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Welcome to Parameter Manager

Welcome to Parameter Manager, the application that gives you the power to control your location settings. The enterprise-wide system allows corporate-level managers to quickly and easily control fast-changing labor parameters across hundreds of locations.

WHAT IS PARAMETER MANAGER?

Parameter Manager allows you to manage Campbell Software's StaffWorks® and Campbell Time and Attendance™ (CTA) in-store software from a central location. You can send new information such as job, task, labor standards, and other key labor data to all your locations, or just to specific ones that meet a set of criteria you develop.

 **Important** This document uses the term *store* or *location* to refer to one of your sites where Campbell Software applications are implemented.

The application consists of three separate programs:

- The client/server application Parameter Manager runs at a corporate or other central location.
- The Server Agent creates text-based data transfer format (DTF) files for transmission to remote locations. It also receives statuses from the locations to update Parameter Manager's database.
- The store-level Intelligent Agent makes changes to Staffworks and CTA in accordance with the DTF files it receives. It also returns status of the DTF files to the Server Agent.

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Managing Store Settings

Parameter Manager uses settings to control the parameters that StaffWorks uses on the store level. This chapter shows you how to set up and maintain the store settings that go into creating transactions.

WORKING WITH STORES

Store Settings help you define the groups of stores that receive specific parameter changes. These profiles include store information and categories that help you group stores when you create transactions. This chapter concentrates on initial set-up of store information. When you create transactions, you define some settings in more detail than when you define them here. Also, when you create transactions, you have the ability to define profiles and settings as you need to.

Working with Store Settings

When you begin to set parameters in Parameter Manager, you first create store information. This information ties in with categories, which help you search for stores that match parameter changes you send to the stores. Later you can edit parameters as necessary.

The starting point for working with store settings, individual settings, and parameter profiles is the Parameters list.

- From the menu, choose **View>All Stores**

The Categories/Stores view appears.

Figure 2-1. Categories/
Stores view

Use this dialog box to create or edit information about your stores and categories that group stores together. This chapter shows a recommended order, but your specific implementation and corporate policies might indicate a different order.

Important The order you use these options in doesn't necessarily matter, except that you must define volume indicators before you create tasks. Also, you must define jobs and tasks before you define labor standards.

Creating Store Information

To create a record that identifies your stores, follow these steps:

- To edit an existing store, select the store's number, then right-click and select **Edit**.
- To create a new store, select **All Stores**, then select **Edit>Add**.

In either case, the Edit Store Information dialog box appears.

Figure 2-2. Edit Store dialog box

The screenshot shows a dialog box titled "Store" with the following fields and values:

Store Number:	20000	OK
Store Name:	Darmstadt	Cancel
Address 1:	Grafenstrasse 20	Help
Address 2:		
City:	Darmstadt	
State:		Zip Code: 064283
Country:	DE	
Phone:	49.06151.995292	Fax: 49.06151.555110
Open Date:	01/21/1988	

Use this dialog box to enter details about a store. These details include the mailing address, contact numbers, and the date the store opened for business.

1. Enter appropriate information in each text box:

Store Number—A number that identifies this store. You must fill in this field.

Store Name—The name of the store. Type any name that helps you recognize the store. You might call the store by location, for example, *Main and Hinman*. Or, you might refer to the store by a short form of its address, for example, *311 South Wacker*. You must fill in this field.

Address 1—The primary address for the store. Usually this appears as a street name or a post office box number. It might also be a suite number, postal stop number, or other first-level identification of the store's address.

Address 2—The second address line for the store. Most stores only use this line if the first line indicates a suite number, building number, or other information. In these cases, Address 2 could indicate the street address.

City—The name of the city where the store is located.

State—A two-letter abbreviation for the store's state or province.

Zip Code—The Zip or postal code for the store.

Phone—The telephone number for voice calls. Begin the number

with any area code, city code, and country code, as necessary.

Fax—The store's fax number.

Open Date—The date the store opened. You can use this field to indicate when the store opened for business, or you might use it to indicate when the store began using Parameter Manager. You must fill in this box.

2. When you finish filling out information, select **OK**.

Parameter Manager returns you to the Stores dialog box.

Creating and Assigning Store Categories

After you create stores, you can assign them to different categories. These categories help you define characteristics that apply to groups of stores. Once you define the category names, you define the individual values that make up a category.

Use the Categories folder to manage store categories. You can add new categories, edit existing ones, and change the name of existing categories. If necessary, you can also delete categories. Once you create categories, you can assign or unassign stores to a category.

Figure 2-3. Categories folder



For example, you might want to have a geographic category called *Location* that has values such as *urban standalone*, *urban strip mall*, and *suburban strip mall*. Or you might define *Region*, which contains the values of *east*, *west*, *north*, and *south*. The values you determine for categories depend on how your business works.

To create categories, follow these steps:

Creating a Store Category To create new categories, follow these steps:

1. Select **Categories**, then select **Edit>Add**.

The Category dialog box appears.

2. In the Category Name box, type the name you want to use for the category.

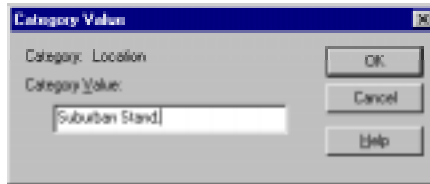
For example, if you need to group stores by their physical location,

you might type **Geographic** to indicate a geographic grouping of stores.

