM, 2.20 GHz, 6 MB Cache
Memory	4.0 GB DDR3 SDRAM at 1333 MHz
Hard Drive	128 GB Solid State
Graphics	15.6-inch wide screen XGA display, 8x DVD+/-RW

Note: It is important to note that processor type is often more important the the CPU speed when considering performance. For example, the i7 2.2 GHz processor in the shipped laptop above performs considerably better than the 2.3 GHz i5 processor.

1.3 Operating System Support

iC FBRM 4.4 supports the 32-bit and 64-bit versions of the following operating systems:

- Microsoft[®] Windows[®] 7
- Microsoft[®] Windows[®] 8.1

Additional software recommendations include Microsoft[®] Internet Explorer[®] 11 web browser (minimum), Microsoft[®] Office 2010 or 2013, and Adobe[®] Acrobat Reader DC (for optimal viewing of the Documentation Portfolio and release notes).

2 Preliminary Setup

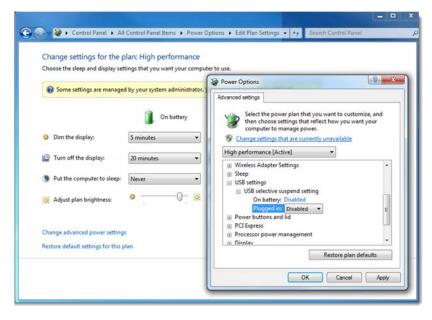
The ParticleTrack instrument should already be set up as described in the specific hardware manual installation chapter. Before installing software, disconnect the instrument from the control PC. After software installation, reconnect the instrument.

NOTE: If your instrument was shipped prior to September 2013, you must have the ACIO Smart Chip upgrade completed on your hardware to use iC FBRM 4.4. If you're unsure whether your instrument has been upgraded, please contact <u>AutoChem Support Group</u>.

2.1 Configure PC Power Settings

On the PC that will be controlling an instrument, you must adjust the power settings to ensure the computer will **never go into sleep mode**.

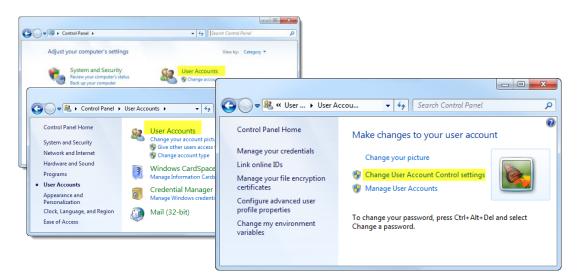
- 1. Search 'Power Options,' and select 'High Performance.'
- 2. Select Change plan settings link.
- 3. Set 'Put the computer to sleep' to Never.
- 4. Select Change advanced power settings link and set as follows:
 - Sleep → Sleep after = Never
 - Sleep → Hibernate after = Never
 - USB Settings → USB selective suspend setting = 'Disabled'
 - For laptop computers: Power button and lid options → Lid Close Action = 'Do nothing'
- 5. Click OK and Save changes.



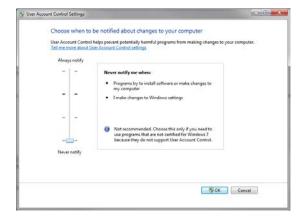
2.2 Disable User Account Control Notifications

Adjust the computer settings under User Account to enable the FBRM instrument to communicate freely with the software. To take effect, this change requires a reboot of the control computer.

1. Go to the Control Panel and select User Accounts > User Accounts > Change User Account Control settings.



2. Move the slider to Never Notify and click OK.



3 Installing iC FBRM 4.4 Software

iC FBRM[™] installation is wizard-driven. When you start the process from the installation welcome page (Figure 1 on page 7), the wizard guides you through the steps to install the iC FBRM software and ParticleTrack instrument drivers, starting with prerequisite Microsoft[®] Windows[®] components, as applicable.

NOTE: The wizards and windows shown in this guide are from a Microsoff[®] Windows[®] 7 installation. Corresponding wizards and windows displayed for Microsoff[®] Windows[®] 8 will differ slightly in appearance, but the functionality is the same for each operating system.

In addition to the installation process, this guide also includes information on setting software preferences, activating licenses, and setting up instrument interoperability between iC and iControl software applications.

Important: ParticleTrack instrument should be unplugged from the PC during software installation.

3.1 Necessary User Rights

NOTE: Installation requires Administrative privileges. If the user account is not part of the Admin group on the local PC, right-click setup.exe and select "Run as administrator."

To run iC FBRM, normal user privileges are sufficient.

iC FBRM 4.4 can be installed next to previous versions of iC FBRM, but they cannot be run at the same time.

3.2 Starting iC FBRM Installation

Follow the steps below to install iC FBRM 4.4 on a PC that meets the minimum system requirements described on page 4.

