

Formula Management

Guide to Formula Setup and Quality Control

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About This Guide

This section focuses on the following information:

- Purpose of this guide
- Conventions used in this guide

Intended Audience

This guide is for the Infinium Formula Management (Infinium PF) users who are responsible for creating and maintaining Infinium PF information.

Purpose of This Guide

You should use this guide as a reference at your site and also to complement the instructor's presentation during a portion of the Infinium Formula Management Application course.

Organization of This Guide

This guide is task oriented. We have grouped related tasks into parts. Each part contains overview information and instructions to lead you through the tasks.

Conventions Used in This Guide

This section describes the following conventions we use in this guide:

- Fonts and wording
- Function keys
- Promptable fields
- Infinium applications and abbreviations

Fonts and Wording

Convention	Description	Example
<i>Italic typeface</i>	Menu options and field names The guide uses the same abbreviations as the screen.	<i>Work With Controls</i> Use <i>Max Lnth</i> to specify the maximum length of alpha user fields.
Bold standard typeface	Used for notes, cautions and warnings	Caution: You must ensure that all Infinium PF users are signed off before reorganizing and purging. If there are jobs in the queue, those files will not be reorganized.
Bold monospaced typeface	Characters that you type and messages that are displayed	Type A to indicate that the position is alphanumeric and type N to indicate that the position is numeric. The following message is displayed: Company not found
[F2] through [F24]	Keyboard function keys used to perform a variety of commands.	Press [F2] to display a list of available function keys.
[F13] through [F24]	Function keys higher than [F12] require you to hold down the [Shift] key and press the key that has the number you require minus 12.	Press [F19] to work with project and activity comments.
Select	Choose a record or field value after prompting.	Select C (capitalization), E (expense) or B (both) as the <i>Capitalization code</i> value.
Press [Enter]	Provide information on a screen and when you have finished, press [Enter] to save your entries and continue.	Press [Enter] to save your changes and continue.
Exit	Exit a screen or function, usually to return to a prior selection list or menu. May require exiting multiple screens in sequence.	Press [F3] to return to the main menu.

Convention	Description	Example
Cancel	Cancel the work at the current screen (page) or dialog box, usually to return to the prior screen (page).	Press [F12] to cancel your entries.
Help	To access online help for the current context (menu option, screen or field), press [Help] (or the function key mapped for help). To move through the other applicable levels of help, press [Enter] at each help screen. To return directly to the screen from which you accessed help, exit the help screen by clicking [Exit] or by pressing [F3].	Press [Help] for more information about the current field.
[Quick Access Code]	Quick access codes provide direct access to functions. Most quick access codes in Infinium PF consist of the first letter of each word of the menu option name. Quick access codes are listed on the Menu Tree and in the path for each task next to the executable function.	<i>Work with sets [WWS]</i>
Publication and course titles	Unless otherwise stated, titles refer to Infinium applications and use standard name abbreviations.	<i>Infinium Formula Management Guide to Formula Setup and Quality Control</i> is referred to as <i>Infinium PF Guide to Formula Setup and Quality Control</i> .

Function Keys

Infinium AM function keys and universal Infinium PF function keys for the AS/400 or ~ iSeries are described in the table below. All Infinium PF function keys are identified at the bottom of each screen.

Function Key	Name	Description
[F1]	Help	Displays help text

Function Key	Name	Description
[F2]	Function keys	Displays window of valid function keys
[F3]	Exit	Returns you to the main menu
[F4]	Prompt	Displays a list of values from which you can select a valid entry
[F10]	Quick Access	Enables you to access another function from any screen Type the quick access code in <i>Level</i> . You can change the application designator, such as PA, GL, IC and so forth, by selecting another application.
[F12]	Cancel	Returns you to the previous screen
[F22]	Delete	Deletes selected item(s)
[F24]	More keys	Displays additional function keys at the bottom of the screen

Promptable Fields

A plus sign displayed next to a field indicates that you can choose your entry from a list of possible values. Place the cursor in the field and press [F4] to display a list of values.

To select an entry perform one of the following:

- Position the cursor at the desired value, type **1** and press [Enter].
- Type the value in the appropriate field.

Infinium Applications and Abbreviations

The following table lists Infinium names and the corresponding product abbreviations that are associated with this product.

Application	Abbreviation
Infinium Application Manager	Infinium AM
Infinium Application Manager Extended	Infinium AM/X
Infinium Query	Infinium QY
Infinium Query Extended	Infinium QY/X
Infinium Customer Relationship Management Suite	Infinium CRM

Application	Abbreviation
Infinium Customer Integration	Infinium CI
Infinium Customer Relationship Management	Infinium CRM
Infinium Materials Management Suite	Infinium MM
Infinium Cross Applications	Infinium CA
Infinium Electronic Exchange	Infinium EX
Infinium Inventory Control	Infinium IC
Infinium Journal Processor	Infinium JP
Infinium Order Processing	Infinium OP
Infinium Purchase Management	Infinium PM
Infinium Process Manufacturing Suite	Infinium PR
Infinium Advanced Planning	Infinium MP
Infinium Formula Management	Infinium PF
Infinium Laboratory Management	Infinium LA
Infinium Manufacturing Control	Infinium MC
Infinium Regulatory Management	Infinium RM

Related Documentation

For additional information about Infinium PF, refer to the following:

- *Infinium Cross Applications Guide to System Controls and Materials Maintenance*
- *Infinium Manufacturing Control Guide to Setup and Processing*
- *Infinium Inventory Control Guide to Setup and Processing*
- Online help

Installation instructions and release notes are available on Infinium WebLink.

Notes

Part 1

Infinium PF: An Overview

1

This part of the guide is an overview of the Infinium PF system.

Topic	Page
Overview of PF and Quality Control	1-2
Terminology and Concepts	1-7

Overview of PF and Quality Control

The *Formula Management* and *Quality Control* options reside in the Infinium PF system.

The Infinium PF system includes the submenus listed below.

- Raw Material/Resource Management
- Product Management
- Formula Management
- Formula Archival/Audit
- Costing Utilities
- Quality Control
- Document Format Capabilities
- Control Files
- Code Files Maintenance
- Purge Utilities

The *Raw Material/Resource Management*, *Product Management*, and *Costing Utilities* options are also available from Infinium CA. These options are essential to both the Infinium MM and the Infinium PR product suites. Since they are vital to multiple systems, they are documented in the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

This guide covers the remaining *Formula Management*, *Quality Control*, and *Document Format Capabilities* menu options, which reside solely in Infinium PF, along with Infinium PF *Control Files* and *Code Files Maintenance*.

These menu options and their lower level options cover many aspects of formulation and quality control.

The *Formula Management* options describe the creation and manipulation of master formulas. The *Formula Archival/Audit* options discuss how to save historical records of formula changes and record notes about why these changes occurred.

The Formula Master files are significant because they affect several modules/systems, and in turn are affected by numerous modules/systems. Figure 1-1: System/Modules that Affect the Formula Master Files and Figure 1-2: Formula

Master Files Affect the System/Modules identify the flow of updates to and from the Formula Master files.

Objectives

At the conclusion of this part, you should understand formula and quality control terminology and concepts.