3. Select **Add** to add values to the category you created.

The Category dialog box appears.

Figure 2-4. Category dialog box



4. Select **OK**.

Parameter Manager creates a value for the category you created earlier. Once you create at least one value for a category, you can select **OK** to finish creating values. You can also continue creating values by clicking **Add** for each new value.

Assigning Values After you create categories, you can assign stores to them. To assign stores, follow these steps:

1. Select the All Stores icon, then select one of the stores in the list.

Figure 2-5. Viewing Values



When you select the store number, the All Stores icon turns grey.

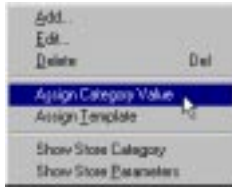
2. Select the store number that applies to the store you want to assign to the value.

Tip You have to select the store number itself.

- **To select a range of stores**—Select a store, then hold the **Shift** key down and click a store at the end of the range of stores.
 - **To select multiple, individual stores**—Select a store, then hold the **Ctrl** key down and click on individual stores.
3. Click the right mouse button.

The Assign Store Category dialog box appears.

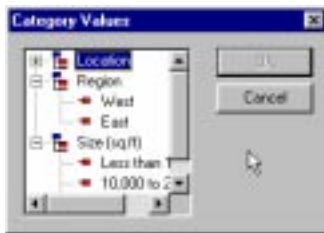
Figure 2-6. Assign Category menu



4. Select **Assign Category Value**.

The Assign Category dialog box appears.

Figure 2-7. Assign Category dialog box



Use this dialog box to select a category value you want to assign to your selected store.

5. When you finish selecting category values, select **OK**.

Parameter Manager associates the selected store with the value you indicated.

Working with Templates

You can create templates that help you define transactions. When you create templates, you establish patterns of settings that apply to a store, but you also can use that pattern for other transactions. To understand how transactions work, see chapter , “Working with Transactions” for more information.

To create a new transaction, follow these steps:

1. From the Templates view, select **Edit>Add**.

The Store Template dialog box appears.

2. In the Name box, type a name that easily identifies this template.

You can also add a description in the Description box.

3. Select **OK**.

Parameter Manager creates a template with the name you chose. However, you still need to associate parameters with the template. You do this when you're ready to create a transaction.

3

Managing Parameters

Parameter Manager uses settings to control the parameters that StaffWorks uses on the store level. This chapter shows you how to set up and maintain the settings that go into creating transactions.

WORKING WITH PARAMETERS

When you set parameters, you create these types of settings:

- Individual settings
- Parameter profiles

Individual settings include tasks, volume indicators, business indicators, and other individual items. On the other hand, *parameter profiles* consist of groups of parameter characteristics, such as calculation- or initialization file-affecting settings.

This chapter concentrates on initial set-up of profiles and settings. When you create transactions, you define some settings in more detail than when you define them here. Also, when you create transactions, you have the ability to define profiles and settings as you need to.

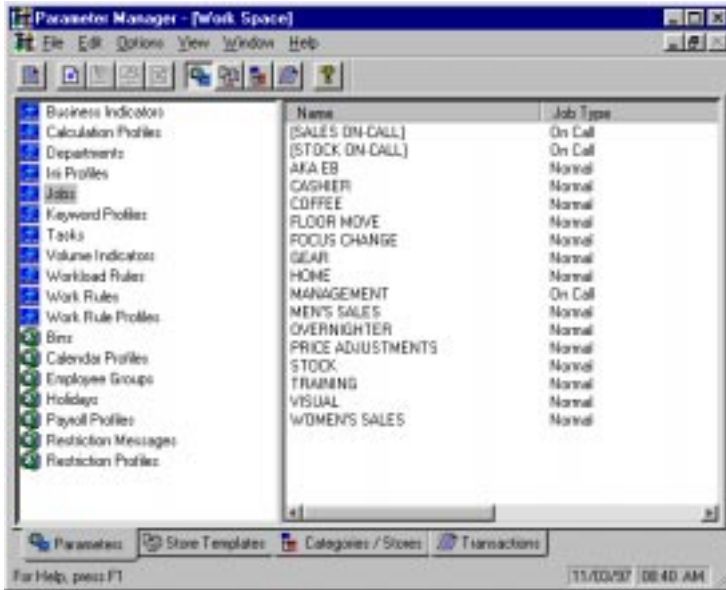
Working with Individual Settings

The starting point for working with any parameter is the list in the Parameters view.

- From the menu, choose **View>Parameters**

The list of parameters and profiles appears.

Figure 3-1. Parameters view



Use this dialog box to create or edit settings and profiles that affect individual settings at your stores. The list shows parameters and profiles that apply to Staffworks and to Campbell Time and Attendance (CTA). The icon that precedes each setting or profile indicates the application it applies to.



Staffworks



CTA

Recommended Order This chapter shows a recommended order, but your specific implementation and corporate policies might indicate a different order. However, keep in mind the following note:

Important The order you use these options in doesn't necessarily matter, except that you must define volume indicators before you create tasks. Also, you must define jobs and tasks before you define labor standards.



Departments

Departments let you define your organization's hierarchy. When you set up departments in Parameter Manager, make sure they already exist in StaffWorks.

