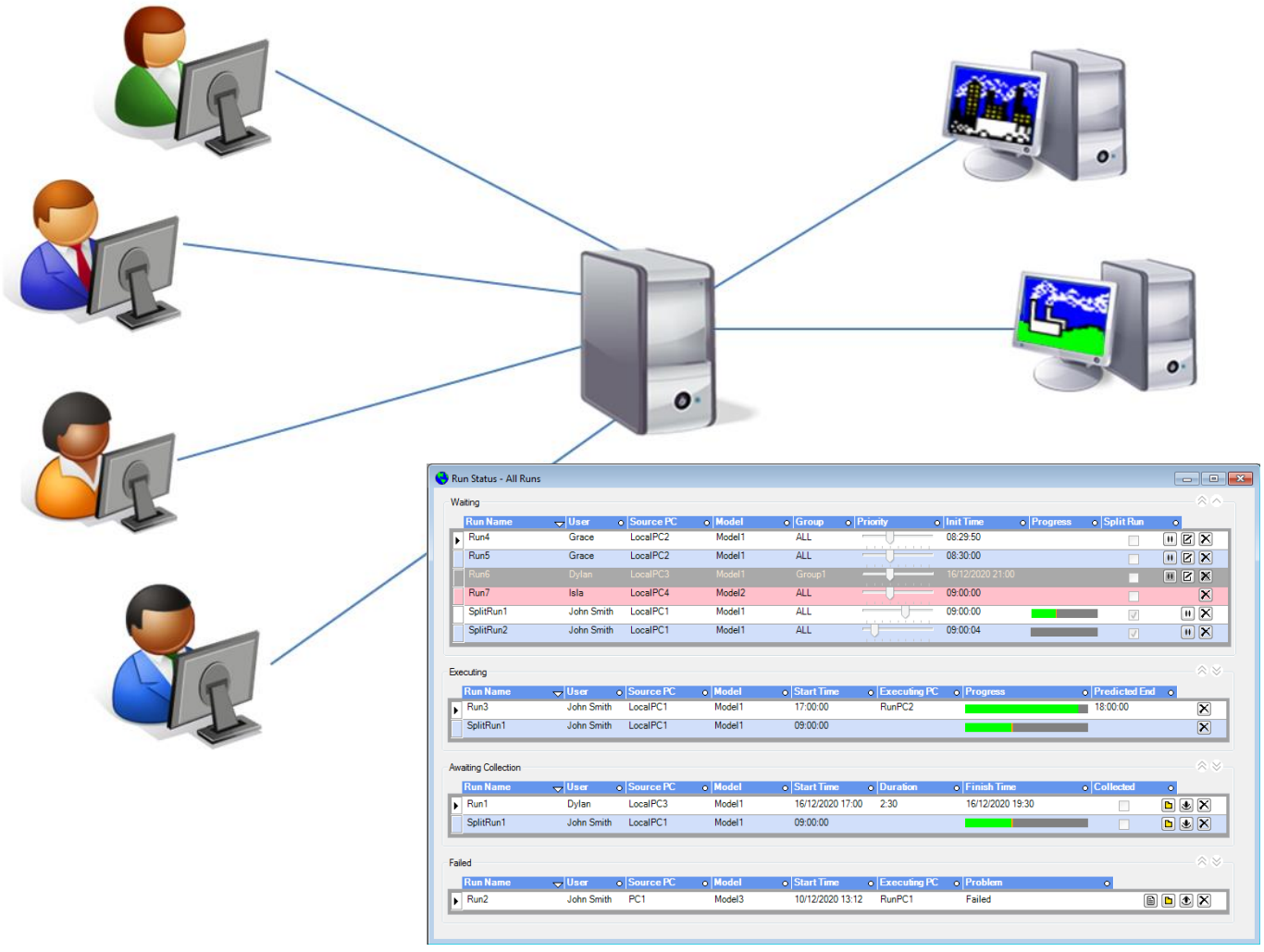
Run Manager

Advanced software for organising CERC model runs



User Guide CERC

Run Manager

Advanced software for organising CERC model runs

User Guide

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Cambridge Environmental Research Consultants
3, King's Parade
Cambridge
CB2 1SJ
UK

Telephone: +44 (0)1223 357773
Email: help@cerc.co.uk
Website: www.cerc.co.uk

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SECTION 1 Introduction

1.1 About Run Manager

1.1.1 What is Run Manager?

Run Manager is a tool to help you manage your model runs and make the most of your CERC licence(s). It gives greater flexibility by sharing all licensed PCs across the local area network. Runs can be defined by all users on their own PCs, submitted through Run Manager to be executed at the first opportunity and the results available upon completion.

1.1.2 Who uses Run Manager?

CERC has been using a version of Run Manager for over 16 years. It is suitable for use in consultancies, and by city and regional authorities.

1.1.3 Why use Run Manager?

Run Manager enables you to group large, urgent ADMS runs to be executed on the most powerful PCs available. It provides an estimate of the time required to complete each model run and allows flexibility on machine allocation when performing multiple project runs. Run Manager can organise and execute runs for all of the following models: ADMS, ADMS-Roads, ADMS-Urban and ADMS-Airport.

1.2 Run Manager Features

As illustrated in **Figure 1.1**, Run Manager:

- allows multiple runs to be executed concurrently on a licensed multi-processor PC;
- consolidates all available model licences for users to share;
- enables users to prioritise their runs;
- allows users to monitor the progress of runs, providing estimated end times; and
- provides a centrally-located list of available models, ensuring that all users use the same model versions.

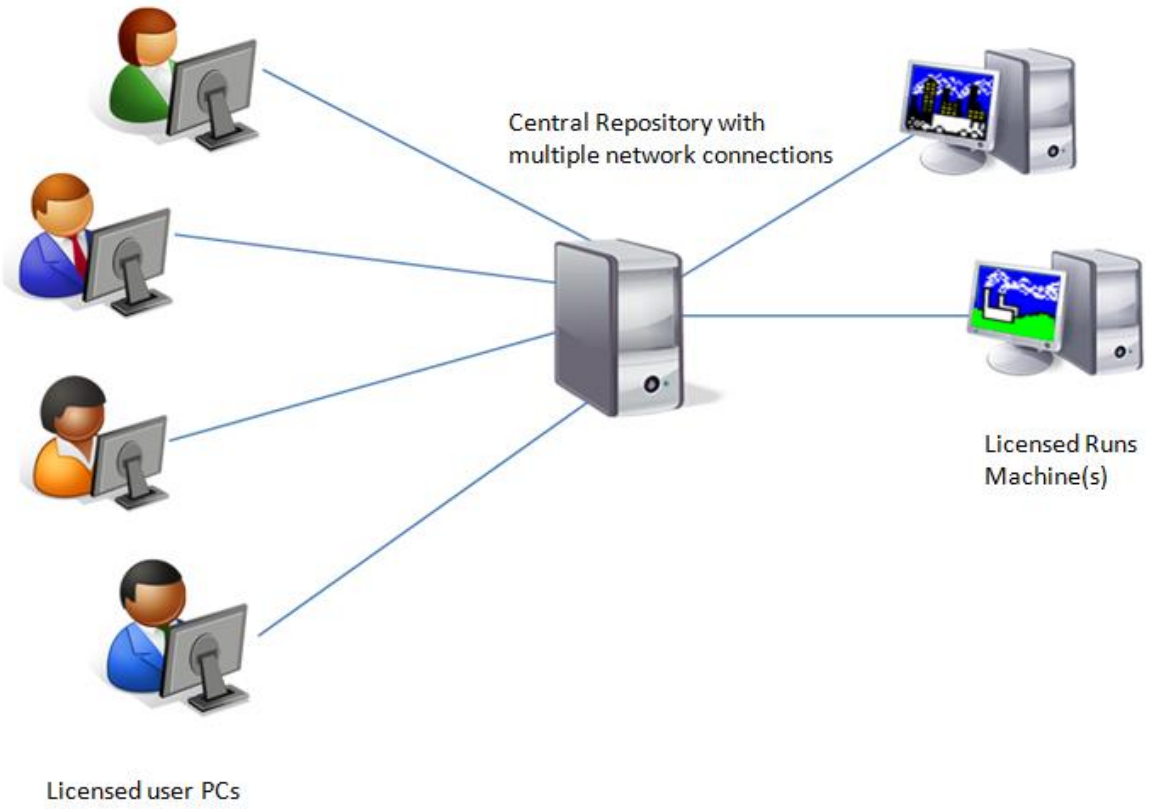


Figure 1.1 A typical Run Manager setup with several licensed users sharing multiple Runs Machines.

1.3 Glossary

There are a number of terms that are used in this document and in the Run Manager application, that have a specific meaning within Run Manager:

Central Repository – A directory on a server that is read/write accessible to all Runs machines and user machines. The central repository server does not need to have Run Manager installed.

Execution Group – A collection of Runs machines, for example you might have a group of Runs machines reserved for running ADMS and a different group of Runs machines for ADMS-Urban. A Runs machine can belong to many execution groups. Users can submit runs to particular execution groups.

Local Working Directory – A directory on the Runs machine that will be used to contain the required files for a model run while it is being executed.

Model – A numerical model for carrying out calculations. Run Manager can organise and execute runs for all of the following CERC models: ADMS, ADMS-Roads, ADMS-Urban and ADMS-Airport.

Model Run (sometimes referred to just as a "run") – A particular calculation job to be executed by a model, for example an APL file defines an ADMS model run.

Runs Machine – A PC that is set up to execute model runs. A Runs machine must have a licensed copy of Run Manager. A Runs machine can be a user's PC or can be a dedicated PC for model execution by Run Manager.

