Clock-IN! ™ Help Index

Clock-IN!, Clock-IN! Lite, Bar Code IT!, Time-slip, and What-I-DID Products

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Mission Critical Software
(313)-247-0394

Your Company ID Card
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First Time Example

As you get started defining your specific implementation you may find it convenient to first try some sample transactions. Clock-IN! comes installed with some sample data and you can enter some sample transactions and view the reports and other results.

Select the Clock-IN! icon now. The log-in screen appears. Enter "SUPERVIS" as the user name, and "MASTER" as the password. Leave the Super-Clock radio-button checked.

The Unlocked-Mode Time-Clock Window in the lower left corner becomes the active Window. The cursor is blinking in the text box next to the "Badge" label.

Select F)ile, then select S)etup Data Files. Click your mouse on each of three options to turn these options on. Then click on the OK button. These options set the system up to start from scratch with all employees clocked out, and no transactions or queued transactions on file.

Now select the Time-Clock Window. Type "B100" into the badge text-box.

Tab down to the user time box. Type "06:44:02".

Tab or cursor down to the user date box. Type 03/10/92.

Click the mouse on the IN button or press F11.

You are now clocked in. Notice the graph and table views.

Repeat the steps above, except use a time of 18:12:02, and press the OUT button. You are now clocked out and your complete time for the day is distributed in the GRAPH and TABLE views.

You can also run various reports to see the detail of these transactions. Note in this example that over-time authorized records limited the over-time to 2 hours, break time was determined by his scheduled breaks (40 minutes) and lunch time computed by scheduled lunch (30 minutes).

Note the categories of Task-time, Under-run, Over-run, Lost-time, Break-time, and Absence Excused add up to the PAY Totals. The next line break shows NON-PAY categories of Linger, Non Paid Lunch, Un-excused Absence, and Too Early.

BULK INPUT EXAMPLES

Clock-IN! Includes at text file "importta.txt" for testing Clock-IN! through a series of time transactions without having to key the data. Use F)ile S)etup Data Files to clear the employee status and the transaction and queue files first. By editing this text file, you can create a series of transactions to run through the time engine. Then select F)ile I)mport TA to import the transactions. Then run the reports. You can also use the OEMdata program icon to read from the importta.txtfile one transaction at a time, sending the transaction through Clock-IN!

Recommended Equipment & Options For Clock-IN!

Personal Computer Configuration

Clock-IN! uses a Windows PC compatible personal computer. A 386 or better is required. At least 4 megabytes of RAM is recommended, with 16 megabytes of RAM recommended for picture printing, and at least 8 megabytes for a PC acting as server. A 486 PC is recommended if the unit is to act as a server. SUPER VGA (800x600) is the recommended resolution.

Clock-IN! transactions consume 4k of disk space per transaction. You should project the # workers times 240 work days per year (roughly) times the average number of worker transactions per day to forecast the required hard drive space. If you only plan to keep 30 days of transactions in the system, then compute the disk space using 30 days. The 4k transaction presents a history so comprehensive, that you may want to keep years of data on line at a time to do productivity trending, activity costing, operations analyses, etc. Consider writing the history to CD-ROM and turning it over to your engineers and business planners.

Bar Coding, Touchscreen

For bar coding at the PC, attach any in-line BAR CODE WEDGE READER/SCANNER between your PC and your keyboard. These bar code devices send the scanned characters right through the keyboard port, as if you had typed them. The Windows keyboard drivers process them. Clock-IN! receives the scanned characters through Windows. Ask your dealer to sell you a scanner that is "Windows compatible and IBM PC keyboard port in-line compatible."

If you use a serial port reader/scanner, it must be Windows compatible and send its scan codes through the Windows keyboard drivers in order to function with Clock-IN!. As a result these types of scanners require special software drivers, etc. and will cause you undue difficulty in setup. Although they may seem cheaper, these devices are very setup labor intensive and often do not work with Windows.

Please do not call our support department to determine if your scanner is working. To test your scanner, you should load Windows write or notepad and scan some barcodes. If the codes type on the screen as you scan them, then your scanner works, and it will work with Clock-IN! If you don't see the characters typed, refer your problem to the dealer who sold you the wedge scanner.

For touch-screen input, attach any PC compatible touch screen that comes with a Windows 3.1 driver, then install the Windows 3.1 driver. Make sure your dealer provides you a Windows 3.1 compatible driver. To test your touch-screen, just touch any icon on the Program Manager, if it starts the program, it works. Again, do not call for support on setting up your scanner.

Scanners. Cameras

If the pictures shipped with Clock-=IN! pictures don't display well, then your system may be setup with an inferior resolution display driver. Ditto for the printer you may be using. OR you may be recording at the wrong resolution. We have found that a low dpi (dot per inch) scan rate, combined with a high resolution video driver is best.

You should record your pictures, if you use pictures, at 256 color or 256 gray scale resolution or better, at 100 dpi (dots per inch). Then use a Super VGA video driver with at least 256 colors. This combination yields a file size for a wallet photo of less than 150k, and often only about 30k for gray scale. Thus the picture can be loaded and shown in real time very quickly.

But when you use 256 color or gray scale, and 400 dpi, you get a file size of 1 megabyte plus. This slows the system down when displaying and/or printing, but does yield better printer resolution.

We have found the Kodak Photo CD-ROM method superior in producing ID card pictures. Shoot all subjects on your regular camera in 35mm Color and drop them off at Kodak for a CD. Then you can scale the pictures and drop them into the Clock-IN! directory in just about any color or gray scale resolution. The Kodak software scales and gray scales, crops, and exports. You might export in 256k grey scale, 200 dpi resolution for printing badges, then export in 256k color, 100 dpi resolution for real time picture displays.

You can get XA CD-ROM, Photo and audio accessories as a kit. Logitech disk cameras can take pictures directly to disk. The new camera can take 32 pictures in black and white, with 150k pixels per photo.

When printing, laser printers with a resolution of 600 dpi or better are recommended. If you are using a scanner you can find switches or software settings for 1) dpi scan resolution (use 100), and grey or color scales (16 up to 256). Forgetting to set these properly yields poor results.

When printing picture ID badges, if you lose borders or other graphic data, you may not have enough memory to conduct all the Windows graphics functions.

Add memory. 16 Megabytes of RAM memory is recommended.

Late Breaking Stuff

In/Out Over-rides, Authorized Over-time, Explicit Transfers From Terminals

At the Clock-IN! Time-Clock window, a supervisor can enter an override transaction with time and date for any button (or transaction type). At terminals or time-clocks on a proprietary network, each function key is predefined, so this degree of flexibility is not possible there. Yet some common supervisory actions are better performed while they are on the floor, through the time-clock or terminal.

A Clock-IN! or OUT Over-ride is provided using a special version of user defined transaction US5. ON US5 transaction types, Clock-IN! looks for the supervisor badge and password in text boxes 8 & 9, the employee badge (as usual in text box 1), and the time and date entered for the override time (text boxes 6 & 7). It applies an ATO transaction, using the time and date entered, after verifying the supervisor badge and password. Thus transaction US5-Supervisor Clock Over-ried can defined at the terminals..

An explicit department transfer can be done using a special version of transaction US7. Clock-IN! looks for a valid department # in the last text box (#10), along with the badge in the first text box. If it finds a valid department number, it changes the temporary department number on file for that employee. The next charge transactions the worker makes will consequently show that new department as the department being charged. If you are moving workers around and want to charge them TO a department and not to a routing or job, do not use this method. Instead set up the department as a charge validation file in System Options. Then do Charge Since Last transactions, charging the old department, as you move a worker to a new department.

The US6 transaction has also been enabled to allow for over-time to be authorized at the terminals. See E)dit Authorized Over-time for an explanation.

All these special transactions versions are only brought into play with a valid supevisor badge and password. So if you don't use them, and define your own US5 through US7 transactions, Clock-IN! will not interfere.

System Option is Forcing Log-in Override

Clock-IN! is shipped with this option set to on in screen 2 of Edit-System-Options. Un-check this option and save the options record to stop getting this message on starting Clock-IN!.

Numerous Error Messages

If you get numerous error messages, such as "Record Insert failed",etc. your Paradox Engine is not configured correctly. Pxengcfg.exe is included with Clock-IN! and you can run it directly and configure your settings.

Win.ini & Paradox Engine Settings

Your settings for the Paradox engine are saved in the [Paradox] section of the win.ini file.

Practical Record Limits

Set up and process as many employees, etc. as you like. There are no practical limits or the database record operations.

Windows for Work-groups & Novell Netware

Windows for Work-groups (WFW) incorporates the DOS share.exe command. You do not have to run share.exe first with WFW. In regular Windows 3.1, you have to load share.exe first. Clock-IN! can also run with WFW and Netware stacked and running simultaneously.

Network control files, DOS SHARE & Error Messages

The DOS share.exe program should be loaded before you enter Windows. Make sure it is loaded in your autoexec.bat or network boot file.

Paradox for Windows, Paradox 4.0, and the Paradox Engine 3.0 (which Clock-IN! uses) ALL use the

same database engine. This engine is contained in the file PXENGWIN.DLL which is shipped with Clock-IN! and installed into the Clock-IN! directory.

If you use other Paradox products, delete all older copies of PXENGWIN.DLL both on your local disk and on the network and make sure you have just the latest PXENGWIN.DLL in your DOS path. If you install another Paradox product later, you must check this again.

All these products use a network control file called PDOXWIN.USR to keep track of all the Paradox for Windows users on the network. Clock-IN! doesn't need or use this file and offers unlimited users.

All these products use a file called PDOXUSRS.NET to control table sharing. Clock-IN! and other Paradox products must share just one of these files. PDOXUSRS.NET makes it possible to install and run concurrently both Paradox for Windows, DOS Paradox 4.0, and Clock-IN! on the network. This lets users of all programs share data concurrently.

If you install just Clock-IN!, the PXENGWIN.DLL and PDOXUSRS.NET will be in the Clock-IN directory and you should not experience any problems. If you have these other products you must FOLLOW these steps:

- 1) Delete all copies of PDOXUSRS.NET on the local disk and network.
- 2) Run your Borland and Paradox applications one at a time and see where each application keeps its PDOXUSRS.NET file. Change each application setting for this depending on the product setup. e.g. run Paradox for Windows (first) because it sets its path on installation only, then exit it and locate where it created a new pdoxusrs.net file. Then go to the Paradox 4.0 for DOS directory and run the nupdate utility. Set the network file location for that product to the same path as the Paradox for Windows. Do this for other Paradox applications you may have.
- 3) Now edit your win.ini file and find the NetNamePath Line and edit this path to indicate this same path to Clock-IN!

Quick Overview



Time-Based Business

Case Studies, Clock-IN! is so horizontally applicable to most businesses, seeing is believing what it does:

Universities use Clock-IN! to produce badges and track class attendance. Retail use Clock-IN! for time and attendance.

Hospitals use Clock-IN! to collect time & attendance & log procedures data on patients from bar codes. **Hotels** use Clock-IN! for attendance and to track activity.

Conferences and seminars enter registration on attendees, produce badges and track attendance with Clock-IN!

Manufacturers collect job charges and attendance along with inventory transactions all within one system with Clock-IN!

CPA's and attorneys enter professional time and do billing through Clock-IN!

Industry uses Clock-IN! to produce bar coded part labels, product routings, and general time "charge" cards.

Government & Defense use Clock-IN! to produce bar codes, track time to hundredth hours, to perform multiple time allocations on simultaneous tasks, and to provide exact time accounting and audit trail with no human estimation involved.

Use Clock-IN! for 1) professional time entry.

Use Clock-IN! for 2) salaried time entry.

Use Clock-IN! for 3) <u>hourly</u> workers as a Time-Clock. The hours calculated by Clock-IN! are exact and you can post just those hours to payroll, no more.

Use Clock-IN! for user configured transaction entry. e.g. Material, <u>inventory</u>, shop data collection, etc. See <u>Time-slip Edit</u> and <u>Time-Clock Data Entry</u>. Clock-IN! can handle all your transactions entry!

Use Clock-IN! to collect, process, and report transactions from time-clocks and proprietary bar code networks. Use the queue file to post entries for Clock-IN! processing. See: Queue Load Clock-IN! queues from external ASCII text files or directly from any application that can access and write Paradox files. The Clock-IN! time engine provides automatic time-stamping, calculation, and Activity Based Costing.

Use Clock-IN! as a <u>bar code document printer</u> to the thousands of printers supported by Windows. If it prints from Windows, it can print bar code on your printer, too.

Use the Time-slip Data-table & Time-slip form for multi-user, networked time entry. See <u>Time-slip Edit</u>. CPA's, engineers, attorneys, can enter time for billing, right alongside Clock-IN!'s time tracking of secretaries, office workers, and hourly employes.

Use the <u>Time-Clock Window</u> (the Lower Left "Buttons" & Charge form) for other types of entries for salaried and hourly workers. This form is customizable, see <u>System Options</u>.

Setting Up Clock-IN!

The steps to begin using Clock-IN! are:



- 1. Determine your time charging and attendance rules. Determine what types of transactions you will collect and why. Then set up Global-System Options. This sets up the Time-Clock Window with transaction button labels, defines overall system security, and indicates the desired validations for input.
- 2. Design and code your option sets to implement your time and attendance rules. Different classes of employees will use different option sets, e.g. salaried, hourly, "bill out" employees, etc.
- 3. Set up department information and schedules for each department and shift you have. The department schedules will be defaulted into the employee records as you enter employees, so enter department data first. Indicate a default option set to use for each department you define.
- 4. Add workers. You enter background information, pay rates for costing purposes, and default the option sets and department schedules as needed. You can override any individual attendance rule setting.
- 5. Print bar code ID <u>badges</u> for the workers.
- 6. Print bar code "charge documents" for easy "charging" by the worker.
- 7. Optionally create picture files for each worker. Then print bar-coded picture ID cards for your system users.
- 8. Set the system clock-and begin recording transactions.

See: <u>option sets</u>, <u>department</u>, <u>System Options</u>, <u>workers</u>, <u>badges</u>, <u>Print Bar Code</u>, <u>"charge documents"</u>, <u>Picture Files</u>, <u>Set the system clock</u>

Focus Sessions

If you are not familiar with time and attendance and bar coding software, you may need to resist the urge to just "turn it on". Many companies have found it important to conduct focus sessions with personnel and line managers before implementing Clock-IN!. With this approach every Clock-IN! option is discussed and decided upon before you implement.

Workers should be a part of these focus sessions.

Clock-IN!'s options and power comes at the price of user configuration. To implement Clock-IN! you may want to write your options right onto this user's guide as you decide on your configuration. Each system option implements some type of personnel or accounting policy.

If you don't know the effect a floating schedule has for example, refer to the manual, each option is described therein. When implementing Clock-IN!, you should ask hundreds of questions such as, what is our company policy on over-time? Then you will know how to tell Clock-IN! to handle that.

Putting together the personnel and line managers in the right setting to answer all the questions provides a successful approach. Your project team is needed to harness the power of Clock-IN!'s time models, because the results depend on their policies. Get your team together, understand the policies and options together, set up a plan, and implement. Without the policy makers it is difficult to resolve the policy issues and decide who will support the system, who will run the reports, etc.

Options are defined in System Global Options, Option Sets, Departments, and Workers. Approximately 100 choices are made during your implementation configuration. These choices all affect your personnel policy and the normalized hours that Clock-IN! delivers. A step by step procedure is in Chapter 3. The full manual is on-line in the help system. You can search on any subject within the help system.

Picture Files

Using a color or a black/white scanner, you can scan pictures of your employees into a Windows graphics application. Save this scan in the bit-map file format (.bmp). Name each file with the same name as the user-name or badge that you assigned to the employee, followed by an extension of ".bmp". e.g. B1001.bmp would be a valid file for time-clock employee B1001. "GARYD.bmp" would be a valid filename for professional user Gary.

When a professional user logs in, it shows his picture by loading and displaying this file. When a time-clock user executes a transaction it shows his picture.

When an executive or professional user is accessing the In/Out board, a Picture button will display the picture of the person corresponding to the active row (where the cursor) is positioned.

Also you may print your color or black/white pictures right on your ID cards.

Pictures are automatically displayed from ".bmp" files which you have previously saved. You should also REDUCE the resolution of these files to save them in 25-50k disk space. A 300x150x8 bits resolution is sufficient. Your image editing software should provide the capability to re-size and adjust resolutions before you save the images. YOU MUST DO THIS REDUCTION, since bit-maps can be as large as 4 megabytes in size, and Clock-IN! may take 30 seconds to load and display such a bit-map. This slows user response time to be unacceptable, so make sure your bit-maps are set to 25k for speedy display while employees use the system.

Ways you can scan the pictures into a bit-map file include 1) a color or black/white scanner with image editing software, or 2) a disk camera which takes the picture and stores it to a diskette, where you can load into your image editing software, 3) a video camera feed using a NTSC-TV board in your PC with video software that lets you snapshot a still image.

To print the pictures on your ID cards, use the "IDPICTUR" pre-defined layout. Or modify any layout, by entering 99 for the font size, and specifying data field number. Clock-IN! will look in that data field number (e.g. #1=badge/user-name), get the value (e.g. "DIANNE") and then print the bit-map file associated with that value (e.g. DIANNE.BMP).

Using Bar Code

You can bar code the numbers your people have to keep writing down or entering into the computer. Then instead of keying several characters, your people can <u>wand</u> the bar code in 10% of the time. Use Print Bar Code to print out bar coded documents from Clock-IN!'s many validation files. We have pre-designed many popular bar code forms or templates for you. Just select Print Bar Code and a list of predefined bar code documents is presented. Select the one you want to print and it will print the bar codes for that Clock-IN! data file. Edit the data files to contain the data you want to print. Other bar code print methods include selecting just those records you want to print, and printing a user defined bar code series.

The most popular use of bar code is to produce employee ID <u>badges</u>. These are printed from the Worker data file. Also available, is the ROUTER document, a complete "charge order" type of document with individual operations to charge. An AIAG (manufacturing industry standard) part label document is also provided.

Use Define Bar Code to set-up your own bar code documents. Use Prefixes to qualify which data file the bar code charge number relates to, so if you perform validation, a correspondence can be determined. e.g. B10001, where B is used as the prefix for all worker badges.

You Can Define Your Own Bar Code Templates

- (21) Bar Code Templates Are Included
- (21) Most Common Bar Code Uses Are Covered

Print Bar Code Series Capability (ABC100, ABC101, etc.)

You Can Define Your Own Bar Code Series On The Fly - For Ascending/Descending Alphas & Numbers

Print Series for Containers, Video Tapes, Books, Clients, Court Cases, Employee & Patient Files, and Any Common Uses

Print Bar Code From (36) Common Databases & Uses (Included), Such as Assets, Parts, Contracts, Documents, Orders, etc.

Print Selected Bar Codes On The Fly By Pop-Up Mouse Selection

Print Look-Up Codes for n Records (n=user defined)

Print Bar Codes Any Which Way! By Entering Data or By Series.

See: badges, Define Bar Code.

Time-Stamping

Normal Time-Stamping

Their are two types of time-stamps that Clock-IN! calculates and records when an event, such as a Clock-IN! occurs.

A REAL time-stamp is the exact day/second the event occurred, e.g. 08/30/92 @ 12:01:36. A NORMALIZED time-stamp is the time point which has been either rounded, or forced up or down to an integer time interval. YOU must choose the time interval units you want to use to NORMALIZE times. When you do, your normalized time-stamps will align exactly with this time interval unit. For example, say your firm chooses tenth hours to report time. Then 12:01:36 would be 12:00:00 normalized when rounded to "even" tenth hours. If rounded by "rounding forward", it would be 12:06:00, since every tenth hour is 6 minutes.

Also: <u>Calculating Hours</u>, <u>Rounding</u>.