System/Modules that Affect the Formula Master Files

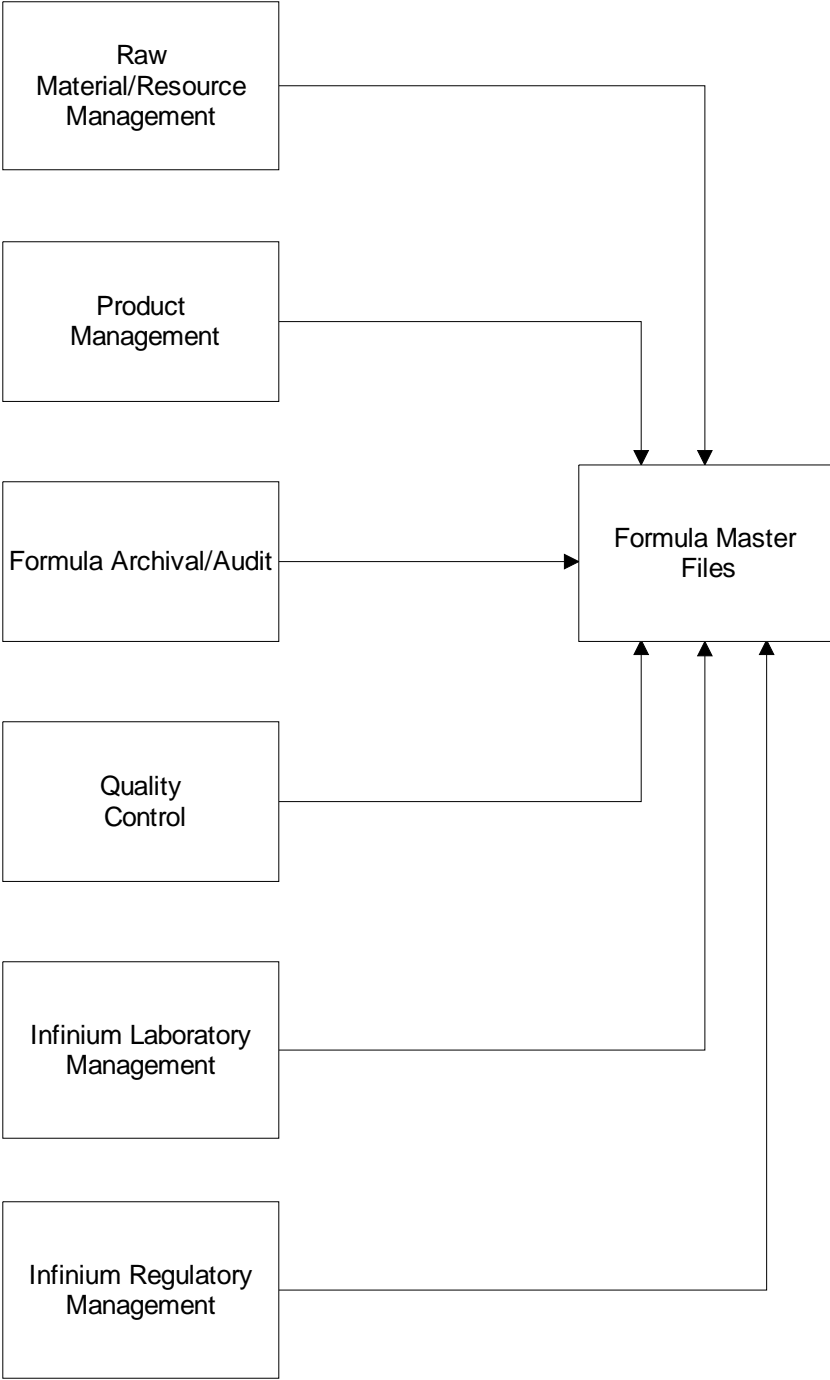


Figure 1-1: System/Modules that Affect the Formula Master Files

Formula Master Files Affect the System/Modules

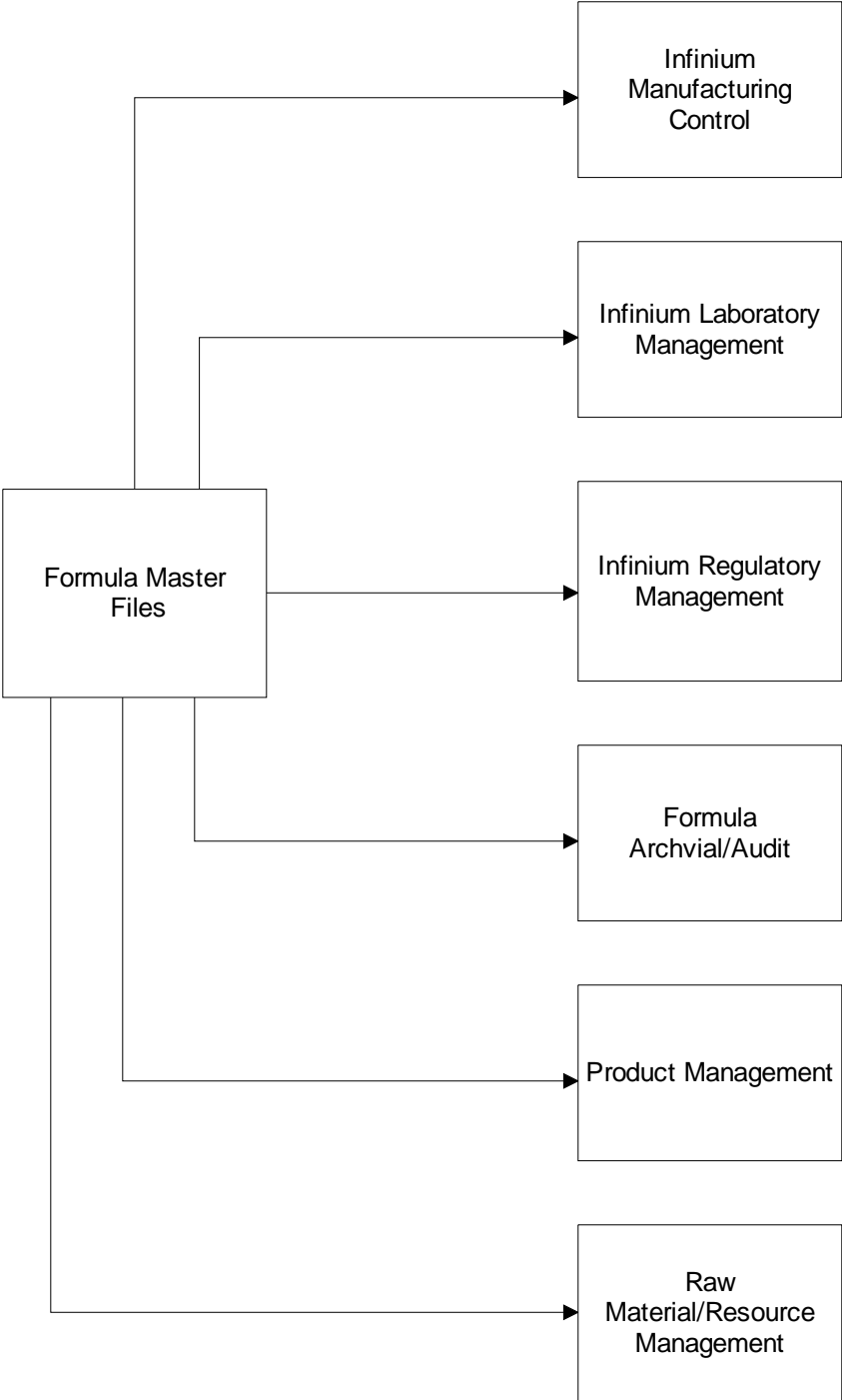


Figure 1-2: Formula Master Files Affect the System/Modules

The *Quality Control* options focus on test setup and result entry for materials and formulas. The *Document Format Capabilities* options take the process a step further

and describe how to include quality control information on standard company forms that you define and generate.

The following table identifies the quality control (QC) steps covered in this guide.

QC for Materials	QC for Formulas
Defining QC Test Types	Defining QC Test Types
Creating Test Templates	Creating Test Templates
Identifying Target Values	Identifying Target Values
Entering Actual Results	
Material Retesting/Expiration	

You record formula quality control results in Infinium MC.

Additionally, the *Control Files* and *Code Files Maintenance* options focus on system setup for formulas and quality control.

Terminology and Concepts

This section explains some of the terminology and concepts covered in this guide.

Bill of Materials/Kit

A bill of materials/kit is a grouping of products for inventory. Create a bill of materials/kit in Infinium CA.

Container Formula

Container formulas consist of packaging and labor information. Attach a container formula, which is often a process bill of materials/kit, to a product in Product Management. When you sell or cost a product that includes a container formula, the system accounts for the container formula's ingredients in inventory allocation and costing.

Cost Type

Cost type refers to one of the nine costing methods. They are current, anticipated, previous, previous year, weighted average, three user-defined fields, and actual batch weighted average cost. One of these is designated as your normal cost, which is the cost that flows throughout all of the systems.

If you do not plan to ever use actual batch weighted average cost, consider this cost type your fourth user-defined cost type.

Document Format

A document format is a user-defined template that produces a form letter or generic document for your company. This generic document may include data from various Infinium applications.

Entity Formula

A formula that is not associated with a specific company or warehouse. This formula is also referred to as a global formula.

Established Yield

Use an established yield primarily to account for a chemical reaction, evaporation, or any other condition that changes the formula's ingredient total. An established yield notifies the system to ignore the calculated yield, and to use the established yield instead for production and rebulking.

Formula Archival

When you archive a formula, you take a copy of the formula just before you change it, and place it in a historical file for reference. If your new formula is not a quality formula, retrieve the archived formula and bring it back to the Formula Master files for production.

Formula Audit Notes

If you archive a formula, you might want to record why you changed the formula. Audit notes give you this capability, along with capturing other relevant data such as who changed the formula, when the formula was changed, and what time the formula was altered.

Formula by Effective Date

You can create multiple instances of a formula with different effective dates. These formulas can be at the entity level or can be location-specific. You can use the same formula ID to create multiple instances of a formula and modify the effective dates and ingredients and/or instructions due to seasonal changes.

Formula Instance

A single copy of a formula with the same formula identifier for which you modify its attributes to make it a unique formula. You create formula instances for formula variations. For example, you can create an instance of a formula and modify its ingredients, instructions, effective dates, and/or use by a specific location.

Formula by Location

These are formulas or bills of material that are specific to companies or warehouses. For example, you can create different versions of the same formula or bill of material for a specific location using the same formula identifier or bill of material identifier.

Formula Replacement

Formula replacement takes the contents of an existing formula and places them into another formula.

Global Formula

A formula that is not associated with a specific company or warehouse. This formula is also referred to as an entity formula.

Infinium MM Suite

The Infinium MM Suite includes the following applications: Infinium CA, Infinium IC, Infinium PM, Infinium OP, and Infinium JP.

Infinium PR Suite

The Infinium PR Suite includes the following applications: Infinium PF, Infinium MP, Infinium RM, Infinium MC, and Infinium LA. Both the Infinium MM and Infinium PR suites use Infinium CA.

Intermediate

An intermediate is a classification of a formula that is used as an ingredient in other formulas. Once you save an intermediate, the system automatically creates a raw material record for that intermediate so that you can enter specific costing information in the *Work with Raw Materials/Resource* option for that intermediate.

MSDS

This represents the *Material Safety Data Sheet* option in Infinium RM.

Phantom

This classification of a formula is similar to an intermediate; however, phantoms have the added feature of exploding out the ingredients on batch tickets in Infinium MC.

The system creates a raw material record for any formula, regardless of formula class, that you use in another formula.

Process Bill of Materials/Kit

This is a classification of a formula. Usually, a process bill of materials/kit is the final formula in the kit hierarchy, which contains two or more finished products that you group together for inventory. Also, container formulas are often designated as a process bill of materials/kit.

QC

This is the abbreviation for quality control.

QC Close Sequence Number

This number identifies the generation of a quality control test. This helps you determine how many times tests have been entered for a particular material at a specific storage index.

QC Sequence Number

This designates the line number where the quality control data displays on the template, where it prints on the batch ticket, and in which order the tests occur.

QC Template

The quality control template defines the group of tests to be run for the materials, products, or formulas to which you assign the quality control test type.

QC Test Type

A quality control test type is a broad test identifier for a group of tests.

Rebulking

Rebulking is changing the yield and possibly the formula unit of measure. Rebulking can occur in Infinium PF and in Infinium MC.

Retest Number

In the *Quality Control* options, the retest number becomes an extension of the close sequence number to identify the round of retesting that has been done on a material.

Standard Batch Size

The standard batch size is the value that defaults into Infinium MC as the batch yield. You can enter a standard batch size in a formula, or you can let the system default in the standard batch size from either the formula ingredient's total or the established yield.

Storage Index

Storage index is a three-part field that identifies the location of an inventory item. Use the storage index field to indicate lot number, location, batch number, serial number, or other storage information. The system tracks a separate inventory balance for each item at each inventory type for each storage index.

Name the headings of the storage index fields in the Infinium CA Control files. Establish storage index validation at the item warehouse, entity, company, and warehouse levels. You can also create them for individual inventory types.

Target Value

Target values are those values you expect as a result of quality control tests.

Warehouse Security

Warehouse security within Infinium PF restricts the warehouse locations that a user can access. You can change the warehouse security restrictions for Infinium PF by using the Infinium CA *Work with User/Whse Security* function.

Notes

The part consists of the following topics:

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Overview of Working with Formulas

The *Formula Management* options enable you to create and update formulas for costing and production.

The *Work with Formula* option accesses the formula database, which retains only one version of each formula. The formula that the system uses for production, which resides in this database, is the master formula.

A second formula database contains prior versions of formulas and their notes. This historical database consists of the Formula Archive and the Formula Audit files. Formula archival and audit notes are discussed in the “Working with Archived Formulas and Audit Notes” part.

You create process manufacturing bills of materials/kits using the *Work with Formula* option. For more information on process bills of materials/kits, refer to the “Kit Processing” appendix. You use these formulas in Infinium MC. You can also create bills of materials/kits in Infinium CA. This is a limited bill of materials/kit option. Refer to the *Infinium Cross Applications Guide to System Controls and Materials Maintenance* for more information.

Formula by Effective Date (FBE)

You can create multiple instances (or variations) of a formula that are valid for specific timeframes only. You can use the same formula ID to create multiple instances of a formula and modify the effective dates and ingredients and/or instructions due to, for example:

- Seasonal changes
- Future changes to raw materials

These formula instances can be entity level or location-specific formula instances.

In addition, you must define code values for the code type **FBE** to identify the purpose of the formula variation. You create these code values in *Code Value Maintenance* in Infinium CA. You then assign these code values to formula instances in *Work with Formula* in Infinium PF so that the combination of the FBE code value and formula ID is unique.

For example, you could define the formulas instances below for the Formula ID, Sugar Cookies.

Formula ID	FBE Code Value	Effective From Date	Effective Through Date
Sugar Cookies	Blank	Blank	Blank
Sugar Cookies	AUT	10/01/2002	11/30/2002
Sugar Cookies	WIN	12/01/02	12/31/2002
Sugar Cookies	VAL	01/01/2003	2/10/2003
Sugar Cookies	SPR	3/01/2003	04/30/2003

In the above example, if the manufacturing date is 10/9/2002, the system uses the formula instance with the FBE code, AUT. If the manufacturing date is 9/1/2002, the system uses the entity level formula instance with the blank FBE code since no other instance contains effective dates that include the manufacturing date.

Throughout all of the MM/PR applications, if you have not implemented formula by location, the system resolves which formula instance to use by searching in the following order:

- 1 Formula with effective dates that include the date specified for the process you are performing
- 2 Formula that does not specify any effective dates

If the system does not find a formula within the formula hierarchy for the specified formula ID, the formula is invalid.