User Machine – A PC with Run Manager installed, not necessarily with any model licences, used to submit runs and retrieve the output.

RMD File – A Run Manager Model Template containing all of the relevant information required to define a Model.

Split Run – A Model Run that has been split into a collection of smaller Model Runs. This is only available in some Models (see the model's User Guide for details).

Floating Licence – Run Manager can manage the use of floating licences, using available seats when executing and returning the seat when the execution has completed. This greatly increases your flexibility because it allows any number of Runs Machines to be added to Execution Groups without them needing a model licence pre-installed.

1.4 Conventions

To make this user guide simpler to use, certain conventions have been followed with regard to layout and style.

- Run Manager interface controls are shown in **Arial Narrow** font, e.g. the **Run Status** screen, click on the **Collect** button.
- Keyboard keys are shown in **bold**, e.g. press **Enter**.

- Directory and file names are shown in *italics*, e.g. *RunManager.exe*, *<install_path>\Data*.
- Tips and other notes are shown thus:

  Before Run Manager can be installed, it is necessary to install the Run Manager Support package, which will install essential prerequisites.

- Table and figure references are shown in bold, e.g. refer to **Table** , **Figure 2.2**.

SECTION 2 Getting Started

2.1 Requirements

Run Manager requires a central repository to store run files and run information. The central repository must be a directory that can be read from and written to by all users/machines running Run Manager. Your IT department may need to assist you in providing such a directory. The directory must be dedicated for use by Run Manager and not used for any other purpose. The central repository server does not need to have Run manager installed.

Run Manager can define runs and execute runs on the same PC, however it is more common to have user PCs where the runs are defined, the status checked and results collected, and dedicated Runs machines that execute the model runs. A Runs machine must have, at least, the minimum specification to run the required models. See the relevant model documentation for details.

2.2 Licence Information

In order to execute runs on a Runs machine, the machine must have a current Run Manager licence. The Runs machine may also require the necessary model hardware key to run the model, which is licence-dependent; refer to the documentation of the specific model or contact CERC for more information.

2.3 Installation

The installation of Run Manager is straightforward. It uses an Installation Wizard, which guides you through a short series of screens, offering installation options before installing the software.

If you already have an earlier version of Run Manager installed, this version should be uninstalled before installing the new version.

Please check company procedure for installing software with your IT personnel.

2.3.1 Installing Run Manager

The following steps lead you through the Run Manager installation process.

Step 1. Log in to the PC as a local administrator.

Step 2. Run Manager will be supplied by download link. Follow the appropriate instructions:

Download: Unzip the downloaded *.zip* file to a local directory. In Explorer, browse to this directory and double-click on the file '*setup.exe*'.

If .Net Framework version 4.5.2 is not installed, the screen shown in **Figure 2.1** will appear as the .Net Framework is a prerequisite to installing Run Manager. Click **Install** to start the installation, which will take several minutes. If this version of the .Net Framework has already been installed, the screen shown in **Figure 2.2** will be launched immediately.

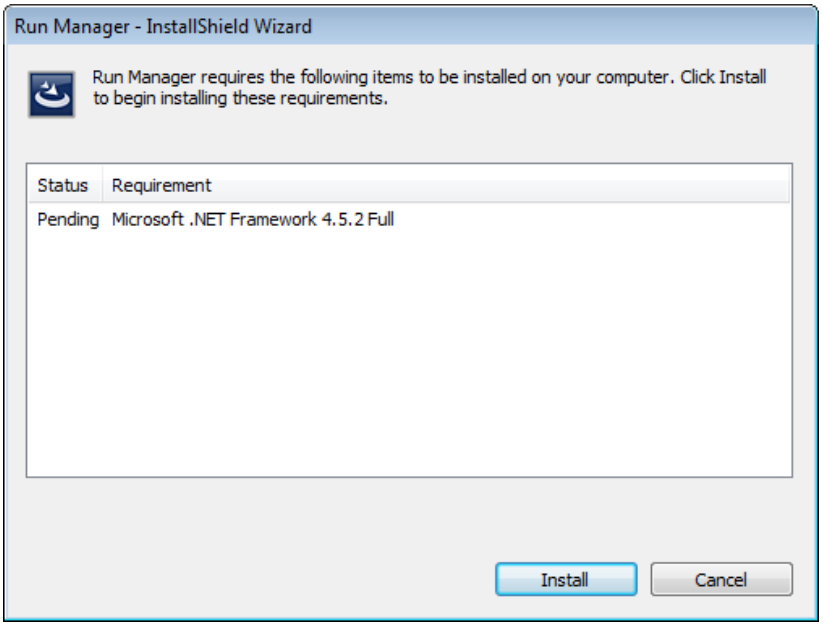


Figure 2.1 The Run Manager installation prerequisites screen

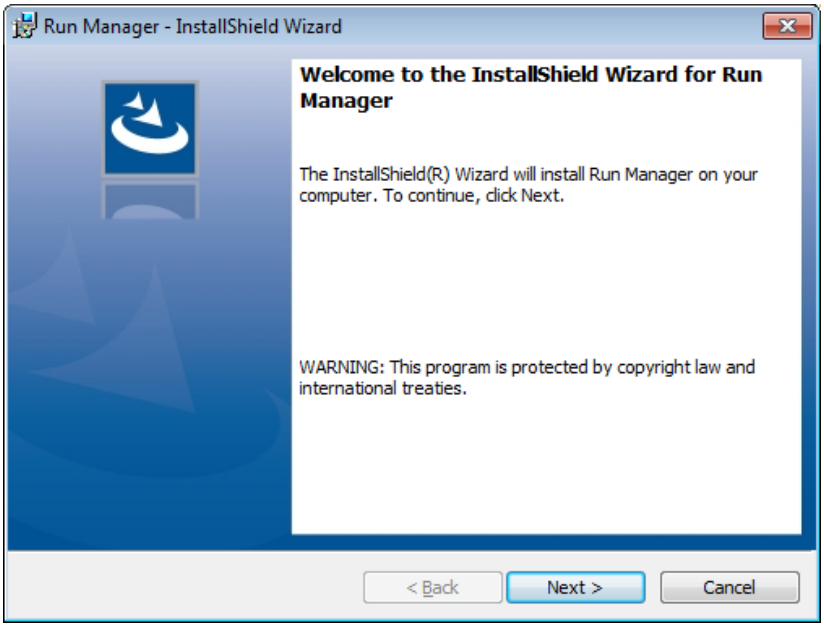


Figure 2.2 The Run Manager installation welcome screen

Step 3. Click **Next >** through the welcome screen. Select **I accept the terms of the licence agreement**, and click **Next >** in the **Licence Agreement** screen, if you accept the licence terms. The **Customer Information** screen is then displayed, as shown in **Figure 2.3**. If you do not accept the licence terms select **I do not accept the terms of the licence agreement** and click **Next >** to finish the install.

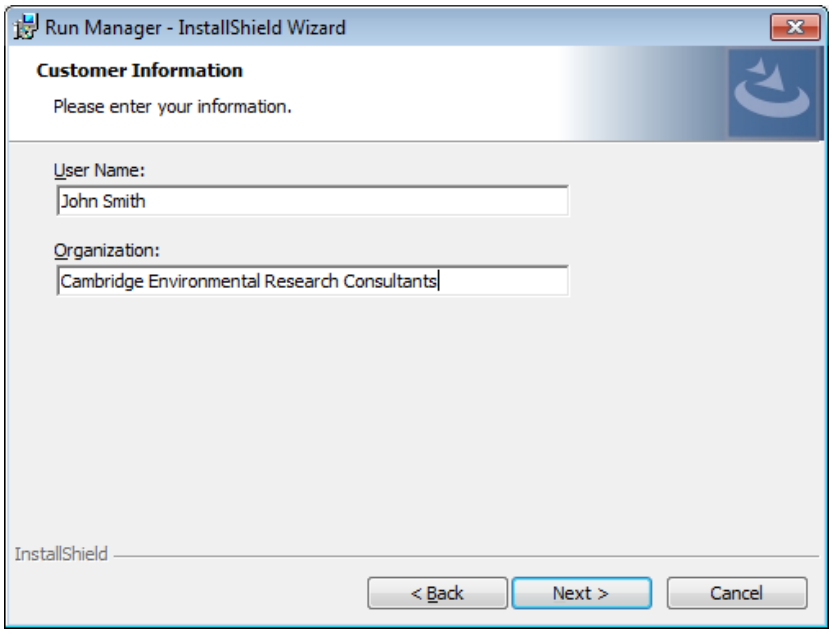


Figure 2.3 The Run Manager **Customer Information** screen

Step 4. Enter your user name and organisation in the designated places and choose whether to install for all users or just the current user. Click **Next >** to go through to the **Destination Folder** screen, as shown in **Figure 2.4**.