Specific Menu Item Help Index



Whenever you have the menu item highlighted, you can just press the F1 key and get context sensitive help immediately. Here are all the menu items. Click on the ones of interest to you.

```
Export T&A
   Import T&A
   Export
   Import
   Archive History
    Set-up Data Files
   Clear A File
    Upgrade Data File
    Set-up Database Parms
   Re-Login
   <u>Exit</u>
EDIT
   EDIT-Validations Submenu
        Activities
        Charges
        Clients
        Machines/Centers
        Parts
        Projects
        Work Orders
        <u>Assets</u>
        Cases/Contracts
        Books/Documents
        Tapes
        Drugs
        Help Text
        Log Times
   Quick Setup
   Option Sets
   System Options
   Departments
    Workers
    Authorized Over-time
   Scheduled Leave
   Absence Codes
   Groups
    Job Classes
   Work Codes
   Transactions
   External Queues
   Export File Defns
    Report Definitions
   Function Definitions
   Operator Definitions
   Mail Triggers
   Standard Times
VIEW
   Print Graph/Table
   Real Time Graph
```

```
Real Time Table
   WORKER
        Day View
        Productivity Today
        Productivity Week
        Start/Stop Recap
        Start/Stop Trans
        Week View
   DEPARTMENT
        Day View
        Excepts Today
        In/Out Summary
        Over-time Today
        Productivity Today
        Productivity Week
        Week View
   Payroll Report
   Absence/Excepts
   Group Assignments
   Select A Report
   <u>DDE</u>
   MAPI Mail
PROF-Professional
   Time-slip Data-table
   Time-slip Form
   In/Out Board
   In/Out Postboxes
   Todos
BAR CODES
   Quickbar Code
   Print Bar Codes
   View Bar Codes
   Define Bar Codes
   Bar Code Prefixes
   Edit Prefix/PWs
   Browse Definitions
   Print Test Pattern
ACTIONS
   Set Worker Access
   Set Time
   Goto Locked Input
   Goto Unlocked Input
   Goto Simple Locked Input
   Goto Simple Unlocked Input
   Record No Shows
   Process Queue Now
   Adjustments
        Absences
        Notes-Personnel
        Debit/Credit Hours
        Force Hours to
TABLES
   How To Use
   Data Change Log
SCHEDULE
   Edit Schedule
```

Browse Table
Plan
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Edit Validations
Browse Validations
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Network Options
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Help About

Multi-Media Support

Clock-IN! provides two levels of multi-media support. Windows .".wav" audio files are provided with the standard version of Clock-IN! to help the user on specific menu item choices. You can turn on/off this sound support in Edit-System Options. A checkbox is provided on the last screen to toggle sound support on/off.

A multi-media show of 15 minutes duration is also available upon request. Audio, motion, and graphics are included. A nominal charge for shipping and media is required.

Editing Data Records-Moving

Under the menu item EDIT, you can access each of Clock-IN!'s 36 database files. Each file is composed of "records" of data. A data record corresponds to one person, project, etc.

When you enter the worker file, you are presented with the first employee "record" on file. The record is a Window with up to 100 "data fields". Each data field is composed of a label and text box to enter the data. For the worker record, the first field has the label "Badge" followed by a text box [......]. (The first field is the one in the upper left corner).

The data window has many more labels next to "fields" of data like the badge field.

Each data file in Clock-IN! is kept in order by the "key". The key is always the first data field in the upper left corner of the Window showing the data. It is presented in RED so you know that these field(s) order the records in the file. Because badge is the first field on this screen, the worker/employee is ordered by Badge number.

You can move through the data file from one record to another. You do this by clicking your mouse on the movement buttons [<< < >>>]. Starting takes you to the first record, back and forward one record, and to the ending record.

You can switch between the form and the spreadsheet view with a single button. The Table button from the Forms view switches into the Browse view. The FormsView button in the Browse view switches you to the forms view.

In some Edit screens there is not enough space to provide these buttons. In this case you have pull-down menus that correspond to the buttons. The Locate menu provides First, Last, Next, and Previous selections to allow you to move through the records.



See: Editing Data Records-Saving Information.

Editing Data Records-Multiple Screens.

Editing Data Records-Saving Information



You can also get help on any data field in any of Clock-IN!'s data files. A floating, revisable help text edit box is provided. You can type the help text in and hit the save key to save the help text description permanently. Whenever users move the cursor (or focus) to a new data field, the corresponding help text will appear along with the data field's name.

Save Revisions allows you to embed and customize your own help information as you learn the system.

If you move the cursor to a field is not coded with help information, the text "Describe field=>" will appear. Then you can go right ahead and type in your own definition. Click Save Revisions to save it. Later on, other users will be able to use your own "customized" help definition. So replacement employees won't have to start over, they start with your notes still in place.

At any time you can click on a data field for the record being displayed, and key in your new data. Some fields you may be viewing are "WRITE-PROTECTED", however. These fields appear in green. These fields depend on other information, and Clock-IN! may not let you change their data values.

Editing the data does not save the data. You must select Save Record to save the changes. Or turn on the option box marked Automatic Update, which saves each change as you make it.

Select New Record will give you a blank record where you can add a completely new record (e.g. worker, department, etc.). Delete record removes the record being displayed from the database entirely. Copy record copies all the data to a new record, where you must enter a new "key" that is unique to the system before you can save the new record.

Go-to gives you a fast lookup for a given record. In the worker file for example, it asks you for the badge, which you enter and it goes directly to that record.

Search lets you lookup records by any data value in ANY data field. "Search" expects you to first click on the field you want, then click on the search button.

You then enter the search string. You can also a) continue the previous search, starting at the record last found, or b) start over at the beginning of the file. The search is case sensitive, so you must enter the data to be found correctly, like all capital letters, if that is the way the data was entered.

A last option allows you to scan the entire database for the string you have entered. **Here it will check every data field in each data record sequentially.** It will also search the unlimited text or memo fields and try to locate the string in those data fields also. This option is slower, but very exhaustive. The case of the text is not important, either. Text will be matched whether in lower or upper case.

Editing Data Records-Moving Around.

Editing Data Records-Multiple Screens.

Editing Data Records-Multiple Screens

Some data files, such as the employee file, contain a lot of data. Some have more data than will fit on one window. To get to the other windows to view the additional data for that data record, use the next and last screen buttons.



Use the QUIT button to exit to other menus. Make a check in the Auto Update button to set the system into an automatic updating mode. In this mode, whenever you make a change in a data field, it will automatically be saved. You won't have to click the Update button afterwards.



See: Editing Data Records-Saving Information.

Editing Data Records-Moving Around.

Simple & Super Time-Clock Windows

Clock-IN! provides a simple and super time clock interface. The simple time-clock is the only clock available with the Clock-IN! Lite product. With the Clock-IN! product, you can select on screen 3 of S)ystem O)ptions the start-up mode for which clock to use and whether to bypass the Log-in screen and execute Clock-IN! with worker level access.

These are the steps to a FAST configuration for using the Simple Clock for Clocking In and Out.

Drag your Clock-IN! icon into your start-up group from within the Program Manager. This will insure that Clock-IN! automatically starts each time you turn on your computer.

Start Clock-IN! and select E)dit, then S)ystem Options. Click on the last screen button. Click on the check-box for Bypassing the Log-in Screen on start-up to enable this option. Click on the "start-up with simple clock option" to enable this option. Now Clock-IN! will bypass the log-in process and be ready for entry automatically.

Select T)able B)rowse W)orkers. There are about ten workers added already and you can click on each name and change it to your employee names. You might also want to change the badge numbers to their first names, e.g. CHRIS. Also, change each person's option set to one that has an approximate schedule that you like, e.g. "9TO5", "8TO5", and change their department numbers to FLOAT. View/modify option sets under E)dit O)ption Sets. Next select Forms view and delete or add any additional employees as needed.

Now select P)rint B)ar Codes, then select the IDBADGE form. This prints the badges with a hot-key and automatic transaction button initiator all on the badge.

Exit Clock-IN! and Windows to save your changes in both. Re-boot and make sure Clock-IN! comes up automatically.

Select V)iew P)ayroll reports after each pay period and print this report for you payroll person.

As workers arrive or leave they can pick up your wedge scanner and simply scan their badge. This is true whether you have some other Windows application running and being used by a worker or not. If you do not have a scanner or reader to use the bar code, have the worker type a "%" key (shift-5) to hot-key Clock-IN! to the front. Then have the worker type his badge number and press enter. This does it from the keyboard.

What you did above selected various worker scheduling time parameters. You should review these parameters, because they can be used to automatically identify save up to 15% of your labor costs. And they can create an exceptions history suitable for proving employee attendance exceptions that is legally viable in unemployment and other worker problem cases. Several department and shift options have been pre-configured for you including 9TO5, 8TO5, RETAIL, SHIFT1, SHIFT2, NITE, PARTIME. Both the department and option set names are kept the same. Most are configured for a floating schedule, tenth hours accounting, etc.

The Time-Clock Window

The Time-Clock window is composed of transaction "Buttons" and text entry boxes. You can change the labels on the buttons and on the text entry boxes in Edit-System Options.

AFTER YOU ENTER YOUR TRANSACTION DATA IN THE TEXT BOXES, YOU CLICK THE MOUSE ON THE BUTTON YOU WANT, OR YOU HIT THE FUNCTION KEY FOR THAT BUTTON.

TOTALLY MODELESS INPUT-Ergonomics & Input Focus

Clock-IN! is totally application and input independent. You CAN HAVE ANY APPLICATION ON TOP, any input focus, and just SCAN your badge and you will be automatically clocked in or out (also automatically determined). Just enable the Hotkey and ATO options when printing ID cards. Here is how that works:

Suppose other workers have been working in other windows and left the "input focus" in the wrong Clock-IN! window. Clock-IN! automatically determines this condition and overrides the input focus. So workers can come and scan some bar code or touch a key without concerning themselves with the Window input focus. Clock-IN! will automatically switch to the button box and enter the transaction if you printed that bar code with a leading "%" character. That is the hot key!

You can check off the HotKey check box in your bar code document print definition. Then when you print the bar code, the bar code is prefaced with a % character.

When Clock-IN! sees this character it HOTKEYS to the Clock-IN! application and forces input focus to the Button Box. The hotkey character "%" is not the same character as the ATO character (/). Because of bar coding limitations, we must use these special characters to trigger the hotkeys.

- * Here is how it works:
 - <When you check the Hot Key option in Define Bar Code, it adds this lead character "%".</p>
 - < You can check this option on all your bar codes if you want.
 - <This leading character in the bar code then forces Clock-IN! on top when you scan. %B100/

<When you check the ATO option in Define Bar Code, it adds this trail character "/".</p>

<When Clock-IN! sees this last character in the Badge Field, it pushes the ATO button to auto-determine if you are clocking in or out. Or it pushes the TSL timeslip button, if the data you scanned belongs in any other textbox besides badge. See standard times below for HIGH SPEED TIMESLIPS!

Also, in screen 2 of system options, you can put in the number of seconds Clock-IN! will wait until it FORCES the window focus back to the button box. If workers often come and display drawings or supervisors use menus, the focus is not always restored to the button box by the worker. Clock-IN! can force the focus back after the number of seconds you enter here. Put in zero seconds if you want to disable forced focus. Forced focusing will

also "grab" the window away from any other application you may be running.

HOT KEYS For Common Functions

These hot keys pop up Clock-IN! from the background FROM ANY Windows Application. They invoke the specific functions shown, no menu access is needed.

Shift F12-Inout Board

Shift F11-Messages View

Shift F9 -TODOS View

Shift F8 -Timeslip Form

Shift F7 -Timeslip Datatable

Function Keys & Shortcuts

The normal time based transactions such as Charge Since Last (CSL), Charge Time-slip (TSL), etc. can also be initiated by function keys which are also shown on the buttons (F1-F7). The user transactions labeled Moved It, etc. are actually numbered 1 through 7 (US1-US7). You can use the shift key along with the Function Keys F1 through F7 to initiate these user-defined transactions. Alternatively you can use the mouse to select a button, or tab to the button and press Enter. Shift-F9 is the shortcut key for password.

In and Out buttons are for clocking in and out (transaction types CIN and OUT). Auto is a special mode, see Automatic Transactions. Charge Since Last is a charge since last (the computer figures the time=CSL type). Time-slip (TSL type) just takes an hours entry and posts it to that day. No cumulative clock is kept for that employee for that day.

Enter Hours takes the hours you enter in the text box and applies it to your cumulative clock (CEH-Charge Entered Hours). Start/task (CST-Charge Start) and End Task (CFN-Charge Finish) log the starting and stopping of multiple tasks being done simultaneously by the worker. When a CFN is entered, a proportional time is computed and charged.

The did several tasks over a period (CDS- Charge Did Several) takes a badge number and computes the time and time-stamps since the last Clock-IN! event for that worker. It acts like the CSL, but also provides a looping window to enter a charge number and other user defined data. In this Window, you can keep entering charges. When you have entered all the charges over the elapsed time period, select Cancel and the system will allocate 1/n times the time period length, where n is the number of charges you entered. In some cases, this allocation will cause less than a full normalized time interval to be allocated to a single charge. e.g. 2 Jobs were run in one tenth hour, so each job would get 1/20th hour or .05 hours allocated to the job.

The buttons with the labels Moved It, SPC'd it, and User Def are all user defined transactions. In system options, you can assign the labels you want for these buttons. Workers can use all eleven text boxes to record any information you want.

Start-over clears all the text boxes. The MASS button is used to charge groups of employees or to auto clock in or out a group of employees.

The "Dwg" button displays an engineering drawing in the picture window. You can save your engineering drawings in a Windows bit-map format (.bmp file type), e.g. Part C2000.bmp. When you wand the routing (e.g. wanding C2000/20) or part ID, the system will lookup that wanded number in the routing file or in the part file, then display the bit-map file named in that part or routing charge record. Workers can just wand the number into the Charge field and the relevant drawing is displayed quickly and easily. (Bit-maps are the fasted display method under Windows for such uses). In System Options on the second screen, you should enter the path where the engineers store the bit-map files (e.g. r:\engry\bitmaps).

The Note button allows a manager or foreman to record a note about an employee. A password is required in order for Clock-IN! to accept such notes.

See Also: Time-Clock Text Boxes Data Entry, Automatic Transactions, Multiple Tasks-DOD Methods, MASS button, Groups.

Time-Clock Window-Entry Boxes

Use the tab key or cursor keys to move up and down within the text boxes to enter badge, charge information, and user defined data. Or use the mouse.

Change the labels on the fields below in system options, if you wish. Clock-IN! will always treat the first text-box field as a "who" identifier (an employee or a group) in order to make the charge. Clock-IN! always treats the second box as the charge to make.

The third text-box is treated as a sub-charge, and the fourth and fifth text-boxes can be re-defined by you if you wish. The last three text-boxes can also be redefined for your own use.

Text-boxes for hours, user time, and user date allow qualified users to enter overriding transactions. When doing a charge transaction, you can use CSL transactions, and the only text-boxes you need to enter are the badge and charge. By <u>wanding</u> both and pushing the button, you can do a charge just a few seconds.

Text entry boxes can be defined as FIELD MODAL. This means that when you wand a bar code ID badge or Charge card, the information will automatically SNAP TO the right text box field and enter it there. For example, you entered all workers with badge numbers that started with "B", e.g. B1001. You provided the filename employee in system options and indicated it used a prefix of "B" for the text-box [1] defined there. You indicated there a label ob "Badge". When a badge is wanded it references that set-up and locates to the badge box automatically.

Wand Bar Codes Or Key Data..

A message window appears at the bottom of the Time-Clock window. If your transaction is rejected or accepted, look here for the action Clock-IN! takes. Rejected transactions are always saved, but no update is made to the employee "clock".

Status Windows

When Clock-IN! comes up in the time-clock mode (if you have not selected Professional mode on LOGIN), you are presented with four Windows.

A re-sizable CLOCK window is presented in the upper left corner. If have Adobe type manager you can re-size this digital clock to be as large as the screen, if you wish. Clock-IN! menus are also available from this window.

The lower left window is the main transaction entry window, referred to as the Time-Clock Window. See Timeclock Window.

The two right hand windows present the status views of the worker who last recorded a transaction. After you record a transaction, these views are updated and show that worker's performance so far today. The worker daily running totals for time, and the individual transaction data is shown in the TABLE view. The lower right GRAPH view graphs the time & productivity distribution of the worker to this point in the day.

Hourly Time Entry

Professional workers are usually office workers whose time is not tracked for attendance but is recorded by time-slip to "charge" their time to different projects.

Complicating this is that some workers, such as engineers, CPA's, consultants, etc. perform some work off-site, so they come and go at different times.

These workers can use the TIME-SLIP Data-table and TIME-SLIP Form. These transactions post "TSL" or time-slip transactions to Clock-IN!. Alternatively they can continue to fill out weekly time-sheets manually and your clerk can key them into the Time-slip Form. The FORM provides a copy feature for fast data entry.

Some companies give the worker a choice whether to fill out his time-sheet using Clock-IN! or whether to submit a manual time-sheet. At one firm, some professional workers even opted for clocking IN/OUT and using CSL (charge since last) charges so they could use the quick charge approach and never have to fill out time-sheets. They would carry a dummy charge card to use when they were not working on projects.

A recommended option setting for professional time entry is "sliding schedule", when using CSL charges.

See: Professional Time, and Salaried Time, System Options, Option Sets.

Inventory Tracking

You can use Clock-IN! as a processing front end for inventory systems and MRP (Material Requirements Planning) systems.

MRP/Inventory systems involve hundreds of different types of transactions. The key to data accuracy is to get that down to five or six transactions that are WORKER SIMPLIFIED (ergonomic). Easy means accurate!.

Assign transaction labels to Clock-IN!'s seven user defined buttons for these half dozen inventory transactions. Try to make the transactions easy for the worker to understand, like "MOVED IT", "SPC'd" it. (SPC=statistical process control, or a quality observation). Then assign an MRP status field to one of Clock-IN!'s text boxes. Use this status field to differentiate transactions within the button (transaction) type for Clock-IN!.

MRP may have hundreds of different MOVED IT transaction types, like shipping, receiving, stocking, etc. Run off a bar coded sheet of status codes for those types you will use. Post it and when the worker presses MOVED IT, he can also <u>wand</u> the status code, or how he moved it.

When you get the transaction in MRP, use the status code to post it. You can further post the labor hours, the cost, and implied status changes to more than one MRP subsystem at once. One Clock-IN! labor hour charge can also update 1) MRP Work in Process, 2) MRP Cost, 3) MRP Status (an implied move), 4) Payroll, 5) Inventory (an implied change), and more.

Five or six ergonomic transactions can run a sophisticated manufacturing plant. Use Clock-IN! along with networked personal computers and proprietary bar code terminals as needed. But simplify the worker interface first.

Salaried Time Entry

Salaried and executive workers are usually office workers whose time is recorded on an exceptions only basis for attendance. These types of workers also do not ordinarily "charge" their time to specific projects or charges. Executives are a group of these types of workers.

It is still possible to track and know the location of these workers via Clock-IN!'s In/Out board. You can locate a networked personal computer with Clock-IN! in the reception area. You may already have a receptionist there who maintains a manual In/Out board to track executives. When they come and go, the receptionist chalks it up on the board. With Clock-IN! they can do that electronically.

At some companies today some salaried workers are being asked to clock in and out just to show their In/Out status as they come and go. Their actual In/Out's will show up in the In/Out board views. Then the company gets all the numbers on "fast tracks" who are working extra long and hard hours.

If you decide to ask these workers to clock in and out, you can justify it based on two factors. The system ends up automatically generating 8 hours for them, saving clerical time. And you get the automatic IN/OUT board tracking. If everybody in the firm is clocking in/out, there's also no stigma to the hourly worker, or anyone else. Yet actual processing for these worker transactions can be quite different.

To set up salaried workers for tracking, you set options for 1) sliding schedule, 2) turn enforce over-time option on, 3) set over-time and double-time limits to 99 hours. This effectively says after 8 hours, you need over-time authorization, and so after clocking more than 8 hours, the worker will be given just 8 hours.