To create departments in Parameter Manager, follow these steps:

1. From the Parameters list, select **Department**, then select **Edit>Add**.

The Department dialog box appears.

Figure 3-2. Department dialog box

Use this dialog box to create details for the department you are adding.

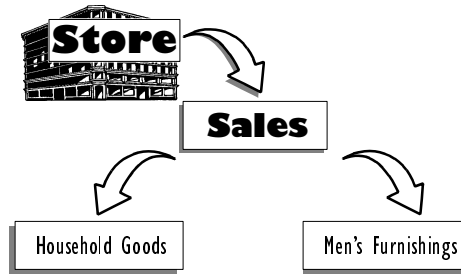
2. Enter appropriate information in each text box:

Name—The name for the existing StaffWorks department.

Code—The department store code number as it exists in StaffWorks. Make sure you type the code exactly the same as it appears in StaffWorks.

Responsible to—The level within your organization that this department reports to. The highest level is *store* level. Once you create a department, you can then create a subordinate level, called *jobs*. So, the first time you create a department, it must report to Store. Next, you can create a job that reports to the one you just created.

For example, you might create the department called *Sales*, which reports to *Store*. Next you create jobs called *household goods* and *men's furnishings*, which report to the Sales department.



Keep in mind that the departments you create must first exist in StaffWorks.

Description—A free-form description of the department. Use this box to help you identify the department when you view departments.

3. To save the department, select **OK**.
4. To view departments you've already created, select the department name and select **View**.

Parameter Manager displays the department details. You can't edit the information in the view, however.



Business Indicator

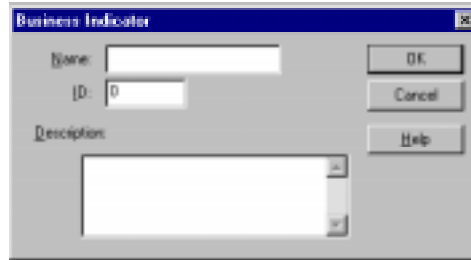
Business indicators allow you to define sales data in relation to a site or to departments within each site. In addition, you can associate business indicators with individual jobs within your sites. Business indicators affect sales forecasting. Also, you can link volume indicators with existing business indicators. Because of this, you must first create business indicators before you create volume indicators and jobs.

To set up business indicators, follow these steps:

1. From the Parameters list, select **Business Indicator**, then select **Edit>Add**.

The Business Indicator dialog box appears.

Figure 3-3. Business Indicator dialog box



2. Enter appropriate information in each text box:

Name—The name for the business indicator.

ID—The number that identifies the business indicator. Make sure you type a number that only applies to this business indicator. If you duplicate numbers, StaffWorks won't be able to tell which business indicator you mean.

Description—A free-form description of the business indicator. Use this box to help you identify the indicator when you view business indicators.

3. When you finish, select **OK**.

If you need to create more business indicators, select **Add** again.



Volume Indicators

Volume indicators help StaffWorks forecast the quantity of work to be performed. Volume indicators can be such quantities as transactions, items, or customers. The information comes from the POS system, imported from the `histdata.imp` file. Linking volume indicators to specific tasks allows the system to create a workload requirement by job. Linking volume indicators to a business indicator allows StaffWorks to make adjustments in forecast workload in response to business trends.

To set up volume indicators, follow these steps:

1. From the Parameters list, select **Volume Indicator**, then select **Edit>Add**.

The Volume Indicators dialog box appears.

Figure 3-30. Restriction Rules dialog box



Use this dialog box to edit details about a restriction rule.

- Complete these fields, according to your organization's requirements:

Default message—The default message that appears. Select a message from the list. To define a message, select **Restriction messages** (see “Restriction Messages” on page 41).

Grace—Message an employee gets when no warning or block is defined.

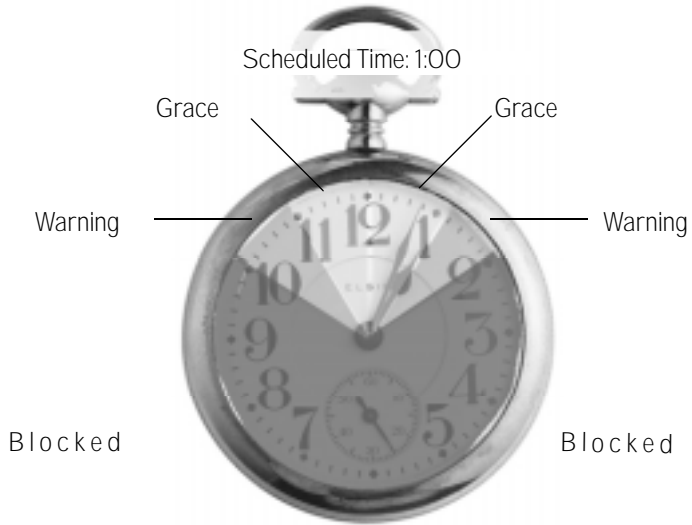
Warning (early/late)—The period from the specified punch type to the time a warning message is displayed and assigns the warning message.

Blocked (early/late)—The time table from the specified punch type to the time when the punch is blocked. Declines the punch with the specified message.

