

# PRODUCT CONFORMITY CERTIFICATE

This is to certify that the

**CEMData**

Manufactured by:

**Low Engineering Ltd**

Unit 3B,  
Kitson Road  
Leeds  
LS10 1NT

has been assessed by Sira Certification Service  
And for the conditions stated on this certificate complies with:

**MCERTS Quality and Performance Standards for Environmental Data Management  
Software, version 4, (December 2017)  
In respect of:**

**Part A – Generic Software Quality  
Part B – Data Management General Aspects  
Part C1 – CEMS Data Management Applications – Generic Requirements  
Part C2 – CEMS Data Management Applications – EN 14181 Requirements**

Project No.: 80050856  
Certificate No: Sira MC 200359/00  
Initial Certification: 28 September 2020  
This Certificate issued: 28 September 2020  
Renewal Date: 27 September 2025



Andrew Young  
Environmental Team Manager

MCERTS is operated on behalf of the Environment Agency by

## Sira Certification Service

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## Certificate Contents

Approved Site Application.....	2
Basis of Certification .....	2
Product Certified.....	2
Certified Performance .....	4
Description.....	5
General Notes .....	5

## Approved Site Application

Any potential user of the certified software should:

1. Ensure that it is suitable for the platform on which it will be installed (if necessary in consultation with the software producer)
2. Ensure that the selection and operation of the software is appropriate to the application

## Basis of Certification

This certification is based on the following Test Report(s) and on Sira's assessment and ongoing surveillance of the product and the manufacturing process:

139a\_Lowe\_CEMData\_MCERTS\_Interim\_Assessment\_Report, dated 13 January 2015.

239\_v1\_Lowe\_MCERTS\_assessment\_Report, dated 24 July 2020.

Carried out under Sira project reference 80050856 and assessment reports referred to therein.

## Product Certified

The CEMData product comprises an application program DataAcquisition.exe, a configuration file Board.cfg and a package of display and report files that are project specific.

The application classes CDataAcquisitionApp, CAppSetupApp, CProjectUpgradeApp and CIOMappingsApp all derive from the CSetup class which encapsulates the principal functionality common to these applications.

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A CEMData installation includes a small number of support applications and DLLs, as follows:

<b>Product</b>	<b>File</b>	<b>Description/Function</b>
CEMData	DataAcquisition.exe	CEMData comprises a data acquisition engine that acquires and pre-processes data, saves in a proprietary format, a user-configurable data display system and a user-configurable report generator flexible data acquisition and reporting system.
Support application	AppSetup.exe	Application setup - creates the Board.cfg file
DLL	cbw32.dll	The Universal Library distributed by MCC for use with their data acquisition hardware. Two versions available
DLL	SystemHook.dll	used to disable user access
Support application	Install.exe	CEMData installation program for 64-bit PCs
Support application	Setup.exe	one-step installation which runs .stp files to perform complete CEMData(or other) installation on 32-bit PCs
Support application	SetupBuild.exe	utility for writing an editing installation scripts for CEMData installation
Support application	PCInfo.exe, Password.exe, LowInstall.exe	A suite of three dialog-based utilities for CEMData security
Support application	ClockAdjuster.exe	self-installing NT service which provides adjustment of the system clock increment.
Support application	MasterClock.exe	self-installing NT service proprietary interface for providing time to CEMData clients

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## Certified Performance

CEMData is a well-established product. Report ref 239\_v1\_Lowe\_MCERTS\_assessment\_Report includes a summary of its operational use: 36 licences sold, over 3.5 million operating hours.

CEMData is supplied customised to suit each customer's specific requirements. Users can change display layouts and report formats, but changes to the configuration can only be carried out by the supplier, so that data integrity can be guaranteed.

CEMData takes readings from the emissions monitoring equipment and other sources such as the plant status. This information is displayed numerically, or on charts, graphs, or tables. There can be multiple display pages, each configured to suit the application.

The raw readings are averaged, typically over a one-minute period, and the average values recorded in an Archive file. This data is maintained usually for five to ten years. The rolling data archives are created to their full size the first time the program is run. They do not grow with time, so the amount of disc space that they use does not increase. After the specified time period, newly acquired data gradually over-writes the oldest data.

CEMData contains a Report Generator which can retrieve data from any day, 48-hour, week, month, quarter, half-year or year period, perform statistical analysis on it, and format it on to a printed report. The report can include text and graphics as well as numerical data, charts and tables. Reports can be automatically generated at pre-set intervals or printed on request.

CEMData is designed to run continuously. It will restart automatically after a power failure and resume recording without operator intervention. It will run on any current version of Windows and can be completely virtualised.

CEMData is copy-protected; a unique authorisation code is required for each computer.

Three concessions were made during the certification process:

- a) A1.10 - with respect to SQP verification The certificate holder is required to notify the Certification Body should the sole engineer become unavailable and that a competent replacement shall be made within three months.
- b) A1.14 - independent code review is not possible due to insufficient persons within the certificate holder.
- c) A4.3 – should a “substantial” change with respect to code be required then the certificate holder shall inform the Certification Body of the planned change prior to making the change to enable any risks to be assessed with any subsequent verification agreed and executed. “Substantial” would include size (thousands of lines of code), impact on existing code and complexity.

## Software Modifications

In the event of a major release the developer shall provide brief supporting evidence to the Certification Body who will advise whether recertification is necessary.

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## Description

CEMData is an flexible data acquisition, display, and report generation package developed specifically to automate and simplify the requirements of continuous emissions monitoring and process efficiency reporting. It can be installed in any Windows environment and can be fully virtualised for remote access. It is a high-availability system designed to run continuously and recover automatically from faults and power failures. Two copies are kept of all stored data to facilitate recovery in the event of an equipment failure.

Information displays are fully customisable providing views of instantaneous data, historical trends, alerts and alarm levels. There can be as many display pages as are needed, and each can be configured to provide the most appropriate information.

Reports for specific time periods can be pre-configured to conform with local, national and international standards and generated automatically or on demand. Reports can include graphs, tables, lists, statistics, text and images.

The system is fully compliant with the requirements of EN14181 for Quality assurance of automated measuring systems, including normalisation, QAL2 factors and QAL3 requirements. It is also designed to meet EN17255 for Data acquisition and handling systems.

## General Notes

1. This certificate is based upon the equipment(software) tested. The Manufacturer is responsible for ensuring that on-going production complies with the standard(s) and performance criteria defined in this Certificate. The Manufacturer is required to maintain an approved quality management system controlling the manufacture of the certified product. Both the product and the quality management system shall be subject to regular surveillance according to 'Regulations Applicable to the Holders of Sira Certificates'.
2. The design of the product certified is defined in the Sira Design Schedule V00 for certificate No. Sira MC200359/00.
3. If certified product is found not to comply, Sira Certification Service should be notified immediately at the address shown on this certificate.
4. The Certification Marks that can be applied to the product or used in publicity material are defined in 'Regulations Applicable to the Holders of Sira Certificates'.
5. This document remains the property of Sira and shall be returned when requested by the company.

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