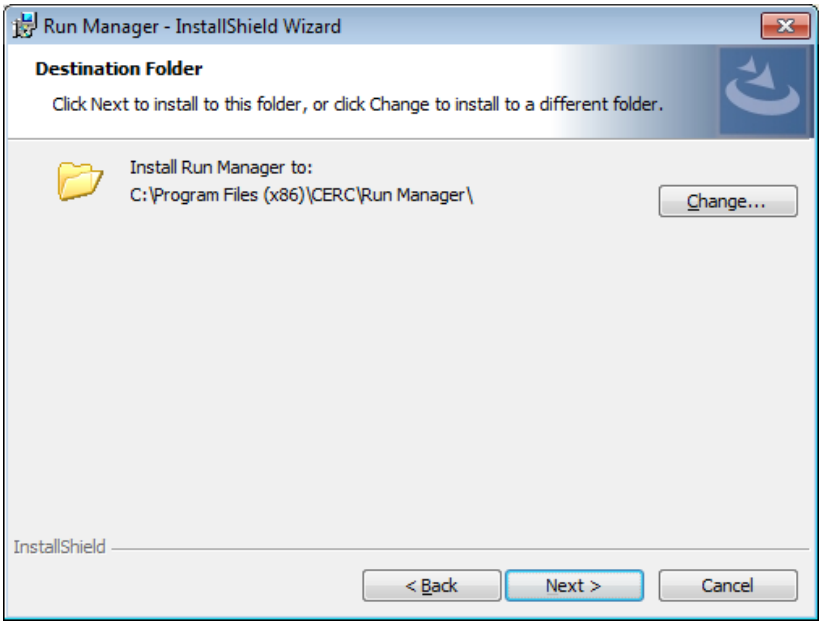


Figure 2.4 The Run Manager **Destination Folder** screen

Step 5. The default installation directory is *C:\Program Files(x86)\CERC\Run Manager*. If required, use the **Change...** button to select your own installation directory (**Figure 2.5**). Click **OK** to return to the **Destination Folder** screen.

The abbreviation <install_path> *will be used in subsequent steps to denote the installation directory you have chosen, for example* C:\Program Files(x86)\CERC\Run Manager.

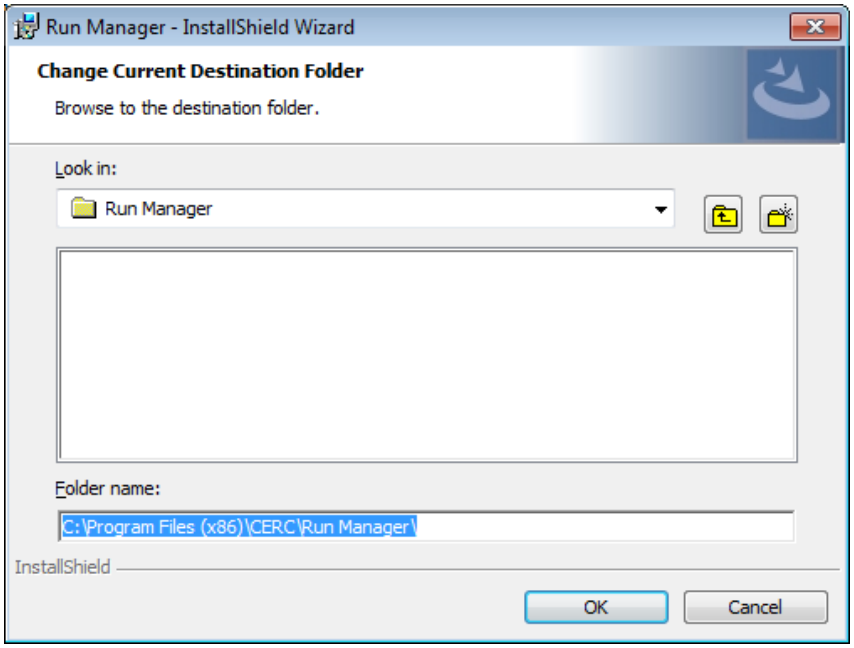


Figure 2.5 The Run Manager **Change Current Destination Folder** screen

Step 6. Click **Next >** to choose who should be able to use Run Manager, as shown in **Figure 2.6**.

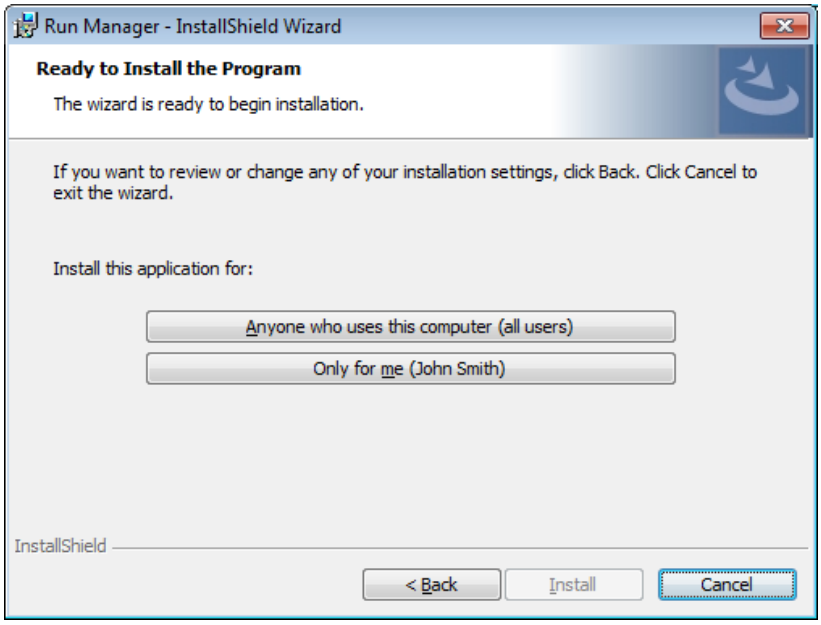


Figure 2.6 − The **Ready to Install the Program** screen.

Step 7. Choose whether to install for all users or just the current user. We recommend installing for all users.

If the user profile being used for installation (for example, a local administrator profile) is not the usual user profile, choose to install for all users.

Step 8. If you first wish to amend any details, press the **< Back** and **Next >** buttons as appropriate. Once the **Install** button has been pressed, and the Run Manager files have been successfully installed, the final screen will appear, as shown in **Figure 2.7**.

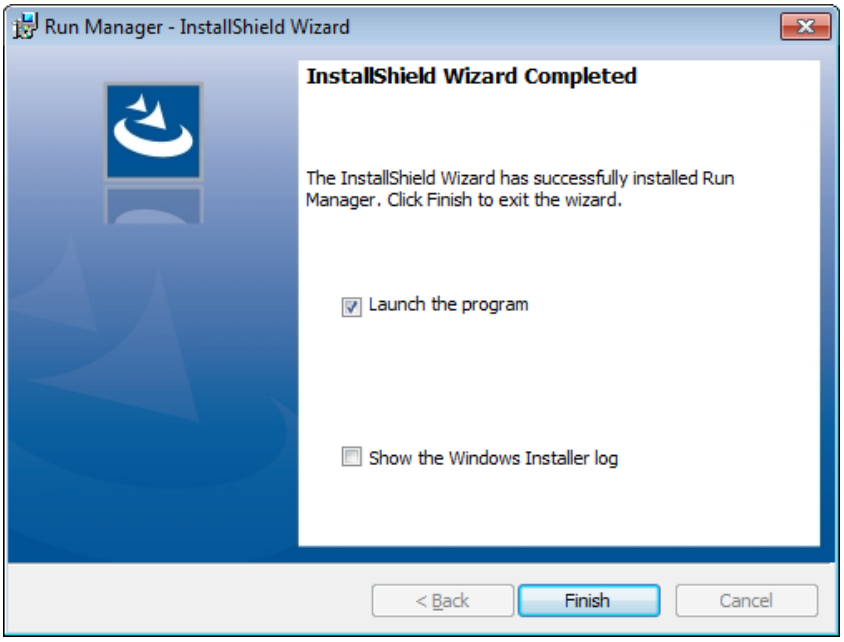


Figure 2.7 The Run Manager **InstallShield Wizard Completed** screen

The installation is now complete.

You have been provided with a unique licence file, by email, which is required in order to execute runs. It is important you install this new licence file as instructed.

Step 9. To install the Run Manager licence, copy the file *RManager.lic* to the <*install_path*> directory.

2.4 Initial Configuration

Step 1. Log in to the PC using you user profile.

Step 2. Map a drive to <*central repository*> using the **Map Network Drive** option in Windows Explorer.

This must be carried out for all user profiles that will be used to submit runs to Run Manager.

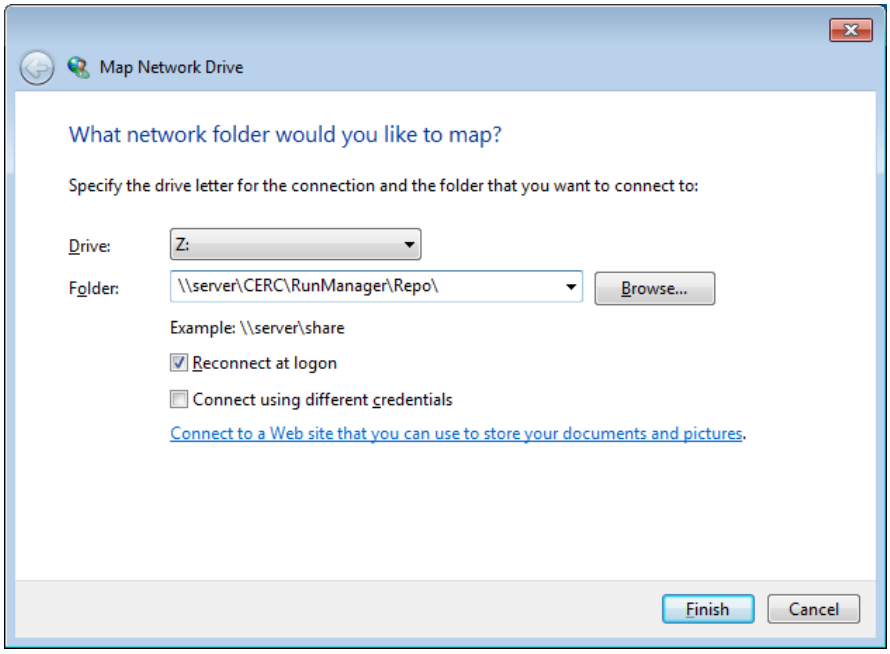


Figure 2.8 **Map Network Drive** screen

You may need to check the "Connect using different credentials" box and supply the administrative password to ensure the mapped drive has full permissions.

