

Tinytag Explorer is the Windows based software for working with a Tinytag Radio System. Users can access their data and manage their system through a simple and intuitive interface.

Radio loggers can be worked with individually or in groups, making it easy to manage a system containing a large number of devices. The software shows the status of each device in a system as well as alarm warnings and low battery indicators.

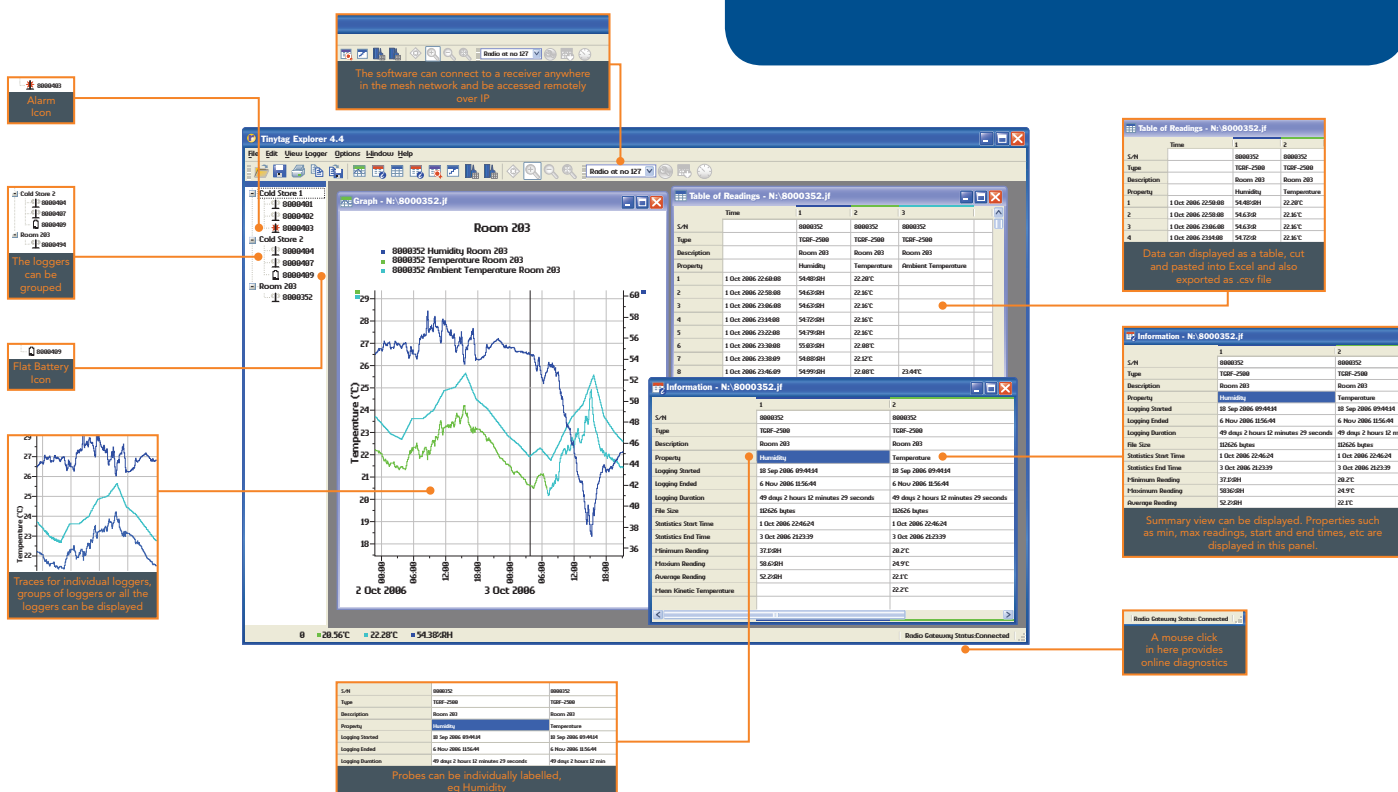
Data from multiple radio loggers, and other Tinytag data loggers, can be combined into a single graph.

Data can be exported easily from the software in a number of different formats and accessed directly by users who wish to integrate data within their own systems.

The software works over existing computer networks and the internet to allow users to remotely manage and view their data.

The system can generate e-mail warnings when alarm limits are breached, providing 24 hour coverage.

The software supports the connection of multiple receivers, enabling isolated parts of the same site to be monitored simultaneously, and the wired connection of two receivers to enable communications through barriers that radio waves cannot pass.



Features

• View data and manage radio loggers remotely

The radio system can be accessed remotely, allowing users to view data and configure radio loggers from their own computer. A Windows service, called the radio gateway, runs in the background behind Tinytag Explorer managing the data from the radio system and enabling remote access for other users on the same network or via the internet.

• Manage groups of loggers simultaneously

Radio loggers can be assigned to groups so that they can be configured or their data viewed collectively rather than having to work with each unit individually. This makes it easy and efficient to manage a system containing a large number of devices.

• Identifying loggers

Every radio logger has a unique serial number. Descriptions can be assigned to groups of loggers, individual devices and their different channels to allow users to easily identify their data.