1. Insert the installation CD or go to the downloaded installation folder.

If you inserted the CD, the following welcome window appears:

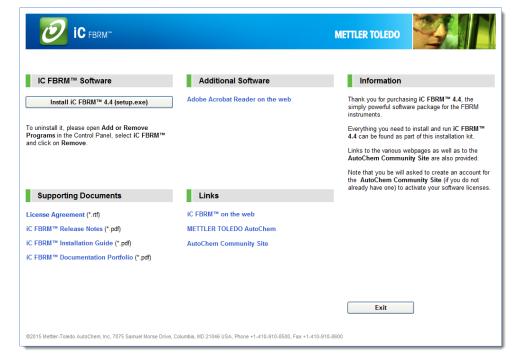


Figure 1: Installation welcome window



If the welcome window does not appear or if you have downloaded the installation folder, open the CD or folder.

Then, click **autorun.exe** to display the welcome window.

AutoRun.inf

- 2. In the welcome window, click Install iC FBRM 4.4 (setup.exe).
- 3. Click **Install** at the prompt to install the FBRM Server.

🔂 METTLER TOLEDO iC FBRM 4.4 Setup					
The following components will be installed on your machine:					
FBRM Server 4.4					
Do you wish to install these components?					
If you choose Cancel, setup will exit.					
Install Cancel					

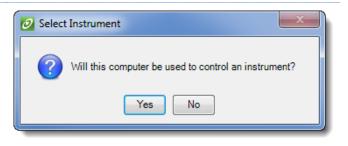
- 4. Read and accept the license agreement to install the Microsoft[®] .NET framework required component.
 - This step only applies if the Microsoff[®] .NET required component does not already exist on the computer where you are installing iC FBRM. NOTE:

😸 METTLER TOLEDO iC FBRM 4.4 Setup	x			
For the following components:				
Microsoft .NET Framework 4 (x86 and x64)				
Please read the following license agreement. Press the page down key to see the rest of the agreement.				
MICROSOFT SOFTWARE SUPPLEMENTAL LICENSE TERMS				
.NET FRAMEWORK 4 FOR MICROSOFT WINDOWS OPERATING SYSTEM AND ASSOCIATED LANGUAGE PACKS				
Microsoft Corporation (or based on where you live, one of its affiliates) licenses this supplement to you. If you are licensed to use Microsoft Windows operating system software (the				
View EULA for printing				
Do you accept the terms of the pending License Agreement?				
If you choose Don't Accept, install will close. To install you must accept this agreement.				
Accept Don't Accept				

5. When the iC FBRM installation wizard appears, click Next.



- 6. Click Next to move through the installation wizard steps.
 - **NOTE:** If installing a service pack, you may not see all the installation wizard steps described in this section.
- If you have an 'Office' version of iC FBRM, meaning it will not be connected to an instrument, click No in the Select Instrument window. Proceed to step 10. If you have an 'Instrument' version of iC FBRM, meaning this computer will be connected to an instrument, click Yes to install drivers and proceed to the next step.



- 8. Select Instruments for which Drivers will be installed and specify the Default Instrument.
 - **a.** Select the instrument types that will be used on this PC. The selection determines the drivers that will be installed.
 - b. If you selected multiple instrument drivers to be installed, choose the Default Instrument type that will be connected to this PC.

B METTLER TOLEDO IC FBRM 4.4	
Select Instrument	Ø
Choose the instrument drivers to install on this computer. ParticleTrack [™] G400 * ParticleTrack [™] G600/G600 Ex * ParticleTrack [™] E25 Default Instrument	
 includes FBRM G400 / G600 / G600 Ex with ParticleTrack[™] ACIO upgrade 	ок

9. Click OK.

Instrument driver installation begins.

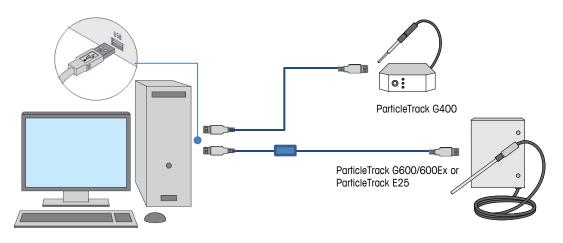
NOTE: This phase of installation could take several minutes.

- 10. Click Close after successful completion.
- 11. Reboot the control PC (instrument is still NOT connected).

3.3 Plug the ParticleTrack Instrument into the Computer

Connect the instrument USB cable to a USB port on the control computer. Please refer to individual hardware manual for connection details as ParticleTrack G600 and E25 instruments include a Fiber-to-USB Extender. Depending on the instrument type, the connection will be different:

- ParticleTrack G600/G600Ex and E25—USB (via Fiber-to-USB extender between base unit and PC)
- ParticleTrack G400—USB



3.4 Start iC FBRM Software

1. Start the iC FBRM software application by clicking the desktop icon or selecting iC FBRM 4.4 from the METTLER TOLEDO program menu in the Start menu.



2. A message appears indicating the software is running on a trial license:

🥑 Trial Version	
You are running a trial version of iC FBRM 4.4 Instrument. To continue using this Software after the trial period, you need to enter a valid product activation code. The iC FBRM 4.4 Instrument trial license will expire in 25 days on 9/30/2015. Activate Now Activate Later	

- If you have a License Key, click Activate Now to proceed with the registration process. Instructions begin under iC Licensing on page 12.
- o If you prefer to remain on the 30-day trial license, click Activate Later.