If you decide not to track salaried workers by actual IN/OUT transactions, they can fill out a time-slip and turn it into your payroll clerk, who can still enter the default hours worked, and absences into Clock-IN!. And Clock-IN! will post all your payroll though the external interface.

See: Houry Time, and Professional Time.

Professional Time Entry

Professional workers are usually office workers whose time is 1) usually recorded on an exceptions basis only for attendance, and 2) optionally recorded by time-slip to "charge" their time to different projects, etc, or 3) optionally recorded by time-slip in order to bill out some of that time.

Complicating this is that some workers, such as engineers, CPA's, consultants, etc. perform some work

off-site, so they come and go at different times.

These workers can use the <u>TIME-SLIP Data-table</u> and <u>TIME-SLIP Form</u>. These transactions post "TSL" or time-slip transactions to Clock-IN!. Or they can continue to fill out weekly time-sheets manually and your clerk can key them into the Time-slip Form. The FORM provides a copy feature for fast data entry. You can even give the worker a choice whether to fill out his time-sheet using Clock-IN! or whether to submit a manual time-sheet. At one firm, some Professional workers even opted for clocking IN/OUT and using CSL (charge since last) charges so they could use the quick charge approach and never have to fill out time-sheets. They would carry a dummy charge card to use when they were not working on projects.

A recommended option for professional time entry is "sliding schedule".

See: Houry Time, and Salaried Time.

The Legal Audit Trail

Transactions include every clock in and out, every charge time entry, every absence, every exception, every human resource note made by a supervisor, every over-time hour, every attendance problem, and each day's productivity in one database.

As many as 10,000 transactions for an employee in a year are collected and retained. Four thousand characters of data are kept for each such transaction.

You can print the time ordered transactions and exceptions reports for the year. And then select just the data you need to evaluate employee performance. You can graph the data in various report writers and spread-sheets.

Invariably larger firms confront employee law suits that require this type of information be brought into evidence. You should retain as much of Clock-IN!'s historical data as your disk space or tape backup permits. Then you are able to confront employee legal problems with just the right data. Clock-IN! transactions act as a legally admissible history of employee activity.

Extract these employee transaction records for the year into your Windows spreadsheet. Query and graph the data in Excel or 1-2-3 for Windows. Generate just the right tables and graphs to support the employee attendance or behavior problems. Print out the notes log maintained by supervisors and other company principals.

With appropriate macros and queries you may develop a standardized employee evaluation system based on Clock-IN!'s collected data.

Wanding & Touch Screens



Wanding or scanning is the process of moving a bar code wand across a bar code to read it. Wands can be contact (they touch the bar code) or non-contact (where they are more often called bar code scanners).

Alternatively, you can use a "slot" reader and scan the number by running the badge through the slot, where the device can read the bar code as it moves through the slot.

Touch Screens can also be used as a further Clock-IN! input method. The user can wand most data entries, like badge and charge number, then physically touch the desired transaction button in the Time-Clock Window.

See: Time-Clock Window.

Multiple Tasks-DOD Methods

CST (charge start) and CFN (charge finish) transactions allow the worker to <u>wand</u> each job started when he starts it (CST) and when he finishes (CFN) it. Suppose Clock-IN! recorded the CST-start and CFN-stop times in Figure 5-2 as the worker wanded two different jobs.

Real Time	06:59:01	10:02:01
Normalized Time	07:00:00	10:03:00 = 3.05 hours charge
Job 1 time>>	^	^
Real Time	06:59:01	09:29:01
Normalized Time	07:00:00	09:30:00 = 1.5 hours to charge
Job 2 time>>	^	^

Figure 5-2 CST-CFN

The worker tended both job 1 and job 2 from 07:00 to 09:30. What is the correct amount of time to charge for Job 2? The answer is 2.5 hours/2 jobs=1.25 hours.

But suppose a break occurred from 09:00 to 09:10. Then three unique time periods have to be calculated and each has to receive a proportional amount of time (07:00 to 09:00 when 2 jobs were running, 09:00 to 09:10 when zero jobs were running because of a break, and 09:10 to 09:30 when two jobs were running.) Job 2 should get 1/n (one divided by n jobs running) time allocation for each unique period when exactly n jobs were running.

Such a calculation can be considerably complex as "n" grows into several jobs with different start and stop times. Each unique time interval must be determined. Clock-IN! has a stepwise calculation algorithm that quickly and accurately computes the charge time at the conclusion (CFN) of a job.

This CST/CFN method is the method by which the Department of Defense (DOD) requires the time to be computed on multiple jobs.

An alternative method for less exacting time allocation is the CDS - Charge Did Several. This allows the worker to do several jobs, then record them and allocate the time to them all at once. This method is not DOD approved, because it does not record the stop and the start. Instead it operates like a charge since last for several jobs.

It allows you to enter several jobs (e.g. j jobs) as input after an elapsed time say n hours. Then it allocates n hours times 1/j to each job. The convenience of this method is appropriate where you might load several jobs into a furnace for example. Then remove them all at once after heat treatment and allocate the total time over each of the jobs evenly.

See: CEH,CSL,TSL Transactions Defined.

Activity Based Costing

Clock-IN! provides your company with a total transactions database, from proprietary bar code input, office worker time accounting, to MRP front end. And because Clock-IN! can cost every transaction (even material moves), you can easily implement activity based costing.

Over each monthly period, you can analyze your reports of total plant activity by machine, by work center, by product code, by product line, and by any other demographic attribute. Simply run these reports against the transaction database ("transact.db") for that period. These reports yield the "traditional ratebased costing" information.

You can use the Report Writer to accomplish this according to your needs.

After traditional cost "break-outs" are known, you can re-compute overhead rates to use an activity based allocation, such as one based on product line or part number production volumes. These new rates should be designed yield the same overall traditional cost.

A simple spreadsheet can be used to determine that months "activity based cost rates". You could also modify the rates for "actual overhead". Then you can re-apply these rates to that months transactions, and re-run the reports. You will need a custom Paradox program to re-apply the rates to the affected transaction base, since each implementation is user specific. Then simply re-run the reports for activity based costing.

See: How Clock-IN! Applies Costs., Report Writer.

How Clock-IN! Applies Costs

etc. This calculation is done in real time.

The transaction itself is also posted with the costs incurred.

In editing the validation file, you can view the costs. Usually you have to hit the next screen button to forward to the costing screen, which is often the last screen .

Cost calculations are made by applying the pay-rate from the employee file for that worker and the overhead percentages from the associated department record to the normalized hours recorded on that Clock-IN! transaction.

See: Activity Based Costing.

Report Writer

Clock-IN! includes the Crystal Reports report writer engine from Crystal Software. This product is a Windows based report writer with numerous features.

Clock-IN!'s 39 standard reports are each defined in a file with names like "xxxxxxxx.rpt". These reports are located in the directory where you installed Clock-IN!. To modify a report provided with Clock-IN! purchase Crystal Reports and retrieve the "filename.rpt" you want to modify. Then you can change its layout, or sequence as desired.

You can also purchase the Report Writer to design your own reports, and add them to Clock-IN!. To add them to Clock-IN!, design the report, save the filename.rpt file into the directory where you installed Clock-IN! and then add the report name to Clock-IN!'s reports database as a record.

When you pick Select A Report, your new report will appear in the pop-up list of predefined reports. Clock-IN! also lets you change selection conditions, date ranges, etc. to get the most out of your reports. You can make selection changes after you select which report you want to print or view.

Training & Consulting

As a Windows and Clock-IN! user, expert assistance is available to you for 1) Windows & network programming, 2) Client/server applications, 3) Systems Integration, 4) Network systems planning, 5) Ergonomic data collection and analysis, 6) MRP, 7) Strategic information systems planning.

If you are an OEM, feel free to use our staff to commercialize your software under Windows. Or license Clock-IN! for your platform. A free consultation is available.

Both one and two day product training classes on Clock-IN! set-up and implementation are available at your site. Our consultants can help you and your management decide on the options and conduct Set-up and Focus sessions to organize your implementation to optimum advantage.

Mission Critical Software, (313)-247-0394. Compuserve ID 73127,77. Fax your requirements to (313)-247-8444. Dean L. Hiller, CSP,CCP,CDP,CPIM,COAP,CSI,CISA,BSE,MSE,MBA.

Technical Support



We are committed to making Clock-IN! the most comprehensive and ergonomic time solution available. Your ideas and feedback on improving it are important to us.

Give us a free idea and we will provide you a free product upgrade when the product incorporates your idea. That's our pledge to you. Send your ideas via fax to us as you would for any other technical support, as explained below.



The recommended method to receive prompt attention to your support request is to provide our staff with a facsimile. Please include with your fax:

Customer Name

Contact Name

Serial Number

Memory Installed In Your Computer

Return Fax Telephone Number

Description Of Problem-Error Message

Screen Prints of Screens 1 & 2 in System Options

Screen Prints of the affected Worker's First Data Screen and his Related Option Set Data Screen

The Screen Prints required are the same as those shown in Chapter 3 as Figures.

To capture screen prints to document your situation, enter that menu item, e.g. Edit Worker. Find the affected record and/or data screen. Then press Alt-PrintScreen to capture just the active window to the Clipboard. To capture the whole video screen, press Shift-PrintScreen. Next, go into your Windows word processor or into PaintBrush, and select EDIT-Paste to paste the screen into your document. Now select File-Print to print it.



Service contracts are available for telephone support, extended support, and implementation consulting. Call for information.



As an alternative to facsimile, users can post messages to Compuserve User ID 73127,77 on Compuserve. Optionally, you can up-load actual data files to this Compuserve user for down-loading by our technical staff. This service is also used by us to post updated programs for down-loading by you.

Automatic Transactions

An automatic transaction consists of simply scanning in a badge number. No other action is required by the worker. No key presses, mouse clicks, etc. are required.

The main use of automatic transactions is to determine Clock In or Out automatically. Clock-IN! uses time of day and last transaction status to determine if the transaction should be an in or out.

Bar coded ID badges are terminated with % to cause this immediate transaction acceptance (e.g. badge ID B100 is actually printed as B100% onto the bar code). The % character sends an ATO button click to Clock-IN!.

Clock-IN! then determines whether it is an IN or OUT transaction automatically and starts/stops the employee clock for the day.

To use this option, check-mark the ATO option in the bar code definition document. The badge template IDAUTO is set up this way (it has this option checked). This will cause this terminating character to be printed in the desired bar coded documents.

If you just use Clock-IN! for attendance this operational mode is easiest for your workers to use.

See Defining Bar Codes.

CEH, CSL, TSL Transactions Defined

Many workers do one thing at a time, finish it, then do something else. These workers don't really need to declare "I have started this task" and later "I have finished this task". They can use Clock-IN!'s normalized clock to supply the time the last task was finished as the start of the task just completed. Then they just press a button and say "I did that".

The CSL-Charge Since Last transaction is ideal for them. It tells Clock-IN! I did that, you figure it from the last event I finished.

Transaction Event	IN		CSL
Real Time	06:59:01	10:02:01	
Normalized Time	07:00:00	10:03:00	= 3.05 hours to charge
time>>	^	^	still tickina!

Figure 5-1 CSL

The worker's normalized time-stamp is the worker's "clock". In Figure 5-1, IN was normalized to his scheduled clock in time at 07:00:00. The 10:02:01 charge rounds up to 10:03:00 on a twentieth hour basis in this example. The computed time for the CSL is 3.05 hours. The next CSL the worker does will work from the 10:03:00 clock. If he does a CSL at 11:03:00, it will be charged 1.00 hours.

A CEH transaction (Charge Entered Hours) would charge the user entered time, bringing forward his normalized clock by that amount. In the above, if he had entered 2.00 hours on a CEH, it would move the normalized stamp from 07:00 to 9:00 hours, and charge two hours. Having the user enter the time is more subject to errors and requires more time and effort by the employee.

A TSL entry is a Time-slip transaction, time-slips are posted at time 00:00:00 for the day that they are entered. They do not move the employee clock or affect normal employee clock operation. The CEH affects the worker's clock and the TSL does not.

See: CST,CFN DOD Transactions Multiple Tasks.

Mass Transactions



The foreman or manager can maintain which employees are working in Groups and charge their "clocks" collectively with a single charge transaction. Employees may be assigned to different groups from any department. A group is formed to work a particular production line or construction effort. So it can consist of workers from many different trades, departments, etc.

Start by assigning a group number in Edit-Groups. A bar coded group ID card may also be pre-printed for easy scanning of group transactions.

As you manage the group, you can add and remove workers from the group as you need them or not. Use View Group Assignments to add or remove workers from each group. Say five workers are assigned to a line from the start of the day (e.g. 07:00) and a sixth worker is brought in at 8:00. That worker would have charged off his time (CSL) through 8:00. When a group charge is done by the foreman at 10:00:00, only two hours accrue to that worker's clock and three hours to the other five workers.

The foreman uses the group bar code ID card to charge all the workers hours at each "pay-point", like when you change-over the line to producing something else. Since each charge uses each individual worker's clock, each worker is only charged for when he was really working that line. Workers that were added later to line, are only charged from their last "clock", when they were assigned to the line.

To enter the mass charge, the supervisor scans the Group ID number into the Badge field (first field), then other charge information is entered into the text entry boxes. The supervisor presses the MASS button and selects the desired transaction type (e.g. CSL), or simply presses the button for the transaction desired. A transaction is executed for each group member, using his individual "clock".

See: Activity Based Costing, Edit-Groups.

Entering Note Information

This is the fast way for a guard, a foreman, a manager, a payroll clerk, or any authorized party to record a note for an employee. Put any kind of remark or data here. Major uses of this function are to:

- 1) Record absences, indicating payable hours, cause, etc.
- 2) Record discipline actions.
- 3) Record commendations to the worker.
- 4) Record any Human Resources log file note.
- 5) Record a training note (e.g. a guard notes a worker problem).

Access to this function is controlled by password. The transaction will only be accepted if a valid password is entered. If you want workers to record notes, you can assign a low level password.

Rounding of Normalized Time-Stamps

A normalized time-clock is kept for each employee. Each transaction is normalized in a four step process, defined as follows:

1	Real Time Is Recorded	06:48:43
2	Time is Normalized By Rounding Rules	06:48:00
3	Department & Employee Schedule Overrides Are Applied	07:00:00
4	Global Overrides Are Applied	07:00:00

<u>Each normalized time-stamp</u> can be rounded or forced to the nearest time interval forward or back. e.g. 06:48:43 is 06:48:00 when forced to a whole clock interval down, and 06:54:00 when forced up. If left to rounding, it would round to 06:48:00.

Each transaction type (e.g. CIN for Clock-IN!) can be set to one of these three normalized "rounding" methods. The resulting time-stamp after the rounding method is applied is called your normalized time-stamp.

When you specify an option set for the worker or all the workers in that department, you default how each time related transaction is rounded from that option set's information.

In Edit-Option Sets, you can set the check box for each transaction (CIN=Clock-IN, etc.) by 1) graying out the box (forcing round forward), 2) whiting out the box (forcing round back), or 3) checking the box (letting the computer actually determine to round up or down). The check-boxes here are 3-way check-boxes, so just click on the box repeatedly to change its status to a particular setting.

Default settings are to round forward for Clocking-IN and to round back on Clock-OUT. This method takes advantage of the time-clock interval to the advantage of your company.

Calculating Hours Using Time-Stamps

CSL-Charge Since Last Hours transactions direct Clock-IN! to calculate the hours since you last did a transaction. Suppose you Clocked-IN! at 07:00:00 and you did a CSL, charging a job at 10:16:22. Clock-IN! normalizes this to 10:18:00 (if you set tenth hours as the basis, and use round forward or round as the CSL option setting). Clock-IN! then looks up your last normalized clock event, 07:00:00 (clock-in) and calculates 10:18:00-07:00:00 = 3.3 hours to move your normalized clock up. Clock-IN! then distributes the 3.3 hours over break times, absence, productive time, etc.

Clock-IN! consequently keeps a cumulative clock on all your time-related transactions, resetting your clock time to zero, when you first clock in on any given day. Then it updates your clock each time you use Clock-IN!.

Security

When invoking Clock-IN!, this is the first screen you see:



You can select which of the three methods of operation for Clock-IN! you want. Which mode you elect to enter imposes different password checking.

Professional Time Entry Mode: In each worker's record you can assign an individual worker password (on the next to last screen of worker data). When entering this mode, this password is verified before access is allowed. Many menu items are restricted in this mode. The worker must enter the user-name and the password.

Time-Clock Mode: In E)dit W)orkers the badge field is synonomous with user-name. Screen 3 of E)dit W)orkers provides a place to put the user's password and system access level.

All Features Mode: This mode requires the master password or a T&A level password and activates all menus selections. Use this mode for setting up the system.

Login requires that you provide a badge (i.e. user-name) and a password during login. The badge is looked up in the employee file (worker menu item) and the password is verified. This allows any worker to start up Clock-IN! All that is required is that the worker have a badge and valid password and an access level assigned (see below).

Many users want to operate in Unlocked mode, granting the worker access to some reports, bar code printing, and validation files, but to constrain them from the sensitive data. You can grant access to them in unlocked mode to allow limited menu access.

Four access levels are also available for you to code the access level for each employee. They are T&A (3), Manager (2), Guard/Receptionist (1), and Worker (0). There are checkboxes on the same worker screen 3 next to where the password is entered for the access levels. You only need to check the highest level you are assigning to the person, such as a level 2 for managers. The highest level is level 3, which provides access to all menu items. If you don't assign at least access level worker (0), then that employee will not be able to startup Clock-IN!.

At level 0, in an unlocked mode, workers are allowed to get into non-sensitive validation files and inspect/modify data therein. Some reports and bar code printing are also available.

When a supervisor wants to use the Clock-IN! station, he should select F)ile R)elogin to establish his access level in order to access the menus. When he is finished, he can select A)ction S)et access to worker reset the access level to level 0 for the workers.

When entering notes via the notes button, an access level of 2 is required. After you enter your badge and password, the accesslevel is looked up and verified before the note is accepted.

Access limitations are imposed by windows resources named LEVELn, where n is 0,1,2, and 3. Based on the level of login, the proper menu is loaded. If you wish and have the proper development tools, you can edit these menu resources and enable/disable additional items.

See: Actions-Goto Locked Mode

File-Export T&A

This menu selection allows you to export your collected time and attendance data to an external ASCII text file. You can export this data for a date range of transactions according to predefined templates.

Exporting T&A (time and attendance) data and user defined transactions such as inventory, etc. involves accessing the transact.db database where all such data is stored, then converting the data to ASCII text using a template.

A pop up list will appear with pre-defined external ASCII text layouts. Each layout defines how the transactions will be output (what data fields, what filename, etc.) are to placed in the ASCII text file. Before you select this item you should edit the layout definition, and indicate the date range of transactions to copy and format to the external "payroll" or "MRP" text file. You can then select this item and actually create the external file.

When modifying layouts, it is recommended that you verify your layout by exporting the data and then opening the resulting text file with your word processor. You can then check that it is in the format you need for your payroll, billing, or MRP system.

A sample exported file is quoted ASCII text, such as:

When exporting absence codes, Clock-IN! converts the actual absence code to a new absence code if needed. In E)dit A)bsences you can code a "convert to code on payroll export". Then when the data is exported, it converts the original absence code to the "payroll" equivalent code that you defined there. This allows you to have a different and more comprehensive set of codes than your payroll allows.

See also: Import, Edit-Output Definitions.

File-Import T&A

Four methods are available to accept external data into Clock-IN! for processing through the Clock-IN! time engine. By processing this data through Clock-IN!, your time-stamped transactions are accepted and processed as if they are keyed directly by the user, i.e. they update the employee clock, log exceptions, build the audit trail, etc.

You can 1) Import a file with a quoted ASCII text form, 2) Poke the data to Clock-IN! using a DDE_POKE from a Windows program, 3) enter the data into the queue.db database using your own custom Paradox program, or 4) use the oemdata.c Windows program source code to customize your own terminal server program.