Step 3. Start Run Manager from the icon on your desktop, the item on the start menu or by double-clicking the executable in the installation folder.

Step 4. The first time Run Manager is started, you will be prompted to provide the paths to the central repository and the local working directory using the **Local PC Options** screen, shown in **Figure 2.9**. The **Local PC Options** screen contains other options, these are described in **Section 3.4** and can be set later.

Figure 2.9 The **Local Options** screen at start-up

Step 5. Press the **...** button in the **Central Repository** section and navigate to the root directory of the newly mapped drive (e.g. *Z:*\).

Step 6. Press the **...** button in the **Local Working Directory** section and navigate to a

directory on the local PC.

If this is a machine that will be used for running models, ensure the drive has sufficient disk space to execute model runs. This folder should be shared with all Run Manager users if you want to support direct output retrieval in cases when the Central Repository has insufficient disk space.

Step 7. Click **OK**.

Step 8. If this is a completely new central repository, you will be asked for confirmation about setting up the Run Manager directory structure in your chosen location, as shown in **Figure 2.10**. Click **Yes**.

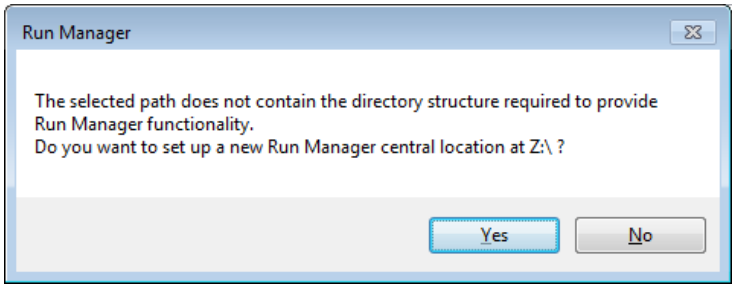


Figure 2.10 Prompt for new central repository

2.5 Getting Around the Interface

The main interface of Run Manager, shown in **Figure 2.11**, provides the menu and toolbar options to access all of the functionality in Run Manager, as well as being responsible for the execution of runs on the local machine. All screens called from the menus or toolbars are shown in this screen, with the **Windows** menu allowing you to manage the other forms.

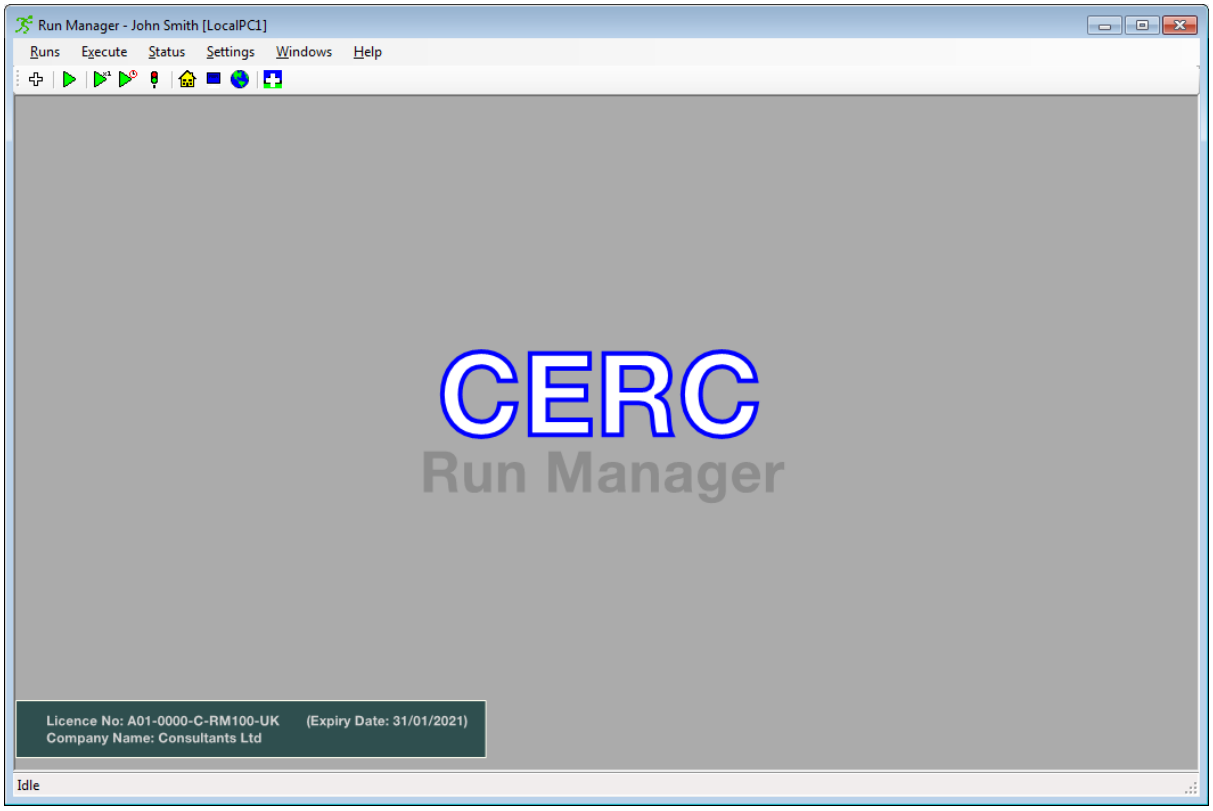


Figure 2.11 Main interface

The Run Manager licence information is displayed towards the bottom-left of this screen. If there is no valid licence, this section will appear in red and Run Manager cannot be used as a Runs machine. It will not execute any runs.

The footer information provides information about the current status of this instance of Run Manager.

Each of the menu options and toolbars are detailed in the following sections.

SECTION 3 Configuring Run Manager

3.1 Adding Models

The **Define New Model** screen, shown in Figure 3.1, defines a new CERC model to be used in Run manager.

To view the **Define New Model** screen choose the **Add model** toolbar button  and drag-drop the required Run Manager Model Template (.rmd) file onto the form. You can also drag-drop the .rmd file directly onto the Run Manager screen.

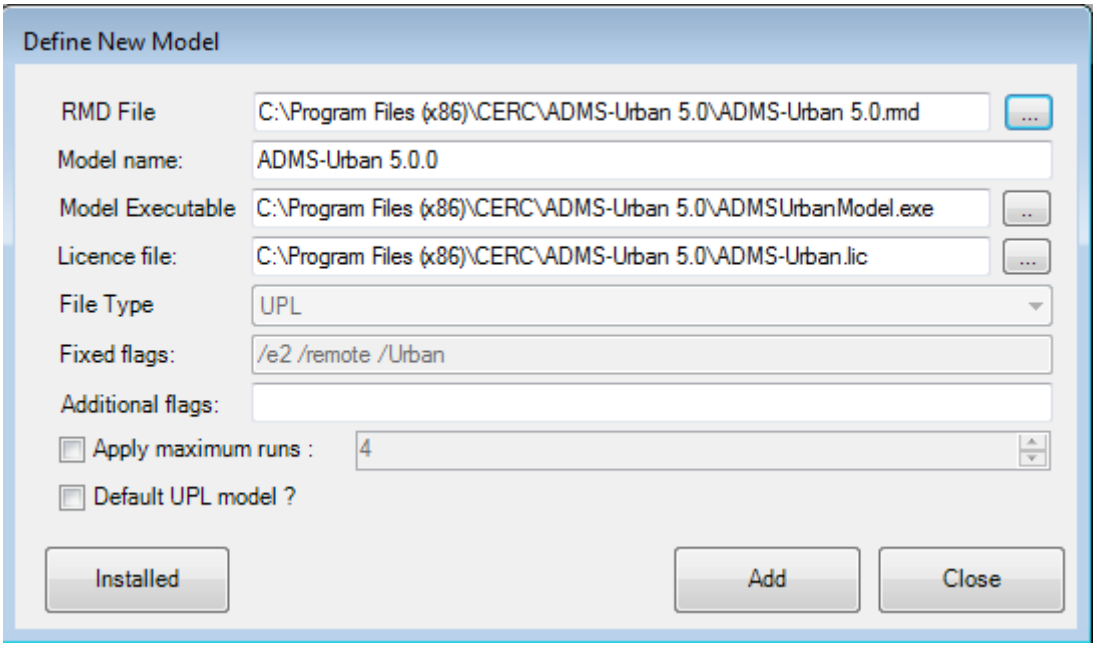


Figure 3.1 The Define New Model form

3.1.1 RMD File

A Run Manager Model Template can be loaded by clicking the **...** button and browsing to the *.rmd file, or simply drag-dropping a valid *.rmd file into the **Name** text box. The .rmd file can be found in the installation directory (of models supporting this feature) and loading it will fill in the required fields for that model.

The CERC models available on a machine can also be found by clicking on the **Installed** button. Selecting the required installed model and pressing **Add** will fill the **Define New Model** screen.

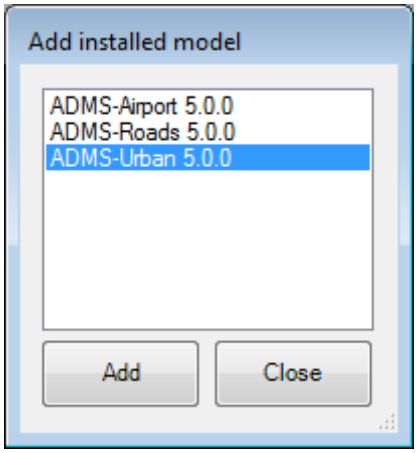


Figure 3.2 The Installed Models dialog

3.1.2 Model Name

The **Model Name** is used extensively throughout Run Manager and should be used to distinguish individual models.