NOTE: The 30-day trial provides access to all iC FBRM 4.4 features.

3.5 Scanning for Instrument

The first time you connect a ParticleTrack instrument to the iC FBRM control software, the control computer needs to scan to establish the USB connection.

- 1. From the File menu > Tools menu, select **Instrument Connections**.
- 2. In the Instrument Connections window, click **Edit** to scan for the instrument, and click **OK** when the automatic configuration message appears.

4 Checking for Updates

If you already have a release of iC FBRM installed and want to see if you have the latest service pack, select "Check for Updates" from the Help menu.

Help	Help				
?	Help with iC				
	Show Start Page				
	Show Release Notes				
	Show Documentation Portfolio				
	Check for Updates				
	License Manager				
	Send iC FBRM Logs to Customer Care				
	About iC FBRM				

After login to the AutoChem Community website, you will see a message that indicates whether or not you are running the latest software. The next section describes how to apply a service pack.

4.1 Applying an iC FBRM 4.4 Service Pack

NOTES: Updating to a new service pack retains the 4.4 license.

Updating to a new service pack requires updating the iC FBRM application and the FBRM server by running two service pack installers.

Installing the server is only necessary on the computer that controls the instrument (Instrument software license). When installing both service packs, install the FBRM server first.

If you already have a release of iC FBRM 4.4 installed and want to apply the latest iC FBRM 4.4 service pack, run the service pack installers, as follows.

- 1. Download the service pack installers for iC FBRM and for FBRM Server. Then, follow the instructions provided to extract the contents. (Options for accessing the service pack installers are in the next section.)
- 2. Locate the .msi files for the server software in the extracted contents: FBRMServerSetup.msi and iCFBRM_Installer.msi
- First, run the .msi file for the FBRM server to launch the installation wizard and follow the prompts to install the service pack. Then, run the iCFBRM_Installer.msi for the iC FBRM software.

4.2 Accessing the Service Pack Installers

The service pack installers are available from the AutoChem Community website. You can use either of the following methods to access a service pack from the Downloads page:

Through iC FBRM software—Check for Updates:

iC FBRM Help menu \rightarrow Check for Updates

Log in to the AutoChem Community website. This method informs you whether you are using the latest release and service pack. If a service pack or new release is available, use the link to the Downloads page to access the installer.

• From the METTLER TOLEDO AutoChem Community Website:

Go to https://community.autochem.mt.com

Log in and select iC FBRM from the Downloads menu. Check the Service Packs section to see if any service packs exist for your version of the software.

5 iC Licensing

iC applications use a licensing scheme to control distribution and use of the software. Below are the types of licenses.

- Instrument version—Enables the application to connect to an instrument and run experiments.
- Office version—Enables the user to run the application without a connection to an instrument. With this version, experiment data can be viewed and analyzed.
- Trial version—A trial version is equivalent to an Instrument license with a 30-day time limit.
- Module licenses—Add-on modules, licensed separately.
 Chord Selection Model (CSM) licenses—ParticleTrack instruments require a valid license for the CSMs that convert raw FBRM signal data into chord length distributions.
- iCare subscription—A special annual subscription license that entitles you to all release upgrades and service packs for instrument and Office versions of your iC and iControl software as well as priority telephone and email support. Please refer to Activating an iCare Subscription on page 16.
- Site license—Specific companies that have large software agreements with METTLER TOLEDO may also have a Site License for a particular product or products. Please refer to Installing a Site License on page 18.

5.1 Activating a Single-User License

NOTE: Although you need to activate your software on a website, the PC where you are installing the iC FBRM software does **not** require an internet connection. You can activate the software license using any internet-enabled PC.

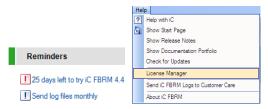
The following information applies to users installing a single-user Instrument, Office, or CSM module license. The first time the iC application starts, the system displays the Trial License message. Choose to activate the license now or later.



Select one of the following two options:

5.1.1 Activate Later—Continue Under a 30-Day Trial License

Click **Activate Later** in the Trial Version window to defer license activation. You can activate the license at any time by selecting License Manager from the iC FBRM software Help menu. A reminder link appears on the iC FBRM Start Page to keep you informed of the trial period.



5.1.2 Activate Now—Using the License Manager

When you click **Activate Now**, the License Manager window opens. The License Manager contains an 8-character Machine ID and an area to input a 25-character Activation Code field

in 5-character segments. Follow the steps below to obtain the code from the AutoChem Customer Community website. The process starts in the License Manager and links to the AutoChem website to obtain an activation code. Then, you return to the License Manager.

NOTE: If you purchased iCare at the same time as iC FBRM 4.4, activate your 4.4 license first. Then, follow the steps on page 16 to activate the iCare subscription.

