



WEM Advanced Control System Security Software

California Grain Association
January 2023



Unleash the **Power of Performance**

FSMA

- Signed into law in 2011
- Includes Animal Food
- FSMA affects:
 - Ingredient Processors
 - Animal Feed
 - Pet Food
 - Feed & Ingredient Importers
 - Transportation

- The **Food Safety Modernization Act** (FSMA) was signed into law by President Barack Obama on January 4, 2011. FSMA gives the **Food and Drug Administration** (FDA) authorities to regulate the way foods are grown, harvested and processed
- The law grants the FDA a number of new powers, including mandatory recall authority, which the agency has sought for many years
- FSMA requires the FDA to undertake more than a dozen rulemakings and issued at least **10 Guidance Documents**, as well as a host of reports, plans, strategies, standards, notices, and other tasks





FSMA Bringing Changes to Animal Nutrition

- At the beginning of 2017, 7 final FSMA-related rules had been released
- 4 of the 7 final rules affect the Animal Food Industry

FSMA-Related Rules that affect the Animal Food Industry:

1. Preventative Controls for Animal Food
2. Foreign Supplier Verification Program
3. Accreditation of Third-Party Auditors / Certification Bodies
4. Sanitary Transportation

The largest of the rules that affect animal food is the **Preventative Controls for Animal Food**; formally known as "Current Good Manufacturing Practice, Hazard Analysis, and Risk-based Preventive Controls for Food for Animals," – published September 17, 2015

Preventative Controls for Animal Foods

- Current Good Manufacturing Practices
- Federal and State Feed laws in the U.S. rely on process controls utilizing Current Good Manufacturing Practices regulations (CGMPs)

21 CFR 507.202

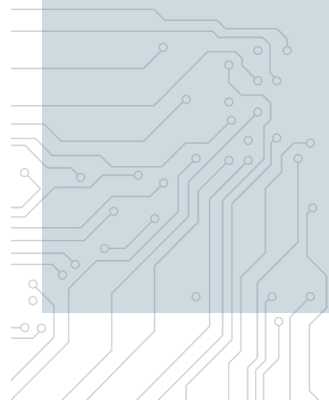
General requirements applying to records

- *(b) All records must include:*
 - *(1) Information adequate to identify the plant or facility (e.g. the name, and when necessary, the location of the plant or facility);*
 - *(2) The date and, when appropriate, the time of the activity documented;*
 - *(3) The signature or initials of the person performing the activity;*
 - *(4) Where appropriate, the identity of the product and the lot code, if any.*
- *(c) Records that are established or maintained to satisfy the requirements of this part and that meet the definition of electronic records in § 11.3(b)(6) of this chapter are exempt from the requirements of part 11 of this chapter. Records that satisfy the requirements of this part, but that also are required under other applicable statutory provisions or regulations, remain subject to part 11 of this chapter.*

The Challenge

- Controlling and tracking individual users down to the functional area, task, and approval levels

- WEM's standard security program works by allowing a single user to log in as a WEM user. Each WEM user has certain rights assigned to them, allowing them to access specific WEM functions
- When another user logs in, the prior logged in user loses their rights on the computer
- The problem is only one user can be logged into a computer at a time. Security can become compromised when a user walks out of the room while being logged-in, allowing another individual to use the computer with someone else's rights

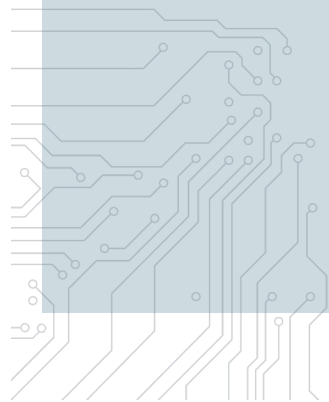




New Security Software

- Controlling and tracking individual users down to the functional area, task, and approval levels