3.1.3 Model Executable

This is the **Model Executable** that will be used to perform runs. Select the model executable by clicking the **...** button and browsing to the file. It can also be selected by dragging an executable file into the **Model Executable** text box.

The model executable is not the same executable as the interface executable. Typically, the model executable contains the word Model in its name and resides in the same directory as the interface executable. For example, the ADMS 5 model executable is called ADMSModel.exe and resides in the same directory as ADMS.exe.

3.1.4 Licence File

A valid licence must also be included with the model in order for it to run. By default it will be set to the licence file in the model's executable folder. To choose a different licence, click the **...** button and browse to the licence file.

3.1.5 File Type

The **File Type** shows the file extension for the model's input files.

3.1.6 Fixed Flags

Various flags are always used depending on the model. This information is read-only.

3.1.7 Additional Flags

Other flags than those in **Fixed Flags** can be added, depending on the model. These should be typed with a space between each additional flag. These are advanced features of the model and you should read the appropriate User Guide for more details.

3.1.8 Apply maximum runs

Limits the number of runs with this model that can be executed simultaneously on a runs machine. This is used to ensure the model can adhere to specific licence limits.

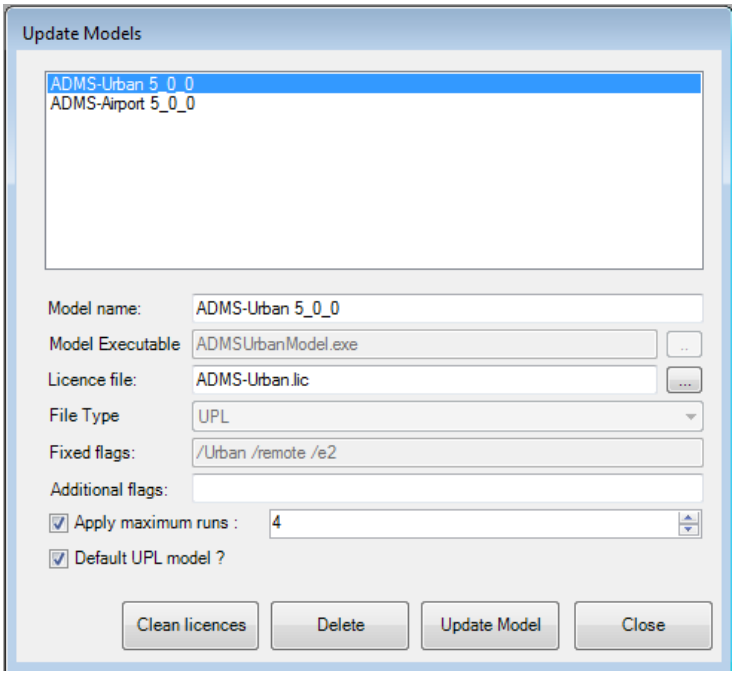
3.1.9 Default <file type> model?

If selected, this model will be the model that is selected by default when adding a new run that uses this file type.

3.2 Updating Models

The Update Models screen, shown in **Figure 3.4**, provides a list of models. You can select a model and change settings, update the licence, clean the licences or delete the model.

To view the **Update Models** screen, choose Models from the **Settings** dropdown menu, or use the keyboard shortcut (**Ctrl+M**).



3.2.1 Model Name

The Model **Name** is used extensively throughout Run Manager and should be used to distinguish individual models.

3.2.2 Model Executable

This is the model executable that will be used to perform runs. This information is read-only.

The model executable is not the same executable as the interface executable. Typically, the model executable contains the word Model in its name and resides in the same directory as the interface executable. For example, the ADMS 5 model executable is called ADMSModel.exe and resides in the same directory as ADMS.exe.

3.2.3 Licence File

A valid licence must also be included with the model in order for it to run. To add an updated licence, click the **…** button and browse to the new licence file.

3.2.4 File Type

The File Type shows the file extension for the model's input files. This information is read-only.

3.2.5 Fixed Flags

Various flags are always used depending on the model. This information is read-only.

3.2.6 Additional Flags

Other flags than those in **Fixed Flags** can be added, depending on the model. These should be typed with a space between each additional flag.

3.2.7 Apply maximum runs

Limits the number of runs with this model that can be executed simultaneously on a runs machine. This is used to ensure the model can adhere to specific licence limits.

3.2.8 Default <file type> model?

If selected, this model will be the model that is selected by default when adding a new run that uses this file type.

To change the settings or to update the licence, press **Update Model**.

If a model is using a floating licence, and the licence seems to have locked seats, you can press **Clean licenses** to free the seats. This should only be done if there are no active model runs using this licence.

To remove the model from Run Manager, press **Delete**.

3.3 Defining Execution Groups

The **Execution Groups** screen, shown in **Figure 3.4**, provides a list of execution groups, which are collections of Runs machines. When defining a new run, the run will be assigned by you to one of the execution groups.

To view the **Execution Groups** screen, choose **Execution Groups** from the **Settings** dropdown menu, or use the keyboard shortcut (**Ctrl+G**).

When the **Execution Groups** screen is opened for the first time, such that there are no execution groups set up, you will be provided with the **Create Execution Group** dialog, shown in **Figure 3.3**. This dialog is also used when adding new groups. The name of the group will be used extensively, so it should be meaningful. The name must not contain a hyphen.

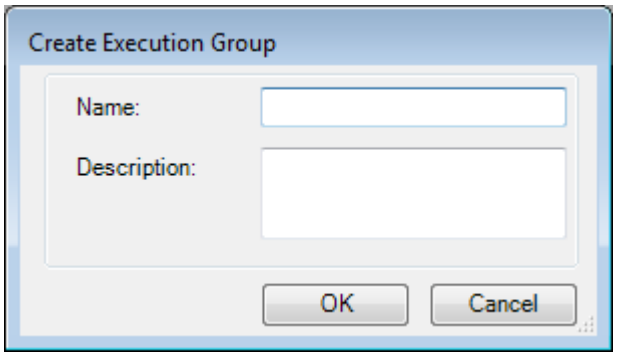


Figure 3.3 The **Create Execution Group** dialog

After entering a **Name** and **Description** and clicking **OK**, you will be presented with the **Execution Groups** screen. You can add new groups (using the **<New Group>** list option), delete old groups (by right-clicking on the group name) or add/remove machines from groups (by dragging, double-clicking or using the arrow buttons).

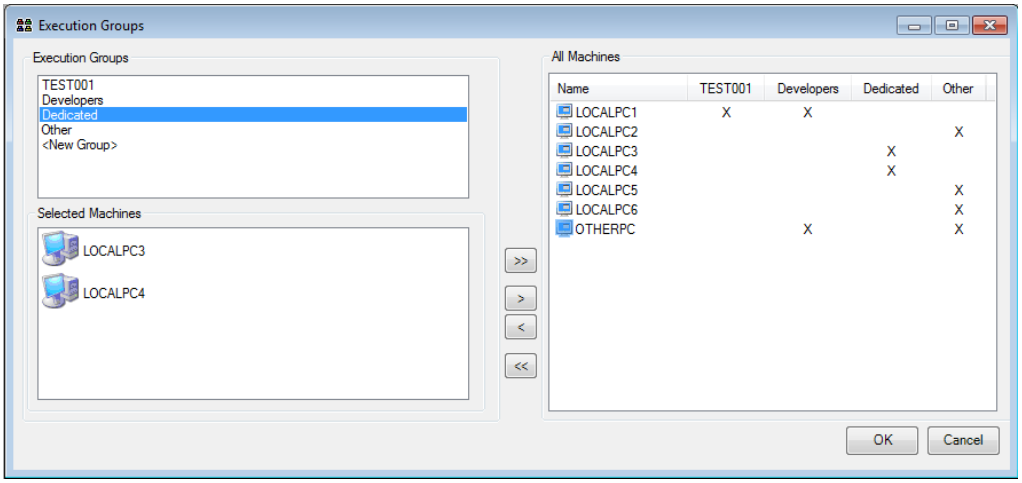


Figure 3.4 The **Execution Groups** screen

3.4 Local Options

The **Local Options** screen, shown in **Figure 3.5**, **Figure 3.6** and **Figure 3.7**, contains working paths, model execution and output retrieval options.

To view the **Local Options** screen click on **Local Options** under the **Settings** dropdown menu, or use the keyboard shortcut (**Ctrl+L**).

3.4.1 Working paths

This provides options to change the current Central Repository and Local Working Directory.

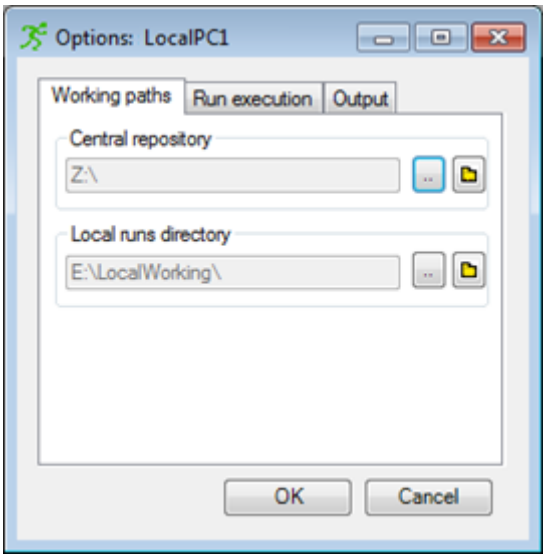


Figure 3.5 The **Working paths** tab of the **Local Options** screen

3.4.1.1 Central Repository

This defines the location of the central repository, which contains all of the run, execution group, model and machine information for the system. To change the location of the Central Repository, press the ... button in the **Central Repository** section. This should not be done when there are runs executing on this machine. You will no longer have access to any runs on the previous repository. If this location has not previously been configured as a central repository, you will be asked to confirm that the required structure should be created.