Installed licenses				
Product	Info			
iC FBRM 4.4 Instrument	Trial expires in 90 days on 9/30/2015 Click here for more info.			
iCare for iC FBRM Instrument	Notsubscribed. Click here for more info.			
Chord Selection Model - Primary Option	Trial expires in 29 days on 7/31/2015 Click here for more info.			
Chord Selection Model - Macro Option	Trial expires in 29 days on 7/31/2015 Click here for more info.			
1. Copy Machine ID: 2. Activate your license ke	E296 C204 Copy y at: https://community.autochem.mt.com			
create a user account if you don't have one yet. Once logged in, click the link "Activate an IC or iControl License", enter the Machine ID along with your 12-dgit License Key and then create the Activation Code. S. Enter Activation Code: Paste				
4. Apply Activation Code				
Site license activation procedure				

Figure 2: License Manager

- Have your License Key sheet ready. The sheet is usually a letter-sized certificate delivered with the software.
- In the License Manager window (Figure 2), click Copy after step 1 to copy the machine ID to your clipboard.
- 3. Click the link (<u>https://community.autochem.mt.com</u>) after step 2.
- 4. Obtain your Activation Code from the AutoChem Community website by following the instructions. in the next section entitled: "Obtaining an Activation Code from the MT Website." The Machine ID that you copied to the clipboard will be used, along with your License Key, to generate an activation code.

Once you have copied the activation code from the AutoChem Community website (see page 15), return to the License Manager and complete the following two steps:

- In the License Manager window, click Paste. The activation code from your clipboard appears in the text boxes.
- 6. Click Apply Activation Code to complete the registration process.
- Repeat the process to activate one or more Chord Selection Models (CSMs) that determine the type of algorithm used to characterize a particle or droplet system. Speak with your Technology and Applications Consultant (TAC) to determine the proper CSMs for particular particle systems.

5.2 Obtaining an Activation Code from the MT Website

Your activation code is generated through the METTLER TOLEDO AutoChem Community website (<u>https://community.autochem.mt.com</u>). To obtain the activation code, you must have the Machine

ID from the License Manager window in the iC software and the License Key provided on a lettersize certificate with the software. (Refer to the previous section on Using the License Manager to Activate a Single-User License.)

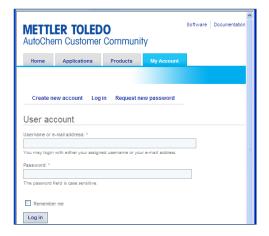
NOTE: Access the MT website from any internet-enabled PC—This step does not necessarily need to be performed on the PC where the iC FBRM software is installed.

Home Applications	Products	Bly Account		L. Invest
			Chemical S	Synthesis, Engineering, and PA
User login				
Username or e-mail: *	Please	log in to Activate an IC or ICare	license	
Password *				
- Landara et	Activate	an iC License or iCare Su	bscription	
Log in				
Log in Create new account				
Log in Create new account Recuest new password		MT Employee Menu		Dest for analyse were blong for? Some a guestin
Log in Crate new account Recurst new password Navigation 8 Application Notes		· Extend C Trailby 7 Days		Dant frei what you were blong for? Subrit & question sur team of appent.
Log In - Create new account - Request new password Nevigation - Application Notes - Webmans			. VPRO	
Remember me Cog in Crain new account Repuest new password Newligation Advoication Notes Woldname User Faruma Decumentation Tranning Material		· Extend C Trailby 7 Days	.v₩o	

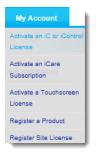
- 1. Depending on whether or not you have an account, start with one of the following steps:
 - If you are a new user, begin by setting up a user account (see page 16).
 - If you already have an account, enter your username and password and click Log in under User login or click log in from the red prompt box.



2. Enter the required information and click Log in.



3. Click Activate an iC or iControl License from the My Account tab.



4. Enter the Machine ID and License Key or use the Paste buttons (highlighted below).

NOTE: The Paste and Copy buttons only apply to Microsoft Internet Explorer. In any other browser, you must enter the information.

The Machine ID can be copied from the License Manager window. The License Key is provided on a license certificate sheet delivered with your software.

	METTLER TOLEDO Software Document					
Но	me	Applications	Products	My Account		
	Activate an iC License or iCare Subscription					
Plea	ase follo	w these 3 steps to act	ivate your Licens	e:		
1.	Enter M	achine ID:		-		Paste
2.	Enter Li	cense Key:				Paste
	To obta	in a License Key, plea:	se contact your s	ales representative		
3.	G	enerate Activation Cod	e			
	=> Сору					
	Copy Copy the generated Activation Code and paste it into the License Manager of your iC or iControl Application Note: iControl 3.3 cannot be activated here. Please refer to the iControl RC1e 3.3 License Activation Guide for details.					

Figure 3: Activate License window

- Click Generate Activation Code to produce the code in the text box. Then, click Copy to save the code to the clipboard.
- 6. Return to the License Manager in the iC FBRM software (see page 12), and click **Paste** to enter the activation code in step 3. Enter Activation Code.

2. Activate your license key at:	https://community.autochem.mt.com				
To obtain an Activation code, visit the Mettler-Toledo AutoChem web site using the link above. You will be prompted to log in or create a user account if you don't have one yet. Once logged in, click the link "Activate an iC or iControl License", enter the Machine ID along with your 12-digit License Key and then create the Activation Code.					
3. Enter Activation Code:					
Paste					
4. Apply Activation Code					

7. Click Apply Activation Code to complete the registration.

8. Repeat the process to install any module licenses on the PC, such as a Chord Selection Model.

5.3 Setting Up a New User Account

If you do not already have a user account on the METTLER TOLEDO AutoChem Community website, you will need to create one before your licenses can be activated.