Formula by Location (FBL)

Depending on your user authority, you can create new instances of a formula that are specific to companies or warehouses. For example, you can create different versions of the same formula for a specific location using the same formula ID. This functionality gives you the ability to:

- Define formulas specific to a location that require different steps or resources
- Secure trade secrets by setting up location-specific formulas and securing them from other locations

In *Work with Formula* you can copy a formula for which you want to create a specific formula for a company and/or warehouse. This new copy of a formula is referred to as a formula instance. You can then specify the company and/or warehouse and make the necessary changes to the formula instance, such as, the ingredients, processing steps and resources.

When you specify a formula throughout most of the Infinium MM/PR applications, the system resolves which instance of the formula to use by searching in the following order

- 1 Formula at the warehouse level with effective dates
- 2 Formula at the warehouse level without effective dates
- 3 Formula at the company level with effective dates
- 4 Formula at the company level without effective dates
- 5 Formula at the entity level with effective dates
- 6 Formula at the entity level without effective dates

If the formula is not found within the hierarchy, the formula is invalid.

When creating a manufacturing batch in Infinium MC, the formula must be active; the system uses the same resolution when looking for the active formula to use.

For more information on setting up controls and security for formulas, refer to *Infinium CA Guide to System Controls and Materials Maintenance*.

Objectives

After you complete this part, you should be able to do the following:

- Create formulas for specific locations
- Create formulas that are valid for a specific timeframe
- Enter general formula information
- Maintain formula ingredients and instructions
- Create audit and archive records
- Update additional formula attributes
- Copy formulas
- Display formulas
- Print formulas

Creating Formulas

When creating a formula, type information about formula ingredients, quality control data, and instructions, and then later add formula comments, cost data, and regulatory information.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Work with Formula [WWF]*

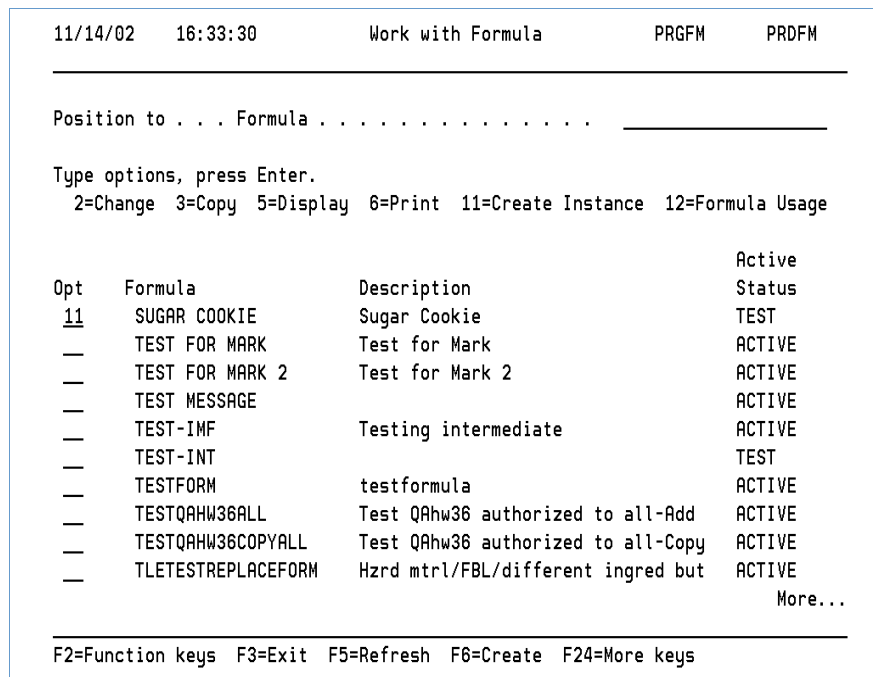


Figure 2-1: Work with Formula selection screen

To create an entity formula, type the identifier in the *Formula* field and press **F6**.

To create a new entity formula by copying an existing entity formula, type **3** beside the formula to copy.

To edit an existing formula, type **2** beside the formula and press **Enter**.

The ability to create, copy or change entity formulas is dependant on your user security.

If you use a formula as an ingredient in another formula, type **12** beside the formula and press **Enter** to display all of the formulas that contain this formula as an ingredient. For more information on this refer to the “Executing a Material Usage Search” part.

Creating Formula Instances

You can create an instance of a formula using the Create Instance (**11**) option next to the entity formula on the Work with Formula Selection screen. You then select the formula instance and modify its attributes. You can define formulas that are:

- Location-specific
- Date-specific
- Location- and date-specific

Specifying Formula by Location Information

Before you can define a formula specific to a warehouse or company, you must first define the formula at the entity level.

To create a formula instance for a company and/or warehouse, type **11** (Create Instance) next to the entity formula on the Work with Formula Selection screen.

11/15/02	09:16:21	Work with Formula	PRGFM	PRDFM
Create Instance				
Copy from:				
Company	:	DER		
Warehouse	:	WH1		
Formula	:	SUGAR COOKIE		
FBE Code	:	AUT		
		Sugar Cookie - Autumn		
Seasonal	:	N		
Effective From Date	:	10/01/2002		
Effective Through Date	:	11/30/2002		
Copy to:				
Company	:	<u>DER</u> +		
Warehouse	:	<u>WH1</u> +		
FBE Code	:	<u>WIN</u> +		
Seasonal	:	<u>N</u> (Y=Yes, N=No)		
Effective From Date	:	<u>120102</u>		
Effective Through Date	:	<u>010103</u>		
F2=Function keys F3=Exit F4=Prompt F10=QuikAccess F24=More keys				

Figure 2-2: Create Instance screen

If no other instances of the formula exist, the system displays the Create Instance screen. If you have implemented formula by location, and you have the proper authority, you can override your default company and/or warehouse to specify the location for the new formula instance.

If one or more formula instances exist for the selected entity formula, the system displays the Formula Instance Selection screen from which you can select any instance of the formula to copy. If you have implemented formula by location and you have the proper authority, you can override your default company and/or warehouse to specify the location for the new formula instance on the Create Instance screen.

Specifying Formula by Effective Date Information

The fields below are used to define the timeframes that the formula instance is valid.

FBE Code

If an instance already exists at the same level within the formula hierarchy, you must specify a code value to identify the purpose of this formula instance. This value must be a valid value for the code type, **FBE**. You cannot assign the same value to an instance that is within the same level of the formula hierarchy.

Seasonal

Specify yes if this formula instance is a seasonal formula that you want to use each year during the specified effective dates; otherwise, specify no.

Effective From Date

Specify the month, day and year on which this formula instance becomes effective or leave blank for formulas that are not for a specific timeframe.

If this is a seasonal formula, this formula instance becomes effective each year on the month and day you specify.

Effective Through Date

Specify the month, day and year used to indicate the last day this instance is effective. Leave this field blank for formula instances where:

- A specific timeframe does not apply
- The effective timeframe has a beginning date and no ending date

If this is a seasonal formula, this formula instance is effective each year through the month and day you specify.

When you press , the system returns you to the Work with Formula selection screen.

Modifying Other Attributes for the Formula Instance

To make additional changes to the formula instance you created, such as the ingredients, processing steps and resources, you must first select the entity formula with 2.

If multiple formula instances exist for the formula you selected on Work with Formula selection screen, the system displays the entity formula and all of the formula instances to which you are authorized for that Formula ID on the Formula Instance Selection screen. Throughout the MM/PR applications, the system displays this screen when you select a formula that has one or more formula instances defined.

```
11/14/02  16:45:11          Work with Formula          CAGFID  CADFID
-----
                          Formula Instance Selection
-----
Formula . . . . . : SUGAR COOKIE
Position to . . . Co and Whse . . .  ___  ___
                          FBE Code . . . .  ___
Select one of the following. Then press Enter.
                          FBE Effective  Effective          Active
Opt  Co Whse Cd  From Date  Till Date  Description          Status
-    -    -   -    -    -    -    -    -    -
-    -    -   11/01/2002 12/01/2002 Sugar Cookie          TEST
-    DER WH1 AUT 10/01/2002 11/30/2002 Sugar Cookie - Autumn  ACTIVE
-    DER WH1 SPR 03/01/2003 05/31/2003 Sugar Cookie - Spring  ACTIVE
-    DER WH1 VAL 02/01/2003 02/28/2003 Sugar Cookie - Valentine TEST
-    1 DER WH1 WIN 12/01/2002 01/01/2003 Sugar Cookie - Winter  ACTIVE
-    CUSDA CWAC1 WIN 12/01/2002 01/01/2003 Sugar Cookie - Autumn  TEST

                                          Bottom
-----
F2=Function keys  F5=Refresh  F10=QuikAccess  F12=Cancel  F18=Message line
```

Figure 2-3: Formula Instance Selection screen

Select the formula instance that you want to modify.

Adding General Information to Formulas

```
11/15/02   09:21:27           Work with Formula           PRGFM   PRDFM
-----
Formula . . . . . :  SUGAR COOKIE           WIN   DER WH1
                   Sugar Cookie - Winter
Select one or more of the following. Then press Enter.

  Attribute
1 General Information
  = Ingredients and Instructions
  - Descriptive Information
  - Rebulk Formula

  - Maintain Synonyms
  - Display Costs
  - Maintain Extended Descriptions
  - Maintain Notes

-----
F2=Function keys  F3=Exit  F6=Save  F8=Print  F24=More keys
```

Figure 2-4: Work with Formula attribute selection screen (for a formula instance)

If you are modifying an instance of the formula that is location-specific, the FBE code, company and warehouse information displays next to *Formula* at the top of the screen.

```
8/08/02  10:51:29      Work with Formula      PRGFM      PRDFM
-----
Formula . . . . . :  FORM20
                   CHERRY PIE FILLING RECIPE #2
Select one or more of the following.  Then press Enter.

  Attribute
  1 General Information
  -  Ingredients and Instructions
  -  Descriptive Information
      -

  -  Display Synonyms
  -  Display Costs
  -  Display Extended Descriptions
  -  Display Notes

-----
F2=Function keys  F3=Exit  F6=Save  F8=Print  F24=More keys
```

Figure 2-5: Work with Formula attribute selection screen (for entity level formula)

The screen above and the remaining screens in this section contain the attribute selection for the entity level formula, Sugar Cookie.

When creating a new formula, the formula identifier redisplay at the top of the screen and **1** defaults in the General Information attribute.

The first General Information screen contains the only required formula fields.

Press to add general formula data to the master formula database.

Note: There are more formula attributes than those that display on the screen above; however, they do not display until after you initially create the formula. The additional attributes display when you edit an existing formula.

11/15/02 09:22:21		Work with Formula		PRGFM	PRDFM
General Information				Page 1 of 2	
Formula	SUGAR COOKIE	WIN	DER WH1	FVR# . . :	1
Description	Sugar Cookie - Winter				
Active Code	<u>1</u>	1-4			
Class	<u>1</u>	1-5			
Unit of Measure	<u>LB</u>	+			
Standard Batch Unit of Measure . .	<u>LB</u>	+			
Standard Batch Sizes		<u>10.0000</u>			
Standard Process (Equipment Code) .	<u> </u>				
Established Yield		<u>.0000</u>			
Established Weight/Volume		<u>.00000</u>			
Loss Percentage		<u>.0000</u>			
Apply Loss % at Ingredient Level .	<u>Y</u>	(Y=Yes, N=No)			
Clingage Loss Percentage		<u>.0000</u>			
Rework Limit Percentage		<u>.00</u>			
Formula QC Test Type	<u>SCH</u>	+			
F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys					

Figure 2-6: Work with Formula first general information screen

Use the fields on this screen to define general formula information.