3.4.1.2 Local Runs Directory

This defines the directory in which files will be stored for any runs executed by this machine. To change the location of the Local Runs Directory, press the ... button in the **Local Runs Directory** section. This should not be done when there are runs executing on this machine. space to execute model runs.

3.4.2 Run Execution

These options allow you to customise model execution behaviour for any instance of Run Manager running models on this PC.

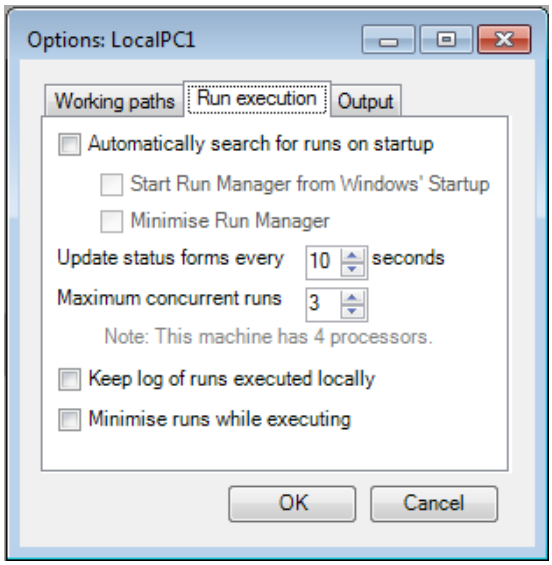


Figure 3.6 The **Run Execution** tab of the **Local Options** screen

3.4.2.1 Automatically search for runs on startup

This option is specifically for dedicated Runs machines. If this option is checked, Run Manager will automatically start searching for runs (refer to Section 4.2**)** as soon as it is loaded. If this option has been selected, there are two further options available.

> **Start Run Manager from Windows' Startup:** This option enables Run Manager to start as soon as the PC has been logged in.
>
> **Minimise Run Manager:** This option minimises the Run Manager interface as soon as it has started.

3.4.2.2 Update Status Forms every x seconds

This option defines the maximum time between updates of Run Manager's status screens. The shorter the time, the more impact this will have on the system. We would recommend shorter time periods, e.g. 10 seconds, for user machines, and longer times for Runs machines.

3.4.2.3 Maximum Concurrent Runs

The **Maximum Concurrent Runs** setting defines the number of concurrent runs that can be executed by the PC. This setting should be based on the number of logical processors on the machine, the amount of RAM available and whether the PC is used for other purposes concurrently while runs execute. The number of logical processors is shown below this setting. For example a PC with 2 dual-core hyper-threading-enabled processors has 8 logical processors (2 physical processors each with 4 cores), i.e. the same number as the number of CPU utilization graphs you will see in Task Manager.

3.4.2.4 Keep log of runs executed locally

This setting keeps a daily log file of all of the runs executed on this machine. The log file is stored in the log subdirectory in the local working directory.

The log files are relatively small, but we recommend deleting old log files regularly to avoid problems with disk space.

3.4.2.5 Minimise runs while executing

When executing a model run, a model window showing the progress of the run is shown by default. To minimise this window for all runs on this machine, check the **Minimise runs while executing** option.

3.4.3 Output

The Output tab contains output retrieval options that are specific to the current user.

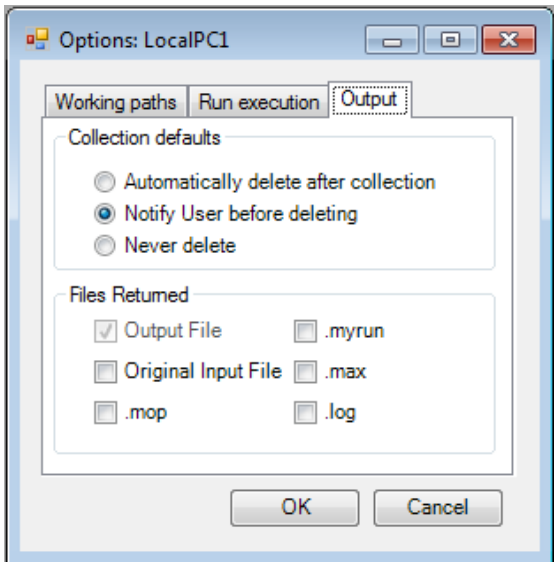


Figure 3.7 The **Output** tab of the **Local Options** screen

3.4.3.1 Collection defaults

After you have retrieved the output, Run Manager can remove the run from the system, or can

keep it on the system to allow others to retrieve the output. This option defines the required action.

3.4.3.2 Files Returned

You can control which files are retrieved from a finished run, by checking or unchecking the boxes for particular file types.

SECTION 4 Using Run Manager

4.1 Adding a Run

The **Add Runs** screen, shown in **Figure 4.1**, is used to send model runs to the central repository, ready to be executed on a Runs machine.

To initialise a run, choose **Add** from the **Runs** dropdown menu, click on the **Add Runs** toolbar button or use the keyboard shortcut (**Ctrl+A**), to show the **Add Runs** form.

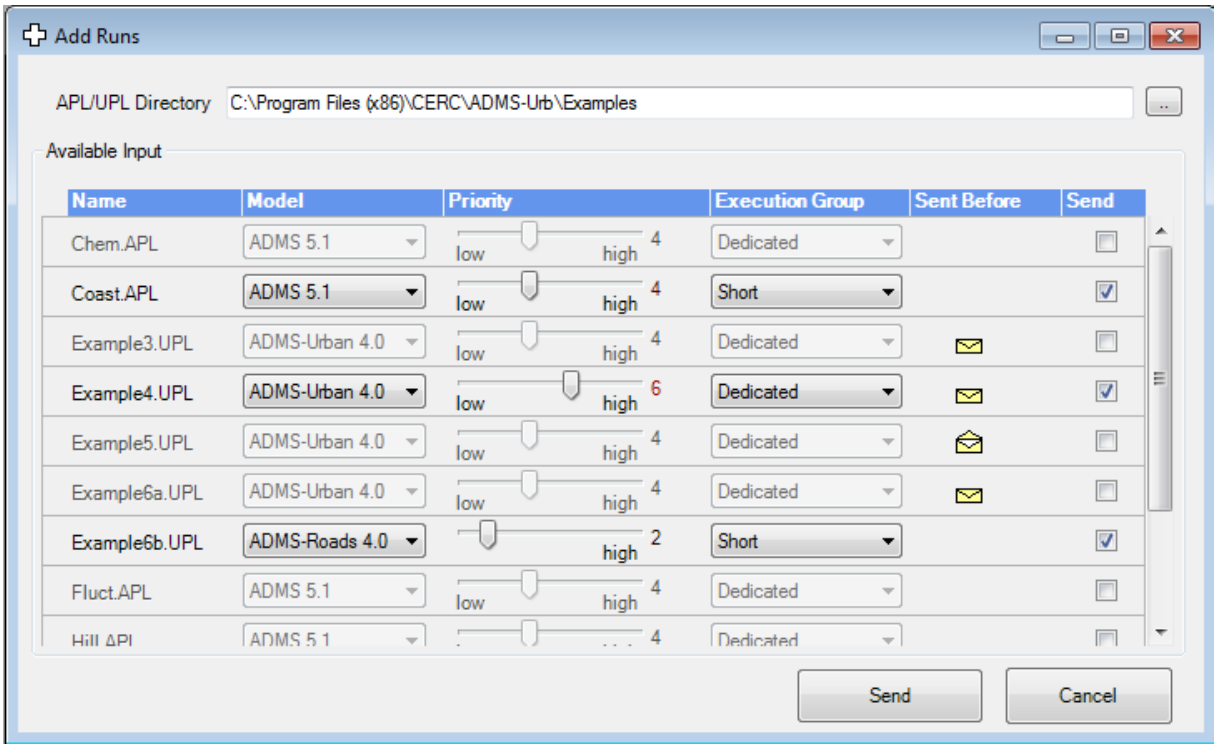


Figure 4.1 The **Add Runs** screen

This screen enables you to select the model files to be processed, the models that will be used to execute the files, the priority of the runs and the group of machines that will process the run.

Selecting a directory containing defined model input files (e.g. APL, UPL, etc.) fills the **Available Input** area with a list of files.

To initialise specific runs, check the **Send** checkbox on the required rows, change the model, priority and group information as required and press the **Send** button.

To initialise large numbers of files, the right-click menu provides an option to select or deselect all files. The right-click menu also provides options to set the priority and execution group for all files in the list, and to set the model for all suitable files in the list.

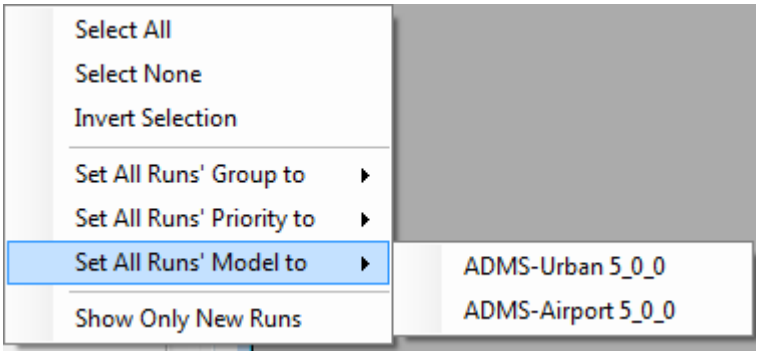


Figure 4.2 **Add Runs** screen's right-click menu

In the **Sent Before** column, a closed envelope shows files that have previously been sent but not retrieved and an open envelope shows files that have previously been both processed and retrieved. Hovering over the envelope shows the date the file was last sent. There is a right-click menu option allowing you to show only the previously unsent files.