- 1. From the METTLER TOLEDO AutoChem Community website, click the Create new account link.
- 2. Enter the required information and accept the terms.
- 3. Click Create new account at the bottom of the registration form.

The AutoChem Customer Community website confirms that an email is being sent:

Your password and further instructions have been sent to your e-mail address.

You will receive an email with instructions and a link to confirm your email address and complete the new account registration.

NOTE: Your website registration will be pending until confirmed by METTLER TOLEDO AutoChem; however, you can activate the software by following the link provided in the email.

Val Customer,

Thank you for registering at METTLER TOLEDO AutoChem Customer Community. Your account is pending approval. In the meantime, please confirm your email address by following this link and creating a password:

https://community.autochem.mt.com/index.php?q=user/validate/2377/1272317564/18022cb491995c42e28b6225e3da44c8

Until we approve your account for unlimited access to all content (usually within 2 business days), you still have full access to the following functionality:

- activate your iC or iControl software https://community.autochem.mt.com/index.php?q=node/422
- register your instrument(s) for warranty
 update your profile (e.g. change your password)

If you have questions, please don't hesitate to contact us at autochem.community@mt.com

Thank you

-- METTLER TOLEDO AutoChem Customer Community team

- 4. Click the first link to confirm your email. You will go to a one-time login where you create a password.
- 5. After you change and confirm the password, click Save at the bottom of the page.
- 6. From the Home page, select Activate an iC or iControl License under the My Account tab.
- 7. Follow the instructions under Obtaining an Activation Code from the MT Website on page 13.

5.4 Activating an iCare Subscription

The procedure to activate an iCare subscription is similar to that for obtaining an activation code from the MT website for a single-user license. The 12-character iCare Subscription Number will be provided on an iCare Subscription Certificate that shipped with your order.

- 1. Login to the METTLER TOLEDO AutoChem Community website.
- 2. Click Activate an iCare Subscription from the My Account tab.



An Activation iC License or iCare Subscription window appears with the iCare Subscription selected.

 In the iCare activation window (Figure 4), enter the Machine ID as directed in the Note, or use the Paste button (highlighted below). The Machine ID can be copied from the License Manager window.

METTLER TOLEDO AutoChem Customer Community			Software Documentation Appli	
Hom	ne Applications	Products	My Account	
				Che
Sub	vate an iC Licen	iCare edure	·	on
	inter Machine ID:	invato your iouro ai		Paste
e		use the Machine ID) found on the Licens	er, then please enter 1111 1111 e Manager dialog (under the Help
2. E	inter Subscription Number:		-	Paste
1	°o obtain an iCare subscripti	on number, please (contact your sales re	presentative
3.	Activate Subscription			

Figure 4: Activate an iCare Subscription window

- 4. Enter or paste the Subscription Number, provided on a certificate sheet delivered with your software.
- 5. Click the **Activate Subscription** button. You should receive a confirmation email message in a few minutes that provides some additional information about the program.
- 6. The email will also include an iCare Subscription Activation Code that can be entered or pasted back into the License Manager window of the iC FBRM software.

Activating the iCare subscription in the software itself is not required, but if you perform this step, then you will not need to update any licensing information if a new iC FBRM version is released before the iCare subscription expires.

5.5 Installing a Site License

NOTE: Most companies do NOT have a site license, so only follow this procedure if specifically directed by your organization.

A Site License is supplied as a file and must be loaded into each copy of the iC software in use. (Please refer to iC Licensing on page 12 for an explanation of site licenses.)

1. To install the Site License, open the License Manager by selecting it from the from the Help menu.

Help	P
?	Help with iC
	Show Start Page
	Show Release Notes
	Show Documentation Portfolio
	Check for Updates
	License Manager
	Send iC FBRM Logs to Customer Care
	About iC FBRM
_	

2. In the License Manager, click Enable.

Info Trial expires in 90 days on 9/30/2015 <u>Click here for more info.</u> Not subscribed. <u>Click here for more info.</u> Trial expires in 29 days on 7/31/2015 <u>Click here for more info.</u>						
Notsubscribed. <u>Click here for more info.</u>						
Trial expires in 29 days on 7/31/2015 Click here for more info.						
Trial expires in 29 days on 7/31/2015 Click here for more info.						
tivate your license on this machine. See help for additional information. E296 C204 Copy y at: https://community.autochem.mt.com						
one yet. Once logged in, click the link "Activate an IC or iControl License", enter the ense Key and then create the Activation Code.						
Site license activation procedure If you have a site license file, press this button to load it.						
METTLER TOLEDO Contact us with any questions or difficulties: METTLER TOLEDO Autochem Phone: 866-333-6822 Email: METTLER TOLEDO Autochem Phone: 866-333-6822 Email: AutoChemCustomerCare@mt.com Close Help						

3. Click Browse to navigate to the Site License file location. Then, click OK.

Load Site License	×
To obtain a site license, contact your M information. If you already have a site li	
File name:	Browse
	OK Cancel

The license loads and the software is ready to use.