Figure 6-2 provides the dialog where you can input the filename you are importing when you select this menu selection. Your programs should create the following data in the quoted ASCII text file you plan to import, with one transaction per line. It should provide 15 data fields with either blank or non-blank data as follows (field 1 through 15):

seconds since 1/1/1970 or b	lank 910234333
mm/dd/yy (reqd if timestamp t	olank) 06/06/93
hh:mm:ss (reqd if timestamp t	olank) 12:04:07
three characters	CEH (required)
up to 12 characters	B1200 (required)
up to 33 characters	C100 (recommended)
up to 8 characters	W1 (optional)
up to 17 characters	(optional)
up to 17 characters	(optional)
up to 17 characters	(optional)
up to 17 characters	(optional)
up to 17 characters	(optional)
up to 17 characters	(optional)
up to 17 characters	(optional)
up to 17 characters	(optional)
	mm/dd/yy (reqd if timestamp the hh:mm:ss (reqd if timestamp to three characters up to 12 characters up to 33 characters up to 8 characters up to 17 characters

Figure 6-3 ASCII Import Layout

See also: Export.

File-Export

A general purpose export capability is provided. This menu selection provides a pop up list of predefined external ASCII text layouts. Then you select which export template to use and Clock-IN! exports the format in ASCII.

In Export File Definitions you define the export layout or template. You specify which of the Clock-IN! databases you wish to access and the field numbers to export. Each layout defines how the transactions will be output (what data fields, what filename, etc.). See Edit-Output Definitions.

File-Import

You can also import data into any Clock-IN! database. Here is an example application where this is accomplished.

Importing/Exporting Name & Address Information

If you are using Clock-IN! for seminars, then you may want to import just the needed data to print badges and maintain attendance. Perhaps you have entered the data into a spreadsheet. Simply export this data and import it into Clock-IN!.

The MAILMERGE format is a predefined format in the Export File Definitions under the Edit pull down menu. This layout defines the import or export format for needed information for a mailing label or to print bar coded badges and maintain a seminar registration database.

The predefined export format is "badge #, employee #, last name, first name, label name, title, street, city, state, and zip. A sample input file is in Figure 6-4.

```
"B20004","371223340","Dianne","Knibloe","Ms. Dianne -line continued Knibloe","Employee","12345 Aspen rive","Southfield","MI","48313"
"B20005","02139845","John","Thomas","","","","",""
```

Figure 6-4 ASCII Mailmerge Layout

You can modify this layout easily by indicating which field numbers you want to import or export in the definitions menu selection. Remember that before importing the data, you may want to File, then Clear a File and clear the worker file of older data.

File-Archive History

This function is used to remove older records from the "transact" database, scheduled leave, in/out, authorized overtime, logtimes, etc..

Select this item to free additional disk space for newer transactions. You can set the number of days of transactions to retain in screen 2 of Edit-System Options.

Transactions are archived to a file named archive.db. When you run archive history the first time, this file is created from the Export/import definition named "archive" if the file does not exist. You can define what fields and in what order they are saved by modifying this export/import file definition. If archive already exists and you want to change the layout for it, delete the archive.* files and then modify the layout for the "Archive" definition using Edit Export/import. Then run archive history and it will recreate the file for you. You should periodically clear this file after you have backed it up.

After you select this item, it will remove transactions that are older than this parameter setting. If you wish to backup or archive the transactions to some other disk or tape, do this first.

Ideally you have the disk space to keep up to a year's worth of transactions. Human Resources reports can then give in depth cross sections of employee exceptions over time, employee attendance, notes, etc. Cost reports can provide a wealth of activity based costing information.

The value of the data is in keeping it over time, then running cross-sectional queries over each resource, worker, etc. to discover what is really happening with your business.

One customer found 40% of his machines were being used at less than 2% of capacity and avoided a costly expansion by retiring certain equipment. Another found it was pricing professional fees for certain tasks too high and losing business, while other tasks were priced too low.

The impact of such a complete and costed transactional database for the year is strategic.

Disk space: Figure about 5 transactions per day per worker by 1.4k by 240 days per year, or about 1 megabytes per employee per year to compile your strategic database. Even in a small 30 person firm, that's 90 megabytes of invaluable and exact information that completely details attendance, performance, and supervisor notes.

See: System Options.

File-Set-up Data Files

When you start up the system to collect "live" data from your employees, you need to clear away the history and any queued input, and set all employees to "not clocked in" status.

Then this history and the last employee status cannot skew your newly collected data results.

This menu selection is used to reset the system for "start up".

The Setting Each Employee Record option in Figure 6-5 resets the day and week totals fields for each employee, effectively setting his running totals to zero, and sets status to not clocked in.

MC	Setup Actions To Initialize Time-Clock Data	1
·	☐ Clear Transaction History File of All Records ☐ Clear Queue.db Input File of All Pending Input Transactions	
_		
Set Each Emplo	yee Record to Not Clocked-In	Fi

e 6-5 Set-up Data Files

The transaction.db and queue.db databases are also cleared of any transactions or pending input by the first two options in Figure 6-5.

File-Clear A File

When implementing the system, you may want to empty out a whole data file, in order to enter your data fresh.

Clock-IN! is shipped with some sample workers, departments, etc. To clear this data in any data file, select this menu item. It pops up a list of files, and you can have it clear away all the existing records in the selected data file.

If you want to clear away all transaction history, and set the status of employees to not clocked out to "start up" the system, choose File-Set-up Data Files instead.

See: File-Set-up Data Files instead.

File-Upgrade Data File

When installing a newer version of Clock-IN!, you should install the new version in a new directory location. DO NOT OVERWRITE your older data files by specifying the original directory where you installed Clock-IN!.

After you have installed the new version, run Clock-IN! and select this menu option. Here you can select each file, one a time, and load the data from your old system into your new system files. The newer system files usually include expanded fields, more fields to store information, etc. Your old data will be loaded into the older corresponding fields and records by field-name to insure you don't have to re-type that data into your new version.

You will only have to convert the files you have modified, such as option files, and those you use regularly. To be safe, you can convert all files (but only one file at a time).

File-Set-up Database Parameters

Clock-IN! stores its data in the Paradox 4.0+ data format. The Paradox database engine must know the type of network you are using, if any, and must have minimum Paradox parameters set in order to run Clock-IN!.

Whenever you run "Clock-IN!" it automatically checks your settings first, and may present you with this screen to enter parameters. The settings suggested in Figure 6-7 can be accepted as is, except for Network type and User-name.

You should pay careful attention to assigning the network type (1-9) for the network you are using. Also edit and enter you network user name.

File-Re-Login

You may be using Clock-IN! in Time-Clock mode, or you may be a professional using it on a network as a time-slip system. Either way, you may want to re-enter Clock-IN! in a mode different from the mode you are using.

Select this item to enable yourself to log-in again and select the mode of operation you now desire. This method is faster than exiting Clock-IN! and then re-loading it again. See: Security.

File-Un-Install

You may want to remove Clock-IN! from your computer. Selecting this option reminds you that to remove Clock-IN! you can simply delete the files in the directory where you installed it. You can then remove the directory afterwards.

e.g. "del c:\clockin*.*", and then "rd c:\clockin".

The Clock-IN! installation & set-up also modifies the win.ini file, setting parameters for the paradox environment. Because you may use other Paradox applications, you may not want to delete that section of win.ini that is titled [Paradox].

Clock-IN! also may add a section to win.ini titled "[Clock-IN!]". This section only gets added if you use the Call-up Time Service option. You can manually delete this section from your win.ini file if you have used this option.

If you have used the MAPI mail options, a clockin.ini file is also created in your user Windows directory. This file can also be deleted.



File-Exit

To exit Clock-IN!, select this menu item.

Edit-Time-slip Data-table

Each network user can have his own private time-slip file to enter his week's charges. This file is created for you automatically in your individual Windows directory (where your win.ini file is also kept by Windows).

Time-slip provides the usual Browse Data-table buttons to move around, and the cursor keys and mouse are operative. You can edit the Data-table directly, editing hours, charge fields and codes, and user defined entries. A display feature shows daily total hours for the working time-slip data you have entered. You also have buttons to delete and add rows at the point where the cursor is located.

Use the POPUPLIST button when your cursor is on the charge or the work code field. Clock-IN! will provide a list from which you can select the code, rather than typing it.

You can at any time post the records using POSTRECS, which posts them to the queue file. Posting sets the transaction posted flag to on and you cannot delete or edit this transaction thereafter, as it is part of your weekly activity. If you need to reverse such a transaction entry, add another transaction with negative hours.

Management may decide that you should post your hours daily or weekly. POSTRECS will only post each transaction once, however. So it preserves your time-slip data-table view of the whole week.

Special button functions include NEWWEEK. This function creates a new table for the user automatically for the following week. The user can override the week start, the number of time-slips to be created for each day, and the number of days to create time-slips. He can assign a default charge and default work code (a sub-charge) and a beginning hours. Before using NEWWEEK, you should do a final POSTRECS for the current week.

A floating memo pad is provided. When you click on the cells in the note column, you can enter the text into the floating memo pad. The memo pad saves up to 32,000 characters of text into your time-slip.

See also: Edit Time-slip Form

Edit-Time-slip Form

A time-slip at a time view is provided with this selection. Most users will prefer the Time-slip Data-Table View for browsing and correcting time-slip entries.

For fast data entry of time-slips by clerks, use this view. This view makes it easy to enter multi-line notes and to enter time-slips from scratch.

The posted check-box indicates whether an individual record has been posted to the Clock-IN! databases via the Spreadsheet view.

Each network user can have his own private time-slip file to enter his week's charges. This file is created for you automatically in your individual Windows directory (where your win.ini file is also kept by Windows).

You have normal Browse Data-table buttons to move around, and the cursor keys and mouse are operative. You can edit the data-table directly, editing hours, charge fields and codes, and user defined entries. A display feature shows daily total hours for the working time-slip data you have entered.

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See: Time-slip-Data Table View

Edit-Quick Set-up

Select this screen if you just want to add an employee and his schedule FAST! This entry option can also pop up when a worker tries to wand a badge number that is not on file. You can turn that facility on in screen 3 of Edit-System Options. You could even use this to allow workers to set themselves up on the system!

Edit-Option Sets

Each option set ID number calls out a number of attendance and time-stamping rules that will be applied to a worker's transactions.

Enter an option set ID. If you maintain multiple site locations, enter a site code. The site codes are defined in the Remote Communications, Remote Phones menu item.

Parameters are in Minutes-The time parameters and the Split parameters on the far right can be entered in seconds, for exact time-clock control. Check this option if you entered the settings in minutes, then Clock-IN! will interpret them as such.

If the employee is assigned a group number, you can select it in this combo box.

Clear Prior Day Hours-Clock-IN! clears the daily hours totals for a worker when the worker "starts" a new day. Starting a new day can only be accomplished by an ATO or a Clock-IN! CIN transaction.

The actual transaction set is compared to the current time to determine whether a new day is being started. For example:

^ ^ CIN or ATO transaction first in last trxn current time

If the current time>first in time for that transaction set+clear prior day hours, then the new day is started. Thus if all your workers work less than say 14 hours in a day, set clear prior day hours to 14. A lunch clock-out and in would not be interpreted as a new day, since these would occur within the 14 hour span.

Even when you have a worker who works 20 hours from 0100 to 2100, this rule may work effectively, e.g.

On the second day of work:

The current time would be 0100+2400 hours later>0100+1400, so set a new day.

But suppose this worker does a charge at 2000 hours if the first day, no new day is effected, since only an ATO or CIN transaction would cause a new day to start. But at 2100 of the first day, the worker tries to ATO (to clock-out), but 2100>0100+1400, so it would trigger a new day, instead of the clock-out that was desired.

This event is within the length of the employee schedule 0100-2100, so we have not set the clear prior day hours interval large enough for this employee. Set the parameter to 2100 hours, and the accounting will be proper. Setting this parameter larger still will conflict with the early clock-in rules applied to the following day. You are cautioned to use only as large a setting as the length of the shift plus possible overtime hours and a few hours buffer.

When a new day is started, Clock-IN! automatically clears the employee totals for that day, sets the worker clock to zero, and clocks the person in, no matter whether he forgot to clock out the prior day or simply was not there.

First Pay Day-Indicate the first pay day of the week (e.g. Sunday=0, Monday=1, etc.). Clock-IN! will determine if a Clock-IN! which starts a new day has rolled into the next week. If it has, it clears the weekly totals for the worker.

Time Interval (seconds)-Key in the units of time you want to use to record normalized times and hours units. For example, use 36 seconds=hundredth hours (.01 hours is .01 x 3600 seconds/hour) as the basis for Department of Defense work. Use tenth hours (by keying 360 seconds), which is basis for many payroll computer systems. Use any interval you like, such as quarter hours or twentieth hours, etc. THIS IS THE MOST CRITICAL Parameter you should enter.

Grace In (seconds)-Enter the amount an employee may be late by in seconds. e.g. Ralph's scheduled clock-in is 07:00. Enter a grace in time allowed of 120 seconds. If he arrives at 7:01:59

or less, his clock will be set to 07:00:00, since he is allowed that as grace in late. At a later time Clock-IN! will stamp the time according to rounding rules.

Early in Reject Amount (seconds)-Enter zero if you don't want to reject a Clock-in. If you are polling the clock data from remote terminals, this must be consequently set to zero. If non-zero, this parameter limits how early an employee may Clock In. If the worker comes in before this time limit, his clock-in will be rejected and he will be notified to try again nearer his clock-in time. For example, Ralph clocks in at 06:44:59 and the early amount is 900 seconds. His clock in time is 07:00:00. He is one second before the allowed time to clock in, so his clock-in will be rejected. If this field is coded zero, then no Clock in early interval is computed and any time before his

Early In Stamp Forward Interval (seconds)-Clock-IN! can recognize a worker who is clocking in a period of time before the clock-in scheduled time. Enter that period of time here, and Clock-IN! will time-stamp the worker forward to his clock-in scheduled time, anyway. By coding this field, you can force the clock-in stamp to move within this preliminary period.

Say the worker comes in at 6:14, his scheduled start is 07:00, and your early in stamp forward is set to 3600 seconds (one hour). The worker would be time-stamped in at 07:00.

Now suppose the worker arrives before 6:00, then the Early Interval option would apply. See this next option below for how Clock-IN! handles the clock-in when it happens before this early interval.

If this parameter is ZERO, then no early period is defined and the clock-in will stamp forward to the start time. The value of the interval limit then has no meaning.

Early Interval Limit (seconds)-A worker arrives before the early in stamp forward period defined above. Indicate in this parameter the time period duration to time stamp forward to" for such earlier arrivals. Continuing the example in Early In Stamp Forward, suppose you code this parameter to one half hour (30 minutes or 1800 seconds). Now if the worker arrives at 05:12, then his Clock in time would be set to 05:30, by stamping forward the half hour.

Suppose you have grace in defined as 5 minutes the worker arrives at 05:04? Grace still applies and so the time-stamp would be set at 05:00.

Lunch Float (seconds)-If you let an employee's lunch float from his scheduled times, then any clock-out for lunch and in again within the float time will be treated as a lunch. Clock-IN! will simply use the Clock out as the start of his lunch period.

If his lunch is from 12:00 to 12:30 and lunch float seconds is 1800 (one half hour), then he can take lunch anytime from 11:30 to 13:00 hours.

When he takes lunch, the time from the clock out and in again will be automatically stretched to at least the scheduled lunch length. So lunch cannot be shorter than the scheduled lunch period.

The float range is scheduled lunch start time-lunch float seconds through to lunch end time + float seconds.

Incidences of clock-out and in outside this range are treated as an employee absence. Define lunch float to be zero seconds if you want strict enforcement of lunch times with appropriate exceptions recorded for being early or late.

Grace Out (seconds)-Key the amount of seconds that the worker can clock out early before his scheduled end time. This provides an allowance for clocking out and then say, cleaning up. The worker will still be recorded and paid through the end time. Some union contracts let you clock-out within the last two minutes, but pay you through the clock-out time, for example. In this case, use 120 seconds for this parameter setting.

Linger Out (seconds)-When a worker lingers past his scheduled clock-out time, Clock-IN! can stamp him back to the clock-out time, insuring he is paid just for the regular 8 hours, for example. For stamp-back to occur, the time must be within (scheduled clock-out time + linger out seconds). e.g. He is scheduled out at 15:30, he leaves at 15:44:22, and linger is 900 seconds. It stamps him out at 15:30:00.

Enforce Over-time-Place a check-mark for this option and the system will lop off all time worked past the regular over-time daily limit. Essentially over-time is not to be allowed unless authorized with this option enabled. e.g. A worker works 9.5 hours, and enforce over-time is checked, but no authorization record was entered to authorize the over-time for that day. In this case the worker is stamped out at the point where over-time would have started. So his cumulative hours will show only 8 hours (or whatever you coded for the daily over-time limit).

Closeouts to Indirect or To Direct-Check one of these boxes if you want the clock-out transaction to charge the slice of time between clock-out and the last charge transaction the worker made. e.g. The last charge was at 15:24:00, clock out was at 15:30:00, the extra tenth hour will be charged to that worker's indirect account # on his worker file (or direct, whichever was checked).

Charge Breaks to Jobs-Break time is ordinarily computed if a break occurs sometime between the start and stop of a "charge" transaction. That time is then distributed directly to the break time category. In some businesses, breaks may float, and break time may be charged as regular direct time, falling on whatever jobs it may. Check this option if this is your policy.

Float Lunch-Check this option is you want to allow the lunch schedule to float.

Over-time Weekly-Check this option if your over-time is figured on a weekly basis, as indicated in the parameters you enter in the over-time limits section. e.g. You may only pay over-time after 40 hours, double-time after 60 hours. Check this box and code 40 and 60 for your weekly over-time limits.

Sliding Schedule-The parameters, early stamp forward and early interval allow you to slide an employee schedule to earlier times. If you set those parameters to non-zero, this parameter for sliding schedule will be overriden and set on automatically. If you don't use those other settings, you can use check this parameter to allow you to come in early and just stamp forward an regular "normalized" interval. This is a second method.

If the none of these options is on, the start time will snap forward to the scheduled start time.

Sliding Breaks-If your break times are allowed to slide with the sliding schedule, indicate this by checking it here.

Daily Over-time, Double-time Limits (hours)-Indicate the daily hours which cause over-time pay to kick in, e.g. after 8 hours, many companies start paying over-time, so enter 8 if this is the case. Also enter the limit on hours when double-time kicks in, e.g. 10 hours. If neither "kick in", code these limits to 99 hours, which can't be reached since there are only 24 hours in a day anyway. Then no over-time or double-time will kick in.

Over-time can be based on 1) authorizations, 2) a weekly hour limit, or on 3) daily hour limits that you identify in each option set record. For the daily approach, you also need to consider the start day of the person's week as follows:

In Option Sets, we provide the user a field to code the 1st day of the week. 0 through 6 = Sunday through Saturday. When the user clocks in on his coded 1st day of week, e.g. Tuesday, it rolls his running weekly totals for payroll, etc. to zero. The day of week is also used in daily over-time accounting. When the user's first day of the week is Tuesday, then his 6th day is Sunday and his 7th day is Monday.

Clock-IN! provides three over-time and double-time "limit" fields in each option set ID you create. For days 0-4 the weekday limit fields are used. For the 6th and 7th days, you can set separate limits. These limits can cause the hours for that day to "kick" into over-time or double-time. Say you set the 6th day limit to zero for over-time, and to 99 for double-time. This means all hours that day would kick into over-time. No hours would kick into double-time, since that limit can't be reached (there are only 24 hours in a day).

Saturday, Sunday Over-time & Double-time Limits-These limits may kick in differently depending on your policy. Indicate when they become operative.

Weekly Over-time Limit, Double-time Limit-See the weekly over-time option above and enter the limits when these pay parameters kick in.