FVR#

The formula name redisplay at the top of the screen and the *FVR#* field initially defaults to **0000**. If you have altered a formula, the version number may increase.

The *FVR #* field automatically increments depending on whether or not you archive and/or save an audit record on the formula.

Description

This field identifies this formula’s description, which the system automatically adds to the Synonym file when you press .

The system uses the Synonym file to cross-reference a formula to descriptive names other than its formula identifier within the Infinium PR Suite. The system automatically creates some synonyms for you. You can additionally create as many synonyms for a formula as you like.

Raw materials, resources, and products also have synonyms.

You often use synonyms in creating the formula ingredient list. For example, you need to add water to a formula and someone else has typed water as **H20** in the Raw Material/Resource file with water being the synonym, or alternate name. When creating a formula, you type **water**. If water is not a valid raw material, the system automatically accesses the Synonym file where you can search for the synonym, water, and its valid cross-referenced raw material identifier H20.

Active Code

This required field defaults to **2** (test).

You can specify the *Active Code* for formula instances independently.

Valid entries are in the table below.

Active Code Value	Corresponding Formula Type	Description
1	Active	This formula is available for use in production.
2	Test	You cannot schedule this formula for production.
3	Remove	This indicates the formula is tagged for removal so the system deletes it the next time you run the formula deletion purge utility.
4	Obsolete	You cannot schedule this formula for production and a deletion utility does not remove it from the system.

Class

The *Class* field designates formula categories. If you leave this field blank and press **[Enter]**, the system defaults to **1** (formula) in the field. If you change the *Class* value in entity formulas and formula instances exist for the same formula ID, the system changes the *Class* value for those formula instances with the updated value you specified.

Class entries are in the following table.

Class Value	Corresponding Class Type	Description
1	Formula	This formula manufactures a product. When maintaining FBL formulas, you cannot change this value. The value in this field must be the same for all formulas with the same Formula ID.

Class Value	Corresponding Class Type	Description
2	Raw Material Breakdown Formula	<p>This formula defines a purchased raw material containing hazardous ingredients. If you can completely identify all of the raw material components in a formula, create it here. If you know only the hazardous ingredients, create the raw material breakdown formula in Infinium RM.</p> <p>Because the raw materials breakdown is not location- specific, you cannot create formula instances for Class 2 formulas. Also, you cannot assign effective dates. You must have authority to all companies and warehouses to create a Class 2 formula.</p>
3	Intermediate Formula	<p>Use this formula as an ingredient in other formulas. The system automatically adds entity level intermediate formulas to the Raw Material/Resource file. You can access the <i>Work with Raw Material/Resource</i> option and add costing or chemical property information for an intermediate.</p>

Class Value	Corresponding Class Type	Description
4	Bill of Materials/Kit	<p>This formula is the final formula in the kit hierarchy or this is a bill of materials. A bill of materials/kit usually designates an inventory group of two or more products. This is sometimes referred to as the process bill of materials/kit because you create this type of a formula in Infinium PF.</p> <p>You can also create a bill of materials/kit in Infinium CA. The bill of materials/kit option in Infinium CA does not contain all of the attributes that Infinium PF has. However, you can create a bill of materials/kit in Infinium CA and then pull it into Infinium PF and update the additional attributes. If you plan to use Infinium MC or Infinium MP, you need to create bills of materials/kits in Infinium PF.</p> <p>Use the bill of material/kit classification on container formulas. You can attach container formulas to products and they usually consist of the packaging configuration. For example, a container formula may include a drum, lid, label, and labor.</p> <p>When a kit product is processed in Infinium OP, the formula you define here identifies the kit components. <i>Order Company</i> and <i>Line Item Ship-From Warehouse</i> are used to resolve the formula instance when processing kits.</p>
5	Phantom Formula	<p>This formula is similar to an intermediate, except that when you print a batch ticket for a formula containing a phantom formula, the phantom formula's ingredients list individually on the batch ticket.</p>

The system creates a raw material record for any formula, regardless of formula class, that you use in another formula.

Unit of Measure

This field refers to the formula's unit of measure and is a required entry. You can enter formula ingredients in varied units of measure as long as the conversion exists in Infinium CA.

Standard Batch Unit of Measure

The system uses this unit of measure value in connection with the *Standard Batch Sizes* fields.

Standard Batch Sizes

During manufacturing, the system copies the formula into the batch, defaulting in the first *Standard Batch Sizes* field value as the batch yield. A total of five standard batch size fields exist in the system. Currently, the system only uses the first value.

The system must contain an entry in the first *Standard Batch Sizes* field. If you do not type one, the system enters one for you when you save the formula. The system searches for an entry for this field in the following manner:

- If you type a value in the first *Standard Batch Sizes* field, the search stops.
- If you do not type a value in the first *Standard Batch Sizes* field, the system searches the *Established Yield* field value after you save the formula. If there is an entry, the system copies it into the first *Standard Batch Sizes* field.
- If there is no value in the first *Standard Batch Sizes* field or in the *Established Yield* field when you save the formula, the calculated yield defaults into the first *Standard Batch Sizes* field. The calculated yield is the ingredient total, in terms of the formula's unit of measure, on the bottom of the Ingredients and Instructions screen.

If your formula is a process manufacturing bill of materials/kit, the first *Standard Batch Sizes* field should indicate the number of kits this formula can create. Often you enter kit ingredients as if you are creating one kit. For more information on process bill of materials/kits, refer to the “Kit Processing” appendix.

If you rebulk your formula in Infinium PF, the system does not automatically update the first *Standard Batch Size* field. You must manually update the *Standard Batch Size* field after rebulking.

Remember, you can change the batch yield and formula for each batch in Infinium MC without affecting the formula.

Established Yield

The system uses an established yield mainly to account for a chemical reaction, evaporation, or any other condition that changes the ingredients' total calculated yield. An entry in the *Established Yield* field indicates that the value in this field is the true yield of the formula and the calculated yield is not the true yield.

If you complete the *Established Yield* field, the system requires an entry in the *Established Weight/Volume* field.

If your formula is a process manufacturing bill of materials/kit, you should usually type **1** in the *Established Yield* field. Any time your unit of measure is equivalent to an each, a box, a carton, or any similar unit, use the *Established Yield* and the first *Standard Batch Size* fields to indicate how many kits you can create.

Standard Process (Equipment Code)

Infinium application programs do not use this field at this time.

Established Weight/Volume

When you type an established yield, the system disregards the calculated yield and uses this yield for all further calculations. Many calculations require weight/volume relationships. If you have altered the system's calculated total, you must tell the system what the true weight/volume relationship is.

Loss Percentage

This field handles losses like spillage. For example, you might want to include a permanent 1% loss factor due to spillage. If you type a loss factor, the system applies it in Infinium MC against the batch yield.

You can use loss percentages in conjunction with established yields and standard batch sizes.

Apply Loss % at Ingredient Level

Type **Y** in this field to specify a loss factor for an individual line item in the formula or to default the line item's usage loss factor from the Raw Material/Resource or Product files. The system uses the loss factor on an ingredient in place of the formula level loss factor, if one is assigned to the formula.

Type **Y** in the *Apply Loss % at Ingredient Level* field to display the line item loss factor fields on the Ingredients and Instructions screen.

Type **N** in this field if you do not want loss factors applied at the ingredient level. The system uses only the loss factor assigned at the formula or batch level to calculate the required quantity of the item and its cost. The system ignores any loss factor assigned to a raw material or product if this field is **N**.

In Infinium CA, define in the Control files if you want to use loss factors at the ingredient level. If you type **N** in the *Allow at ingredient level* field in the *Work with Entity Controls* option, the *Apply Loss % at Ingredient Level* field does not display in the *Work with Formulas* option.

Clingage Loss Percentage

Clingage loss identifies the percentage of the batch that clings to the tank once the batch is complete. The system uses clingage loss to produce more precise batch totals in Infinium MC.

Rework Limit Percentage

This identifies the maximum percentage of rinse rework that you can add to this formula during manufacturing.

Formula QC Test Type

To assign a quality control test to this formula, complete this field.

You can set the *Formula QC Test Type* for formula instances independently.

If you validate quality control test types, this field displays and the system requires an entry in it. If you do not validate, this field does not display. Display of this field

depends on your entry in the *Validate Formula QC Type Code* field in the *Work with Entity Controls* option on the *Control Files* menu in Infinium PF.

Many function keys are available from this screen. One to note is **F17**. To quickly create a unit of measure conversion for this formula that does not exist in Infinium CA, use this function key. You cannot create an entity or company level unit of measure conversion using **F17**. For more information about unit of measure conversions, refer to the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

Press **Enter** to proceed to the second page of General Information.

11/15/02	09:23:39	Work with Formula	PRGFM	PRDFM
General Information			Page 2 of 2	
Formula	SUGAR COOKIE	WIN	DER WH1	FVR# . : 1
	Sugar Cookie - Winter			
MSDS Sort Type	—			
MSDS Revision Code	—			
Formula Last Revision Date	_____			
Initials of Person Revising	—			
Seasonal	<u>N</u> (Y=Yes, N=No)			
Effective From Date	<u>12012002</u>			
Effective Through Date	<u>1012003</u>			
F2=Function keys F8=Print F10=QuikAccess F12=Cancel F18=Message line				

Figure 2-7: Work with Formula second general information screen

Use this screen to define the following information:

- Regulatory data for the formula
- Effective date information

MSDS Sort Type

Infinium application programs do not currently use this field.

MSDS Revision Code

This field indicates that the formula and regulatory information have changed. Changing the value in this field notifies Infinium RM to generate a new MSDS the next time you sell a product using this formula.

Formula Last Revision Date

The system uses this date to identify the day of the last formula change. If you use formula archival or audit notes, the system automatically captures the date of the last change from the system date and stores it in the Formula Archive files.

Note: Formula archival and audit notes do not update the *Formula Last Revision Date* field.

Initials of Person Revising

Use this field to identify who changed a formula. If you use formula archival or audit notes, the user sign-on is also captured from the system to identify persons changing formulas. The system stores this information in the Formula Archive files.



WARNING

If you produce products that require a unique MSDS due to ingredient differences in the hazardous raw materials, you must create a separate formula and product (finished good). This formula must be an entity level formula with no corresponding formula instances. In this scenario, Infinium RM generates the appropriate MSDS.

Specifying Formula by Effective Date Information

The fields below are used to define the timeframes that the formula instance is valid.

Seasonal

Specify yes if this formula instance is a seasonal formula that you want to use each year during the specified effective dates; otherwise, specify no.

Effective From Date

Specify the month, day and year on which this formula instance becomes effective or leave blank for formulas that are not for a specific timeframe.

If this is a seasonal formula, this formula instance becomes effective each year on the month and day you specify.

Effective Through Date

Specify the month, day and year used to indicate the last day this instance is effective. Leave this field blank for formula instances where:

- A specific timeframe does not apply
- The effective timeframe has a beginning date and no ending date

If this is a seasonal formula, this formula instance is effective each year through the month and day you specify.

Press to return to the Work with Formula Attribute selection screen.