4. Repeat on the other computers with iC FBRM installed.

6 Sharing Data between iC/iControl Applications

Data can be shared between iC and iControl applications. The three common situations are:

- iC and iControl applications are on the same PC
- iC and iControl applications are on different PCs on the same network
- iC and iControl applications are on different PCs connected via an Ethernet cross-over cable

6.1 Before You Begin

- a. Ensure that the iC and iControl applications are installed and operating properly on each PC.
- b. Verify the release versions of the products are compatible by checking the Compatibility Table: DotNet Version Compatibilities for iC/iControl Data Sharing on the AutoChem Customer Community website (link to Compatibility Table page).
- **c.** Ensure the latest service pack for each product is installed (see Checking for Updates on page 11 for details).
- **NOTE:** Any PCs that will be coordinating live experiments should have the same regional settings and be in the same time zone.

6.2 Connecting iC/iControl Applications

Below are the steps to get the iC/iControl applications to connect.

- a. Start the iC or iControl application on each PC.
- b. To establish a link, iC 4.x versions of software must broadcast their existence.
 - For iC 4.x applications—Go to the main Tools menu and select Connect to other iC/iControl applications....

Tools Window Help
Preferences
Connect to other iC / iControl applications
Configure iC Data Center
Instrument Connections
Manage Probes
Run AutoStats

 Click the Find Application button on each PC, if applicable, to begin a network scan for the other applications. Repeat for all applications to be connected.

Connect to other iC / iControl Applications The Following table shows all connected iC or iControl applications. To find an application, please start this dialog in all iC and iControl applications on all PCs and press "Find Application" in all dialogs, or you can enter the hostname and port address by adding an application entry manually. Application Infos							
Application Type	Version	PC Name	TCP Port	Status	New		
ICFBRM	4.4	LocalHost	3902	This Application	n = Edit		
iControlRC1e	5.3	Alex-PC	3903	Connected			
iControl	5.5	US10W-ICONTROL1.am.mt	3905	Connected	Delete		
iCIR	7.0	US10W-FLKFRW1.am.mt.mtnet	3901	Connected			
iCIR	7.0	US10W-FLJHRW1.am.mt.mtnet	3901	Connected	-		
•		m		•			
Find Application			0	K Cance	el Help		

- 2) Once this initial scan is performed the Application Type list displays all iC /iControl applications currently running the Find Application process on the network. On each PC, the corresponding applications should appear on the list and the Status column should show Connected.
- **NOTE**: If an application connection cannot be made, the Application Type column entry is "Unknown." Please refer to Configuring the Windows Firewall on page 22.
- For iControl—Select Configure Equipment from the Start Page. (NOTE: The configuration below features iControl 5.4.)
 - 1) Click Add Instrument and then, select the new device of the appropriate type, for example, iC FBRM.

Configure Equipment			
	Instrument settings Name: EasyMax Device Type: EasyMax 102 Fimware: Serial Number: Connection settings IP address or name: 127.0.0.1 Test connection	You can find the IP address or name for your instrument in the Configuration settings on the instrument Touchscreen. Please check the Quick Install Guide if you encounter any problems.	
	Add Instrument or Application Link Instrument or Application Link Name EasyMax 102 EasyMax 102 DoptMax 1001 RX-10 UCB IC Data Share IC FRRM	Description EasyMax 102 Workstation EasyMax 402 Workstation OptiMax 402 Workstation OptiMax 1001 Workstation RX-10 Touchscreen control of custom reac Universal Control Box Application link to IC FBRM	
Select an instrument from above to configure.	IC IR IC PVM IC Raman IC UV-VIS	Application link to IC IR Application link to IC PVM Application link to IC Raman Application link to IC UV-VIS OK Cancel Help	
Note: You cannot edit an instrument while it is online. Add Instrument Stop Instrument		Save	Close Help

2) Click OK in the Insert iC FBRM prompt.

🖉 Insert iC FBRM		×
Instrument Information	1	
Name:	IC FBRM	
Description:	Application link to iC FBRM	
		OK Cancel Help

- 3) In the Settings section, select the applicable configuration:
 - Accept the default if iC FBRM and iControl are installed on the same PC, or
 - Enter the PC Name or IP address of the PC where iC FBRM is installed.

Onfigure Equipment					
EasyMax CFBRM	Name:	iC FBRM		-	_
Select an instrument from above	Description: Note: If you are create one Settings © iC FBRM is PC Name c Communici in the Firee	IC FBRM Application link to IC FBRM using a multi-probe instrument, then you ha e Application Link per probe. installed on this PC installed on a different PC or IP address: ation between i Control and iC must be enal will Settings on both PCsI See here for a sw to configure your Firewall. Test Cor	bled	Ċ	5
to configure. Note: You cannot edit an instrument while it is online.					
Add Instrument Stop Instrument			Save	Close	Help

4) Click Test Connection to verify the settings, and then Save the configuration.

There is no need to rescan the network PCs in the future unless a new iC/iControl application or PC running an application is added to the network. In this case, a scan must be run on all PCs to update the Application Type list.