Example Employee John Doe is scheduled at 7:00 a.m. He gets to work at 6:30 a.m. and tries to punch in. He gets a blocked message telling him to see a manager. This occurred because based on the restrictions set for his employee group, the earliest he can punch in is 6:40 a.m. Between 6:40 a.m. to 6:50 a.m., he could punch in, but receives a message that he is too early. Between 6:50 a.m. to 6:59 a.m., he could punch in, and receives the default message. The messages John received are based on the default message setup assigned to his employee group.

Figure 3-31 displays the three restriction type options:

Figure 3-31. Example of restrictions



4

Working with Transactions

The core of Parameter Manager is the transaction. *Transactions* consist of parameters that are targeted at one or more stores. You create new transactions yourself, or actions that you take can in turn automatically generate transactions. You also manage and analyze results of transactions.

CREATING TRANSACTIONS

You create transactions one of two ways:

- Building a specific transaction by selecting stores and assigning parameters
- Editing a parameter that automatically generates a transaction

Selecting Stores

You first select stores that the transaction will affect. You have three ways to select stores:

- Select individual stores
- Choose criteria
- Use a template

Selecting Individual Stores

Sometimes you know the specific stores whose parameters you need to change. You can select them directly from the transaction process.

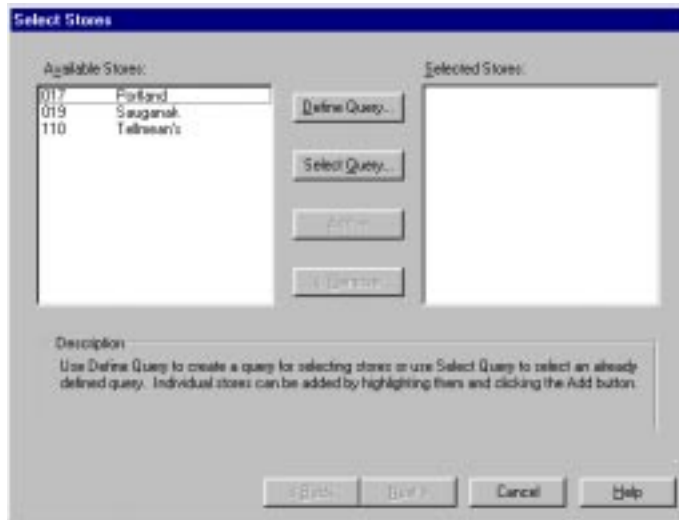
To create a transaction for specific stores, follow these steps:

1. From the menu, choose **File>New Transaction**.



You can also click the New Transaction icon on the toolbar.
The Select Stores dialog box appears.

Figure 4-1. Select Stores dialog box



Use this dialog box to select individual stores. You also use this dialog box to access criteria and templates.

2. From the **Available Stores** list, select the stores that will receive updated parameters.

Tip You can select more than one store. Hold down **Ctrl** while selecting stores.

3. Click **Add**.

Parameter Manager creates a list of stores that make up this transaction.

Choosing a Query

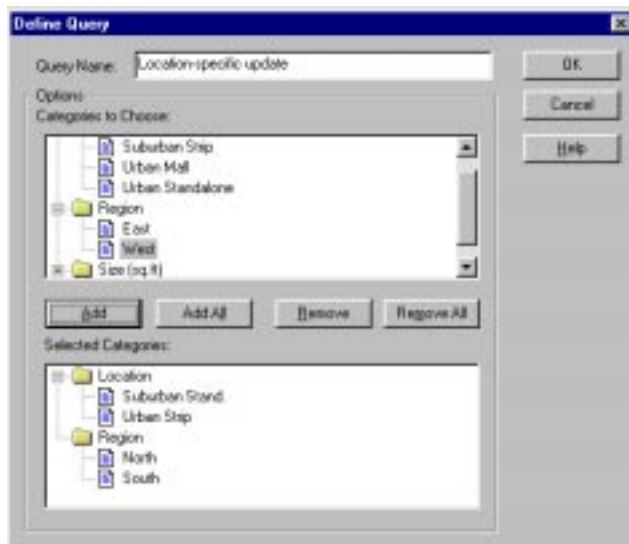
Sometimes you know the criteria you need to affect, but you don't know which stores share these criteria. Parameter Manager provides a way for you to define the elements that make up a set of stores and then it selects the stores that meet the criteria you choose.

To choose stores based on criteria, follow these steps:

1. From the Select Stores dialog box, click **Query**.

The Define Store Selection Criteria dialog box appears.

Figure 4-2. Define Store Selection Criteria dialog box



Use this dialog box to choose categories that define the criteria.

2. Select a category or a category item and click **Add**.

Tip To select all categories, click **Add All**.

3. Type a name that identifies the criteria and click **OK**.

Parameter Manager lists the stores that meet your criteria. These stores are the ones that you need to send parameters to. Parameter Manager saves the criteria as a template you can use as needed. This method helps you when you have to send settings to stores that meet the same criteria.

Tip You can also create a temporary template. To do so, leave the Name box blank before you click **OK**. Parameter Manager selects the stores that apply to your criteria, but it doesn't save the template.

Using a Template

You use a template to create a list of stores that meet criteria you defined earlier. Parameter Manager lists the stores that the template covers.

