Acrison®

Acri-Data®
Supervisory Software
For Acrison Feeders

Advanced design technologies for superior performance, quality and reliability.

Acri-Data® Supervisory Software

General

Acri-Data is a multi-language supervisory and control program for Acrison weigh feeders providing users with the ability to access and modify set points, calibration entries and other functions within Acrison feeder controllers. Acri-Data is also able to operate controllers individually, or in a ratio/proportioning or master/slave configuration. Recipe functions are also supported.

Acri-Data interfaces with up to 20 controllers using wired serial or network communications, or wireless, using a variety of available options including Bluetooth*, and Wi-Fi*. Acri-Data can be supplied for operation on a standard Microsoft Windows PC, or as an embedded GUI as the primary user interface of a complete system controller.

In addition to providing set point access to controllers, Acri-Data's screen-oriented operation provides graphical displays of feeder and/or feeder system status, individual graphs of feeder performance, trending, automatic sampling, an alarm/event log, as well as other maintenance related features. These and other features are described below.

System View Screen Functions

The user-designed System View Screen is the primary display screen, providing a view of all feeder controllers in a system. It is from this screen that the user has the ability to:

· Define a feeder system
· Create/save/load unlimited system recipes
· Enter an overall feed rate set point
· View overall total feed rate
· Run/stop the feeder system
· View a system summary
· Access other system and controller functions

Icons provide important feeder data such as set point, feed rate, motor speed and current, as well as color-coded blocks indicating alarm/message status. Off-line controllers appear with a red "X". From this screen, the user may access the Sampling Screen and the Alarm/Event Log.
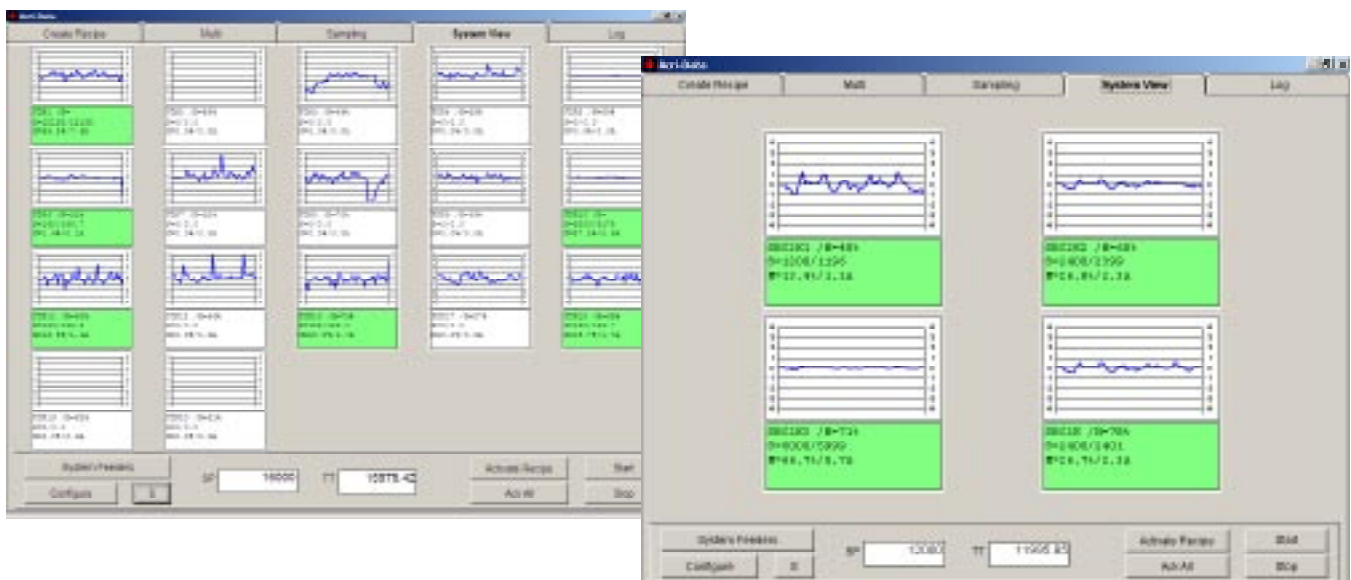

Typical System View Screens

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Sampling Screen

The Sampling Screen permits the user to specify which of four parameters [feed rate, hopper level (weight-loss), motor speed and motor current] to sample and graph. The user may specify the sampling interval, the number of samples to take (or sample continuously) and several appearance options. Automatic or manual determination of axis ranges may also be selected.