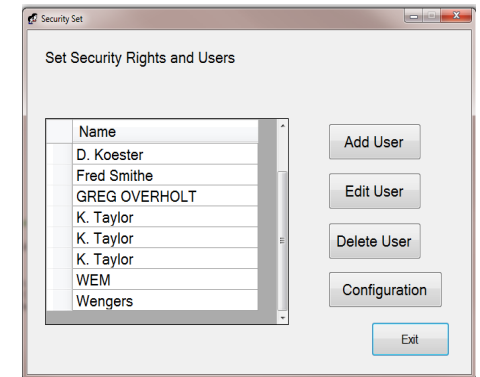
- This new security software provides **Multi-level Protection**, including computer login, process area, and specific functions / commands
- The system will prompt for a PIN code every time an operator chooses a function with a required configuration PIN code entry
- This enables good security, as well as, excellent tracking of what specific functions individuals have completed, where and when





Highly Configurable

- This security software is highly configurable, enabling users to design a security system that meets their **Unique Requirements**
- Configuration can be setup for **Operators**, **Supervisors** and **Managers** to match internal procedures and policies
- Security can be configured to match **Critical Control Points** (CCP's) to automate control plans and provide logged documentation to support internal and external audits
- Enables improved tracking of who did what, as well as, capture approvals and over-rides
- New configuration tool makes it easier to setup and maintain user configurations





Flexibility with Various Technologies

- PIN
- RFID
- Biometrics
- Bar Codes

This new security software works with a variety of different technologies so you can pick the right solution for your organization



PIN



RFID



Biometrics



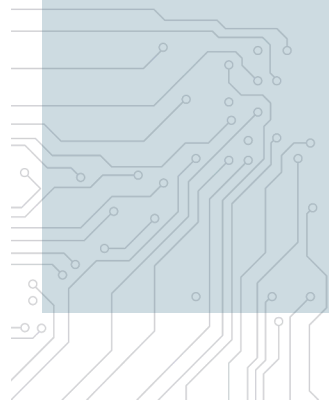
Bar Codes



Compatibility

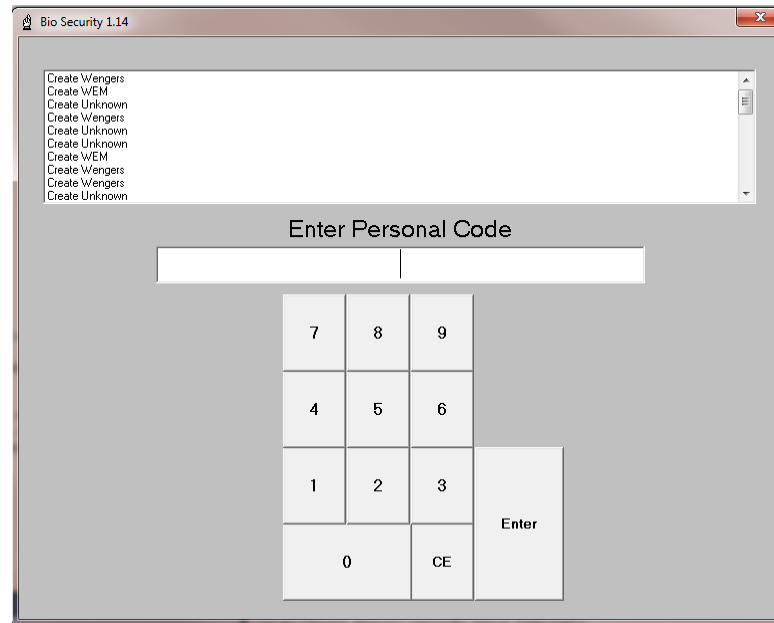
- Compatible with most WEM4000 Feed Mill Control Systems

- Does require software updates for several programs:
 - Batch4000
 - DataManager
 - Smartbins
 - Loadout
 - MedInt
 - Batmon
 - RCV4000
 - WonderWare if required)
- New programs installed:
 - Biosec
 - Securityset
 - RFIDComm
- Time is required both from the Customer and WEM to setup the basic configuration, update the database and setup user profiles



How It Works

Instead of logging into WEM Security on each PC, a PIN will be prompted each time a function is requested.