The **Model** dropdown menu in each row presents only those models suitable for the individual file, e.g. an APL file cannot be processed by a model that requires a UPL file.

Higher priority runs will be processed before lower priority runs assigned to the same execution group.

The execution group determines which machines are available to process the run.

Runs can also be initialised by dragging UPL/APL files from Windows Explorer to the main Run Manager screen or to the Run Manager icon on the desktop. In this case, only the files dragged to the interface/icon will be displayed in the **Add Runs** form, as shown in **Figure 4.2**.

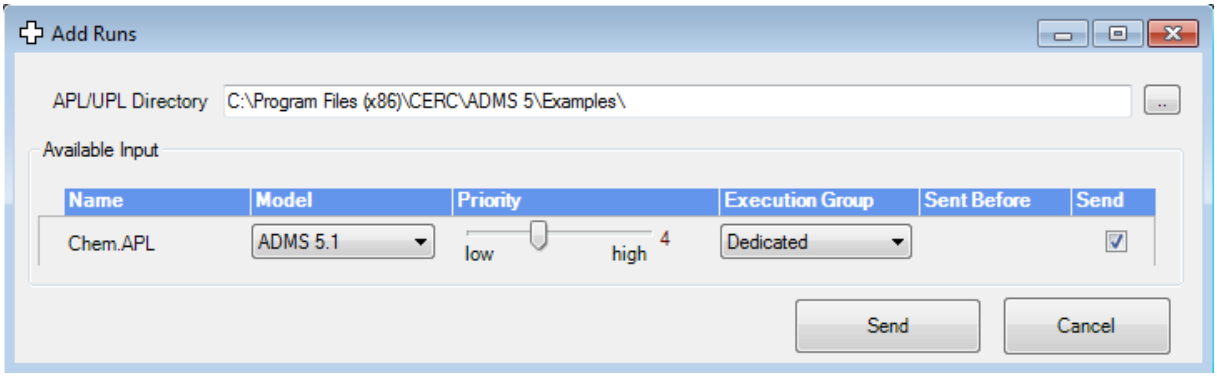


Figure 4.3 The **Add Runs** screen after dragging an APL file onto the main screen

Sending large numbers of files can take a few seconds, as Run Manager prepares all of the required files in the central location

4.2 Executing Model Runs

Runs machines can be set up to automatically search for runs using the **Local PC Options** screen, described in Section 3.4. A Runs machines will only find runs from an execution group which includes that machine, as described in Section 3.3. Runs machines can execute multiple runs concurrently, depending on the local PC options, as described in Section 3.4.2.3.

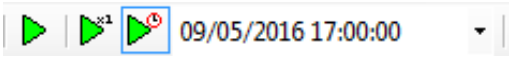


Figure 4.4 Search toolbar buttons

To manually enable searching, there are three buttons on the toolbar, shown in **Figure 4.4**. The first toggles the searching: pressing it when the green play icon is shown will enable searching; whereas pressing it when the black stop icon is shown will disable searching.

Pressing the second button enables single run mode; the button will be highlighted when set. Click again to remove the highlight and to return to multiple run mode. Single run mode limits Run Manager to execute only one run and then stop searching. This can be useful if executing runs overnight on a User machine, for example.

The final button can be used to delay the first run on the machine. Run Manager will not execute any runs until the specified time. The drop-down menu provides a list of times over the next 24 hours.

4.3 Monitoring PC Status

The **PC Status** screen, shown in **Figure 4.5**, provides a list of Run Manager PCs that have been active in the last 30 days. The list includes Runs machines and User machines.

To view the **PC Status** screen, choose **PC Status** from the **Status** dropdown menu, click on the **PC Status** toolbar button  or use the keyboard shortcut (**Ctrl+S**).

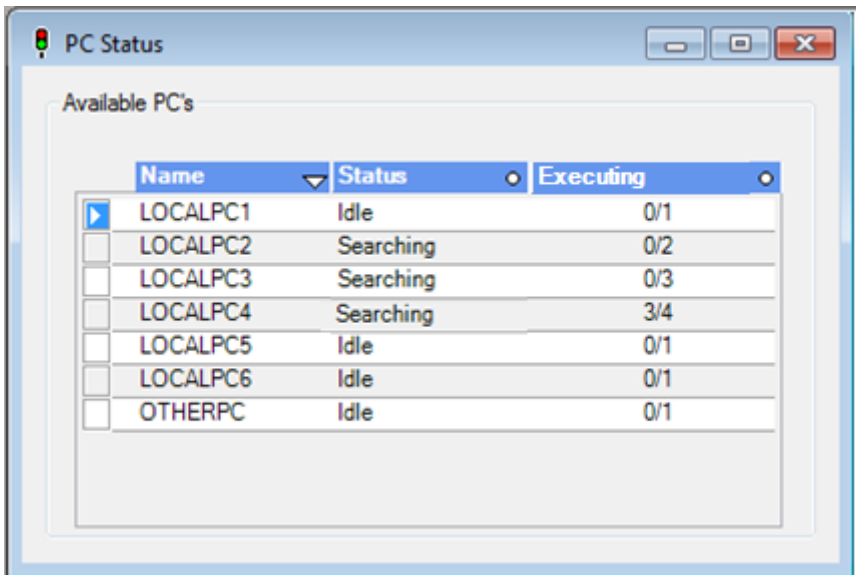


Figure 4.5 The **PC Status** screen

Each line of the list contains the following information about one PC:

4.3.1 Name

This is the **Name** of the PC.

4.3.2 Status

The **Status** can be:

- **Idle**: The PC is not currently set to look for runs;
- **Searching**: The PC is set to look for runs:

4.3.3 Executing

The **Executing** column shows the number of runs that are currently being executed on the PC and the maximum allowed number of concurrent runs permitted on the PC. The maximum number of runs is defined in the **Local PC Options** screen, described in Section 3.4.2.3.

Right-clicking on a PC on the list provides the facility to **ping** the PC. Pinging tests the accessibility of a PC on an IP network. This facility may not work on all networks.

4.4 Monitoring Run Progress

The **Run Status** screen, shown in **Figure 4.6**, shows the current state of runs in the system.

To view the status of the current user's runs only, click on the **(User) Runs** option under the **Status** dropdown menu, use the toolbar button  or the keyboard shortcut (**Ctrl+I**).

To view the status of the current PC's runs only (including runs defined on this PC and runs executed by this PC), click on the **(PC) Runs** option under the **Status** dropdown menu, use the toolbar button  or the keyboard shortcut (**Ctrl+P**).

To view the status of all runs in the system, click on the **All Runs** option under the **Status** dropdown menu, use the toolbar button  or the keyboard shortcut (**Ctrl+R**).

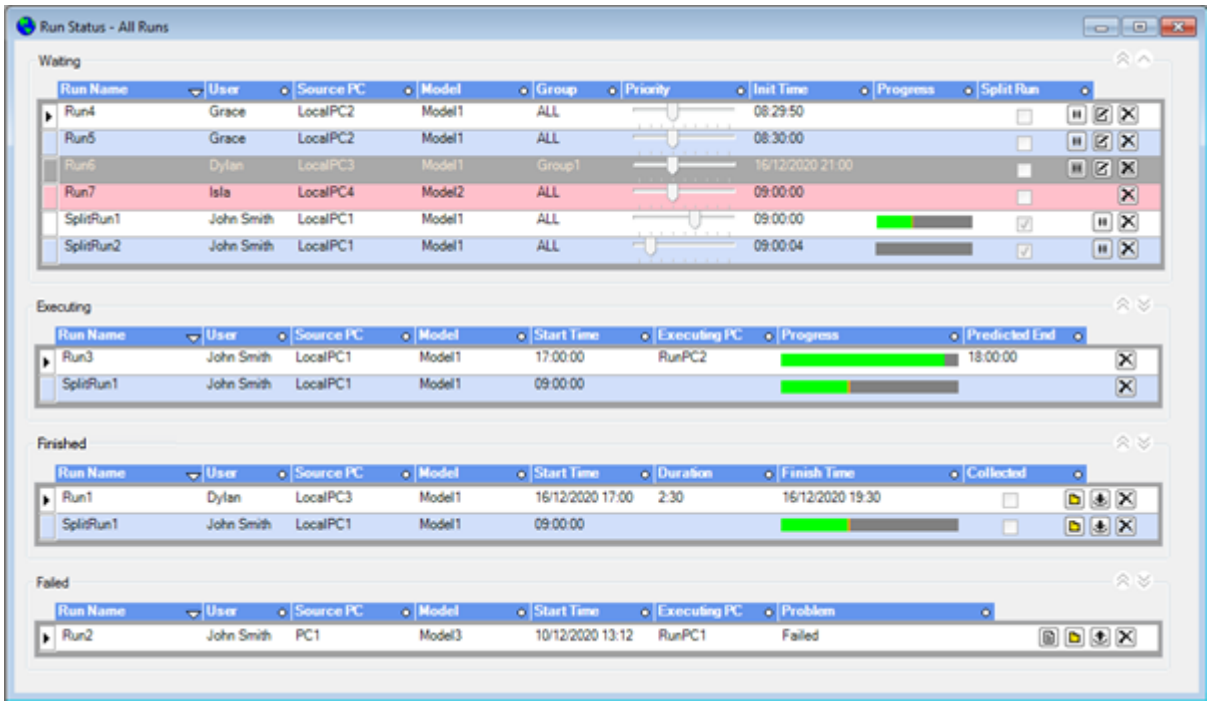


Figure 4.6 The **Run Status** screen

4.4.1 Run Status

The **Run Status** screen is divided into four distinct areas:

1. **Waiting**: Shows any initialised runs that have not yet been executed;
2. **Executing**: Shows any runs that are being executed by a model on a Runs machine;
3. **Finished**: Shows any runs that have completed; and
4. **Failed**: Shows any runs that have failed during execution.