Sampled data may be saved, printed, or exported in a Microsoft Excel format for further evaluation or processing. A special Excel Workbook is provided with Acri-Data for this purpose. Up to 20 feeders may be sampled and graphed at the same time.
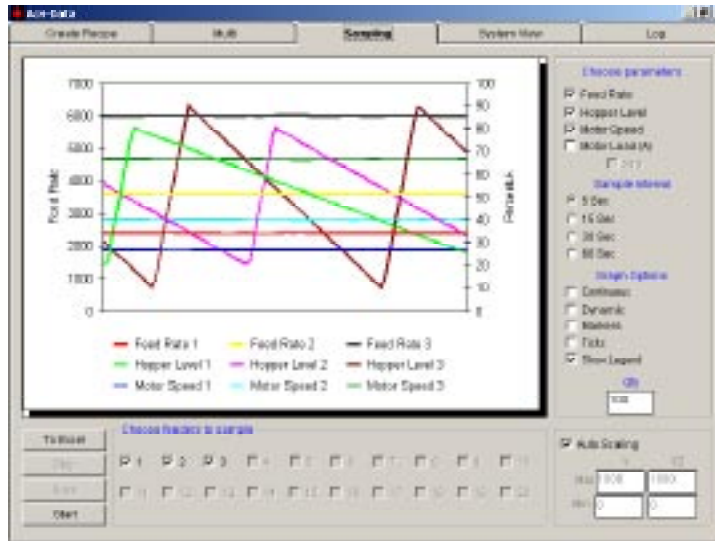
Typical Sampling Screen

Alarm/Event Log

The Alarm/Event Log Screen provides a comprehensive record of the alarms and/or events encountered by the system feeders. Each alarm or event is described in a single line along with the date and time of its occurrence and the identity of the feeder controller (if applicable). System log on and log off is also recorded, as is the starting and stopping of the Acri-Data application itself.

Alarms in the log appear in red and messages appear in yellow to permit quick identification. The log may be saved and/or printed and may be set-up to automatically save to a specified location at a selected interval. This can permit multiple user access to current system status over a network.


Typical Alarm/Event Log Screen

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Feeder View Screen

The Feeder View Screen is accessed by clicking on an icon on the System View Screen. This screen displays set points and functions associated with a single feeder controller, rather than a complete system. The screen provides a complete view of a feeder's status including operating modes, run/stop status, alarm and message indicators, motor speed and current, scale weight and hopper level (weight-loss feeders). The feeder can be started or stopped, modes can be changed and refill (weight-loss feeders) or rezero cycles (200 Series Feeders) can be initiated.

By clicking on the set points tab at the top of the Feeder View Screen, set points and password-protected "calibration" entries can be entered or changed. Acri-Data provides the ability to individually password-protect (lock) any of the operational data entries.