The screenshot shows a window titled "Bio Security 1.14". Inside the window, there is a list of actions on the left: "Create Wengers", "Create WEM", "Create Unknown", "Create Wengers", "Create Unknown", "Create Unknown", "Create WEM", "Create Wengers", "Create Wengers", and "Create Unknown". Below this list, the text "Enter Personal Code" is displayed above a text input field. To the right of the input field is a numeric keypad with buttons for digits 7, 8, 9, 4, 5, 6, 1, 2, 3, 0, and CE, along with an "Enter" button.

How It Works

If you want to start a batch, edit a formula, create a new order, delete an order, etc., a PIN can be requested before that task is allowed

The screenshot displays a software interface with a central window titled "Bio Security 1.14" that prompts the user to "Enter Personal Code". This window features a numeric keypad with digits 0-9 and a "CE" button, along with an "Enter" button. The background interface includes a table titled "Batching Orders" with columns for Sequence, Order Number, Required Date, Formula, Formula Name, Load Size, Multiplier, and Batches. The table contains two rows of data. To the right of the table is a panel with buttons for "New", "Edit", "Delete", and "Release Order". At the bottom left, a "Batch Graphic" section shows a diagram of a bin with "Actual, Target" values and a digital display showing "2.572". Below this, a status log shows two messages: "2001 03:25 PM - Route not found." and "2001 03:25 PM - Hand adds not acknowledged". At the bottom right, there are buttons for "Acknowledge", "Retry", and "Pause".

Sequence	Order Number	Required Date	Formula	Formula Name	Load Size	Multiplier	Batches
2	1231		11	test11	0.28	1	1
3	11		11	test11	0.28	1	1

Batching Orders

New Edit Delete Release Order

Bio Security 1.14

Enter Personal Code

7 8 9
4 5 6
1 2 3
0 CE

Enter

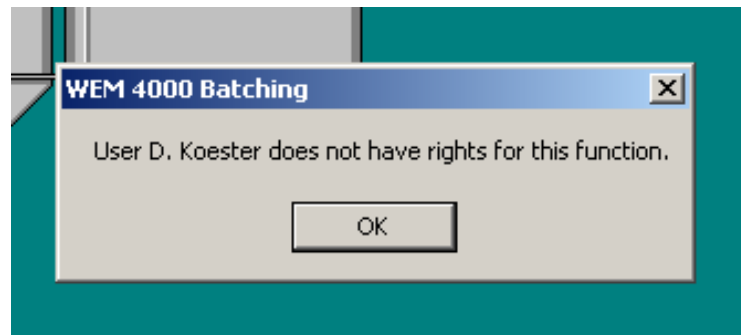
Batch Graphic

2001 03:25 PM - Route not found.
2001 03:25 PM - Hand adds not acknowledged

Acknowledge Retry Pause

How It Works

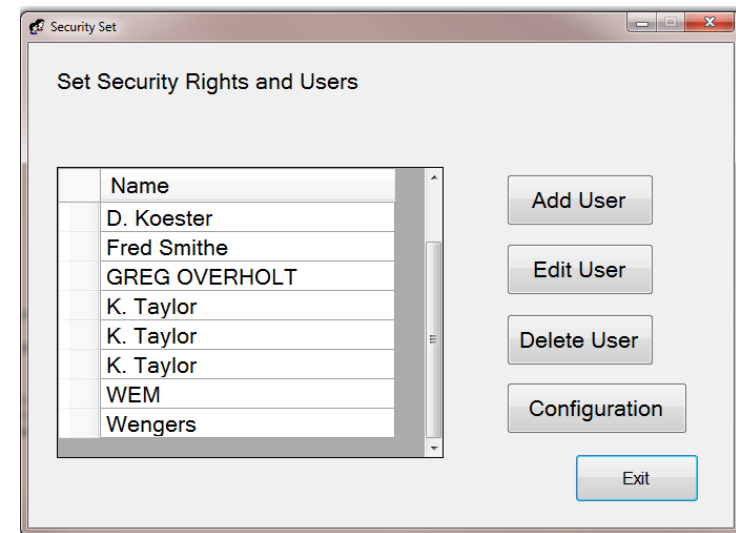
Each PIN has rights assigned to it. If the PIN does not have “rights” to perform a specific function, it will not be allowed