Maintaining Formula Ingredients and Instructions

You construct the formula by selecting the Ingredients and Instructions attribute from the Work with Formula Attribute screen.

```
11/15/02  09:24:20      Work with Formula      PRGFM      PRDFM
-----
Formula . . . . . :  SUGAR COOKIE      WIN  DER WH1
                   Sugar Cookie - Winter
Select one or more of the following.  Then press Enter.

  Attribute
  _ General Information
  1 Ingredients and Instructions
  = Descriptive Information
  - Rebulk Formula

  - Maintain Synonyms
  - Display Costs
  - Maintain Extended Descriptions
  - Maintain Notes

-----
F2=Function keys  F3=Exit  F6=Save  F8=Print  F24=More keys
```

Figure 2-8: Work with Formula attribute selection screen

To build a formula or edit existing formula ingredients, type **1** beside the Ingredients and Instructions attribute and press .

You can add raw materials, resources, formulas, and products as ingredients. You can also add free form text as instructions or set up standard comments and include them in your formula.

Seq	Material and Size Code + Manufacturing Instructions & Desc +	Quantity	UM +	LC	Fixed Ingr Codes	Critical Resource?
10	GREEN SPRINKLES	.2500	LB	-	-	-
20	RED SPRINKLES	.2500	LB	-	-	-
30	SUGAR	1.0000	LB	-	-	-
40	FLOUR	2.0000	LB	-	-	-
50	EGG	1.0000	EA	-	-	-
60	OIL	1.0000	GL	-	-	-
70	MARGARINE	1.0000	LB	-	-	-
80	CREAM OF TARTAR	1.0000	LB	-	-	-
90	VANILLA	.5000	GL	-	-	-
100	POWDERED SUGAR	1.5000	LB	-	-	-
						More...
Tot Wt	10.5000 LB	Tot Vol	7.9310 GL	Spec Gr	.159	
				Standard Batch Size	10.0000 LB	

F3=Exit F4=Prompt F16=RM Maintenance F15=Rebulk F24=More keys

Figure 2-9: Ingredients and Instructions screen

On this screen, every entry must have its own sequence number.

Seq

The *Seq* field refers to the sequence number. You can enter lines of ingredients, instructions, and comments in any sequence.

Establish the sequence number defaults in the *Infinium CA Control Files, Work with Entity Controls* option. Define how many lines the system prenumbers and how the numbers increment. For more information on formula line settings, refer to the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

The top blank line is an entry line. If you indicate a sequence number, add your information, and press . The system adds this line to your formula. You could also tab to the preset sequence numbers and use those lines to type information. Use either method to enter materials as long as each line has a sequence number.

Press after typing a numeric value.

You can add lines between the prenumbered lines by using a sequence number that falls between the prenumbered lines. For example, your lines are numbered **10**, **20**, **30**, **40**, and **50**. To add an ingredient between lines **20** and **30**, you create line **25**, or any number between **20** and **30**. Once you press and you have no error messages, the system resequences the lines to your defaults.

To delete a line, press on the *Seq* field and press .

Material

Add ingredients in the *Material* field. Remember that formula ingredients can include raw materials, resources, formulas, and products. If you type a product using Size codes as an ingredient, you must also complete the *Size Code* field.

The system validates your entry in the *Material* field. If your entry is invalid, the system retrieves the Synonym file where you can search for an entry.

If you are maintaining an FBL formula and either add a hazardous material to the formula or delete a hazardous material from the formula, the system displays the following message:

**Warning: Hazardous Material has been added/removed.
Choose Override.**

You must press to continue.



WARNING

If you produce products that require a unique MSDS due to ingredient differences in the hazardous raw materials, you must create a separate formula and product (finished good). This formula must be an entity level formula with no corresponding formula instances. In this scenario, Infinium RM generates the appropriate MSDS.

Size Code

Use this field only if your entry in the *Material* field is a product that requires a Size code.

Quantity

This field refers to this line item's quantity, which you must include in this formula. You have 4-decimal place accuracy on this field.

If you press , you can view ingredients in their companion unit of measure and corresponding quantity.

UM

This field defaults from the raw material, resource, formula, or product's inventory unit of measure. You can add a raw material, resource, formula, or product in a unit of measure other than the default value, provided you have established the conversion relationship in Infinium CA or on the product.

LC

This field defaults in the raw material or resource's Cost code after you press . However, this occurs only if you add a raw material/resource on this line and if you have entered a Cost code for them in their Raw Material/Resource record.

Fixed Ingr Codes

Fixed Ingredient codes are basically hold codes used in rebulking. Hold codes determine that this ingredient or resource's quantity and sometimes cost remain

constant if the formula's yield changes. You have three fields available for their use. Valid entries for the first field include the following:

- H** This holds the quantity and cost of the line item constant when you rebulk or alter the yield of the formula. You mainly use this for catalysts.
The system carries the **H** code into Infinium MC.
- S** This is a standard hold for overhead resource items, which hold the quantity and cost constant for this line item.
S also calculates cost based on the standard batch size.
- V** This is a variable hold code, which you assign using the *Work with Formula* option and use in Infinium MC to calculate a variable hold on an item. **V** uses standard batch size for costing and also for quantity recalculation in Infinium MC.

Use the **S** and **V** codes only on resource items.

To rebulk an entire formula based on the percentage change of one ingredient, type **F** in the second field, change the quantity of the ingredient, and press **F15**. The system applies the percentage increase/decrease to all nonheld ingredients.

For Infinium LA, type **X** in the third field. This acts the same as **H**, but only in Infinium LA for formula chemical recalculations.

The **H**, **S**, and **V** codes remain on the Formula Master files until you remove them.

Refer to the "Using Fixed Ingredient Codes" appendix for additional information about fixed ingredient codes.

Function Keys

Several function keys are available from this screen. One important to note is **F16**, which takes you directly to the Raw Material/Resource file where you can quickly create, edit, or refer to a raw material/resource.

Another significant function key is **F15**. Press this key to access the rebulking screen, which is discussed in the "Rebulking Formulas" topic later in this part.

The system displays the *Yield* field at the bottom of the Ingredients and Instructions screen if the formula's unit of measure is not a base unit of measure. The yield total is the sum of all ingredients in the formula's unit of measure.

Press **F11** to view more formula fields.

If the system displays an * beside a line, press **F11** to view the comment on the line. The * reminds you that comments do exist for this formula.

Specialized Information

Access this screen by pressing **F11** from the Ingredients and Instructions screen.

Seq	Material and Size Code + Manufacturing Instructions & Desc +	Quantity	UM + LC	Loss %	Fixed Ingr Codes Critical Resource?
11/15/02	09:25:51	Work with Formula	PRGFM	PRDFM	
Ingredients and Instructions					
Formula : SUGAR COOKIE WIN DER WH1 View: >					
10	GREEN SPRINKLES	.2500	LB		-
	green sprinkles		.0000		N
20	RED SPRINKLES	.2500	LB		-
	Red Sprinkles		.0000		N
30	SUGAR	1.0000	LB		-
	sugar		.0000		N
40	FLOUR	2.0000	LB		-
	flour		.0000		N
50	EGG	1.0000	EA		-
	egg		.0000		N
More...					
Tot Wt	10.5000 LB	Tot Vol	7.9310 GL	Spec Gr	.159
		Standard Batch Size	10.0000 LB		
F3=Exit F4=Prompt F16=RM Maintenance F15=Rebulk F24=More keys					

Figure 2-10: Work with Formula ingredients and instructions alternate screen

This screen displays more formula fields including descriptions and ingredient loss factors.

Manufacturing Instructions & Desc

This field retrieves the ingredient's description if there is a line entry in the *Material* column and you have pressed **Enter**. Any change you make to the ingredient's description is lost when you exit or update.

To add comments or free form text to a formula, assign a sequence number, tab to the *Manufacturing Instructions & Desc* field, and type either the text or the comment code.

The Comment file is promptable from the *Manufacturing Instructions & Desc* field and basic, variable, and subtotal comments are acceptable. For more information, refer to the "Maintaining Formula Comments" part.

All comment identifiers must begin with **CM**.

Loss %

This field defaults to the usage loss percentage, which you specified for this ingredient in either the Product or Raw Material/Resource files. If the *Usage Loss Percentage* field is 0 or blank on the ingredient's record, and the *Zero Loss Factor*

field on the ingredient is **N**, the system defaults the formula's loss factor in the *Loss %* field.

However, if the cost code associated with the ingredient is defined so that a loss factor should not be applied, then the system does not use the default formula loss factor.

If you type a value in the *Loss %* field or change a defaulted value, the system uses this ingredient loss percentage when you produce or cost the formula.

The *Loss %* field displays only if the *Apply Loss % at Ingr. Level* field is **Y** on the General Information screen 1.

Critical Resource?

If you specify a line item as a critical resource through the Item Warehouse file, **Y** displays here. If the item is not critical for this formula, type **N** in this field.

If an item is not marked as critical in the Item Warehouse file, and it is critical to producing the formula you are maintaining, type **Y** in the *Critical Resource?* field. The system refers to your entry here when you request a Rough Cut Capacity Requirements report in Infinium MP. On that report, you can request to include critical resources only.

Also on the Ingredients and Instructions screen, the total weight and total volume display at the bottom. The *Spec Gr* field displays if you so indicate this in the *Control Files* options in Infinium PF.

A blank *Standard Batch Size* field displays when you create a new formula. Existing formulas have a value that displays based on the system's search for a standard batch size. The system displays yield in terms of the formula's unit of measure.

The system copies all of the formula information in the Formula Master files to Infinium MC for batch production. If necessary, you can alter formula information in Infinium MC.

Press **F3** to access the Exit Options window where you can save your formula.

Saving Formulas

```

11/15/02   09:25:51           Work with Formula           PRGFM   PRDFM
-----
                          Ingredients and Instructions
Formula . . . . . :  SUGAR COOKIE           WIN  DER WH1           View: >
Seq  Material and Size Code +      Quantity  UM + LC  Fixed Ingr Codes
      Manufacturing Instructions & Desc +      Loss %    Critical Resource?
-----
10  GRE                               -
    g                               -
20  RED                               N
    R   1 1. Exit, Save Changes        N
30  SUG                               N
    s   2. Exit, Disregard Changes    N
40  FLO                               N
    f                               N
50  EGG                               N
    egg                               .0000
                                     More...
Tot Wt      10.5000 LB  Tot Vol      7.9310 GL  Spec Gr  .159
                          Standard Batch Size      10.0000 LB
-----
F3=Exit  F4=Prompt  F16=RM Maintenance  F15=Rebulk  F24=More keys

```

Figure 2-11: Exit Options window

To save your formula, accept the default of **1** in the window and press **Enter**.

Formula Update Confirmation

If you are editing an existing formula and you are using formula archival and notes, the system displays this screen. If this is the first time you are saving this formula only the *Formula* and *Active Code* fields display.

11/15/02	09:27:18	Work with Formula	PRGFM	PRDFM
Formula Update Confirmation				
Company	:	DER		
Warehouse	:	WH1		
Formula	:	SUGAR COOKIE		
FBE Code	:	WIN		
Active Code	:	<u>1</u> (1, 2, 3, 4)		
Archive existing Formula	:	<u>Y</u> (Y=Yes, N=No)		
Create an Audit Record	:	<u>Y</u> (Y=Yes, N=No)		
F2=Function keys F5=Refresh F10=QuikAccess F24=More keys				

Figure 2-12: Formula Update Confirmation screen

You can also change the *Active Code* field, if necessary.

If you type **Y** in either the *Archive existing Formula* or *Create an Audit Record* field, the formula version number increases. Formula instances are archived with their own version number.