Data which changes over time, such as feed rate, scale weight (weight-loss feeders), etc., is viewable from the Data Screen Tab.
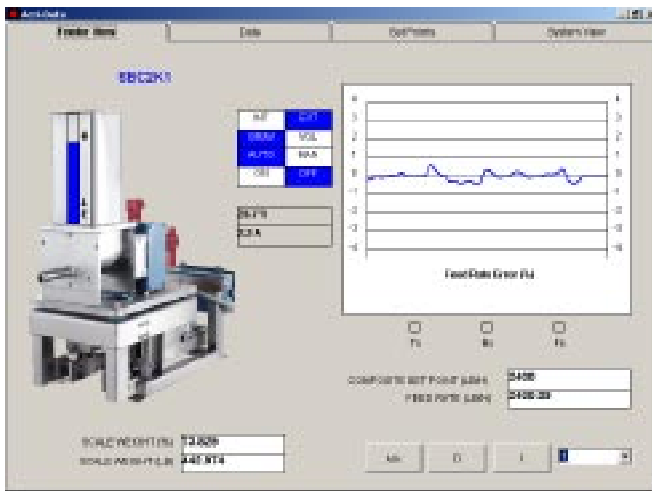
Typical Feeder View Screen
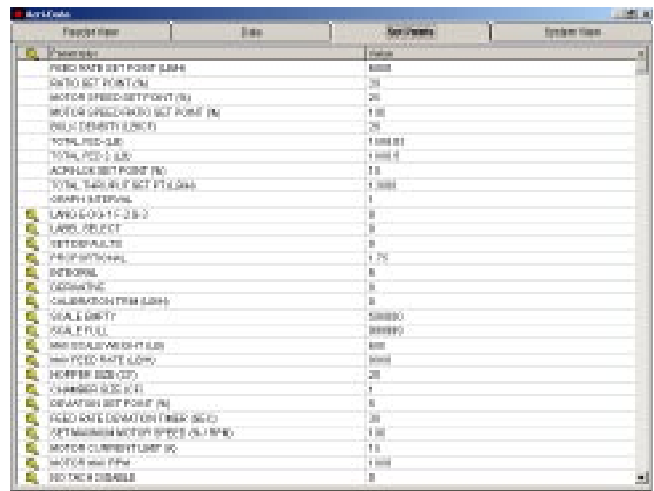
Typical Set Points Screen

Automatic System Shutdown

Acri-Data provides a standard system shutdown feature permitting the user to specify certain events which must stop all feeders. Individual delays may be associated with each event.

Summary Screen

This screen provides a chart that lists the values of important parameters associated with each of the system feeders. In addition, totals are provided in the appropriate columns, such as for external gravimetric (percentage) set points. The chart can be printed and/or saved, and can be refreshed on demand.


Summary Screen

Communications

Acri-Data offers numerous communications choices ranging from simple, point-to-point, wired serial communication to wireless Ethernet and Bluetooth. Most Acrison controllers must be equipped with optional communications modules for use with Acri-Data. Various configurations are available including those that use Gateway Devices from Acrison, or from third party manufacturers. Acri-Data can be configured in many ways to achieve the communications required by the user. Contact Acrison for special requirements.

Configuration of Acri-Data is accomplished via the Communications Screen shown below.
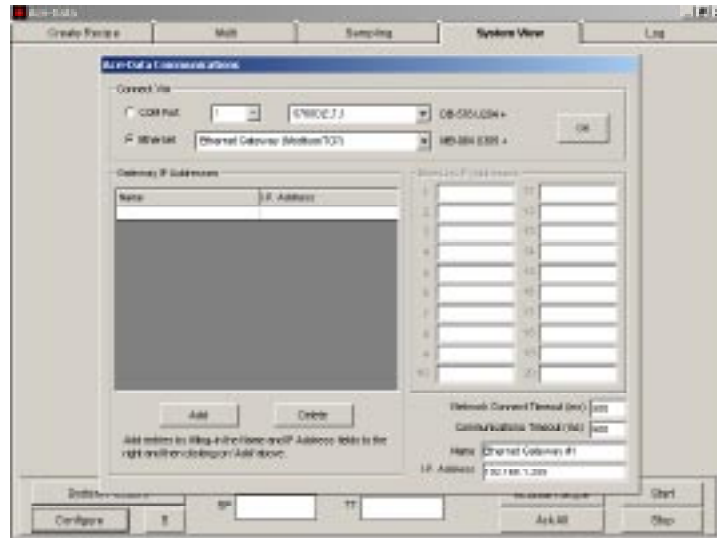
Communications Screen

Acri-Data directly supports Modbus/TCP and Allen Bradley Ethernet/IP protocols, operating as a master.

Highest performance is achieved with direct cable serial COM port connections using Acrison's DB-576 protocol. Baud rates from 9,600 to 57,600 are supported for serial communication.