How It Works

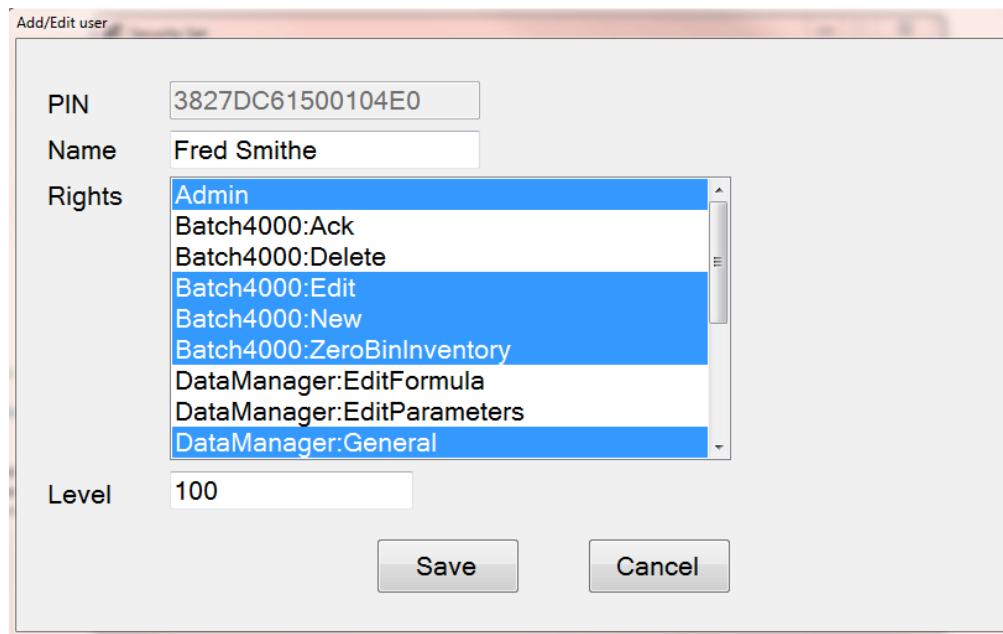
A PIN that is typed can be any number of numeric characters. In addition to being able to type a PIN, **RFID cards / keychains** can be used to simply swipe the card next to a reader and the PIN is automatically entered. The PIN on an RFID tag is a unique 16-character alpha string

Multiple users can be created. These users can be edited or deleted by a user with Administrative rights. The Security Set program manages these users. The program can be run on any WEM PC, but does not need to be on any specific PC



How It Works

When creating or editing a user's rights, rights are selected from a list of "**Available Rights**," as shown below



The screenshot shows a dialog box titled "Add/Edit user" with the following fields and options:

- PIN:** 3827DC61500104E0
- Name:** Fred Smithe
- Rights:** A list box containing the following items: Admin, Batch4000:Ack, Batch4000:Delete, Batch4000:Edit, Batch4000:New, Batch4000:ZeroBinInventory, DataManager:EditFormula, DataManager:EditParameters, and DataManager:General. The items "Admin", "Batch4000:Edit", "Batch4000:New", "Batch4000:ZeroBinInventory", and "DataManager:General" are highlighted in blue.
- Level:** 100

At the bottom of the dialog are two buttons: "Save" and "Cancel".