If you decide to add an audit note or if your controls are set to automatically display an audit note, refer to the next page.

In the *Control Files* menu at the entity level, you can set your formula archival and audit notes controls to automatically archive and audit with or without notes. If you are set up to automatically archive or audit, that respective field does not display on this screen.

Press to proceed.

Updating Additional Formula Attributes

This section explains the formula attributes that display when you are editing a formula.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Work with Formula [WWF]*

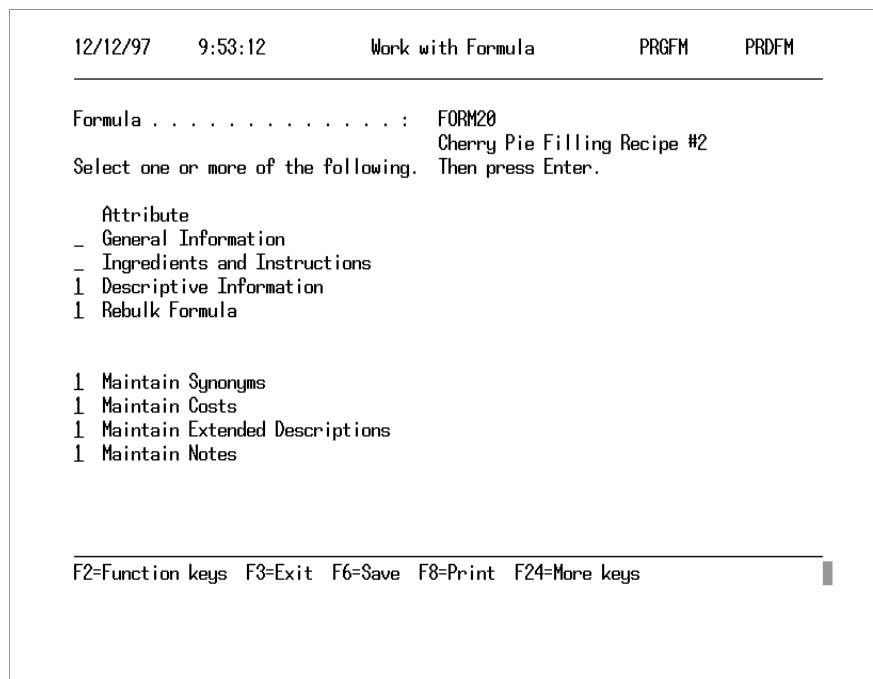


Figure 2-14: Work with Formula Attribute selection screen

This is the full formula attribute listing. To enter information for the other attributes, type **1** beside them and press **Enter**.

You can also add descriptive information to a formula using the *Work with Formula Descriptions* option.

Adding Descriptive Information to a Formula

Access this screen by selecting the Formula Description attribute from the Work with Formula Attribute selection screen.

```
12/12/97   9:55:24   Work with Formula Descriptions   PPGFMDM   PPDFMDM
-----
Formula . . . . . : FORM20
Description . . . . . : Cherry Pie Filling Recipe #2
MSDS Product Class Description . . . . .
MSDS Trade Name . . . . .
Special Instructions . . . . .
Specify Override Formulas, if any:
  For Chemical Properties . . . . . +
  For Costing . . . . . +
  For MSDS . . . . . +
  Rough Cut Capacity Planning . . . . . +
Label Code . . . . .
-----
F2=Function keys  F3=Exit  F4=Prompt  F13=MSDS Data  F24=More keys
```

Figure 2-15: Work with Formula Descriptions screen

The *Formula* and *Description* fields default from the General Information screen.

MSDS Product Class Description, MSDS Trade Name

MSDS Product Class Description and *MSDS Trade Name* are categorizing fields used with the *Material Safety Data Sheet* options. Both the description and the trade name entry automatically become synonyms.

Special Instructions

Infinium applications do not currently use this field.

Override Fields

The override formula fields allow you to refer to other formulas for chemical property, costing, rough cut capacity planning, or MSDS information.

For example, sometimes when you mix materials, a chemical reaction occurs that alters the physical characteristics of the formula. If this happens, you must create an override chemical property and/or MSDS formula to note the true breakdown of the original formula.

You can override a formula for any instance but the formula used as an override must be an entity-level formula. If you specify an override for a formula instance, the

override is used only for that specific instance of the formula. That is, you can specify different overrides for formula instances that have the same formula ID.

The system resolves the formula using the resolution hierarchy below.

- 1 Override formula at the entity level with effective dates
- 2 Override formula at the entity level without effective dates
- 3 Original formula

At the time of processing, if the overriding formula does not have dates that are effective for the production date and there is no entity-level formula without dates, the override is ignored and the original formula is used.

With the exception of the costing override, the system uses the entity level formulas when resolving the override formulas. If you specify an override formula in *For Costing*, the system resolves to the correct instance of the formula.

Label Code

Infinium programs do not currently use this field.

Note: You can also display formula descriptions using the *Display Formula Descriptions* option.

If you press **F13**, the formula regulatory attributes display.

Regulatory Information

Pressing **F13** on the Work with Formula Descriptions screen takes you to the Work with Formula Data MSDS Attribute selection screen.

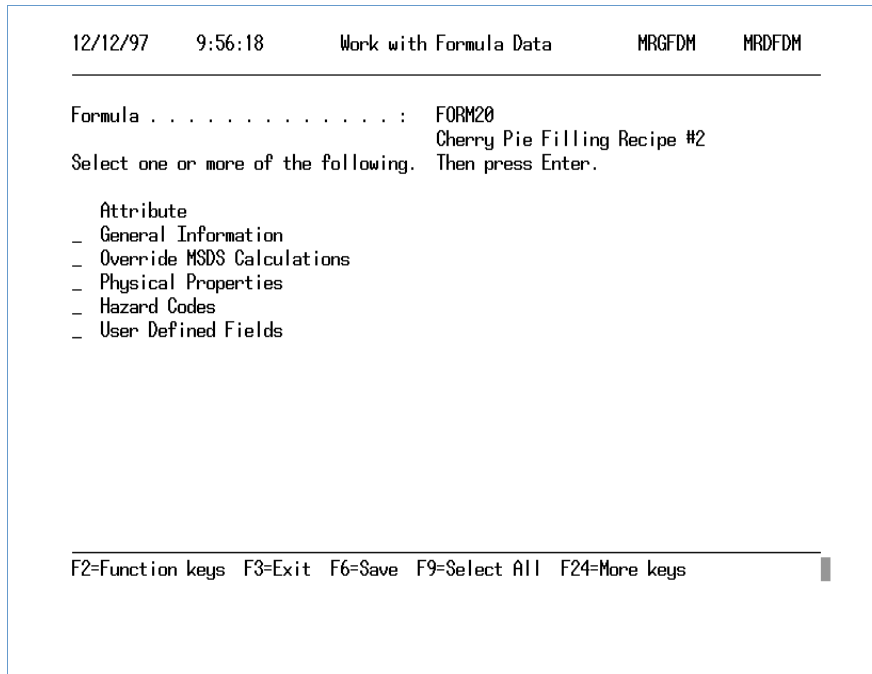


Figure 2-16: Work with Formula Data MSDS Attribute selection screen

This is the attribute screen for hazardous formulas in the MSDS module. Refer to the *Infinium Regulatory Management Guide to Setup and Processing* for more information on this screen and all other hazardous data. Access this screen by pressing **F13** on the Work with Formula Descriptions screen.

Press **F12** twice to cancel and return to the Work with Formula Descriptions screen.

Formula Quality Control Information

From the Work with Formula Descriptions screen you can also press **F14** to access the Work with Formula Target Values prompt screen.

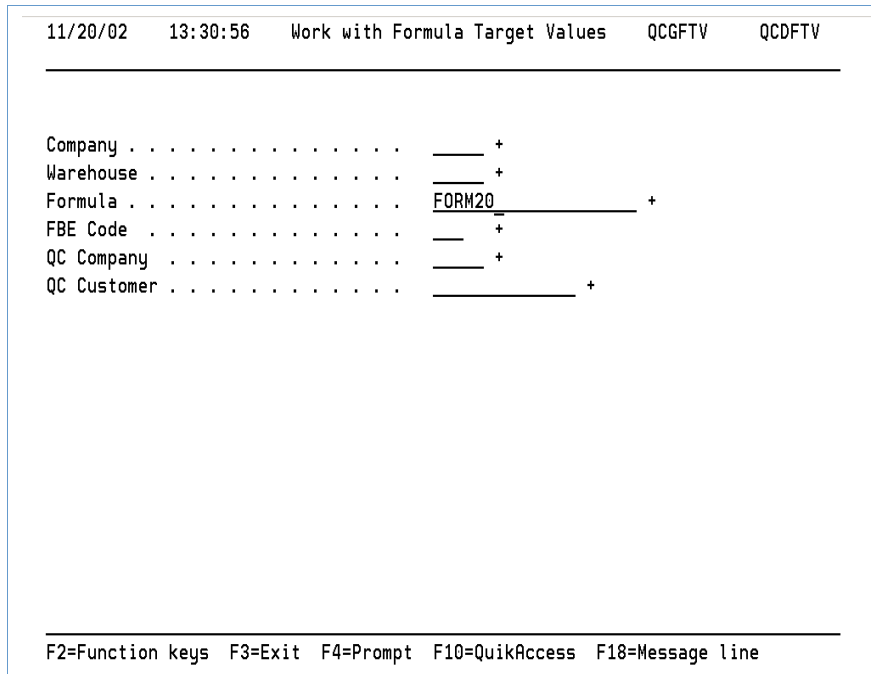


Figure 2-17: Work with Formula Target Values prompt screen

Refer to the “Entering Normal Values” part for more information on formula quality control. Press **F3** to cancel and return to the Work with Formula Descriptions screen.

Rebulking Formulas

Access this screen by selecting the Rebulk Formula attribute from the Work with Formula Attribute selection screen.

12/12/97	9:57:44	Work with Formula	PRGFM	PRDFM
Formula Rebulking				
Formula		FORM20	Cherry Pie Filling Recipe #2	
New Yield		100		
New Unit of Measure		LB	+	
If Rebulking to a different Unit of Measure, the Formula can be changed to this new Unit and its companion.				
Want to make the change		N	(Y=Yes, N=No)	
Else, the Formula can be changed to Base Units : LB GL				
If change wanted, minimum quantities for conversion must be specified				
Change to Base Units		N	(Y=Yes, N=No)	
Solid Quantity		000	LB	
Liquid Quantity		000	GL	
F2=Function keys F4=Prompt F5=Refresh F10=QuickAccess F24=More keys				

Figure 2-18: Formula Rebulking screen

Rebulking formulas involves changing the yield and possibly the formula unit of measure.

To enter a new yield and unit of measure for this formula, complete the *New Yield* and *New Unit of Measure* fields, and then press **[Enter]**. To see the results of your entries, select the Ingredients and Instructions attribute on the Work with Formula Attribute selection screen.

If you are rebulking to a unit of measure other than the formula's unit of measure, you can permanently change the formula's unit of measure to the rebulking unit of measure by typing **Y** in the *Want to make the change* field.

If you are changing the formula to base units of measure, ingredients in quantities less than a user-defined amount (for example less than one pound or one gallon) can remain in their existing unit of measure. To make this change, complete the *Solid Quantity* and *Liquid Quantity* fields. You can type any cutoff in any valid unit of measure.

The system holds quantities and costs constant in rebulking for ingredients with a fixed ingredient code of **H**, **S**, or **V**. The system continues to cost ingredients coded with **S** and **V** based on the standard batch size as opposed to the established yield or calculated yield.