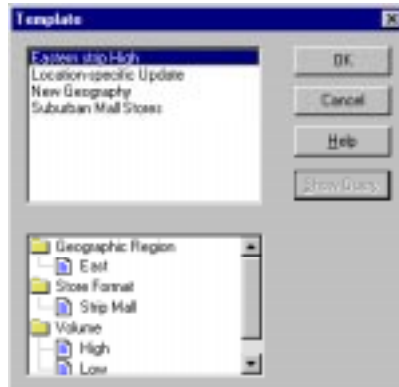
To select stores by using a template, follow these steps:

1. From the Store Templates view, select **Edit>Add**.

The Template list appears.

- To see the criteria that make up the template, click **Show Query**.
The list expands to show the different categories that the template covers.

Figure 4-3. Template list



- Select a template and click **OK**.

Parameter Manager chooses stores that meet the criteria of the template.

Assigning Parameters

Once you choose the stores that the transaction affects, you assign the parameters to the transaction. When your stores receive and implement a transaction, their settings are changed according to the details in the transaction.

You can create new or edit some existing parameters while you are building the transaction. Also, some edits you make might affect existing transactions. If so, Parameter Manager lets you know that an edit might conflict with a transaction.

To assign parameters, follow these steps:

- In the Parameter Types list, double-click the parameter you want to assign.

For each parameter type, Parameter Manager displays a list of existing parameters.

2. Select a parameter from the list that appears, or create a new one.
3. Assign a transaction detail name and describe the purpose for this transaction detail.

Although you don't have to type a description for the transaction detail, a description helps you keep track of complex transactions that contain a lot of detail.

Effective Date

After you collect the parameters that the transaction contains, you give a name to the transaction and establish the transaction's effective date. This date determines when any changes the parameters entail go into effect on the store level.

To establish an effective date, follow these steps:

1. Select all the parameter types that apply to this transaction.
2. Click **Next**.

The Effective Date dialog box appears.

Figure 4-4. Effective Date dialog box

Use this dialog box to name the transaction and establish its effective date.

Name—The name that appears in the transaction list in Parameter Manager's Transactions area.

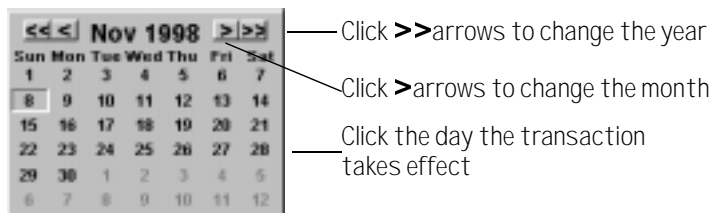
For example, figure 4-4 shows the name **Midwest calculation enhancement** as the name of the transaction. Keep in mind that this name is different from the name of individual detail items in the transaction. The next illustration shows how the name appears when the transaction is created and is displayed in the Transactions area:



Effective Date—The date the transaction details go into effect at the store. You have several ways to assign a date:

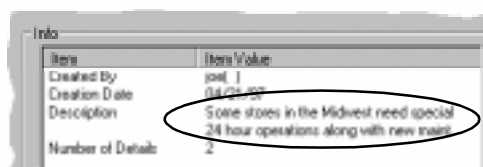
- Type the `from` date and `to` date, using the format *mm/dd/yyyy*.
- Use the arrow keys on your keyboard to change the day, month, or year
- Double-click the cell to use the popup calendar.

Figure 4-5. Popup Calendar



Description of Transaction—Use this area to describe the overall purpose of the transaction. This text appears in the Info section of Parameter Manager's main window.

Using the earlier example of the Midwest calculation enhancement, the description entered into this area appears in the Info section.



You can also set the effective date as a global setting for Parameter Manager.

MANAGING TRANSACTIONS

Once you create transactions, you have several decisions to make.

- How do you transmit the transaction to the stores?
- How do you search for any errors in the transactions?
- What happens if the transaction contains stores that have already been updated?

Sending Transactions to Stores

This section provides a brief outline of how transactions affect store settings. For technical details, see the appendix “Transaction Processing.”

Once you create transactions, Parameter Manager lists the transactions as “Ready to create data transfer file.” This message means that you created the transaction successfully. Now you can send it to the affected stores.

The Server Agent converts transactions into data transfer format (DTF) files before the information is sent to stores. The way you send this transaction to your stores depends on your specific communications methods. Each organization has different ways it sends transaction to stores, but each organization has a way to get the information to its stores. Some ways you might send transaction include—

- Sending DTF files through a corporate wide area network directly to stores
- Copying files onto diskettes, then mailing the diskettes to stores
- Using e-mail to send files
- Providing a batch file routine that automatically transmits files
- Using file transfer protocol (FTP) over the Internet

It’s up to you to determine a strategy on how you send DTF files to your stores. Any method that supports ASCII file transfer will work. Regardless how you send the information, your stores receive the transactions as DTF files.

A

Implementing Parameter Manager

Parameter Manager implementations typically contain these phases:

- Kickoff
- Information gathering
- Software installation and setup

During the kickoff phase, Campbell Software presents a project plan, information regarding how to proceed, and the names of important contacts. In addition, this meeting defines initial requirements.

Once the implementation begins, Campbell Software works with you to determine the appropriate information necessary for implementing Parameter Manager. This appendix addresses issues that occur during this phase.

Gathering Information

Before you begin implementing Parameter Manager, you need to gather information that will help you implement this system. This section provides overall discussion of many issues. To help you gather information, see “Parameter Manager Implementation Questionnaire” on page 76.