How It Works

Not all rights need to be prompted for a PIN. You can select which rights will require a PIN. The form below allows the Admin to change these at any time

Configuration

Available Rights

Select which rights should ask for a PIN

Right	Enabled
Batch4000:Ack	<input checked="" type="checkbox"/>
Batch4000:Delete	<input checked="" type="checkbox"/>
Batch4000:Edit	<input type="checkbox"/>
Batch4000:New	<input checked="" type="checkbox"/>
Batch4000:ZeroBinInventory	<input checked="" type="checkbox"/>
DataManager:EditFormula	<input checked="" type="checkbox"/>
DataManager:EditParameters	<input checked="" type="checkbox"/>
DataManager:General	<input checked="" type="checkbox"/>
Grinding:StartRun	<input type="checkbox"/>

Save Cancel

How It Works

The Audit report shows the **Time**, **PC**, **User** and **Function** of when a successful login was completed

Audit Report

Report Range:

Time Date	PC Name	User Name	Application	Action
2018/09/12 14:59:16.00	ALSPC		Batch4000	Start up
2018/09/12 14:59:45.00	ALSPC		Batch4000	Shutdown
2018/09/12 15:00:21.00	ALSPC		Batch4000	Start up
2018/09/12 15:00:34.00	ALSPC	WEM	Batch4000	Batch4000:Edit
2018/09/12 15:00:40.00	ALSPC		Batch4000	Batch4000:Ack
2018/09/12 15:01:50.00	ALSPC		Batch4000	Batch4000:Ack
2018/09/12 15:03:01.00	ALSPC		Batch4000	Batch4000:Ack
2018/09/12 15:04:04.00	ALSPC	WEM	Batch4000	Batch4000:Ack
2018/09/12 15:04:12.00	ALSPC		Batch4000	Batch4000:Pause
2018/09/12 15:15:48.00	ALSPC		Batch4000	Start up
2018/09/12 15:16:04.00	ALSPC	John Brown	Batch4000	Batch4000:ZeroBinInventory
2018/09/12 15:16:49.00	ALSPC	John Brown	Batch4000	Batch4000:ZeroBinInventory
2018/09/12 15:16:54.00	ALSPC	John Brown	Batch4000	Batch4000:ZeroBinInventory
2018/09/12 15:17:05.00	ALSPC	John Brown	Batch4000	Batch4000:ZeroBinInventory
2018/09/12 15:17:11.00	ALSPC	John Brown	Batch4000	Batch4000:ZeroBinInventory
2018/09/12 15:21:26.00	ALSPC	B Copeland	Batch4000	Start up
2018/09/12 15:21:41.00	ALSPC	Sam B. Jr.	Batch4000	Batch4000:Edit
2018/09/12 15:22:29.00	ALSPC	WEM	Batch4000	Batch4000:Edit
2018/09/12 15:25:16.00	ALSPC	B Copeland	Batch4000	Start up
2018/09/12 15:25:40.00	ALSPC	WEM	Batch4000	Batch4000:Edit
2018/09/12 22:15:00.00	ALANFLOETER-PC	Warehouse East	SecuritySet	Start Edit User
2018/09/12 22:17:57.00	ALANFLOETER-PC	Wengers	SecuritySet	Start Edit User
2018/09/12 22:19:25.00	ALANFLOETER-PC	Wengers	SecuritySet	Start Delete User
2018/09/13 11:34:36.00	ALANFLOETER-PC	Fred Smith	SecuritySet	Start Configuration
2018/09/13 11:37:01.00	ALANFLOETER-PC	Wengers	SecuritySet	Start Edit User
2018/09/13 11:47:04.00	ALANFLOETER-PC	Wengers	SecuritySet	Start Edit User
2018/09/13 11:47:19.00	ALANFLOETER-PC	Wengers	SecuritySet	Start Edit User
2018/09/13 11:47:36.00	ALANFLOETER-PC	Wengers	SecuritySet	Start Edit User
2018/09/13 11:48:10.00	ALANFLOETER-PC	Wengers	SecuritySet	Start Configuration
2018/09/13 11:51:30.00	ALSPC	Wengers	Batch4000	Batch4000:Ack
2018/09/13 11:51:39.00	ALSPC	WEM	Batch4000	Batch4000:Ack
2018/09/13 11:53:43.00	ALSPC		DataManager	Start up

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WEMSales@WEMAutomation.com



262-782-2340



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