The four sections each contain a list of runs, which can be sorted by any column, by clicking on the sort controls  in the column header. Each section can be extended or reduced using the resize controls  at the top right of the section.

Information on this screen is updated regularly, but an update can be forced by pressing the **F5** key.

The information on the screen can be filtered using the screen's right-click menu. There is an option to view only the runs initialised by the current user, an option to view only the runs initialised or executed on the current PC and an option to view only the collected or uncollected runs in the **Finished** section. The user and PC filters can also be set using the **Status** menu options.

4.4.1.1 Waiting

The **Waiting** section contains information about runs that have been initialised but have not yet been picked up by a Runs machine. **Table 1** describes the information that is shown in this section, including the additional information which can be obtained by hovering over a particular column.

Column Header	Description	Hover-Over
Run Name	The name of the run	The name and extension of the file being run
User	The name of the user who sent the run	
Source PC	The name of the user machine used to send the run	
Model	The name of the model to be used to execute the run	The description of the model
Group	The name of the execution group used to execute the run	
Priority	The priority of the run. Higher priority runs will be chosen for execution before lower priority runs	
Init Time	The date/time the run was sent	
Progress	For split runs, shows how many splits are in each of the sections	The number of splits in each section
Split Run	Shows if the run is a split run or not	

Table 1 The **Waiting** section of the **Run Status** screen

Buttons	Description	Hover-Over
Pause	Using the **Pause** button, the waiting run will not be executed until it has been unpaused.	When and where the run was paused
Edit	Using the **Edit** button, the **Group** and **Priority** information can be changed. This is not available for split runs.	
Delete	Using the **Delete** button, the run can be removed from the system. It will not be executed.	

Save Edits	Using the **Save** button, any edits will be saved.	
Cancel Edits	Using the **Cancel** button, any edits will be discarded.	

Table 2 The **Waiting** section buttons

The rows are colour coded to show the status of the waiting model run.

Colour	Description
	Waiting run. The run will be executed when there are no higher priority runs waiting and a suitable runs machine is available.
	Paused run. The run will not be executed. Click the **Pause** button to unpause the run.
	Expired run. The model licence has expired. The model licence should be updated and run reinitialised.

Table 3 The **Waiting** section status colours

4.4.1.2 Executing

The **Executing** section contains information about runs that are currently being executed by a Runs machine. **Table** describes the information that is shown in this section, including the additional information which can be obtained by hovering over a particular column.

Column Header	Description	Hover-Over
Run Name	The name of the run	The full file name and extension of the run
User	The name of the user who sent the run	
Source PC	The name of the user machine used to send the run	
Model	The name of the model used to execute the run	The description of the model
Start Time	The date/time the Runs machine started to execute the run	
Executing PC	The name of the Runs machine that is executing the run	
Progress	A progress bar showing how much of the run has been completed. For split runs, shows how many splits are in each of the sections.	The number of met lines that have been executed, out of the total number of met lines. For split runs, the number of splits in each section.
Predicted End	The date/time the run is estimated to finish, based on the current progress	

Table 4 The **Executing** section of the **Run Status** screen

Buttons	Description	Hover-Over
Kill	Using the **Kill** button, the run can be stopped and placed in the **Failed** section.	

Table 4 The **Executing** section buttons

If both long-term and short-term outputs are included, the progress bar will be filled twice before the run has completed, and the predicted end will not be accurate.

4.4.1.3 Finished

The **Finished** section contains information about runs that have been successfully executed by a Runs machine. **Table** describes the information that is shown in this section, including the additional information which can be obtained by hovering over a particular column.

Column Header	Description	Hover-Over
Run Name	The name of the run	The full file name and extension of the run
User	The name of the user who sent the run	
Source PC	The name of user machine used to send the run	The name of the Runs machine that executed the run
Model	The name of the model used to execute the run	The description of the model
Start Time	The date/time the Runs machine started to execute the run	
Duration	The time elapsed between the **Start Time** and the **Finish Time**	
Finish Time	The date/time the Runs machine completed the run. For split runs where not all splits have finished, a progress bar will be shown.	For split runs, shows the number of splits in each section.
Collected	A checkbox showing whether the run has already been collected.	

Table 6 The **Finished** section of the **Run Status** screen

Buttons	Description	Hover-Over
Drag/drop results	Using the Drag/drop results button, the user can drag the run results to a user-selected location.	
Collect results	Using the **Collect** button, the output of the run can be copied to a user-selected location.	
Delete	Using the **Delete** button, the run can be removed from the system, discarding the output.	
Collect all	When filtered by current user, the **Collect All** button allows the user to	

	retrieve all their completed output for runs	

Table 5 The **Finished** section buttons

4.4.1.4 Failed

The **Failed** section contains information about runs that have failed to be successfully executed by a Runs machine. **Table** describes the information that is shown in this section, including the additional information which can be obtained by hovering over a particular column.

Column Header	Description	Hover-Over
Run Name	The name of the run	The full file name and extension of the run
User	The name of the user who sent the run	
Source PC	The name of user machine used to send the run	
Model	The name of the model used to execute the run	The description of the model
Start Time	The date/time the Runs machine started to execute the run	
Executing PC	The name of the Runs machine that tried to execute the run	
Problem	Shows whether there was a failure executing the run (Failed) or if the problem occurred while passing the output back to the central server (Remote)	

Table 8 The **Failed** section of the Run Status screen

Buttons	Description	Hover-Over
Drag/drop input	Using the Drag/drop results button, the user can drag input files to a user-selected location.	
Resend	Using the **Resend** button, the run can be placed back into the **Waiting** section.	
Delete	Using the **Delete** button, the run can be removed from the system.	
Log	Using the **Log** button, the user can view model run's log file. This is only available if a log file has been produced.	

Table 6 The **Failed** section buttons

*In the rare case that a run has completed but cannot be retrieved to the central repository, the output can be manually retrieved. Log in to the Runs machine specified in the **Executing PC** column and find the **Local Working Directory** in the **Local PC Options** screen (refer to Section 3.4.1.2). The subfolders will be named in the format **Priority-Execution group-File name-User***

***name-Number**; use this to identify the folder corresponding to the desired run and move the folder to a suitable location (outside the **Local Working Directory**).*

4.4.1.5 Viewing Split Run Status

The Waiting, Executing and Finished (when all splits have not completed) sections of the **Run Status** screen show a progress bar for split runs, with parts for different statuses. Hovering over the progress bar shows the numbers in each status.

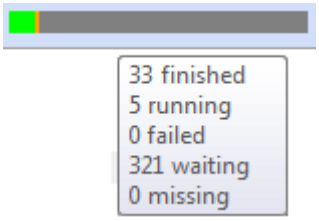


Figure 4.7 The split run progress bar

Progress Colour	Status
	Finished
	Running
	Failed
	Waiting
	Missing

Table 7 The split run progress status colours

For more information, click on the Run name to see the **Split run status** screen. This screen shows the status of each split. In the Running status, it will also show which machine and predicted end time for the running splits, where the information is available

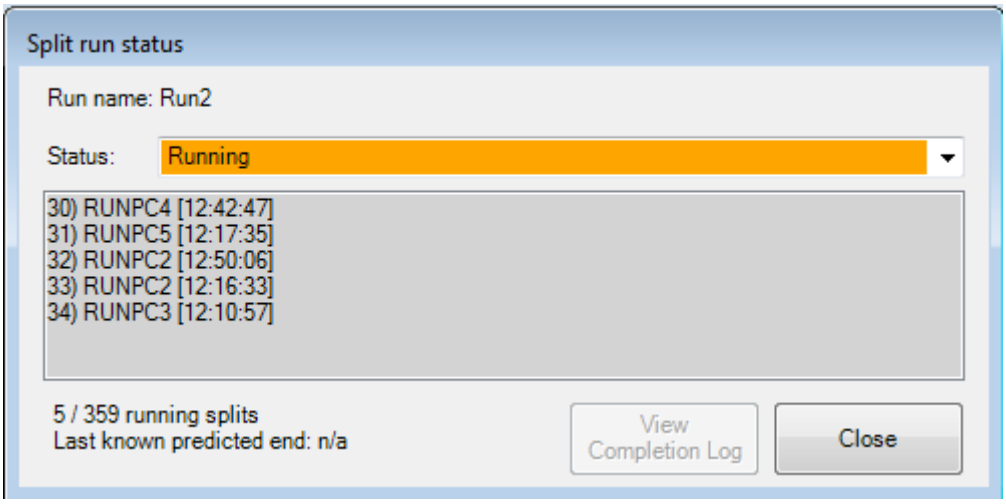


Figure 4.8 The **Split run status** screen

CERC

Cambridge Environmental Research Consultants Ltd
3 King's Parade, Cambridge, CB2 1SJ, UK
Tel: +44 (0)1223 357 773, Fax: +44 (0)1223 357 492
Email: help@cerc.co.uk
Website: www.cerc.co.uk