• Alarm warnings

Two programmable alarms for each channel allow upper and lower limits to be set, and a delay can be programmed to allow routine work to be carried out without alarms being triggered (e.g. the loading or unloading of a fridge or walk-in freezer). Alarms show as

a flashing icon in the software, and e-mail alerts can be sent to warn users of potential problems 24 hours a day.

• Data export and access options

Data can be exported or accessed directly from the radio system in a number of ways, from simple copy and paste from Tinytag Explorer, to Modbus and http access for integration with third party systems (see below for further information).

• Multiple receiver configuration

A master/slave configuration allows additional receivers to be added to a system enabling easy expansion over larger sites. These receivers can be connected to other computers on the same network, or connected through a TCP connection.

• Collate and compare data

Tinytag Explorer enables users to easily combine data from multiple logging runs into a single graph. This allows similar processes to be grouped together or different conditions to be compared. Data can also be displayed in a table and an information view gives the user setup and basic statistical information about the logging run. Daily minimum and maximum values can also be displayed. All of these views are linked, so updating the range of the graph view will automatically update the other views.

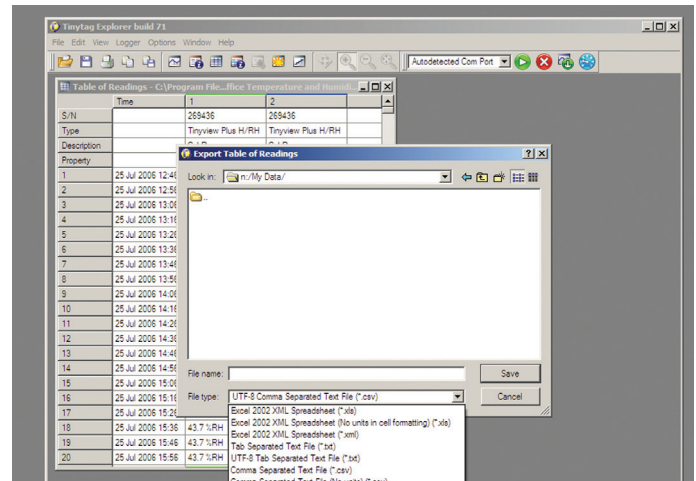
Exporting Data

Data can be exported from both Tinytag Explorer and the Radio Gateway.

Tinytag Explorer Exports

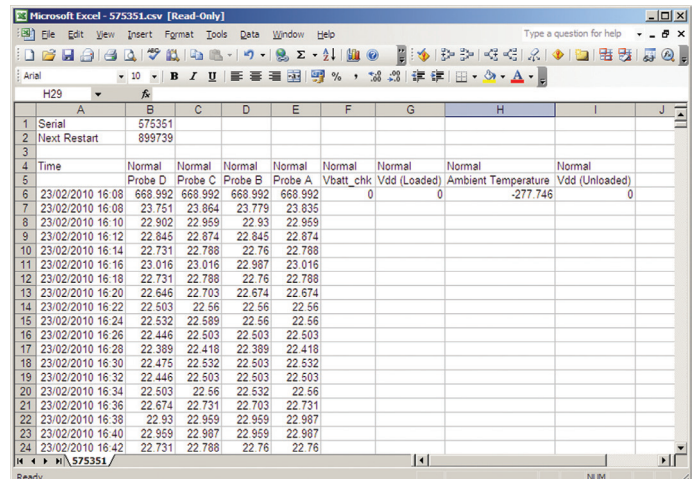
Data displayed in the Table of Readings, Information and Daily Min/Max views can be exported from Tinytag Explorer simply by copying and pasting, or by saving files in .xls, .xml, .txt or .csv formats.

Graph images can also be pasted into other documents, or saved as bitmaps.



Radio Gateway Exports - CSV Export

The Radio Gateway provides access to logged measurements for third party software by downloading CSV files over http. Each radio logger in a system has its own unique address and this can be used to obtain full file exports or incremental data for a unit.