The issues you need to address fall into the following areas:

- Database configuration
- Application-specific issues
- DTF file transmission

Database Configuration

You need to determine the database that you will use to maintain parameters. This database resides at the corporate level. In addition, you need to designate someone to administer this database, since it can become complex in its implementation.

Application-specific issues

Each of the applications that make up Parameter Manager require you to address specific issues.

Parameter Manager This application resides at corporate level and is the first component of the Parameter Manager suite you install. You need to determine the CPU where you will install Parameter Manager.


Server Agent You need to decide whether the Server Agent resides on the same CPU as Parameter Manager, or whether it resides on a different computer. Decide when you need to run the Server Agent. For example, you might create a batch file that runs the Server Agent every morning at five o'clock. On the other hand, you might want to run the Server Agent manually, as needed.

Important Make sure that no one uses Parameter Manager while the Server Agent runs.

Intelligent Agent This application is the only component of a Parameter Manager implementation that resides at your locations. You need to determine how you plan to install it on the computers where StaffWorks resides. Also, you need to create procedures for running the Intelligent Agent. For example, you might create a batch file that runs it early every morning. On the other hand, you might want your location manager to run the Intelligent Agent manually, as needed.

Keep in mind that you need some mechanism for transmitting DTF files to and from these locations (see “DTF File Transmission” later). You need to collect information about StaffWorks:

- The StaffWorks version, directory location, and operating system
- The naming scheme for schedule files, data files, and other StaffWorks files

 **Important** Make sure that no one uses StaffWorks while the Intelligent Agent runs.

DTF File Transmission

A key to the relationship between your corporate administration and your locations is the transmittal of DTF files. You need to establish a method to send files from the Server Agent to the Intelligent Agent.

For example, do you plan to use a dedicated network connection such as a wide area network? Will you send DTF files over the Internet or an intranet? If you anticipate few changes to parameters, you might even send files on diskette to locations. Of course, this method requires more interaction from location managers.

Whatever method you choose, make sure it encompasses any file transport mechanism that supports an ASCII file format.

Installing Software

After you answer questions and address issues, you can install the software components.

Installing Parameter Manager and Server Agent

You first install Parameter Manager from the installation diskettes. After you install it, you install the Server Agent.

Tip The Campbell Software implementation consultant will install this software.

1. Insert Parameter Manager's first diskette into the floppy drive.
2. Depending on your operating system, choose one of the following commands:
 - In Windows 95, from the Start menu, choose **Settings>Control Panel**. Select **Add/Remove Programs**. Follow the directions in the dialog box.
 - In Windows NT, from the Program Manager, choose **File>Run**. In the text box, type **a:\setup**, where *a:* is your floppy drive. Follow the directions in the dialog box.

3. When Parameter Manager finishes installing, insert the Server Agent's first diskette into the floppy drive.
4. Install the Server Agent.

Use the method that applies to your operating system.

Implementing the Intelligent Agent

This section guides you through a typical rollout of the Intelligent Agent. Your specific rollout might vary in its details; however, the overall concept is common to all rollouts.

First you need to plan how your organization will install the Intelligent Agent on multiple locations. Specifically, will you send the installation disk to each store and have the manager install the application? Will you send a corporate representative to each store? Will you create a batch file to transmit files over a network?

However you decide to send the files, you need to follow these steps when installing Intelligent Agent:

1. Configure the `iagent.ini` and the `dam.ini` before sending them to the location.

For information on how to configure these files, see the next section.

2. Create a directory for the Intelligent Agent subordinate to the StaffWorks directory.

Most organizations use `iagent` as the name of this subdirectory. For example, if StaffWorks is located in `c:\campbell\staff`, you would create a directory called `c:\campbell\staff\iagent`.

Important Make sure the Intelligent Agent's directory is *not* subordinate to the `\data` directory in StaffWorks.

3. Transmit the Intelligent Agent files to the location.
4. Run the Intelligent Agent application.

The first time you run the Intelligent Agent, it creates the directory structure for the DTF file boxes. These boxes actually are directories that hold DTF files. For descriptions of this structure, see page

75.

Working with Configuration Files

Parameter Manager uses two configuration files to help manage information flow. This section provides samples and indicates what each line means.

Data Access Mechanism

The data access mechanism uses the `dam.ini` file to indicate where StaffWorks data exists.

```
[FileMaps]
LOCATION=west025
SWPATH=c:\campbell\stafwrks
SWDATA=c:\campbell\stafwrks\data
TAPATH=
```

The following table indicates what each line of the file means.

LOCATION	The StaffWorks schedule file
SWPATH	The path where StaffWorks resides
SWDATA	The path where StaffWorks data files reside
TAPATH	The path where Campbell Time and Attendance files reside. Not implemented in version 1.0

Intelligent Agent Configuration

The Intelligent Agent uses the `iagent.ini` file to indicate the data structure on the store's CPU.

```
[General]
Store=
CleanUpArchive=1
DaysInArchive=30
;Directory structure configuration
;To configure the directory structure relative to
;the location of the iagent.exe, type a period (.)
;in the RootDirectory setting.
[Boxes]
RootDirectory=.
Inbox=INBOX
```

Outbox=OUTBOX
Archive=ARCHIVE
Pending=PENDING

[RollBack]
Path=.\ROLLBACK


The following table indicates what each setting of the file means.