Once communications between the iC/iControl applications has been established, trend data for the applications display in the Result List Add Trends list.

NOTE: There is no corresponding test in iC—Use the checks below for testing.

c. To verify that the connection is working for all aspects of the software application, perform the following checks:

iControl-to-iC connection

- 1) In iControl, start a new experiment and include the iC device in the equipment setup.
- 2) Execute the run and verify that you can start a new iC experiment from the iControl wizard.
- Verify that the iC experiment starts when the iControl experiment starts.
- Check that the iC operations can be used in the iControl procedure (for example: Change Sample Interval, Pause, etc.).
- 5) Add iC trends to the iControl Trend Viewer.
- 6) Try another iControl experiment that specifies a template file for the iC FBRM experiment that iControl will start. When starting an iC experiment from the iControl experiment Start wizard, the template should be automatically selected for the iC experiment.

iC-to-iC connection

- 1) Add trends from an open experiment in one application to the other iC application's live or completed experiment.
- 2) Verify that live trends from one iC application are correctly updated in a live experiment in the other iC application.

iC-to-iControl connection

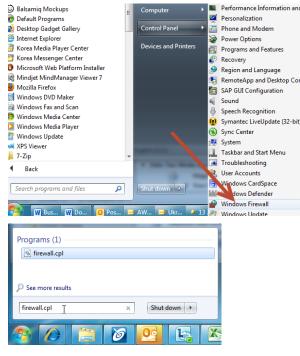
- 1) Add iControl trends to the iC Trend Viewer.
- 2) Verify that live trends from iControl are correctly updated in a live iC experiment.

If you have trouble getting the applications to talk, then you can execute the procedure described next under Configuring the Windows Firewall.

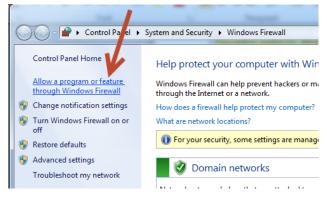
6.3 Configuring the Windows Firewall

The instructions in this section are only required if the iC software applications are on different computers and the initial connection setup did not work.

1. On the PC running the iC FBRM application, click the Start \rightarrow Control Panel \rightarrow System and Security \rightarrow Windows Firewall (or use the start search option for firewall.cpl).



2. Select the Allow a program option.



3. Select the Allow another program button (if this button is not enabled, click the Change Settings button).

→ Windows Fire → Allowed Prog low programs to communicate thr add, change, or remove allowed programs an hat are the risks of allowing a program to com	ough W nd ports, cl	indows Firewall ick Change settings.	Control Po	ane!	gs
For your security, some settings are managed	jed by you	r system administrato	or.		
Allowed programs and features:					
Name	Domain	Home/Work (Pri	Public	Group Policy	^
Antivirus Quaratine				Yes	
🗹 Avaya 2050 IP Softphone	~			Yes	
AxedaDesktopServer				No	
AxedaDesktopServer	✓			No	
BranchCache - Content Retrieval (Uses				No	
BranchCache - Hosted Cache Client (U				No	
BranchCache - Hosted Cache Server (U				No	
BranchCache - Peer Discovery (Uses W				No	
ChemSFC C	~			Yes	
Connect to a Network Projector				No	
Core Networking	✓	2	✓	No	
Distributed Transaction Coordinator				No	Ψ.
			Details	Remove	
Allow another program					
OK Cancel					

4. Select the Browse option and locate: C:\Program Files (x86)\METTLER TOLEDO\iC FBRM 4.4\iCFBRM.exe

Add a Program	Prowse			×
Select the program you want to add, or click Browse to find one that is not listed, and then click OK.	COC V METTLER TOLEDO > iC	FBRM 4.4 🕨 👻 🔩	Search iC FBRM	4.4 P
Programs:	Organize 🔻 New folder		=	• • •
Adobe Acrobat Distiller DC	Name	Date modified	Туре	Size
Adobe Bridge CS5	🎉 images	12/2/2015 2:33 PM	File folder	
Br Adobe Bridge CS6 (64bit)	AppInteropTestClient.exe	12/2/2015 2:00 PM	Application	52 KB
Adobe Captivate 6 (64 Bit)	AutoChemServiceTool.exe	12/2/2015 2:00 PM	Application	887 KB
Adobe Captivate 7 (32 Bit) Cp Adobe Captivate 7 (64 Bit)	FbrmLstImporter.exe	12/2/2015 2:00 PM	Application	22 KB
Adobe Captivate 7 App Packager	🙋 iCFBRM.exe	12/2/2015 2:02 PM	Application	76 KB
Adobe Captivate 8 (32 Bit) Adobe Captivate 8 (64 Bit) Adobe Captivate 8 (64 Bit) Madobe Captivate 8 App Packager Path: S:\Program Files (x86)\Adobe\Acrobat 2015V Browse What are the risks of unblocking a program?				
You can choose which network location types to add this program to. Network location types Add Cancel	File name: iCFBRM.e	xe 🔻	Applications (*.e.	xe;*.com;*.icd) 🔻 Cancel