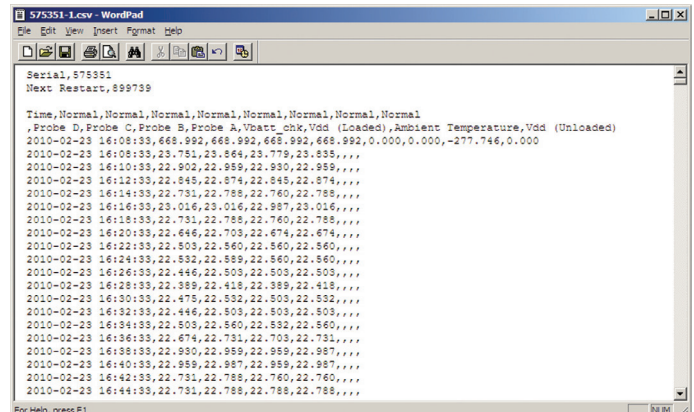


Time	Normal Probe D	Normal Probe C	Normal Probe B	Normal Probe A	Normal Vbatt_chk	Normal Vdd (Loaded)	Normal Ambient Temperature	Normal Vdd (Unloaded)
23/02/2010 16:08	668.992	668.992	668.992	668.992	0	0	-277.746	0
23/02/2010 16:10	22.902	22.959	22.93	22.959				
23/02/2010 16:12	22.845	22.874	22.845	22.874				
23/02/2010 16:14	22.731	22.788	22.76	22.788				
23/02/2010 16:16	23.016	23.016	22.987	23.016				
23/02/2010 16:18	22.731	22.788	22.76	22.788				
23/02/2010 16:20	22.646	22.703	22.674	22.674				
23/02/2010 16:22	22.503	22.56	22.56	22.56				
23/02/2010 16:24	22.532	22.589	22.56	22.56				
23/02/2010 16:26	22.446	22.503	22.503	22.503				
23/02/2010 16:28	22.389	22.418	22.389	22.418				
23/02/2010 16:30	22.475	22.532	22.503	22.532				
23/02/2010 16:32	22.446	22.503	22.503	22.503				
23/02/2010 16:34	22.503	22.56	22.532	22.56				
23/02/2010 16:36	22.674	22.731	22.703	22.731				
23/02/2010 16:38	22.93	22.959	22.959	22.987				
23/02/2010 16:40	22.959	22.987	22.959	22.987				
23/02/2010 16:42	22.731	22.788	22.76	22.788				

Radio Gateway Exports - Modbus

The Radio Gateway Service provides a standard Modbus-over-TCP interface, providing read-only access to data logger configuration and instantaneous measurements (instantaneous measurement means the last received logged measurement).

Modbus may be a convenient option for software which uses Tinytag data loggers as part of an industrial process control or SCADA system.



Time	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
2010-02-23 16:08:33	668.992	668.992	668.992	668.992	668.992	0.000	0.000	-277.746	0.000
2010-02-23 16:10:33	22.751	22.864	22.779	22.835					
2010-02-23 16:12:33	22.845	22.874	22.845	22.874					
2010-02-23 16:14:33	22.731	22.788	22.760	22.788					
2010-02-23 16:16:33	23.016	23.016	22.987	23.016					
2010-02-23 16:18:33	22.731	22.788	22.760	22.788					
2010-02-23 16:20:33	22.446	22.503	22.503	22.503					
2010-02-23 16:22:33	22.503	22.560	22.532	22.560					
2010-02-23 16:24:33	22.674	22.731	22.703	22.731					
2010-02-23 16:26:33	22.930	22.959	22.959	22.987					
2010-02-23 16:28:33	22.959	22.987	22.959	22.987					
2010-02-23 16:30:33	22.475	22.532	22.503	22.532					
2010-02-23 16:32:33	22.446	22.503	22.503	22.503					
2010-02-23 16:34:33	22.503	22.560	22.532	22.560					
2010-02-23 16:36:33	22.674	22.731	22.703	22.731					
2010-02-23 16:38:33	22.930	22.959	22.959	22.987					
2010-02-23 16:40:33	22.959	22.987	22.959	22.987					
2010-02-23 16:42:33	22.731	22.788	22.760	22.788					
2010-02-23 16:44:33	22.751	22.788	22.788	22.788					

Tinytag Explorer System Requirements

Radio Gateway Service

The Radio Gateway Service requires a computer that can be left running permanently with the following minimum specification:

Operating System:	Windows Vista, 7, 8 or 8.1 (x86 & x64 versions)
Processor:	200MHz Pentium III processor or better
Memory:	512Mb
Hard Disk Space:	At least 30Mb available
Monitor for installation:	Minimum 256 colours, resolution 800 x 600

The requirements for running the Radio Gateway Service on an existing server are shown below.

CPU time:	Negligible
Memory:	20Mb
Hard Disk Space:	Typically 10Mb for programs, 5Mb for data.

The service stores a small amount of configuration information in the Windows Registry, in HKEY_LOCAL_MACHINE/Software/Tinytag/Kola. Cached measurement data and diagnostic logs are stored in C:\Program Files\Tinytag\Tinytag Explorer\var\. These locations should ideally be included in any regular backup, which can be safely taken while the service is running.

Tinytag Explorer

Tinytag Explorer requires a PC with the following specification:

Operating System:	Windows Vista, 7, 8 or 8.1 (x86 & x64 versions)
Browser:	Internet Explorer 8 (or above); Firefox or Google Chrome.
Processor:	200MHz Pentium III processor or better (1.6GHz recommended).
Memory:	512Mb (1024Mb recommended for Vista & 7).
Hard Disk Space:	At least 30Mb available hard disk space (120Mb recommended).
Monitor:	Minimum 256 colours, 800 x 600 resolution or greater recommended.

The recommended options above should give the user ample performance to run other applications such as MS Excel, Word etc at the same time as Tinytag Explorer.

Software Licence

Tinytag Explorer is supplied under a site licence which means that it can be installed on as many computers as the customer wishes at a given location (additional copies of the software are required for each additional site the software is used at).

To view the full software licence, please visit our web site here:

<http://www.tinytag.info/info/tinytag-explorer-licence-agreement>

Approvals

Gemini Data Loggers (UK) Ltd. operates a Business Management System which conforms to ISO 9001 and ISO 14001.