Rounding-Each of the major transactions can stamp forward, back, or average to one unit interval. Check each box for the rounding your company policy desires:

IN ROUND Ž	
OUT_ROUND Ž	
CEH ROUND Ž	
CSL_ROUND Ž	
CST_ROUND Ž	
CFN_ROUND Ž	
TSL_ROUND Ž	
CDS_ROUND Ž	

Figure 7-9 Rounding Options

Splits on Rounding-Suppose you have a six minute time interval. 2:59 seconds would round back and 3:01 would round forward. You can define the minutes or seconds here to break the round on. e.g. at a split of 2, then 1:59 seconds would round back and 2:01 would round forward. Enter a zero if you would just like normal rounding.

You should test each option set by entering sample transactions and viewing the time results.

See: Overriding Time/Date.

Edit-Option Sets-Rotation Schedules-Screen 2

Select E)dit S)ystem Option. Select [Next Screen] button to access the rotation schedule definition for the option set you are modifying or creating.

You can select the type of scheduling for the employees using this option. The four types are 1) No schedule, 2) Fixed schedule, 3) Rotation based schedule, and 4) Date based schedule.

At the time of a "no schedule" person's clock in, a "no schedule" employee is assigned to the option set named "NOSCHED". The "Nosched" option set is looked up and the clock in stamp is rounded according to the rule therein. The normalized stamp then becomes that person's clock in time for that day. A lunch start 4 hours later is calculated, along with a lunch period of 1 hour, and a clock out another 4 hours later. This computed schedule is posted into the employee record. Subsequent transactions that day by the worker use this computed schedule.

Fixed schedule workers already have a schedule entered into their worker record, or the schedule may be looked up in the department/shift is the worker record is blank.

ROTATION TYPE schedules are assigned by clicking your mouse on the rotating shift check-box to turn that option on. Workers coded with this option set will automatically use the defined rotation. Enter the start date mm/dd/yy for the rotation and define its length in days. You will only need to enter option set names in the cell matrix below for those days that will be worked in the cycle.

You should also now enter here specific schedule times for the option set (and hence a rotating person's schedule). Then enter for each day worked in the cycle the word "SAME". If your cycle length is 6 days, do not fill in anything past the first column, row 6. The cycle can be up to 60 days long. After the cycle is completed, it simply repeats.

The entry "SAME" tells Clock-IN! to use the schedule times in the upper right corner for that day's time parameters. But suppose you have a unique schedule for each day in the cycle. Simply create another option record and fill in JUST the times. Then enter the name of that option set ID in the cell matrix for that day number. Days 1-10 are in column 1, 11 through 20 column 2, etc.

As workers clock-in, Clock-IN! discerns workers of "Rotation" type scheduling. Then Clock-IN! looks at the rotation definition and does a relative indexing using the rotation start date and the actual clock in date. It consequently finds the right option set name (or SAME) from this index and seeks/loads that option set and its time parameters. As long as your defined rotation keeps repeating, you need not change the first rotation date. This is because the entry index to use is computed as the modulus (clockdate - rotationstartdate, rotationlengthindays) that determines the option set and schedule.

This design is completely flexible and accommodates any format for a repeating algorithm up to 60 days in length.

Workers scheduled on a date basis, have the exact days and times entered by someone in advance using the Schedule Plan main menu item. As workers come to work, the exact schedule for that day is retrieved and used in calculating hours.

Exceptions

Clock-IN! records attendance exceptions as follows for infractions to schedule and to the option set parameters.

TRANSACTION REJECTIONS. No transaction is recorded in two situations:

- 1. NO EMPLOYEE-The input badge is invalid and Clock-IN! does not know who is entering the data.
- 2. BAD OVER-RIDE-A bad username/password was entered on a supervisor over-ride transaction.

SCHEDULE EXCEPTIONS-A transaction is recorded, but the schedule information was invalid, and Clock-IN! was forced to use a fall-back schedule for the day. Clock-IN! would first look up the department/shift for the worker and use the scheduled times there, if valid. If not, Clock-IN! would create a schedule of 9 hours, with one hour lunch, starting at the next normalized time interval. Besides using the substitute schedule, Clock-IN! records the user data error causing the problem with the schedule:

- 1. NOROT-An employee with a rotating shift type attempted a CIN or ATO on a non-scheduled day.
- BadRSstrt-The rotation start date you indicated in the option set is greater than today.
- 3. BadRsOpt-The option code specified in the rotation schedule was not found and so schedule times could not be taken from that option set.
- 4. NoDtSCHED-A date based worker has shown up on a day with no schedule for the worker.
- 5. BadDepSch-This exception gets recorded if the scheduled times fail, and the department times look-up also fails.

MAJOR EXCEPTIONS. A transaction is recorded, but the attempt to move the clock failed. The transaction is shown as rejected.

- 1. DENYPERM-The employee is attempting a transaction he is not authorized to undertake. Check the employee record in the transaction access field.
- 2. CHGWOUT-The employee is attempting a charge or other transaction while clocked out.
- 3. DUPESCAN-The employee is attempting a clock in or out, or an ATO automatic in/out within the user defined duplicate scan seconds period.
- 4. DUPCLKIN-The employee attempted a clock in while already clocked in.
- 5. OPENCSTS-The employee attemted a Charge Since Last (CSL) or a CDS (Charge Did Several) or a CEH or an OUT while open Charge starts (CST) were in effect.
- 6. DUPCLKOUT-The employee attempted a clock out while already clocked out.
- 7. DUPSTART-The employee attemted to start a job already started.
- 8. BADSTOP-The employee attempted a Charge Finish (CFN) for a job that was not started.

In all "exceptions" situations the transact.db shows up to 6 exceptions in the {transact.Typeexception} field.

Other Exceptions-The transaction is accepted and continued, noting the exception violation. The employee's clock is moved forward and the accumlated times are modified accordingly.

- 1. FORCEOUT-The employee has started a new day, but did not clock-out the prior day. The clear prior day parameter setting caused a force-out. You need to add an adjustment for the employee's hours for that forced out day.
- 2. EARLYLUN-The employee left early for lunch.
- 3. LUNBCKLT-The employee took lunch before the scheduled clock time for lunch.
- 4. LONGLUN-The employee took a long lunch.
- 5. LEFTWORK-The employee left work outside the floating lunch range.
- 6. USDGRACE-The employee took and used some grace period.
- 7. INTOERLY-The employee attempted to clock in too early.
- 8. INEARLY -The employee clocked in early.
- 9. BIGEARLY-The employee clocked in one big early interval period or more.
- 10. BIGERLY1-The employee clocked in more than one big early interval period.
- 11. LATEIN-The employee was late coming in.
- 12. BIGLINGR-The employee took a large linger time before clocking out.
- 13. WORKEDOV-The employee worked overtime.
- 14. OVTRECOR-The employee recorded overtime.
- 15. LFTEARLY-The employee left early from work.
- 16. ATORANGE-The employee attempted an ATO transaction outside the ATO scan seconds allowed.

Edit-System Options

On the first screen of this selection, you can edit the password and user-name for the login to Microsoft (MAPI) mail.

Clock-IN! buttons enable the various Clock-IN! transactions. There are eight predefined button transactions which are CIN, OUT, TSL, CEH, CSL, CDS, CST, CFN.

In the user defined button label area, you can edit the names which appear on the buttons for user defined transactions 1 through 7. If you do not intend to use these seven transaction buttons, then delete their entries for their labels.

The Time-Clock Window definitions also allow you change the labels used on the Time-Clock Entry Box fields. There are eleven text entry boxes or fields in the Time-Clock window. Each of these edit boxes has an associated row of parameters for prefix characters, etc.

"Prefix Valid Chars" are the list of prefix characters you use to code your charge and ID numbers in each of Clock-IN's files. For the worker file, a 'B' is commonly used to code each worker badge number, e.g. B100. In the "Validation Filenames" fields, you code the list of filenames that correspond to list of prefix characters you used for charge numbers. For example, for Input Box [1] (Badge) the "BG" coded here corresponds to the two files in Clock-IN! named Employee.db and Groups.db entered as "Employee; Groups".

Each ID you assign in employee will start with a B and each ID in groups should then start with a G.

When the user <u>wands</u> bar codes with "B" or "G", it won't matter where the cursor is during entry. It will locate to the above input-box [1], then it will use this association to lookup the right file (Employees or Groups) and to verify that scanned number against that data file.

The "Allow Blanks" field gives you a method to specify if this field can be blank or must be non-blank in Transactions 1 through 15. Positions 1-8 correspond to the standard transactions CIN, OUT, TSL, CEH, CSL, CDS, CST, CFN and positions 9-15 correspond to user defined transactions 1 through 7. Code a zero for a transaction position if the field is required to be non-blank in that transaction. e.g. The badge field coding is 15 zero's, indicating that the badge field is required in each of the 15 transactions.

On the second screen, you can turn on/off several options. Field Modality is the capability to seek to the right input box based on the first character of the data being entered. This is a feature you may want to disable, if you have conflicting data that must go into multiple boxes. Suppose you established "P" as the prefix for projects for the fifth text box and the parts files in the sixth text box. Then Clock-IN! cannot distinguish what text box to locate at before entering the bar code.

Prefix Validation can be turned off, if desired. Queue checking is turned on/off here, too.

Password checking can be disabled for the entire system, if for example, you are using Clock-IN! in among professionals only. Validation file checking can similarly be disabled, as can the feature of Clock-IN! to do regular queue checking and posting of externally queued data. Posting of actual costs can be disabled, if you are not planning on maintaining any rates data to enable the costing features

Duplicate scan seconds can be entered next. Suppose an employee is using the ATO automatic IN/OUT feature and <u>wands</u> his bar coded badge. The system may determine that it's a Clock-IN! and record it. Now the employee is not sure if he really did <u>wand</u> in, so he does it again. This constitutes a duplicate scan, and you don't want Clock-IN! to wand him out, which it would ordinarily do, since he is clocked in. If a duplicate transaction is received by Clock-IN! within n duplicate seconds from the last transaction, Clock-IN! can reject it instead. (n=whatever you defined).

Archive days is the number of days of transactions to keep on file. Whenever you select File-Archive, the system will clear away older transactions to make room for new activity. It uses this parameter setting in days to determine what transactions are old enough to be removed. You may have disk space limits and have to reset this parameter.

Auto Range Seconds is the number of seconds around which the automatic Clock In/OUT determination should operate. The default is 4800 seconds (1.5 hours). So automatic

determination would apply from say, 05:30 to 08:30 if an employee's scheduled clock in time is 07:00. Outside this range, Clock-IN! will reject any ATO attempt and instruct the worker to manually clock in or out.

Keystrokes & Clicks Productivity Option

This feature provides automatic counting of the user's keystrokes and mouse clicks. Companies use this feature to record the:

- 1) Utilization of the PC
- 2) Productivity of workers who are doing heavy data entry in Windows

You can turn this option on by clicking the check-box in screen 2 of Edit System Options. Clock-IN! must first be up and running, and the user must be logged into Clock-IN! All such monitoring is unknown to the worker. The logsumry.rpt and the logtimes.rpt reports report this data and show the productivity. Keystrokes and clicks are counted and stored for each Application & Window that the user enters. If a window is up for less than ten seconds, the keystroke and click counts are carried forward to the next window to reduce output clutter. This eliminates the many yes/no boxes, etc. that may appear.

You can sort and compare the productivity and utilization figures in the logtimes file to achieve different types of reports. A stand-a-lone module will be available in August that will take the username from the network, be completely invisible to the user, and occupy very little memory. Clock-IN! will not be required.

Menu items have been added to edit and browse the help text file and the Logtimes file for keystrokes and clicks.

On screen 3 of global system options you can turn on data change logging for just the employee and department files, or for all files except personal files such as messages. You can also select whether the Super-Clock or Simple Time-Clock are brought up when you start-up Clock-IN! Then select whether you want Clock-IN! to bypass the Log-in Screen.

Another option selects whether you are typing any bar code prefixes into your data file. If you are, turn this option on. Then Clock-IN! will not add any prefixes when you print bar codes or strip them when you enter a transaction.

See: Time-Clock Window, Time-Clock Entry Box fields, wand, File-Archive.

Edit-Scheduled Leave

You can enter any date range when a worker, department, group, or ALL employees are to be absent. This is referred to as scheduled leave.

You can establish scheduled leave for groups (e.g. G100), departments/shifts (e.g. D100/1 for department D100 shift 1), a worker (e.g. B100), or the whole company (e.g. ALL).

After entering the ID # for resource to be absent, enter the date range in the starting date and through date fields (mm/dd/yy format). If absence is to include Saturday and Sunday, check these boxes, too. Enter a reason for the leave in the WHY field.

Finally assign an absence code to be used to assign to the NOSHOW when the employee (or group of employees) is actually absent that day(s). With the absence code indicate the number of pay hours to assign, and the pay rate code, e.g. "R" for regular.

When a worker clocks in each day, No-Shows are computed if this option is turned on in Set-up System Options screen 2. With this option, Clock-IN! automatically starts back-tracking one day at a time to determine if you were there yesterday. It stops if you were there yesterday. If you were not "in", it looks up SCHEDULED LEAVE, and logs the planned absence as an actual absence transaction for that day.

Suppose you had coded that day as a HOLIDAY absence for "ALL" in scheduled leave. It then creates the necessary pay transaction with the proper pay code for each employee when they do not show up that day.

Now suppose you were absent, yet no entry in Scheduled Leave had been made. Clock-IN! still assigns a No-Show Note transaction "NTE" to that day for you, and codes the NOSHOW exception. On various reports, your absence will show up as this exception transaction, so a clerk can follow-up on the cause.

Clock-IN! continues to back-track and log absences, either planned or unplanned for up to the number of days you entered in System Options - screen 2.

Edit-Report Definitions

Each record in the Report Definitions database defines a report. We have entered 39 reports with unique report ID's, the name of the associated Crystal Reports report file definition, and a brief description of its use.

The Crystal Reports file definition names coded here all end with a .rpt file name extension.

You can purchase the Crystal Reports report writer from Crystal Software and add your own reports to Clock-IN!, or modify those defined here.

We have predefined numerous reports in this database and predefined their record, group, and sort selection data. You can override these selections right here, or at print time, but you should follow the syntax required by Crystal Reports, or your selected report may fail.

Reports for time and attendance, project costs, etc. have all been predefined for you.

If you do decide to add a Crystal Report, add a record for it here, so it pops up on the list of available reports when you go to use Clock-IN! to print it.

See: Report Writer

Edit-Export/Import File Definitions See: Export.



Edit-Report Function Definitions



These functions are incorporated into the Crystal Reports engine and you an use them in your Report definition queries.

See: Export.

Edit-Report Operator Definitions



These operators are incorporated into the Crystal Reports engine and you an use them in your Report definition queries.

See: <u>Export</u>.

Edit-Workers

The badge number identifies the worker when he enters a transaction through Clock-IN!. This number is unique. In Professional Mode, assign a "user-name" for a worker's badge number and assign his employee number according to the payroll records. e.g. Your sales manager is assigned user-name="BOB". When using the In/Out board and messaging, this makes Clock-IN! easy to use and consistent with hourly workers who may also be granted In/Out Board status. For hourly workers, an actual badge number is needed, e.g. B100.

Suppose a worker loses his badge? Just give him a new number and optionally create another bar coded ID card with a new badge number. Reports are produced by permanent employee number, not by the badge number. Employee number might be his social security number. This number should match the employee number that you use for the worker in your payroll records. Enter name, job class, billing rate, and pay rate (all optional).

Once you have entered department and shift number, click the DEFAULT DEPT button, to retrieve the default schedule and options for that worker. This will fill in the data for the remainder of this screen and for the next screen.

The last three screens are CLOCK-TO-DATE information and human resources. The only information on the Clock To Date screens you may need to enter include User Password - if you are using PROFESSIONAL mode for this worker, and In/Out tracking (check this Box if you want Messages, Todos, and In/Out Board Tracking).

You don't need to enter a password if the user is not going to login and use the system. You should check-mark the highest security level the worker is allowed.

The remainder of these fields are maintained by the system. They are write protected. You can however view the current employee clock and running totals by accessing these screens.

Figure 7-18 is the human resources screen. Note the unlimited text areas for entering data histories, personnel reviews, etc. You also have a number of user defined fields. Mail labels can also be generated. See the Appendix D.

See option sets, department, Edit Transactions.

Edit-Departments

Enter department data to set up department information and schedules. When you add a worker, the department schedule and rules information will automatically default into the worker's record. You should enter a department number AND shift number to uniquely identify each department record that you create. Always use shift one ("1") 1 if you do not use shifts. Then identify the Option Set ID for the attendance "rules" to use for this department.

Also enter background data such as default charge numbers and the supervisor for that department. To allow transaction access for all transactions by a worker in that department, enter "ALL" or enter a subset of these transactions =>CIN; OUT; CEH; CSL; CST; CFN; TSL; CDS, 1234567; separated by

semi-colons. Transaction Security Access is thus individually controlled in each worker record. The system verifies that the particular transaction is available to the worker at the time that he attempts the transaction. Using this feature you can restrict workers to particular transactions.

Enter the scheduled clock in, out, and lunch time in military time format. Enter the length of the lunch. Similarly enter scheduled breaks times if there are any. Check the paid lunch box, if the worker is paid for time off for lunch.

You should enter this schedule data, even if the individual is allowed to "float" his work time. Salaried people fall into this category. The basic schedule will still help compute exceptions to floating times, and worker hours will be allowed to accumulate based on floating the schedule to his start time and clocking from there.

Also enter rate multipliers for over-time and regular pay if you will use the costing option.

See Edit Option Sets, transaction access.

Edit-Groups

Enter a group number for each production line or group of employees that you want to mass charge their hours against. It is recommended that group numbers use a "G" prefix, so Clock-IN! can automatically recognize group numbers entered into the "Badge" field as mass transactions for that group.

You can also enter the supervisor and default charge accounts for the group. Enter the transactions that you wish to enable for the group or "ALL" to access all transactions.

The group charge number field is kept up to date by Clock-IN! whenever a supervisor enters a group charge.

See: Mass Transactions.

Edit-Transactions

All transactions collected by Clock-IN! are stored in the "transact" database. This menu selection allows you to view that database. Transactions included here are both the standard transactions and all your user defined transactions.

All transaction data fields are write-protected, so you cannot actually edit the data therein. Editing the data would destroy the integrity of the audit trail of time-stamps and time computations for a worker.

The first transaction screen displays the time-stamps, the charge, any user supplied data fields, and CLOCK TO DATE time-stamp information for the worker. Clock to date information includes time-stamps and distribution of the hours charged for the transaction. This distribution is made over 14 categories of payable/non-payable work.

Distribution totals for payable work include: task-time, under-run, over-run, excused, break time, and lost-time. Non-payable categories are un-excused absence, linger, non-payable lunch time, & too early.

The distribution of the charge hours for the transaction is also shown by pay type, regular, over-time, and double-time. The individual clock schedule times used to compute transaction specific time-stamps is shown. These times might slide, if you had the worker set-up for a sliding schedule.

The time-stamps used for the transaction are shown. Real and normalized time-stamps are in seconds since 01/01/1970. They are also shown in actual mm/dd/yy-hh:mm:ss format for easy readability.

The next two screens show the employee set-up information actually used at the time of the transaction, to stamp the transaction. Use the NEXT Screen button to access the next few screens.

The fourth and last screen shows the RUNNING TOTALS for the employee for the day and for the week (through this transaction being viewed). Over 30 running totals are provided.

Edit-External Queues

All fields in this input file are write-protected, but you can still view current queued information. Queued transactions have not yet been processed through Clock-IN!'s time engine and databases. Queued input can come from many sources, such as other personal computers that have "polled" the data from proprietary bar code terminals. Or users on the network who have posted time-slips. You can also load your own ASCII quoted text information directly to this queue. See external ASCII text files. Or you can write a Paradox program to automatically add records to the queue file, letting Clock-IN! access them in shared mode to post the records in real time.