- **NOTE:** If you install a different version of iC FBRM, you will need to repeat this process for the new version.
- 5. Repeat the above process for C:\Program Files (x86)\METTLER TOLEDO\FBRM Server 4.4\FBRMServer.exe
- 6. On the PC running the other iC software, repeat steps 1–4 and add an exception to the firewall for appropriate programs such as:
 - C:\Program Files (x86)\METTLER TOLEDO\iControl 5.4\iControl.exe AND C:\Program Files (x86)\METTLER TOLEDO\iControl 5.4\iControlServer.exe
 - C:\Program Files (x86)\METTLER TOLEDO\iC IR 4.3\iCIR.exe
 - C:\Program Files (x86)\METTLER TOLEDO\iC PVM 7.0\iCPVM.exe
 - C:\Program Files (x86)\Kaiser\iC Raman 4.1\iCRaman.exe

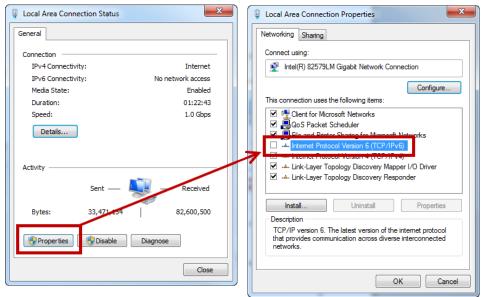
6.4 Turning Off TCP/IPv6 Protocol

If there are still communications issues (either failures to connect or long waits for connections) between iC FBRM and the other iC or iControl computer, another suggestion to try is to disable the IPv6 protocol on the network adapter used to connect to the other computer. IPv6 is the new computer address protocol that will eventually replace IPv4 which is currently the most popular standard. The iC applications use IPv4 to communicate but if IPv6 is enabled, it is usually tried first before IPv4 and this can cause delays in connections or timeout errors. Unless your network has a specific requirement for IPv6, and very few do, you can safely disable IPv6.

- 1. On the PC running iC FBRM, click the Start \rightarrow Control Panel \rightarrow Network and Sharing Center.
- 2. In the 'View your active networks' area, click Local Area Connection.

~				x
Control Panel >	Network and Internet Network and Sharing Center	▼ 47	Search Control Panel	Q
Control Panel Home	View your basic network information and set up connections			0
Manage wireless networks Change adapter settings Change advanced sharing settings	mt.mtnet Access type: Internet Connections: Q Local Area	Connect or di Connection etwork Conne AL2G) router or acce n.	ction	
See also HomeGroup	Troubleshoot problems Diagnose and repair network problems, or get troubleshooting information.			
Internet Options Windows Firewall				

 Click Properties and, on the Networking tab, uncheck the Internet Protocol Version 6 (TCP/IPv6) check box, and click OK.



If you have issues connecting to other iC/iControl applications, please send an email to <u>iC@mt.com</u> for assistance.

7 Appendices

7.1 Installing iC FBRM Office via Scripting

iC FBRM installation options include the following argument syntax that enables IT personnel to silently install iC PVM Office licenses using your organization's scripting tool.

- 1. Note the folder location path and filename for the data.msi file.
- If applicable, note the server name where iC Data Center (icdcserver) resides and ensure the server is running.
- **3.** Use the following argument syntax:

msiexec /i " <folder path> Data.msi" /qn quiet=true InstallDir=<install path> icdcserver=<server name>

Example:

msiexec /i "C:\Installer\data.msi" /qn quiet=true InstallDir=C:\ABC icdcserver=abc10-svr2

NOTE: If a path includes spaces, the entire name must be surrounded by double quotation marks.

- 4. Complete the installation wizard. Verify the wizard shows the install path specified in silent command.
 - **NOTE:** When silently installing upgrades, ensure the **InstallDir=**<install path> is the same as that used in the previous installation.

7.2 Deployment Packages and Dependencies

The iC software installation program runs scripts that deploy packages as part of the installation process. Packages deployed by the installer include items such as device drivers, product licensing, and documentation. Dependencies include third-party prerequisites such as the Microsoft .NET framework. Specific versions of each package and dependency are included, where applicable (shown in tables on page 25).

iC Software Deployments	Notes
Client software deployed to C:\Program Files (x86)\METTLER TOLEDO\iC FBRM 4.4 Server deployed to C:\Program Files (x86)\METTLER TOLEDO\FBRM Server 4.4	Installation path
Deployed with software: • Chord Selection Models (CSMs)	Require separate licensing
 iC FBRM Documentation Portfolio (PDF) iC FBRM Release Notes and Installation Guide (PDFs) 	Software documentation—Also available in Help menu
Miscellaneous configuration files deployed to: C:\ProgramData\METTLER TOLEDO\	

Miscellaneous configuration files deployed to: C:\ProgramData\METTLER TOLEDO\ iC FBRM\4.4

Third-Party Dependencies	Version	Notes	Third-Party
.Net Framework	4.0		
Windows installer	3.1		Microsoff [®] Corporation
SyncFusion, DevExpress, ChartFX, PlexityHide.GTP	Refer to Help > About> Component Info for details		
Device drivers and interface DLLs (based on type of instrument selected)	various		Pico Technologies

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