Store=	The store number. When you install the Intelligent Agent, this setting is blank. When you first run the Intelligent Agent after receiving a DTF file, the Intelligent Agent first looks at the DTF file, finds the store number, and updates this setting.
CleanUpArchive	Whether or not you want to delete files from the archive folder. <ul style="list-style-type: none"> • Type 1 to indicate you want the Intelligent Agent to delete archived files after the number of days in the <code>DaysInArchive</code> setting. • Type 0 to indicate you do not want to delete archived files.
DaysInArchive	The number of days the Intelligent Agent retains archived files before it deletes them.
RootDirectory	The directory under which the DTF file boxes reside. <ul style="list-style-type: none"> • Type <code>.</code> (period) to create the DTF file boxes under the directory where the <code>iagent.exe</code> resides. This is the preferred method. • Type a full path for a different location. Be careful if you use this method.
Inbox	The directory for the d-type DTF file from the Server Agent.
Outbox	The directory for the u-type DTF file, ready for transmission to the Server Agent.
Archive	The directory that stores a copy of the most recently receive d-file, as well as a copy of all other DTF files (up to the limit you set in the <code>DaysInArchive</code> section of the <code>iagent.ini</code> file).
Pending	The directory that stores d-type DTF file from the Server Agent, waiting for implementation according to the file's effective date.
Path	The temporary file-swapping space. <ul style="list-style-type: none"> • Type <code>.rollback</code> to create the DTF file boxes under the directory where the <code>iagent.exe</code> resides. This is the preferred method. • Type a full path for a different location. Be careful if you use this method.

B

Transaction Process Flow

This appendix describes how Parameter Manager's transactions operate. It covers the information flow from a transaction's creation, through the Server Agent's actions, and how data interacts with the Intelligent Agent. Also, this chapter provides technical information, some of which refers to behind-the-scenes processing, status information, and details that you might not see on screen.



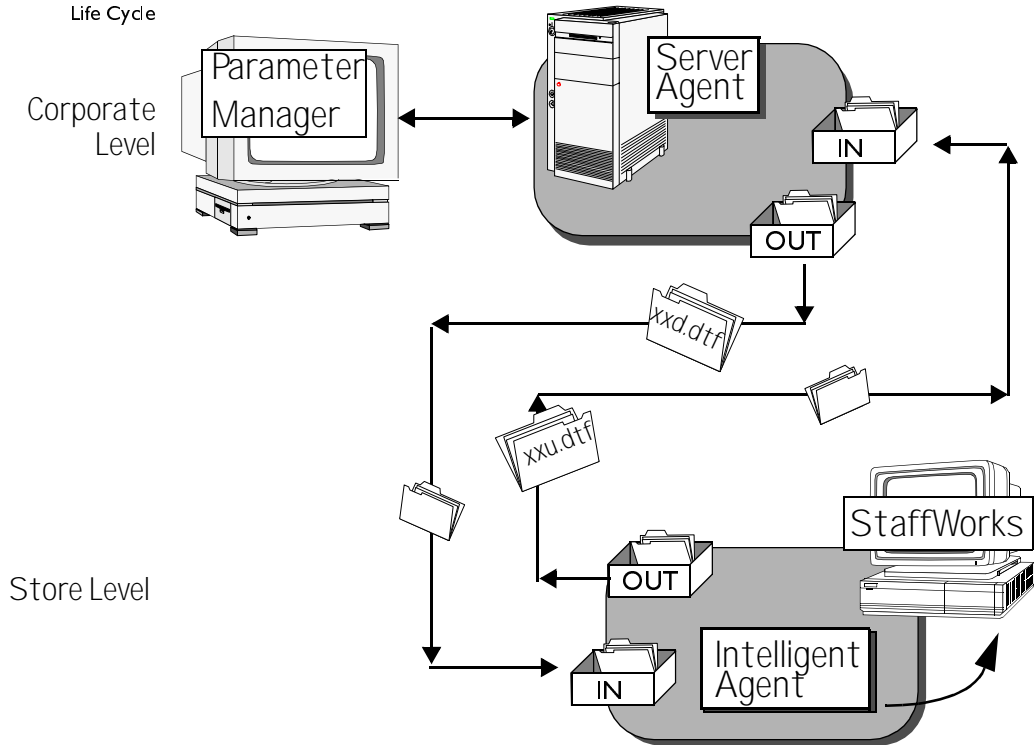
Important The information presented here discusses typical installations. However, it might be different from your specific implementation.

LIFE CYCLE OF A TRANSACTION

This section describes the life cycle of a Parameter Manager transaction. Keep in mind that this section covers a *typical* transaction; your specific process might be different.

This next illustration shows the overall information flow. In general, it indicates information flowing from the corporate-level Parameter Manager application, through the Server Agent, down to the location level, through the Intelligent Agent, to StaffWorks, and back up to the corporate level. As you read about the life cycle of a transaction, keep this illustration in mind.

Figure B-1. Transaction Life Cycle



Status Codes

Each transaction created through Parameter Manager has a status code, and each store within the transaction has a status code. The following table indicates the different types of status codes.

Tip The status codes indicate the program-level codes. The ones you see in Parameter Manager’s Applicable Store area read slightly differently. For example, if the code is `CREATE`, Parameter Manager displays, “Ready to create data transfer file.”

The table columns indicate the following:

Status—The code that appears in the program.

Description—What the code means.