Queued input can be processed by any Clock-IN! workstation in real time. In global system options you can turn on/off queue processing of input. This lets you control whether Clock-IN! constantly monitors the queue and processes the queue in real time; or whether it only processes it when you select Actions-Process Queue Now.

Clock-IN! DDE Server

Clock-IN! can act as a general purpose DDE Server, retrieving data from any of its data files. The following Excel example will serve to illustrate. Use the following syntax to request data with a certain file, a supplied key value, and a requested field number for the data to retrieve.

=CLOCKIN|filename!key/fieldnumber

The application name for the Clock-IN! DDE server is "CLOCKIN". The topic name you supply is the filename you want to access, shown here as "filename". Then enter the value for the key field in the database file, and then the desired field number to retrieve.

e.g. "=CLOCKIN|employee!B10005/36" retrieves the hours today total field # 36 after it finds the record for the worker with badge "B10005", in file employee.db.

DDE_POKE from Transaction Programs

You can also use a custom DDE client program to pass collected data to Clock-IN!. Use a client DDE poke function to post transactions to Clock-IN!. From your proprietary network program, connect to the Clock-IN! server named "CLOCKIN", topic "Input", item "Buffer"; then use DDE_POKE to poke the data record into Clock-IN!. The format of the data record should be comma and quote delimited, with the 15 fields required by the Queue.db file format. Or use your DDE Server program to respond to Clock-IN!'s client requestor in the same format, see below.

Clock-IN! DDE Client Requestor

You may have a program collecting transactions from proprietary bar code networks and want to have that program operate as a DDE server, passing transactions along to other applications.

Clock-IN! can act as DDE Client Requestor to retrieve transactions from your server program. Clock-IN! requests that you provide a transaction buffer with a complete transaction in the quote, comma delimited format of the queue.db file. Clock-IN! requests the transaction via these names.

Clock-IN! will log onto your server with the application name "CLOCKIN_QUEUE", topic "Input", and item "Buffer". Your server should respond with a data item buffer in the comma and quote delimited standard format.

New DDE Examples

Please note that all transaction data sent through DDE to Clock-IN! should be preceded with two ## number signs. This is to insure Clock-IN! can accurately pick up the start of your actual data. Similarly end your data buffer with another ## two number signs to signal the end of data. Excel and other applications put other characters around the data.

You are also cautioned that DDE posted transactions cannot have duplicate keys. You should not send a transaction with the same real time-stamp and badge or the transaction will be discarded. The dde.xlm is an Excel macro which pokes transactions data into Clock-IN! Use it as an example. Be sure to load the Clock-IN! DDE Server and put its window into a Display Mode first.

For an example of DDE, select View, DDE, Show Server. Then select View, DDE, Show Client. From the client dialog menu, Select DDE, Connect to Server, then select P)oke Transaction. The text file demass.txt is week of transactions for a worker. Each time you select poke, you are sending the next transaction line to Clock-IN! from that file.

See external ASCII text files.

Edit-Authorized Over-time

Supervisors can enter authorizations for over-time with this selection. Enter one of

Badge # (B100)

Department #/Shift # (D100/1)

Group # (G100)

ALL (ALL)

for the range of workers to be covered by the authorization. Enter the amount of over-time authorized in hours, the date range to be authorized, who authorized it, and any notes you want to make.

A worker's option set identifies if he is limited to regular pay unless authorization entries are made with this selection. Then when a worker works over-time, this data is consulted, and he may be awarded that time. Otherwise the over-time is charged to lingering.

For workers set up with no authorization required, excess time goes into over-time, if it exceeds the grace lingering period.

Authorized Over-Time at The Terminal or Clock

Overtime authorization can be done at the Time-Clock or bar Code terminal, using a special version of the US6 transaction. Transaction US6 also looks for an hours entry in text box 6, and a supervisor/badge entry in text boxes 8 and 9. If the transaction is accepted, it will add an overtime authorization record to Clock-IN! for that many hours for that day, for that badge number.

Edit-Absence Codes

When workers call in to report their absence, a clerk can enter the absence at their personal computer running Clock-IN!. They select the Actions-Adjustments-NOTES menu item and record the day and time of the absence, whether its payable or not, and the cause. Supervisors, guards, managers, etc. can all access this function.

It is suggested that you set up pre-defined absence codes for quick recording of such situations. These codes may match the requirements of your payroll system. You can also assign a description and penalty points to be assigned to the absence.

Edit-Job Classes

Reporting may be further desired by various worker categories, such as job classes. Here you can enter the job classifications you use, if any. Labor and pay rates are expansion fields that are not currently used for costing.

Edit-Work Codes

Work codes provide a method to clarify a charge with a "sub-charge".

Professionals use work codes to clarify the type of work within a particular "charge". An attorney might charge client numbers as his main charge. Within that charge he may charge "CT"=court time as a work-code. CPA's might charge client "ABC", work code "AUDIT-TAX". Engineers might charge "PROJECT 86", work-code "CAD-DESIGN". Even manufacturing workers might charge "JOB 46", work code "DRILL".

Users can define their own work codes, just supply a description, and enter user defined information items. Many reports automatically sort by work code to provide a charge number/work code number breakdown.

Charge Files



Enter into the charge field any charge number from any of the many Clock-IN! charge files. These files include databases for most common needs, including:

Activities

Charges (Including Mfg. Shop Orders)

Clients

Machines, Work Centers

Parts

Projects

Work Orders

Work Codes

<u>Assets</u>

Cases/Contracts

Books/Documents

Tapes

Drugs

Make sure the prefix used to code the charge number in each file is also called out in the system options as the prefix validation cross reference. Then Clock-IN! will automatically validate it against the correct file, and also SNAP the data into the "Charge" box no matter where the cursor may be positioned.

Edit-Mail Triggers

Each record you add here can define a particular logical mail trigger. A field number can have its value compared to a static or another field. Each Clock-IN! transaction will be checked against each logical record (or condition) that you establish here as the transaction is processed. Mail is then sent if that condition evaluates to true and the mail triggers option in System Options is turned on. Using mail triggers can slow transaction performance, and you are cautioned to provide robust hardware to return acceptable performance to the user with this feature enabled. You should also thoroughly test your conditions before use.

Edit-Standard Times



Standard Times Bar Code Sheet

Under Edit & Browse Datatable, we provide a standard charge "times" file. Each record is a standard time charge. The data entered here is setup for quarter hours, but you can change it to whatever standard times you want to use. So you can print the "Times" bar code sheet and you will get a "scannable" sheet for time entries ranging from entries for .25, .50, etc. all the way up to 10 hours. When you select the bar code template "times", you'll get a one page print of bar code times. For example, instead of keying 3.75 hours on a timeslip, you can just scan it, too.

Timeslips done from the ButtonBox go directly into the shared transact database. Timeslips done from the Timeslip form, or the Datatable are ONLY for that user who is logged into Clock-IN!. But any user can do a high speed scan on any Clock-IN! station to record a high speed timeslip. Suppose you have a large law office and only a few Windows PC's. Each PC has Clock-IN! running in the background while a secretary may be doing word processing. A laywer walks by and wants to quick scan a few charges. The client code, project, times, and work code charge bar coded CHARGE SHEETS are right next to the station. The attorney just scans the 4 bar codes and the charge is made without ever touching a key! The secretary can resume her application by hitting Alt-Tab afterward. To set up for this high speed scanning:

- 1. Print client, project, and workcode sheets (all optional) with the Hot Key option. This adds the leading % to the printed bar codes. (% forces Clock-IN! on top).
- 2. Print the hours charge sheet with the Hotkey (%) ATO (/) option. This adds the trailing /. In system options, set up field 5 with prefix character T, and filename TIMES, so reading the timeslip entry forces input focus into button box 5.
- 3. Always scan the hours last, since the trailing / character will force Clock-IN! to initiate the transaction (it actually pushes the TSL button) entry.

HIGH SPEED versions of all transactions are planned in the next version. Currently version 1.2 supports the ATO (Clock-IN and OUT) and TSL (Timeslip) transactions for high speed modeless entry. To demonstrate this great facility, just print out the bar code forms CLIENTS, IDNOATO, CLIENTS, PROJCHG, WORKCODE, and TIMES. Then scan, but scan the time entry last.

Average time is 7 seconds to scan 4 entries and make the charge. Only five or less function points are required. The entry is saved automatically.

Revising Validation File Fields/Layouts

Database file layouts and fields in Clock-IN! are defined in files ending with a ".dfn" extension.

Data access screens under the EDIT menus are defined in Windows "resources."

There is a one to one relationship between these layouts, Windows "screen" resources, and Paradox files.

A system white paper is available that describes how to modify the screen resources and the definition file for a database and add additional data fields to a database. Then you can add additional data fields and re-combine the Windows resources with the Clock-IN! executable file.

This approach allows fast revision of this C++ based system without the need to change system source code. Only Windows resources and file definitions need be modified. Special files and fields can be added easily at your request by our programmers or yours.

See: <u>Training & Consulting</u>, <u>Report Writer</u>.

Prefixes for Validation

"Prefix Valid Characters" are set-up in System Options. They are the list of prefix characters you use to code your charge and ID numbers in each of Clock-IN's files. In the "Validation Filenames" fields in System Options, you code the corresponding list of filenames that will be looked up based on the prefix character in the charge number.

For example, for Input Box [1] (Badge) the "BG" coded here corresponds to the two files you name "Employee; Groups" in Validation Filenames. Now when you <u>wand</u> a badge, say "B1001", Clock-IN! verifies that the first character is a B or a G, then it looks to the file Employee (that corresponds to the B), and looks up "B1001" in that file. It accepts the transaction if it finds it on file.

Thus the user can <u>wand</u> bar codes with "B" or "G" into this Input Box, then it will use this association to lookup the charge in the corresponding file (Employees or Groups).

See: System Options.

Validations-Activities

Enter an activity code, and a description for each activity you will charge time against.

Activities are general purpose charge numbers. It is recommended that you use a prefix of "A" for each charge number you enter., e.g. A200,A2432-10, etc.

See: <u>Using BarCode</u>, <u>Revising Database Layouts</u>, and <u>Prefixes</u>.

Validations-Charges

Enter a charge code, and a description for each charge number you will charge time against. Charges can be used for any purpose. This file is unique in that you can put in due dates, standard hours, set-up hours, etc. So you can fully define a particular set of tasks, a whole project, or some type of work process.

You can even print a "routing" to show the tasks at each operation. You should simply add a record for each operation. Say you have Job order A200, with operations 10, 20, and 30. Just add three records with Charge numbers of A200/10, A200/20, and A200/30. Also code the 10, 20, and 30 in the operation fields. The router bar code printing uses both fields, and when you actually "charge" that charge number and operation, Clock-IN! reads both the charge and the operation in one swipe from the charge number field.

Add the other information you wish to keep with the charge data, such as departments, due dates, and budgeted hours. You can also limit the charges that can be made to this job, by entering the limits in the scheduling/capacity data fields.

We have included special data fields to allow manufacturers to use the charges as a shop routing file, including the ability to print a bar coded shop order routing.

It is recommended that you use a prefix of "C" for each charge number you enter.

Validations-Clients

Enter a client code, name, address and phone information.

Clients are charge numbers used mostly in professional services, such as attorneys, CPA's, and engineers. Clock-IN! has the capability to produce a billing statement on a monthly or on demand basis from the collected time-slips.

It is recommended that you use a prefix of "K" for each client number you enter.

You might also want to use an INITIALS coding approach for assigning client numbers. Use the first letter of client company names, e.g. Arnold Becham Company would be coded as ABC1, using the first letters of the company name, followed by a number. When adding another company that happens to have ABC initials, it would be set up as ABC2. Just remember to use a prefix, too, e.g. KABC1, KABC2. Then whenever you think of a client name, you can probably guess its charge number to charge right off.

Validations-Projects

Enter a project code, description, and contact information for the project for each project item you will charge time against.

You can create sub-project codes right along with project codes if desired. e.g. P200/10, P200/20 could represent two project charge numbers, subcode 10 of project P200 and subcode 20. Or use <u>Work Codes</u>.

It is recommended that you use a prefix of "P" for each charge number you enter.

Validations-Work Orders

Enter a work order code, description, and other background information that you desire to keep on a work order.

Work orders might be for off site contract work, maintenance work, or some other class of work that you don't want to run through other validation files. You can also place charge hour limits on a work order, and reference other projects, accounts, etc.

It is recommended that you use a prefix of "O" for each charge number you enter. ("W" should be reserved for work codes).

Validations-Machines/Centers

Enter a machine code, description, and optionally enter capacity and scheduling information. Machines might be charged directly for maintenance work by maintenance employees, or for cleaning. Clock-IN! gives you the ability to print a complete bar coded charge list for use by those employees. It is recommended that you use a prefix of "M" for each charge number you enter. Future enhancements of Clock-IN! may include machine and employee finite resource scheduling. Data fields have been added in preparation for this.

Validations-Parts

Enter a part number, description, and other data as needed to define the part. You can optionally incorporate SPC and shipping data along with the AIAG required data for producing Bar Coded Part Labels. Clock-IN! can produce your bar coded part labels.

Quality checking of parts may require that some workers "charge" the part directly for rejects, etc. Clock-IN! maintains a data file and quality attributes and tolerances for this purpose, along with producing the required bar coded shipping labels.

It is recommended that you use a prefix of "P" for each charge number you enter, if you are not using the "P" for projects.

See: Using BarCode, Revising Database Layouts, and Prefixes.

Validations-Assets

Every company has some form of fixed assets. As you purchase these assets, you can enter them into this database and create bar coded ID tags for the assets. If the assets are rental items, they can easily be tracked by user defined transactions.

Some other uses of the assets database include custom spreadsheet macros to load the data and do depreciation computations.

Validations-Cases/Contracts

Whether you track court cases and documents related to it, or whether you track large customer contracts, this database is designed with numerous user defined fields to enter your own related data. Assign a case/contract ID number and print file tags. When labor hours or costs are entered against the ID numbers, just scan the bar code instead of typing it.

Validations-Books/Documents

Whether you track books in a library, documents in a legal setting, or documents in an engineering or hospital environment, this database can be used to bar code these documents. User defined transactions can be used to collect and status the bar coded items.

See: <u>Using BarCode</u>, <u>Revising Database Layouts</u>, and <u>Prefixes</u>.

Validations-Tapes

Whether you track videos in a store or cassette tapes of your own, this database can be used to bar code these documents. User defined transactions can be used to collect and status the bar coded items. See: <u>Using BarCode</u>, <u>Revising Database Layouts</u>, and <u>Prefixes</u>.

Validations-Drugs

In a hospital or police department, bar code and track all the controlled substances and property.

See: Using BarCode, Revising Database Layouts, and Prefixes.

Help Text

This gives an edit view of the help text entries that you can create for each file/field-name in the system. A browse of the data-table is also available.

Log Times

The keystroke and mouse click logging and reporting option is discussed under Edit System Options. Here you can view the records that are being collected in forms view and data-table view.

In/Out Board

Receptionist/Telephone Operators

Use this board to track the status of executives and other staff professionals. Your receptionist can access this board and update status information for professionals as they come and go.

The receptionist/telephone operator can also enter Post-it style telephone messages as she receive them. As professionals return, she can print out their messages for them.

The board can stay active while the receptionist works on other applications in Windows or DOS. So she can hot key to the board when telephone calls come in or when professionals go off site.

Executives/Professionals

Executives and professionals can access the board from their work-stations, too. Only those workers with their in/out checkbox marked in Edit_worker will appear on the board, All system users can Block out time, so the board knows their status for future time-frames.

The board is automatically updated from Clock-IN! transactions at other stations, and keeps abreast of scheduled leave, such as holidays.

These are the board functions:

[Post Message] [Print Msg] [View Msg] [Print Todos]

[Toggle Item] [Block Time] [Update] [Print In/Out]

You can click on any "cell" on the board and edit the data therein. Or use Toggle Item to quickly toggle the board time slots' on/off. After selecting the starting cell with your mouse, e.g. 0800, pressing toggle repeatedly can easily toggle the 8 am-5 pm slots into off site mode.

In the remarks column add the information on the location of the professional.

To get an employee onto "board tracking", make sure the employees is on file and assigned a non-empty password. The board adds new "Rows" for EACH DAY for EACH WORKER with a non-empty password. The first time Clock-IN! comes up for that new day, you may see a message such as "Updating Board". When it updates the board, it adds the new rows for that day, deletes older board entries, and retrieves employee status information from Clock-IN! transaction records.

[Update] updates the board from the activities of other Clock-IN! stations. You can select this function to get a current view, if other stations are in use.

In/Out Postboxes

Users assigned to the in/out board tracking can view their post-it notes mail box from this selection. Receptionists and telephone operators with T&A or manager level password access will see ALL the messages. Regular professional users will just see their own messages.

When positioned on a message, press [ViewMsg] to see the full message.

[PostMsg] allows you to create a message to send to another In/Out board user.

[Delete Msg] will delete the message the cursor is positioned at.

[View Msg] allows you to explode the message to a form view.

[PrintMsgs], [Print Todos] allows you to print your messages and Todos.

Todos

This is a handy list of your open todo items.

[Add Row] and [Delete Row] insert and delete todo items respectively.

[PostMsg] allows you to create a message to send to another In/Out board user.

[PrintMsgs], [Print Todos] allows you to print your messages and Todos.

View-Print Graph/Table

This item prints the GRAPH and TABLE views currently displayed in the right hand windows. These statistics are for the last worker who executed a transaction at the station. See <u>Status Windows</u>.

View-Real Time Graph

This item toggles the GRAPH status window closed or open. The Graph Window displays daily statistics for the last worker who executed a transaction at the station. See Status Windows.

View-Real Time Table

This item toggles the TABLE status window closed or open. The TABLE Window displays daily statistics for the last worker who executed a transaction at the station. See Status Windows.

View Worker-Day View

This item gives you the opportunity to pick a department/shift and view the current activity for that day. Activity shows productivity data, charges, and much more. You also have the chance to change the report query criteria, to select a different day, department, etc.

View Worker-Week View

This item gives you the opportunity to pick a department/shift, then pick a worker, then view his complete transactions for the week in time ordered sequence.

You also have the chance to change the report query criteria, to select a different day, department, etc.

View Worker-Productivity Today

This item gives you the opportunity to pick a department/shift, then pick a worker, then view the departmental productivity for the day.

Clock-IN! shows the daily time distributions for the selected worker, then presents the totals in the TABLE VIEW, and in the GRAPH VIEW. These views are in the upper right and lower right windows, respectively.

After the hourglass cursor has disappeared you must click you mouse on the TABLE and graph views to observe the productivity distribution.

See Status Windows.

View Worker-Productivity Week

This item gives you the opportunity to pick a department/shift, then pick a worker, then view the departmental productivity for the week.

Clock-IN! shows the weekly time distributions for the selected worker, then presents the totals in the TABLE VIEW, and in the GRAPH VIEW. These views are in the upper right and lower right windows, respectively.

After the hourglass cursor has disappeared you must click you mouse on the TABLE and graph views to observe the productivity distribution.

See Status Windows.

View Worker-Start/Stop Recap

This selection allows you to select a department, then a worker, and then to display his gannt chart of CST (Charge Start) and CFN (Charge Finish) transactions.

You can use this to check on what jobs the worker is currently running, and what jobs have been completed.

View Worker-Start/Stop Transactions

This view allows you to select the department and worker and then view the worker's time ordered transactions for CST, CFN transactions. Overlapping work and charge hours are detailed, along with time-stamps.

View Department-Day View

This item gives you the opportunity to pick a department/shift and view the current activity for that day. Activity shows productivity data, charges, and much more. You also have the chance to change the report query criteria, to select a different day, department, etc.

View Department-Week View

This item gives you the opportunity to pick a department/shift and view the departmental weekly activity.

You also have the chance to change the report query criteria, to select a different day, department, etc.

View Department-Productivity Today

This item gives you the opportunity to pick a department/shift and view the departmental productivity for the day.