You can also rebulk a formula by pressing **[F15]** on the Ingredients and Instructions screen.

Press **[Enter]** to proceed to the next attribute or to return to the Work with Formula Attribute selection screen if you did not select any other attributes.

Maintaining Synonyms for a Formula

Use synonyms to give one item multiple names for cross- referencing purposes. If you type an invalid item on the Ingredients and Instructions screen, the system automatically takes you to the Synonym file so you can search for a valid entry.

Many screens have synonym look-up capability through a function key.

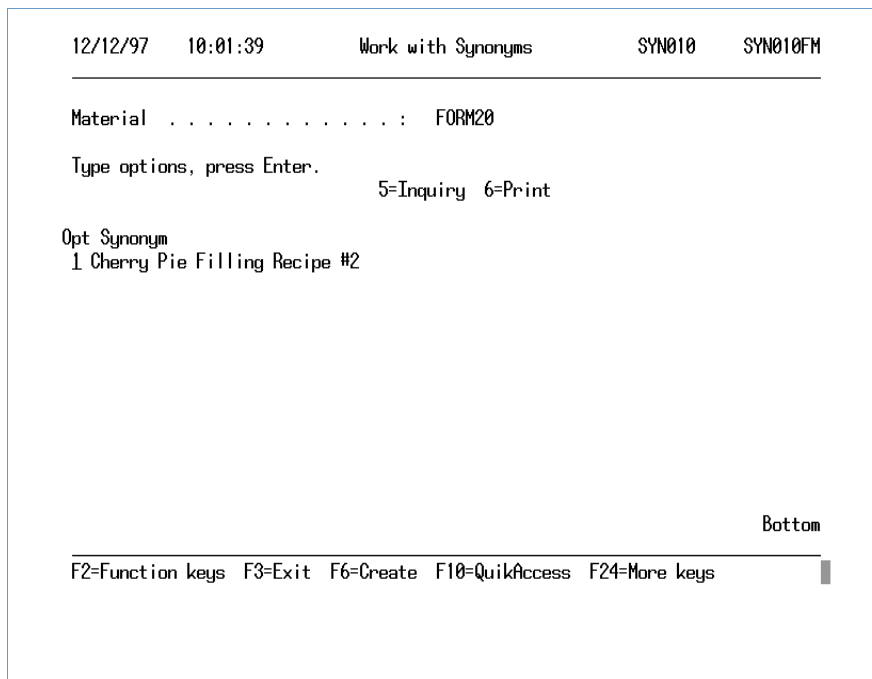


Figure 2-19: Work with Synonyms selection screen

The system automatically creates some synonyms for you. The synonym on this screen was system generated.

To create a new synonym, press **F6**.

Creating Formula Synonyms

12/12/97	10:02:24	Work with Synonyms	SYN010	SYN010FM
<hr/>				
Material	:	FORM20		
Synonym	:	formula 20 synonym		
Description	:	cherry pie recipe		
<hr/>				
F2=Function keys F3=Exit F10=QuikAccess F12=Cancel F24=More keys				
█				

Figure 2-20: Work with Synonyms screen

Your entries in the *Synonym* and *Description* fields become the identifier and descriptive text, respectively. Press to add this synonym to the Synonym file.

Editing Formula Synonyms

```
12/12/97  10:03:09      Work with Synonyms      SYN010  SYN010FM
-----
Material . . . . . : FORM20

Type options, press Enter.
      2=Change 4=Delete 5=Inquiry 6=Print

Opt Synonym
- Cherry Pie Filling Recipe #2
- formula 20 synonym      cherry pie recipe

                                                                 Bottom

-----
F2=Function keys  F3=Exit  F6=Create  F10=QuikAccess  F24=More keys
```

Figure 2-21: Work with Synonyms selection screen

The underlined synonym is user generated. You can change or delete only underlined synonyms in this option. You must perform any change to any of the automatic synonyms at the field where you created that particular synonym.

To delete user generated synonyms, type **4** in the *Opt* field, press **Enter**, and then press **F22**.

Press **F3** to return to the Work with Formula Attribute selection screen.

Maintaining Costs for Formulas

The system creates costing records for all companies and warehouses when entity formulas are created, regardless of the formula class. If you have implemented Formula by Location, the system creates costing records, regardless of the formula class, as follows:

- When you create a global level formula, the system creates costing records for all companies and warehouses.
- When you create a company level formula (you specify *Company* and leave *Warehouse* blank), the system creates costing records for that company and all active warehouses for that company.
- When you create a warehouse level formula, (you specify both the *Company* and the *Warehouse*) the system sends a request for only that warehouse.

Maintain costs in the *Work with Formula* option only if you are not rolling up or chasing raw material, resource, or product costs to your formula. Otherwise, maintain costs in the individual ingredient's records using the *Work with Raw Materials/Resource*, *Work with Products*, or *Update Costs* options.

For each cost type, you determine whether to rollup costs automatically. For example, you determine that the Current Cost type should roll up automatically, but the Standard Cost type should not reflect any automatic cost changes.

The *Chase Costs* field in the entity, company and warehouse controls determines whether:

- The system updates formula costs automatically when raw materials, resources, and purchased products within the formulas change, or
- You use a menu option to manually recalculate costs

Infinium recommends that you set the *Chase Costs* field to **Y** so the system automatically updates costs.

If you have set all your costs to chase and rollup in the *Infinium CA Control Files* and *Costing Utilities* options, you should update costs only at the raw material, resource, or purchased product levels. For more information on costing controls, refer to the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

Updating Costs for Nonrollup Formulas

Access this screen by selecting the Maintain Costs attribute from the Work with Formula Attribute selection screen.

```
12/12/97 10:12:06 Update Costs PCR027 PCR027FM
-----
Item . . . . . : FORM20
Size . . . . . :
Select a Valid Cost Type . . . . . : C +
Company . . . . . : IS1 +
Warehouse . . . . . : ISW1 +

-----
F2=Function keys F3=Exit F4=Prompt F10=QuikAccess F18=Message line
```

Figure 2-22: Update Costs prompt screen

Complete the *Company*, *Warehouse*, and *Select a Valid Cost Type* fields, and then press .

Cost type refers to one of the nine costing methods. They are current, anticipated, previous, previous year, weighted average, three user-defined fields, and actual batch weighted average cost (ABWAC). If you do not use ABWAC, you have another user-defined field available for costing.

Categorizing Costs for Nonrollup Formulas

12/12/97	10:13:57	Update Costs	PCR027	PCR027FM
Company : IS1		Warehouse : ISW1		
Item . : FORM20		Current Cost		
Raw Material Cost		_____	12.50	
Direct Labor		_____		
Burden Cost		_____		
Packaging Cost		_____		
Packaging Labor Cost		_____		
Container Cost		_____		
Tint Charge		_____		
Variable Cost		_____		
Cleanup		_____		
Machine Cost		_____		
Spoilage Cost		_____		
Hardware Cost		_____		
Utility Cost		_____		
Engineering Cost		_____		
Cost Summary---->		LB	More...	
Warning Any recalculated values will override your changes!				
F2=Function keys F3=Exit F6=Update F10=QuikAccess F24=More keys				

Figure 2-23: Update Costs screen 1

This screen displays the costing breakdown of the formula by Cost code. You assign Cost codes to raw materials and resources.

You can override this information. However, if you are rolling up cost types, the system always checks each ingredient's cost in the formula, not the data you type here. This is why the message below displays when you change costs on rollup cost types for a formula and then press .

Warning: Any recalculated values will override your change!

Use this option primarily for entering formula cost data for nonrollup cost types. You also use this option to enter a flat, one-time formula cost if you do not chase or rollup costs.

Press to continue to the next screen.

Additional Formula Cost Categories

12/12/97	10:15:34	Update Costs	PCR027	PCR027FM
Company : IS1		Warehouse : ISW1		
Item . : FORM20		Current Cost		
Fixed Overhead		_____		
Administrative		_____		
Cost Summary----> LB 12.500000				Bottom
Warning Any recalculated values will override your changes!				
F2=Function keys F3=Exit F6=Update F10=QuikAccess F24=More keys				

Figure 2-24: Update Costs screen 2

Press **F6** when you finish maintain costs. If you press **Enter**, the system summarizes costs.

Press **F3** to return to the Work with Formula Attribute selection screen.

Creating Extended Formula Descriptions

Because the *Description* field on the first General Information screen is not always sufficient for detailed verbiage, you can use the formula's extended item description and item notes to add a lengthy description to a formula. You can then customize documents, like the batch ticket, to print the extended item description or item notes.

Access this screen by selecting the Maintain Extended Descriptions attribute from the Work with Formula Attribute selection screen.

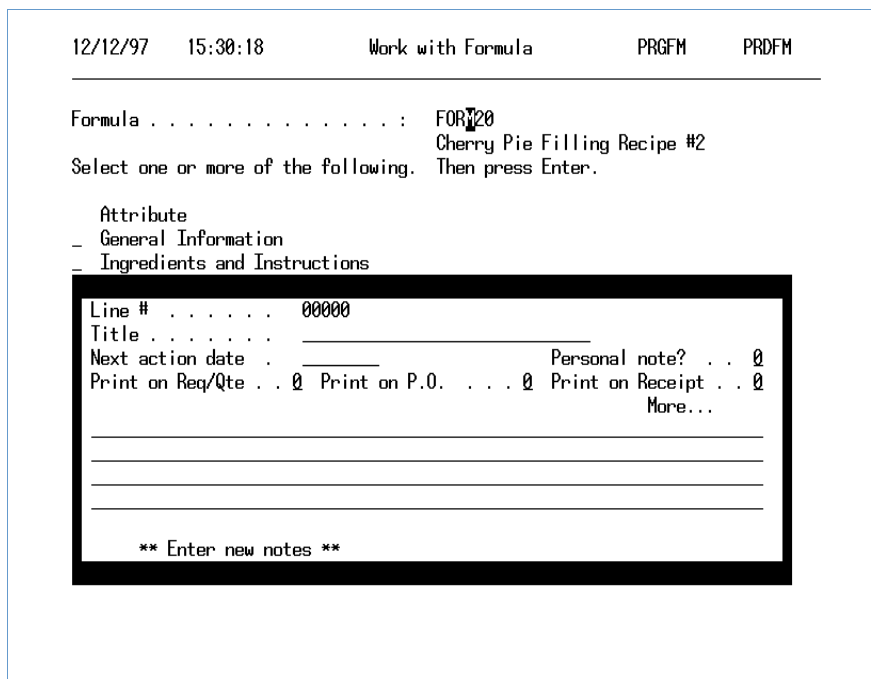


Figure 2-25: Extended Item Description screen

Any data you type on this screen is for information purposes only.

To add entries, type an identifier in the *Title* field first, and then type the descriptive text.

To save your extended item description and return to the Work with Formula Attribute selection screen, press **Enter**. To exit, press **F3** and to cancel, press **F12**.

Creating Formula Item Notes

Use formula item notes to provide additional formula detail.

Access this screen by selecting the Maintain Notes Attribute from the Work with Formula Attribute selection screen.

```
12/12/97  15:30:51          Work with Formula          PRGFM  PRDFM
-----
Formula . . . . . : FORM20
                  Cherry Pie Filling Recipe #2
Select one or more of the following. Then press Enter.

  Attribute
- General Information
- Ingredients and Instructions

Line # . . . . . 00000
Title . . . . . _____
Next action date . . . . . _____ Personal note? . . . 0
Print on Req/Qte . . 0 Print on P.O. . . . 0 Print on Receipt . . 0
                                          More...
_____.
_____.
_____.

** Enter new notes **
```

Figure 2-26: Item Notes screen

Any data you type on this screen is for information purposes only.