Multi Screen

Multiple parameter values may be sent to one or more feeder controllers, without using a recipe, via the Multi Screen shown below.
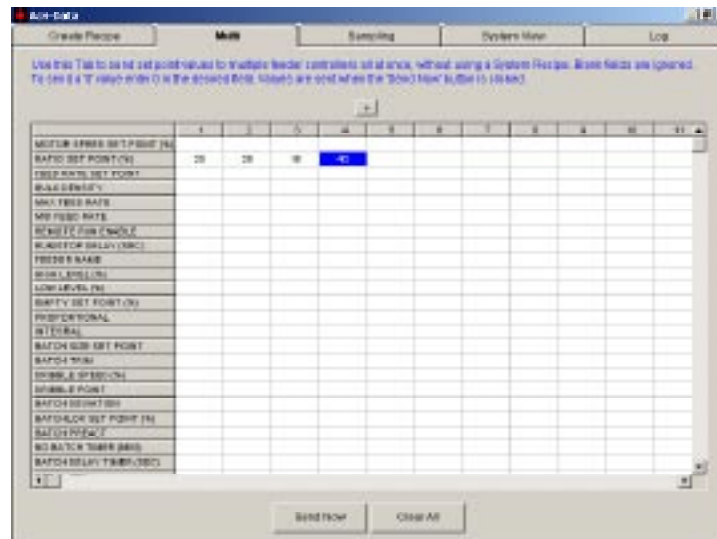
Typical Multi Screen

System Recipe Screen

Three types of system recipes are available in Acri-Data: data recipes containing only parameter values, graphical recipes containing the System Screen design, and graph + data recipes, which contain both data and graphical information. Data recipes can be created while Acri-Data is operating on-line and any recipe may be loaded "on-the-fly" without stopping the system. Each recipe is a text file which can consist of up to 26 selected parameters and modes in each feeder controller (user selectable), the identification of the feeders that were selected for the system, the design of the System View Screen, plus optional commands to automatically run or stop a system of feeders when the recipe is loaded. System recipes require a system level password.

Acri-Data can create as many system recipes as the storage capacity of the hardware permits; typically many thousands. System recipes can be edited off-line with a standard text editor, if desired.
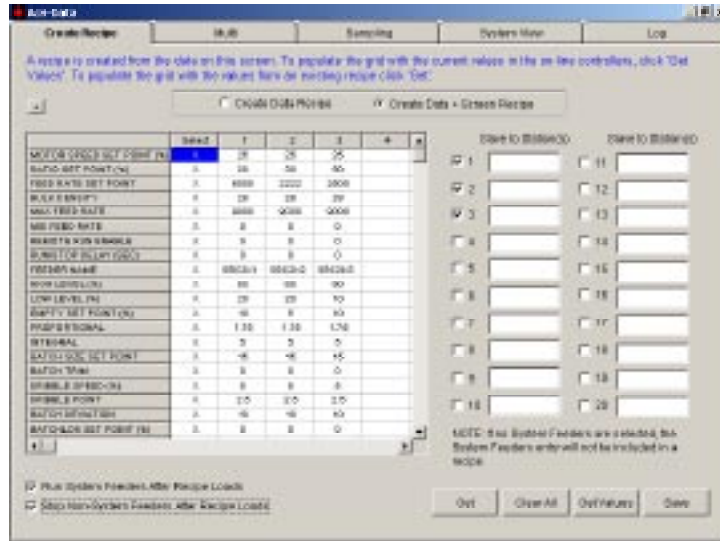
Typical System Recipe Screen
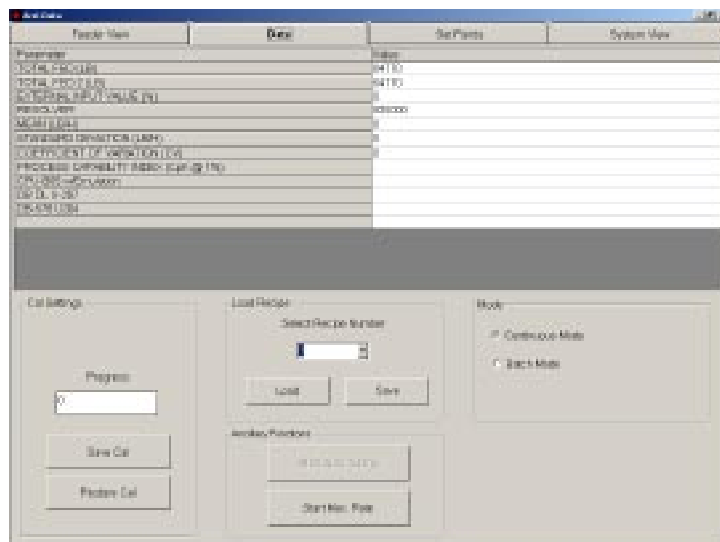
Typical Data Screen