Clock-IN! sums all the daily time distributions for the selected department, then presents the totals in the TABLE VIEW, and in the GRAPH VIEW. These views are in the upper right and lower right windows, respectively.

After the hourglass cursor has disappeared you must click you mouse on the TABLE and graph views to observe the productivity distribution.

See Status Windows.

View Department-Productivity Week

This item gives you the opportunity to pick a department/shift and view the departmental productivity for the week.

Clock-IN! sums all the weekly time distributions for the employees in the selected department, then presents the totals in the TABLE VIEW, and in the GRAPH VIEW. These views are in the upper right and lower right windows, respectively.

After the hourglass cursor has disappeared you must click your mouse on the TABLE and graph views to observe the productivity distribution.

See Status Windows.

View Department-In/Out Summary

This item gives you the opportunity to pick a department/shift and view the status of its employees, whether they are clocked in yet or not. You can check this information at the start of the day, when you are making assignments.

You also have the chance to change the report query criteria, to select a different day, department, etc.

View Department-Over-time Today

This item gives you the opportunity to pick a department/shift and view the departmental over-time incurred for the day.

You also have the chance to change the report query criteria, to select a different day, department, etc.

View Department-Excepts Today

This item gives you the opportunity to pick a department/shift and view the current exceptions for that day. Exceptions include absences, not clocked in, late employees, and much more. You also have the chance to change the report query criteria, to select a different day, department, etc.

<u>Vi</u>ew Payroll Report

This selection prints a complete payroll report for the week. All charge and pay time and time distributions are shown. By department, by shift.

You also have the chance to change the report query criteria. Here you will see something like:

{transact.Department No} = "200" and {transact.Shift No} = 1

If you want all the departments to print, you should delete this entire line of characters.

Supervisors can use this report to validate worker activity.

View Absence/Excepts

This item gives you the opportunity to pick a department/shift and view the current absences and exceptions for that day.
You also have the chance to change the report query criteria, to select a different day, department, etc.

View Group Assignments

You can assign or remove employees from a Group with this menu item. Use groups to do "group charging" by foreman or supervisors.

The Get A Group button pops up a list of all defined Groups, so you can quickly get the list of employees assigned to that group. These employees are displayed under "Current Group Members".

"Get Candidates" lets you pop up department lists and enter the workers from that department into the Candidates list. After workers are shown there, you can pick workers off that list and add them to the group, using the Move Selection To List button.

Use the Remove From List button after you have highlighted the employee in the "Current Group Member list" that you want to delete.

Groups are transient and cross departmental lines. You may pull employees from several departments and "have a meeting". You can group charge off that time easily using the group charge approach.

See Edit Groups.

View Select A Report

This selection presents a list of available, pre-defined reports. These reports are defined in Edit Report Definitions. Select the report you wish to print or view.

Scroll bars are provided to scroll the window if the number of reports exceed the list box size. Your report list exceeds the screen size, so use the scroll bars to access the additional reports.

After selecting the report, you will see it on screen. You can also decide to print it, just click on the printer ICON at the top of the screen. If you are done viewing a report, close the report window by double clicking on the Windows system box (far upper left corner).

See: Edit Report Definitions.

View DDE (Dynamic Data Exchange)

The Clock-IN! DDE Server is initially enabled only if you have the option Queue Checking turned on in System Options. The Clock-IN! mode you log onto Clock-IN! must also be TIME-CLOCK or All Features.

Both the DDE Client and DDE Server modules of Clock-IN! will try to obtain data from your application. The Clock-IN! DDE Client Requestor is activated each time the Queue Checking process is activated (every 5 minutes). The requestor continues to ask for transaction data from a server named "CLOCKIN_QUEUE", topic "Input", and item "Buffer", until a negative data response is given. Then the Requestor sleeps along with the Queue Checking process for another delay time that you also set in System Options.

If the DDE processes are active, a check mark is shown on the DDE sub-menu next to the active process (e.g. Client or Server). You can hide or show the windows associated with an active DDE process. This allows you to view these processes if you are testing your applications DDE capability with Clock-IN!'s.

See External Queues for more on DDE.

View MAPI Mail

This menu selection allows you to test your MAPI connections. You can log-on, log-off, and send and receive MAPI mail. MAPI is a mail standard API introduced by Microsoft. Microsoft Mail software supports this standard, as does Clock-IN!

You can set up Mail Triggers that will forward exceptional mail to supervisors coded in your Employee file. Exceptional mail is mail triggered by some kind of attendance or transaction exception. You can also post messages from the In/Out Board and from the ToDos and Messages functions directly to MAPI mail. See these sections.

If you set the WRITEMAPIMAIL option in System Options to ON (checked), then Clock-IN! will attempt log-in to MAPI at the start up of Clock-IN!. The user-name & password passed to MAPI is the same name and password coded in System Options, screen 1. Be sure to enter a valid user-name and password if want the login to be automatic.

The password passed to MAPI is the same password coded in System Options as the MASTER password. The log-in name used to log into MAPI is the "login=" specified in the msmail.ini file for the work-station booting up. i.e. Clock-IN! reads that log-in name, adds the MASTER password to it and attempts to log-in to MAPI. So you should set that user's MAPI password to be the same as the master password in Clock-IN!

If the log-in fails, it will prompt for your user-name and password when Clock-IN! is started. If WRITEMAPIMAIL is off, any Simple mail sent from Clock-IN! will go through a log-on, sending of mail, then a log-off. Therefore, if you intend to use Clock-IN! to send exceptions messages, or to use the MESSAGES post-boxes, please enable both READMAPIMAIL and WRITEMAPIMAIL, in addition to checking the desired options to generate mail.

Note that the MAPI interface does not pass Clock-IN! or any other MAPI application the user-name which is address for the mail that MAPI uses. It passes the full name only. It is recommended that when you set up Microsoft Mail that you set up a full-name that contains the user-name, e.g. "DIANNE, Dianne Knibloe" is a good full-name for user-name DIANNE. Clock-IN! can then automatically find the comma and extract the user-name from the full-name, and send the mail to the user DIANNE. This requires some discipline on your part when installing the system but is necessitated by the lack of a user name address supplied by Microsoft MAPI.

In Clock-IN! your badge is your key field which equates to the user-name in MAPI. So be sure you use the same badge names as you do in Microsoft Mail.

Bar Codes-Quick Bar Codes

To print a single bar code quickly, select this menu item. It will "pop up" a Window where you can enter the characters to print. Hit the "OK" button and your bar code will print.

Bar Codes-Print Bar Codes

To print bar codes, select this menu item. It will "pop up" a Window with all your defined bar code documents. The window shows each bar code document template name, followed by a comma, followed by the data file it uses to print the codes.

Click your mouse on the bar code document that you want to print and Clock-IN! will present other print options.

Each bar code document that you print will use the selected database and layout defined in the menu selection Define Bar Codes. When you pick a particular template or document above, Clock-IN! uses this definition.

You can print all the records from a particular database, or provide a starting key value, then print n number of records (n=whatever value you defined). e.g. You could print starting employee badge B10001, for the next 4 records by entering these two values.

Two separate options are Pick & Choose and Define and Print Series. In the Pick & Choose option you can pop up a list box with all the values for that particular database. e.g. all the badge numbers, followed by a second descriptive field. In a list box you would highlight the ones you want to print.

In Define & Print series, you can define and print your own series of bar codes. A video store might print out a series of numbers from 1000 to 10,000 and then put the labels on the tapes they rent, for example. A manufacturer might print out a production order, and vary the box numbers from 1 to 100, and also prompt the operator for the quantity in each box.

Define & Print Series lets you "batch" print ascending or descending sequences of values according to just about any situation you may encounter. Rather than reading the database for these values, Clock-IN! takes your input as in Figure 9-3.

Several options exist for coding a series. In value to print#1, you might put MFG0001 and indicate it is a fixed value. Clock-IN! will then print this same value on each bar code document.

Clock-IN! uses the bar code document definition you previously selected to determine placement of the data. It figures the layout placement for field #1 from that layout definition and uses the data value #1 from the data you enter in Figure 9-3. When printing from the database, Clock-IN! would get the data from the field number named in the database, instead. Here it only uses where to place the data and the font to use, then inserts the data from this dialog box.

In the #2 value, you might put C100 and enter a Vary +/1 value of 1 on line two in the Vary box. This would vary the output document by adding one to each label, e.g. C100, C101, C102. Since Clock-IN! needs to know when to end the series, you would also enter a value in Ending Value, e.g. C200. Thus 100 labels would print.

If the series is not directly ascending or descending, you can check the prompt for value check-box. Then Clock-IN! will stop before printing each label and ask you for the value to enter. A blank answer to this prompt will end the label printing.

After these dialog prompts, you can optionally change the printer destination before you print.

Badges



Badges are ID cards for the worker that contain the bar coded badge number for that worker. You can scissor the bar code off the printed badges if you desire. Some companies do this in order to paste them on the back of their regular ID badges. This might be a good idea, if you already have separate ID badges.

See: Define Bar Codes

Bar Codes-View Bar Codes



For a quick view of what a bar code document will look like, before you print it, select this menu item. This selection is often useful if you are designing your own bar code formats and want a quick visual of what it is looking like. Only one document can be viewed on screen.

Bar Codes-Browse Definitions



Clock-IN! provides pre-defined bar code document formats for printing numerous charge cards, ID badges, routers, etc. Use this access mode to browse your bar code document definitions in a spreadsheet format.

You can edit the data directly if you wish in this "spreadsheet" or "data-table" style format. Unlike a spreadsheet, however, this data is tied directly into your database file, which is limited only by disk space. See: <u>Define Bar Codes</u>.

Bar Codes-Define Bar Codes



Each record in this database provides a bar code document print "definition". Add your own definitions and experiment.

The document ID can be any name you give. Next identify the "charges" file within Clock-IN! to use for printing. (Note: you can also create your own input files under Paradox and identify them here for printing bar codes.)

Labels across is the number of labels to print horizontally on letter size paper. Labels down is the number to print vertically.

The bar code height and density are determined by the values you enter for characters per inch and height. Bar codes are most readable at 3 to 10 characters per inch and need a height of at least a quarter inch.

Most printers "bleed" the black areas somewhat into white areas, but bar code should have equal sized black and white areas. The bleed pixels parameter reduces the black areas printed by the # pixels you enter here in order to compensate for printer bleed. One pixel is one picture element or about one dot on a printer. A setting of one is usually sufficient to compensate most printers for bleed

Checking the border or grid parameters causes printing of borders or grids around each bar code label printed, according to a percent indentation that you also can specify, e.g. .05=5 percent.

ATO, if checked, automatically adds a TRANSACTION COMPLETE character (the % character) to the end of each bar code printed. So if your worker <u>wands</u> one of these bar codes, Clock-IN! sees this character and Auto-Completes the transaction without waiting. If workers only use the system as a Clock In/Out Time-Clock, you would check this option and produce ID badges for the workers, then they only would have to scan their badge when they come and go, all the rest is automatic!

You should layout individual field data from the "charge" file information. Indicate each field number from the data file to print and its location in (x,y) coordinates on each bar code label you will print. %x, %y vary from 0 to 100 percent the placement of this data field on the paper left to right (x%) and top to bottom (y%). If you want the field's data to print right justified, use 100%, left justified, use 0%, for centering use -1 %. Finally indicate the font size to use for the label in points. Font size 0 is the special case where you want the bar code font printed. Font size 99 is reserved for printing a graphic file.

Static data labels can also be defined and added to the lower right definitions matrix, similarly. See <u>Automatic Mode</u>.

Edit-Bar Code Prefixes and Encrypted Files Parameters

When you have elected in Global System Options to have Clock-IN! add the prefixes to the file data when printing bar codes, then Clock-IN! will look at the file used in your bar code template and look up the prefix to use from these definitions. It then prefixes the bar code with this prefix when printing. When wanding the data in, Clock-IN! strips the prefix and then looks up the data in the file, e.g. B100 would be looked up as badge 100. You can also designate encrypted files with this selection, see the next section.

Barcode-Edit Prefixes & PWs

Users can set up the Clock-IN! directory on a network and control file access rights through normal networking software, such as Novell Netware or Lan Manager.

In addition, each Clock-IN! Paradox data file can be encrypted with a password, using Paradox software. You can lock any Clock-IN! file using Paradox, but you have to tell Clock-IN! the file and the password you used when locking it.

In a later version of Clock-IN! you will be able to lock and unlock files directly. Locking the file with a password encrypts the data. If you are running Clock-IN! on a DOS hard drive, you may wish to encrypt specific Clock-IN! files. Two files, the COMPANY and FILES databases are already encrypted and you cannot access them.

All other data files can be encrypted by you. When you finish encrypting the file using Paradox, enter Clock-IN! and add the filename and password through this menu selection. Then Clock-IN! will still be able to open each protected file. Remember that the filename is to be provided as the 8 character filename, e.g. CLASSES, and that the password in Paradox is upper/lower case sensitive.

Bar Codes-Print Test Pattern



This selection lets you print a quick test pattern of each character used for bar code printing. Use this to test out your printer.

Actions-Set Worker Access

After conducting some supervisory menu functions, you may want to return the terminal to an Unlocked mode, accesslevel 0 (0=worker access). Select this menu item and that access state will be automatically set.

Actions-Set Time



Use this selection to set the computer clock day and time. Check-mark the Set System Clock to Above box after you enter the proper day and time in the Time & Day text-boxes in Figure 10-1.

You can also check-mark other options, such as forcing a hard-copy print-out of each transaction, by checking the option box for each option.

Set Next Transaction Time lets you manually control the clock. You may want to force transactions to particular clock times, then go back and enter the transactions.

Overriding User Time & Date

You can override the time and date by resetting the computer system clock in Actions-Set Time. Or set the time the next transaction should use by clicking that option box.

Yet another method is available. You can enter the time and date to use for the transaction in fields 7 and 8 in the Time-clock Window as you enter each transaction. This makes it easy to "test" your employee option sets after you code them.

Just run a transaction through and set the time/date on each one. e.g. Enter an IN with a time and date and then enter an OUT with a time and date in text-boxes 7 & 8. Then check the distribution of that total day's time in the TABLE and GRAPH views.

You may want to turn this feature off. If so, just re-label the data fields so the workers won't know the added functionality of these two data fields.

See: Option Sets, system clock.

See: Status Windows.

Actions-Goto Locked Input



After a manager has accessed the menus, he may want to return the station to a LOCKED Time-Clock Window. This menu item invokes the LOCKED mode TIME-CLOCK Window.

Locked/Unlocked Time-Clock Modes Explained!

The Time-Clock window with transaction buttons can be displayed in either locked or unlocked mode. Select the desired initial mode in System Options. When you enter the Time-Clock in locked mode, Time-Clock users CANNOT exit this display and CANNOT access any other Windows applications. Some companies even lock away the keyboard and mouse, forcing only bar code or touch screen operation of the Time-Clock by hourly workers. Each station running Clock-IN! on your network (if any) can be operated according to your needs.

The only way to exit LOCKED Time-Clock mode is by pressing the password button and entering a manager level user-name and password. Then you can again use the menus. LOCKED mode shuts down all other Windows access points. Use this mode to operate it as a full TIME-CLOCK, preventing workers from accessing anything else.

See Also: More On Transaction Security, options.

Actions-Goto Unlocked Input



This menu item invokes the UNLOCKED mode TIME-CLOCK Window. You might want to use this mode if you need your workers to access the many reports, views, and graphs available in Clock-IN!. With this mode, the worker can still access some Clock-IN! menus, but not those that are password protected. Also use this mode if you need the worker to access other Windows applications.

Menu Item Protection

Menu items are increasingly accessible as you go from worker, guard/receptionist, manager, and T&A level access. The access is determined when you login, by the settings for these in your worker. record.

See: Actions-Goto Locked Input

Actions-Goto Simple Locked



After a manager has accessed the menus, he may want to return the station to a LOCKED Time-Clock Window, using only the SIMPLE IN/Out window. This menu item invokes the LOCKED mode simple window Window.

See Also: More On Transaction Security, options.

Actions-Goto Unlocked Simple Time-Clock



This menu item invokes the UNLOCKED mode SIMPLE TIME-CLOCK Window. You might want to use this mode if you need your workers to access the many reports, views, and graphs available in Clock-IN!. With this mode, the worker can still access some Clock-IN! menus, but not those that are password protected. Also use this mode if you need the worker to access other Windows applications. See: Actions-Goto Locked Input

Actions-Call Time Service

This selection enables you to call up the government's Atomic Cesium clock and set your computer's clock from that exact time.

From the menus, select Modem. Then select Set-up, if you have not previously set up your attached modem in order to use this function. Indicate your time zone, daylight savings, and the communications port which is attached to the modem. The default dial string is shown.

Save the configuration and exit this dialog box. Select CALL, and within approximately one minute, the call will be made, and your computer clock updated.

Use this function to keep your clocks accurate if your computers are losing or gaining time.

Actions-Record No-Shows

A no-show is an employee who did not work on a particular day. The employee could have been on holiday, vacation, sick, or any number of reasons. In large organizations, no-shows must be automatically identified and a payroll transaction record must be created.

If an employee has no transactions on a particular day, a no-show (NSH) transaction will be generated. The scheduled leave file is first consulted to see if an authorization record is there for ALL, the employee's department or group, or for the employee. If an authorization record is found, the transaction generated will contain the hours and type information from the scheduled leave.

No-shows can be identified in real time during the transaction entry. You turn on/off this real time option in the second screen for the System Options.

This option allows you to enter a date range and identify the no-shows for that date range. So if you are not identifying no-shows in real time, you can process them at your convenience with this menu selection.

You can process no-shows as many times as you like for the same or different date ranges. It will not generate any multiple records.

Actions-Process Queue Now

External programs can post incoming data directly into the queue.db file for Clock-IN!'s time engine processing. Selecting this menu item directs Clock-IN! to process any records in that queue.

System Options has a on/off check-box for you to turn real time queue processing on/off. If you have it turned off, you can still process the queue file on demand by selecting this menu item.

Actions-Adjustments-Absences

This selection allows you to enter an absence and the hours involved for an employee. Adjustments of 4 types provide a way to insert both negative and positive hours changes to an employees time records. **Absences** are used to record an absence by an employee. **Notes** are used to enter a human resources note on a worker, to establish a history. **Debit/credits** are used to move hours from one job charge to another. **Force hours to** is used to force a particular group of payroll records to a particular hours total. If your system crashed for example, and you want to force all the workers to 8 hours for that day, Clock-IN! will provide the offsetting hours charge to each employee to make that happen.

Clock-IN! transactions retain the employee clock status, the elapsed workday results, the cumulative day's hours, and the schedule being used. The schedule used was determined at the time of his clock in for that day.

Paydates Explained

An adjustment involves posting labor hours to an employee's records for a given day. A day is defined as a paydate, meaning the date is actually the day that the worker started that shift. Even if a worker starts at 23:00 hours on 9/31, and works through until 8:00am the following day, the paydate for all transactions is 9/31. All transactions will show a normalized date of 9/31. The hours,however, are continually incremented as transactions occur. Timestamps for the following day are incremented by 24:00:00, so at 03:00:00 on 10/1, the timestamp is actually 9/31-27:00:00. In various report extracts, this is critical for payroll, since you will be pulling that paydate's full set of transactions.

You may also note that transactions for a given workday carry a sequence number. This number ranges from 1 to n, with n the last transaction that workday.

Live Adjustments versus Posted Adjustments

When you post an adjustment, the day may still be "live". The employee may have worked halfway through his shift, when you suddenly post an absence to that day. Or the day could be a few days ago. Clock-IN! doesn't care, because it always grabs the last transaction in that day's work-set of transactions. Then it copies the transaction, and enters the transaction hours adjustments you have specified, and saves the transaction. It does not disturb the employee clock or his status. But the hours are still processed normally.

If no transactions occurred on that day for the employee, Clock-IN! posts the adjustment to the that paydate at time 00:00:00.