Type—Whether the code applies to the transaction itself or to the specific store. Store-type codes appear within `u-type` DTF files. Transaction-type codes don’t appear in DTF files. Instead, the

Server Agent uses these codes to provide information to Parameter Manager.

CREATE	Transaction created. No DTF file created yet.	Transaction
SENT	Ready to send or already sent. DTF file exists.	Transaction
RCV0	Receive failed	Store
RCV1	Received successfully	Store
APLY0	Update failed	Store
APLY1	Updated successfully	Store
PENDING	Pending	Transaction
PROBLEM	Problem at one or more stores	Transaction
COMPLETE	Completed successfully	Transaction
RESEND	Ready to resend or already resent	Transaction

From Transaction to DTF

Transaction is Created in Parameter Manager

The status code for the transaction is set to `pending`. The status code for each store in the transaction is set to `create`.

Server Agent is Run

The Server Agent finds all transactions with the status code set to `pending`. If the store's status is set to `create`, the transaction is written to the store's data transfer file to be sent to the store.

The Server Agent then finds all transactions with the status code set to `resend`. If the store's status is set to `RCV0` (unsuccessfully received at store) or `APLY0` (failed updating StaffWorks), then the transaction is written to the store's data transfer file to be sent to the store.

In either case, the transaction status remains the same but the store status is set to `sent`.

User Process Sends the DTF Files to the Stores

No change in status occurs here. The process must pickup the files from the *outbox* directory of the Server Agent, transmit them to the stores and place them in the *inbox* directory of the Intelligent Agent.

At the Store Level

Intelligent Agent is Run at the Stores

The data transfer file is checked to verify it was received correctly. If it was not received correctly, a status code of `RCV0` (receive failed) is returned for each transaction that can be found in the file.

If the file was received correctly, each transaction is placed in the secondary staging area. At this time, a return status of `RCV1` (receive successful) is sent back to Parameter Manager using the return data transfer file.

The Intelligent Agent then checks the secondary staging area to find any transactions with an effective date equal to today or earlier. Each of these transactions are updated to the store files. If the transaction was updated successfully, a status of `APLY1` is returned. If it failed, a status of `APLY0` is returned.

User Process Sends Return DTF Files to the Corporate Office

No change in status occurs here. The process must pickup the files from the *outbox* directory of the Intelligent Agent, transmit them to the corporate office and place them in the *inbox* directory of the Server Agent.

Server Agent is Run¹

The Server Agent imports the statuses returned from the stores into the database.

The Server Agent checks all transactions with a status code of `pending` or `resend`. If a store has returned a status of `RCV0` (receive failed) or `APPLY0` (update failed), the status of the transaction is set to `problem`.

-
1. The Server Agent actually processes incoming and outgoing data transfer files at the same time. For the purposes of this document, it is described at two separate events to show how one transaction is sent out and then how that transaction's status is returned from the store.

The Server Agent checks all transactions with a status code of `pending` or `resend`. If all the stores have returned a status of `apply1` (updated successfully), the transaction is committed to the database, the status of the transaction is set to `complete`. The status for all the stores for this transaction remains unchanged.

Fixing Problem Transactions

When you find a problem transaction, one or more stores have returned a status code indicating some type of failure. By looking at the error message for the store and doing some research at the store (including reading the transaction log at the store), you determine the problem and attempt to correct it.

- You choose the transaction in Parameter Manager and select **Resend**.

The status of the transaction and all unsuccessful stores for this transaction is set to `resend`. The transaction will be processed as described in “The Server Agent is run.”

In troubleshooting any problem, you research two files that exist at the Store level (where the Intelligent Agent is located). Check the `iagent.log` and the `u-file` for more information about the problem. The `iagent.log` file displays these messages if it finds errors:

- The store number is incorrect
- Could not process record section
- CRC failed

The store number is incorrect

The store number in the DTF file is not the same store number that is in the `iagent.ini` file. Verify what the store number should be at that site. To correct this, perform one of the following two actions:

- Change the `iagent.ini`.
- Copy the correct DTF file into the Intelligent Agent's inbox, then rerun `iagent.exe`.

Could not process record section

This error message could mean one of two things:

- A department mismatch between Parameter Manager and StaffWorks

A job is referring to a department in Parameter Manager, but Staffworks does not have that department set up. Departments cannot be downloaded to Staffworks. All departments have to be created manually from within StaffWorks. If you are associating a job to a department, that department has to exist on Staffworks and Parameter Manager.

- A `dam.ini`-specified location does not exist in StaffWorks

The location name in the `dam.ini` file does not exist on the Staffworks side. To correct this, either create the schedule name in Staffworks or change the location name to a schedule name that currently exists in Staffworks.

CRC failed

This error indicates that the CRC checksum encountered an anomaly in the text it anticipated receiving. In effect, the DTF file has been altered in some way. Either a change was made to the DTF file, or the integrity of the file is questionable. To correct this, download the DTF file again.

Committing Transactions Manually

It might be possible that a transaction is never successful, using normal Parameter Manager processing. If this is the case, you can make the changes from the transaction manually at the store using StaffWorks software. After this is done, the user can select the transaction in Parameter Manager and choose to **Commit** to complete the transaction. At this time, Parameter Manager will commit the transaction in the database and set the status of the transaction to `complete`. This should only be used as a last resort.

Parameter Manager



Guide



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