Password Protection

Up to 10 passwords may be defined in the Acri-Data Program. Three levels of access are provided as follows:

MONITOR:

When Acri-Data is first started, or when a user logs off, it is in monitor mode. The operator may only view screens and cannot change any set points or activate any commands or functions.

USER:

This mode requires a password to be entered and limits functions and access to those features, which an operator would typically require. System recipes, for example, may be loaded but cannot be created.

SYSTEM:

This password-protected mode permits full access to all functions and features.

Hardware Requirements

Acri-Data may be run on a Microsoft Windows based desktop, laptop, or wall-mounted PC. Acrison recommends the following minimum hardware for the best overall performance:

OS: MS Windows 98/98SE/ME/2000/XP
Processor: Pentium class, 900 MHz minimum
Memory: RAM – 512 MB

I/O: CD ROM Drive, 24X
Hard Drive Disk Space: 30 MB
Memory: Display – 32 MB

When Acri-Data is provided in an embedded system controller, it operates under Windows Embedded XP only.

Optional Hardware

Acri-Data supports operation with an optional SBC-2000® System I/O Module. This module provides the following (N.O.) digital inputs and outputs:

OUTPUTS:

system running
blender on
general alarm

INPUTS:

remote run (run the system)
blender zero speed (delayed)
permissive run

Automatic shutdown of the feeders can be associated with blender operation and the permissive run contact.

Other Considerations

1) For optimum performance when operating Acri-Data on a desktop, wall-mounted, or laptop PC, Acrison recommends that it be run as a dedicated application with no other applications running (other than networking functions, if required).

2) Acri-Data supports keyboard-less PCs (typically wall-mounted) by providing a selectable "virtual keyboard" function.

3) The Acri-Data Software and the Operator's Manual are provided by Acrison on a single CD-ROM.

4) Acri-Data is licensed for installation on a single PC.

Discover the difference!

We cordially invite you to witness a test in Acrison's state-of-the-art Customer Demonstration Facilities handling your actual product(s) with the specific equipment we recommend for the application. Usually, there is no cost or obligation for this service.

Discover the difference in technology, quality and performance of Acrison equipment.

Acrison products...

- Models 101 and 130 Volumetric Feeders
- Models V101 and V130 Volumetric Feeders
- Model 1015 Volumetric Feeder Series
- Model 105 Volumetric Feeder Series
- Model W105 Volumetric Feeder Series
- Model 120 Volumetric Feeder
- Model 140 Volumetric Feeder Series
- Model 170 Volumetric Feeder Series
- Model 200 Series of Weigh Belt Feeders
- Model 203B Series of Weigh Auger Feeders
- Model 270 Series of In-Line Weigh Feeders
- Models 402 and 404 Series, A405 and 406 ("Weight-Loss-Differential") Weigh Feeders
- Model Series 403 ("Weight-Loss-Differential") Weigh Feeders
- Model 403B(D) Batch/Dump Weighing Systems
- Model 404BZ(BU) Bulk Bag Unloader Batch Weigher
- Models 350 and 301 Continuous Blenders and Blending Systems
- Multiple Auger Bin Dischargers and Multiple Auger Bin Discharger Hoppering Systems
- Multiple Auger Bin Discharger Feeders
- Vibratory Bin Dischargers
- Model 500 Series of Polyelectrolyte Metering and Wetting Systems
- Water and Waste Treatment Systems
- Volumetric and Gravimetric Feeder Controllers and Control Systems
- Accessory Equipment for Acrison Products

"Visibly Different...Measurably Better"

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