Actions-Adjustments-Notes

You can enter an employee note for human resources purposes with this selection. You'll get an opportunity to select the employee. You might want to record notes on performance exceptions, etc. Foreman can also record a note directly with the notes button the Time-Clock Window.

Actions-Adjustments-Debit/Credit Hours

Employees may have charged jobs with the wrong charge numbers. This selection allows you to select a group of employees and then reverse their charges to another job number. The old job number is debited the minus hours that you enter. The new job number is credited with those hours.

Actions-Adjustments-Force Hours to

An additional feature is the ability to force a group of employees to a user entered "Actual" hours for the day. Maybe your system crashed and you want everybody to be paid 8 hours for that day. This feature lets you select the group and force and adjusting entry to bring the hours to 8 for that day.

Data-tables-How To Use Them

Data tables are spreadsheet views of your database records. You can use the << and >> buttons to go the first and last records in the database, as you can with the forms view in various Edit Databases. Also use the < and > to move forward and back one record.

The Go-to, Search, and Quit options work the same as in Editing Data screens.

You can move the cursor around the data table by using the cursor keys or clicking your mouse. To edit data in a particular cell, click on that cell, type the new data and press enter. Some data cells are write protected and will not allow you to change them.

The data table view brings in up 256 records from the database at once. If less than a full screen of data records are available, you will only see a few rows of data and the rest of the table is blank. This is because your database only contains those few rows.

When your screen is full, use the page down and up keys to move ahead an back a full screen at a time. When you travel outside the 256 records allowed, the system will "page in" new records and you may have to wait a few seconds.

Use the scroll bars to access data outside the screen area.

Data Change Log

Clock-IN! can record changes to individual data fields when you modify data using the Table browse or the Edit pull-down menus. On screen 3 of global system options you can turn on data change logging for just the employee and department files, or for all files except personal files such as messages. The menu item T)able D)ata Change Log gives a browse view of the changes that were made. Clock-IN! records the filename, field name, the prior and new data field contents, and the record key value for the record that was changed (e.g. employee number). The report DATACHGS, was also added to allow you to select a time period and print out the file revisions made by various users.

Schedule-Edit-Summary of Scheduling Methods

Use this selection to edit the scheduling records directly in a forms view.

Clock-IN! looks in 4 places for a set of scheduled time parameters (In,Lunch,Lunch Length,Out,Paid Lunch). The first set of valid schedule times found are used, along with option set settings to determine the worker's "normalized" clocking. The 4 places searched are, in order:

- 1. Employee Record. (used if the time parameter fields are non-blank).
- 2. Rotation Record-2nd Screen of Option Set. (if the Option Set ID for the employee has this option marked).
- 3. Scheduling Records. (that day & badge number are looked up for a specific scheduled date).
- Department/Shift Records.

Four scheduling methods are possible with this flexible approach. 1) Floating schedules, 2) fixed schedules, 3) date-based scheduling, and 4) rotation-based scheduling are provided. By mixing different option sets and department/shift options, you can achieve most any type of scheduling.

Floating schedules are set by specific option check-boxes within the option record. Some companies use **fixed or floating schedules**. They enter each department/shift schedule in E)dit D)epartments. Then they can default that schedule to the employee record in E)dit W)orkers and override it as needed. (Manufacturing and office organizations commonly use this method).

Other organizations use the **date-based spreadsheet scheduling** capability. They use the spreadsheet and click on the cells to schedule the employees on/off for that date and shift. Here they enter just the department/shift schedules and leave the employee time parameter fields blank in each employee record. (Retail and restaurants/hotels use this scheduling method).

Other firms use a **rotation scheduling method**. For this option, you also leave the employee fields blank and enter your rotation definition in the option set record, e.g. option set ID ROTATE1 might call out a rotation definition of three days on, three days off. You might have three option sets with unique scheduled times for each of the three days being worked, e.g. NITE1, NITE2, NITE3. Within the option set ROTATE1, call out each of these option set ID's for those first three days.

Schedule-Browse Table

Use this selection to edit the scheduling directly in browse view.

Schedule-Plan

The pull down menu "SCHEDULE" provides a complete scheduling spread-sheet sub-system to schedule employees for work. You can:

select a date range to schedule
replicate a previous schedule
schedule by departments/shifts or ALL
hide/unhide columns
consult employee preferences (displayed automatically)
print schedules
view the employee's picture
consult the human resources notes on the employee

view the hours total

Under S)chedule you can access the forms view and browse views for the scheduling records. Under S)chedule P)lan you can plan the scheduling simply by mouse clicking on the spread-sheet for whatever date range desired.

In the worker file, leave the employees clock times blank, and the system will automatically refer to the new schedule" database when clocking employees.

The rows are the employees. The columns are the date/department/shifts that you want to schedule. Click your mouse on any cell intersecting the two to schedule that employee for that date/department/shift. The totals will be re-displayed. If you re-locate the cursor, then come back and re-click that cell, the person is de-scheduled and the cell will again appear blank. This effectively toggles that scheduled day on/off for that person.

Click your mouse in the header column area (the first six rows) to select a column. This will select the column, but not schedule/de-schedule any person. Then you can click the hide column button and all the matching department/shift columns for all dates will be hidden. Click on Unhide All to see the columns again.

Click in the first 4 columns on an employee row. The [Picture] and [Post Msg] buttons are activated for that employee, and that employee' preferences text is displayed in a floating memo pad. You can edit this preference pad, and click on the OK button and it will save the new preferences to the employee record. You can also click on [Picture] see that person's picture, and click on [Post Msg] to enter a mail message for that person.

The departments file also contains fields to enter activity volumes and person hour requirements for each department/shift. The requirements are netted against the schedule and the last row in the Schedule Plan view shows the net over/under staffing for each date for each department/shift.

Comm-Edit Function Keys

Use this selection to edit the prompts you will deliver to the user at the bar code terminal/time-clock and to define the data that is collected.

Comm-Browse Function Keys

Use this selection to edit the prompts you will deliver to the user at the bar code terminal/time-clock and to define the data that is collected.

Comm-Edit Validations Files

Use this selection to define the file data, such as badge numbers that will be downloaded to the terminals or time-clocks.

Comm-Browse Validations

Use this selection to define the file data, such as badge numbers that will be downloaded to the terminals or time-clocks.

Comm-Setup Communications

Use this selection to set the communications parameters for the proprietary bar code terminal o time-clock network you have installed.

Comm-Network Setup

Use this selection to set the manufacturer specific parameters for the proprietary bar code terminal o time-clock network you have installed.

Comm-Remotes Setup

You can set up a modem for communications to a remote site, like a plant or a store. Then you can drop just a modem and time-clock or bar code terminal at that site. Clock-IN! Remote will dial in and get the transactions during the scheduled download time. Clock-IN! uses a Hayes dialing protocol.

Comm-Remotes Phones

You can edit the remote site locations and the phone number to access the locations. A notes area lets you keep other important operating information.

Comm-Browse Phones

The browse phones function gives you fast way to browse all your remote locations data. You can revise the phone numbers and descriptions quickly.

Comm-Polling

Use this selection to start or stop polling the terminals for data. Menu options to force downloads, etc. are provided.

Help-Index

This selection allows you to view the index of topics for Clock-IN! help. Select this even if you just want to search for a particular keyword or subject. Then select the Search button to find out about the topic of interest.

See: Clock-IN! Help Index or Specific Menu Item Help.

Mission Critical Software, (313)-247-0394. Compuserve ID 73127,77. Fax your requirements to (313)-247-8444. Dean L. Hiller, CSP,CCP,CDP,CPIM,COAP,CSI,CISA,BSE,MSE,MBA. See Training & Consulting.

Help-Help

Windows provides a help program to get help on how to use the help systems provided by Windows applications, such as Clock-IN!

Select Help-Help to learn how to use Windows help systems.

If you are not sure how to use Windows, the program wintutor.exe comes with Windows 3.1 or greater to provide a complete tutorial. Select this from Program Manager or select File Run and type wintutor.exe.

Help-Register Product

Select H)elp, then R)egister Product. Fill in the serial numbers on your invoice for the specific Clock-IN! products you purchased. If you have not purchased the products, you can only use them within specific record limits and printing limits.

Help-About

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Conferences & Seminars

Clock-IN! - Registration Software for Your Seminars & Conferences

Clock-IN! can be used to manage conference and seminar attendance. Some studies have shown that bar coded badges at such events actually can increase attendance by as much as 20 percent. With Clock-IN!, you can enter the pre-registrant data, print the bar coded badges, and mail them to the prospective attendees, before the event.

Clock-IN! also saves labor when registering attendees. Each attendee can be scanned in and no sign in sheet need be forced upon pre-registered attendees. You can even have an attendee scan his own badge to indicate attendance. Since Clock-IN! eliminates "duplicate scans" and has a "locked system modal input screen", attendees can't play with the registration computer and "screw it up". They can only scan in or out.

We have also found that attendees generally like to "scan" their own badges into attendance. They further appreciate that pre-registration awards them with a bar coded badge and differentiates them from last minute party crashers.

A small portable computer equipped with a bar code scanner can cost about \$2,000. Use Clock-IN! and Microsoft Windows with the portable computer and eliminate the need for paper records. As attendees arrive, scan the badges of the pre-registrants and insert their badges into a plastic pin holder, so they can wear the badge. Those without badges can hand write their name and address data on a paper sign-in form. After the seminar starts, you can enter the few names from the sign-in sheet to complete your seminar records. Then clock these people in.

Automatic Seminar Results & Attendee Certification

If you are also equipped with a small bubble jet printer (some of these are super small and less than \$500), you can print the attendance report right away, too. You can also print badges on the spot for those attendees that were not pre-registered and deliver these badges at the break. Or optionally pre-print extra badges with blank names, and hand-write in their name. Then write in the badge number on the sheet when you give the attendee the badge. Later you can look up that badge number and enter the address information for that attendee.

This allows even the unregistered attendee to clock-in immediately and use bar coding, but gives you time to enter his information from the sign-in sheet, later.

As attendees leave, they can also clock-out. Clock-IN! automatically can tell if they are clocking out or in. By having attendees "scan out", you can achieve a very high level of attendance certification. Where training attendance must be certified, Clock-IN! provides a detailed audit trail.

Steps To Set Up Clock-IN!

When attendees call in or mail in a registration, start up Clock-IN! and select File - Clear a File. Select the file named employee from the list. This file will be cleared, or emptied of all records. This step is optional and allows you to set up a clean database, ready to enter records for a particular seminar. Perhaps you have installed Clock-IN! on a portable computer and you wish to remove old seminar records.

If you elect to keep several seminars active in the database at once, then each seminar should be assigned a department and shift number to establish it's unique schedule.

Select Edit Option sets. Add an option set record for the particular conference or seminar you want to hold. Be sure to specify start and end times and the lunch times for the event. For the option set ID use an ID you can remember, e.g. S020393 for Seminar on February 3, 1993.

Now select Edit Department from the main Clock-IN! menus. Add a department number for the particular conference or seminar you want to hold. Add descriptive information. Specify the option set ID you assigned in Option Sets, e.g. S020393.

Now select Edit Worker. Add each attendee to the database, specifying first and last names and

assigning a unique badge number. Unique badge numbers should start with a 'B' to enjoy the system modal input provided by Clock-IN!. We suggest numbering attendees B1S1, B2S2, etc. for a unique badge number for each seminar (S1, S2, etc.)

Then select Bar Codes - Define Bar Codes. Find the badge layout you like best, e.g. IDBADGE. After you find this layout definition record, click your mouse on the static text fields and type in your company name, instead of Mission Critical Software. This only has to be done once, not for each seminar.

Now select File - Set-up Options and mark the check-box next to the employee file. This step will set all attendees to a not clocked in status.

Finally select Bar Codes - Print Bar Codes and select the IDBADGE layout. Clock-IN! will print out bar coded badges for all pre-registrants. You can also re-design your badges with Clock-IN! A further optional step is to add the attendees address data also, when entering attendee information. When on the first worker screen, just click on the Last Screen button, this brings up the address screen where you can enter this data. When printing labels, you select the MAILLABL bar code layout to print out mail labels for registrants.

These steps take only a few minutes and are made easy by the point and click data entry of Microsoft Windows.

At The Seminar

That's all there is to it! Just take the portable computer to the seminar and your attendance reports and certification are pretty much automatic!

When you get to the seminar select Actions then Locked Input Mode and start scanning badges!

Clock-IN! Interfaces

How Clock-IN! Already Interfaces With Your Bar Code Network!

If you are an OEM bar code manufacturer, your products are probably already interfaced with Clock-IN! Clock-IN! was set up for the kind of open architecture customers demand today. Let's see how that interface works:

Most OEM's already have proprietary bar code network controllers that "talk" to the terminals and gather data at high speed. Customers ask you for easy to use PC packages that allow them to define transaction prompts and down-load them to the terminals.

These packages then down-load the terminal with the necessary transaction, function key definitions, and prompts. When the worker presses a function key, he is prompted several times for input and this collective group of data items becomes a data transaction.

Typical OEM's charge for this transaction definition software. Then the customer MIS department defines the transaction prompts they desire and they program their desired interfaces to their other systems.

When interfacing to such a proprietary system, you can take advantage of Clock-IN's standard transactions F1 through F8. These are eight predefined button transactions which are CIN, OUT, TSL, CEH, CSL, CDS, CST, CFN. Instead of one a time prompts at an intelligent terminal, Clock-IN! provides text boxes from 1 though eleven to scan or key the data into the personal computer.

You can convert the Clock-IN! text box prompts to their associated prompts that you would need at the intelligent terminal. The first three boxes prompt for Badge, Charge, and Work Code, followed by several user defined text-boxes (or prompts). Design the prompts for your intelligent terminals as in Figure E-1.

Trans	Prompt #1	Prompt #2	#3, etc.
ATO	Badge		
CIN	Badge		
OUT	Badge		
TSL	Badge	Charge	Workcode
CEH	Badge	Charge	Workcode
CSL	Badge	Charge	Workcode
CDS	Badge	Charge	Workcode
CST	Badge	Charge	Workcode
CFN	Badge	Charge	Workcode

Figure E-1 Prompts

Note the ergonomics of Clock-IN!. The minimum required prompts are badge for CIN and OUT, and just badge and charge for the remaining transactions. Work-code is shown, but is optional as are prompts associated with text boxes 4 through 11. After your collection software acquires the data in that order, simply pass it to Clock-IN! in that order as an ASCII text file. By corresponding your "prompts" with Clock-IN!'s text boxes, you can pass the collected data in the transaction format as in Figure E-2. The fields needed, their size, and sample data is shown.

"Time Stamp"	seconds since 1/1/1970 or b	lank 910234333
"Trxn Date"	mm/dd/yy (reqd if time-stamp	blank) 06/06/93
"Trxn Time"	hh:mm:ss (reqd if time-stamp	blank) 12:04:07
"Tran Type"	three characters	CEH (required)
"Badge"	up to 12 characters	B1200 (required)
"Charge"	up to 33 characters	C100 (recommended)
"Work Code"	up to 8 characters	W1 (optional)

"User Defined"	up to 17 characters	(optional)
"User Defined"	up to 17 characters	(optional)
"User Defined"	up to 17 characters	(optional)
"User Defined"	up to 17 characters	(optional)
"User Defined"	up to 17 characters	(optional)
"User Defined"	up to 17 characters	(optional)
"User Defined"	up to 17 characters	(optional)
"User Defined"	up to 17 characters	(optional)

Figure E-2 ASCII Input Fields

A sample line might look like:

```
" ","08/29/92","12:03:46","CIN","B1001","C2000","QA",0,,0,0," "," ","My data"," "," "
```

Note that your intelligent terminal program will typically add either the time-stamp in field 1, or in fields 2 and 3. It should also provide the transaction type or function key pressed (e.g. CEH for function key F1) in the fourth field. The fields that follow then correspond to the input text-boxes 1 through 11 defined by Clock-IN!

The sample line demonstrates that the 14 commas exactly separate the 15 fields of data. This is an easy way to check your data alignment. You can either enclose the numeric fields in double quotes, or leave them un-quoted. Also, either the transaction date and time must be supplied or the timestamp. Both are not required. Most fields are optional. User defined fields are also provided.

That's all there is to it! Using your software, all the customer has to do is synchronize his transaction definitions to take advantage of the 8 Clock-IN! standard time based transactions and the 7 user defined transactions.

This same layout above is used by Clock-IN!'s batch import facility. Besides 1) DDE, and 2) import/export, Clock-IN! offers direct database maintenance via the Paradox engine. So you can use any Paradox file format compatible product to post transactions directly to the Clock-IN! queue file. A sample 'C' program of 20 lines which accomplishes this is available via facsimile at no charge. DDE program code is also available.

Clock-IN! provides what **customers NEED and don't have in the way of a transaction processor** that makes time based intelligence out of the collected activity.

Often OEM's provide a simple validation file function that allows badge numbers and other ID numbers to be down-loaded into the proprietary network or terminals. This allows the customer to have his workers rejected for bad ID numbers at the point of entry of the transaction.

These validation processes often need to be sub-second and so need to be down-loaded to the terminals. We recommend a custom program to access the Paradox data files from Clock-IN! If your OEM software is open architecture, it may be able to access and down-load from these files directly or use Clock-IN! to export those ID badge numbers for down-loading to your network.

Correspondence of INPUT Text Boxes to Transact.db file

The eleven general purpose text boxes which you can relabel in system options have some predefined destination fields for their data when the transaction is actually posted to the "transact.db" database. So if you relabel the field and want to use it for some other data, note the recommendations below:

These are:

Box#		Field in transact.db	Recommendation for usage
0.	Badge	badge	Must use as badge
1.	charge	charge	Must use as charge
2.	workcode	workcode	alphnumeric 8 characters
3.	pieces	pieces	numeric double

4.	rate	piecerate	numeric double
5.	hours	entryhours	float double
6.	user time	entrytime	alphanumeric 8 characters
7.	user date	entrydate	alphanumeric 8 characters
8.	status	user1	alphanumeric 80 characters
9.	user def	user2	alphanumeric 80 characters
10.	user def	user3	alphanumeric 80 characters

Figure E-3 Input Box Destination

Costing of Transactions

The worker file contains a labor rate field. This rate is applied to the actual hours on the charge to give a labor cost. Three rate multipliers are found in the department record for the worker. These rates apply to the base rate of the employee if applicable. These formulas are used to cost the transaction:

laboramt=reghrs*costrate +

dblhrs*costrate*dblrate+

ovthrs*costrate*ovtrate

overheadamt=pay_hrs*overheadrate

Also note that the costed labor is posted to the transaction fields into the "laborcost" and "overhead" cost fields. If the file has a cost master record, the labor and overhead are added to both the MTD and YTD total fields for that "charge".

Implicit Department Transfers & Costing

If you use a validation file, such as charges, the file has a department number associated with each operation. Clock-IN! can then do implicit transfers by looking up the department for that job/operation number, and charging that department for the labor.

When Clock-IN! validates the charge file, if it finds a department field for that charge, it will look that department up and set that transactions "tempdept" field to the new department. Then it will override the employee rates and use the rates from that department in costing the labor.

So all you have to do is have an employee "charge off" on a router in say his home department A, them move him to the new department. When he charges off there, it will pick up the appropriate rates for that new department.

When doing reports, remember that the "Temp dept" field is the department being charged. The home department field is the employee's home department and is the department being relieved of the labor cost.

All five rates, cost rate, bill rate, double-time, overtime rate, an overhead rate are taken from the new department record. Department records are keyed by department AND shift number. When looking up the temporary department, we use the same shift number as is coded for the home department. If that lookup doesn't work, we look up shift 1 for that temporary department. If that fails, we go back and use the home department/shift number record for the rates.

If the router's validation file has no department field or is blank, standard costing will occur using the employee record's rates.

Using the pair of fields,"home dept and temp dept" and the labor and overhead costs assigned to the transaction, you can use SQL or other means to do sophisticated departmental labor distributions transfers.