To add entries, type an identifier in the *Title* field first, and then type the descriptive text.

To save your item note and return to the Work with Formula Attribute selection screen, press **Enter**. To exit, press **F3** and to cancel, press **F12**.

Copying Formulas

If you have several formulas that have similar ingredients, you can copy the original formula to create a new entity formula.

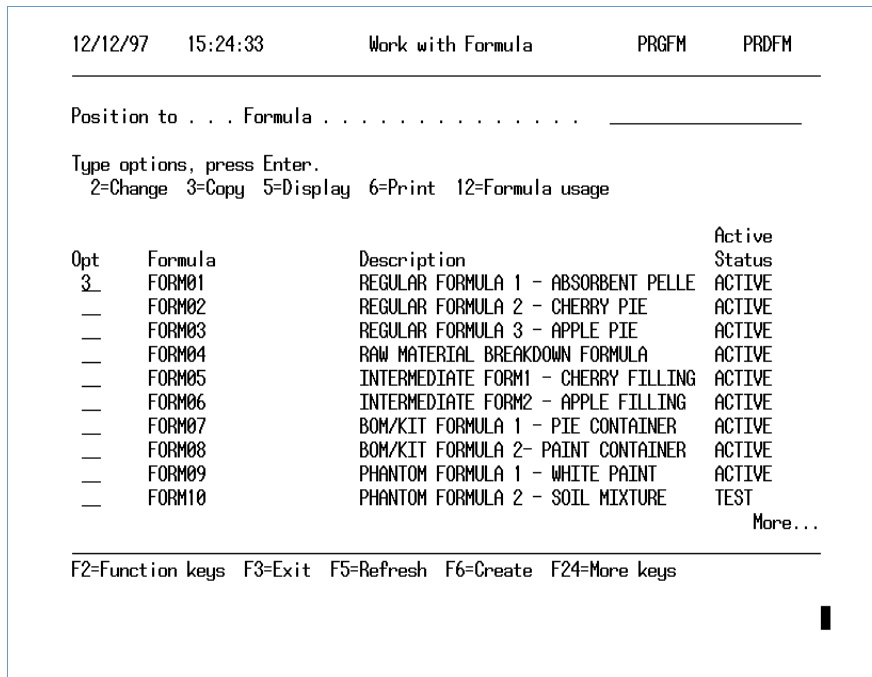


Figure 2-27: Work with Formula selection screen

To copy a formula, type **3** beside it and press **Enter**. If you have implemented formula by location, you must have authority to all company and warehouses to copy the formula.

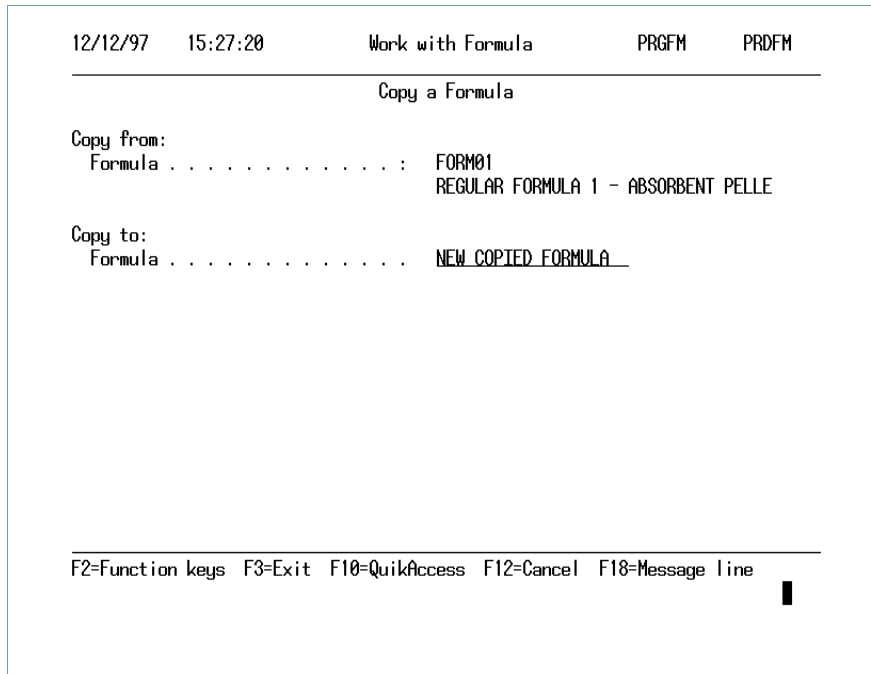


Figure 2-28: Work with Formula Copy a Formula screen

You must assign your copied formula a new name. Press to save the new formula.

Once you copy a formula, the system displays a message that it will recalculate the formula's costing and chemical properties.

Displaying Formulas

Display formulas using the *Display Formula* option or by typing **5** next to a formula in the *Work with Formula* option.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Display Formula [DF]*

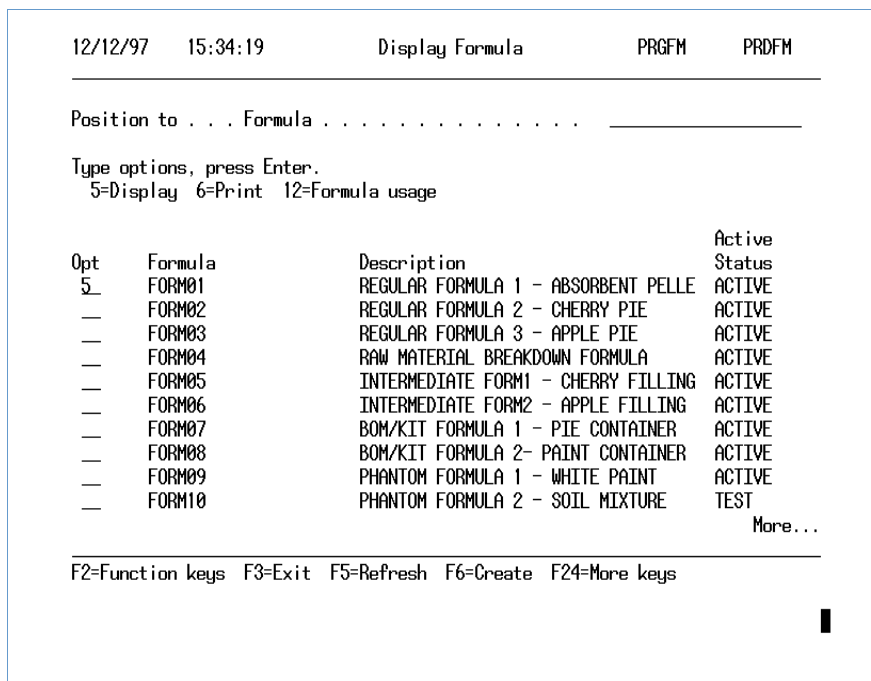


Figure 2-29: Display Formula selection screen

To display a formula, type **5** beside it and press **Enter**.

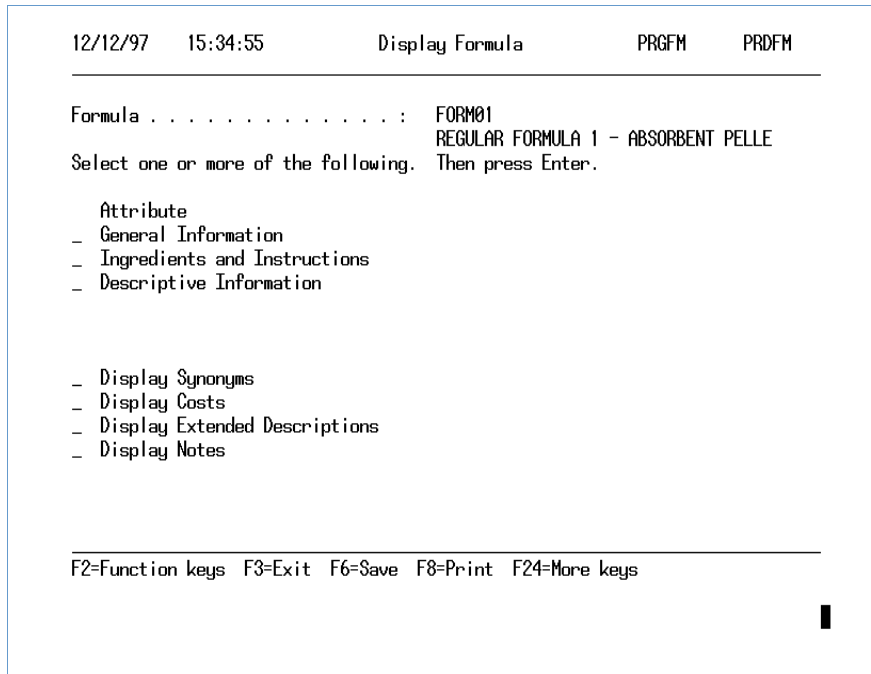


Figure 2-30: Display Formula Attribute selection screen

From this screen, you can selectively choose which attributes to display by typing any value in front of each of them and pressing .

Printing Formulas

You can print information for one formula, a range of formulas or all formulas.

The same choices are also available for product category formula reports. Assign product categories to products, and you can print formulas associated with a certain product that is connected to a specific product category.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Print Formula (Range or All) [PF]*

11/27/02	14:30:41	Print Formula (Range or All)	PPGFR	PPDFR
<hr/>				
Report on	<u>1</u>	1=Formula, 2=Product Category		
Company	_____	+		
Warehouse	_____	+		
Include Lower Levels	<u>Y</u>	(Y=Yes, N=No)		
Specify range values for report:				
Beginning range value	_____	+		
Ending range value	_____	+		
Effective Instances only	<u>N</u>	(Y=Yes, N=No)		
Report Type	<u>2</u>	1-4		
Formula Class to Report	<u>0</u>	0-5		
<hr/>				
F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys				

Figure 2-31: Print Formula (Range or All) screen

Beginning range value, Ending range value

To print a report for one formula, complete the *Beginning range value* field. To print the report for a range of formulas, complete both the *Beginning range value* and *Ending range value* fields. Additionally, to run a report for all formulas or categories, leave both of these fields blank.

Report Type

The four report types are:

- 1 Formula Listing
- 2 Formula Detail Listing
- 3 Comprehensive Detail Listing with MSDS data
- 4 Comprehensive Detail Listing with QC and MSDS information

Formula Class to Report

You can designate the class of formula to print. Classes are:

- 0 All formulas regardless of classification
- 1 Formulas
- 2 Raw Material Breakdown Formulas
- 3 Intermediate Formulas
- 4 Bills of Material/Kits (Process)
- 5 Phantom Formulas

You can print individual formulas by pressing **F8** on the Work with Formula Attribute screen or by typing **6** next to a formula on the Work with Formula Selection screen. Additionally, many of the formula attribute screens have print keys available on them in both the display and maintenance modes.

A Formula Count report is also available from the Infinium PF *Formula Management* menu, using the *Print Formula Count* option. This report counts all formulas by formula type and identifies the longest formula you have on the system.

Effective Instances Only

Specify yes to select only the formula instance that is currently in effect as of the system date for each formula in the range you specified.

Specify no to select all formula instances regardless of the effective date.

Formula by Location

Company, Warehouse, Include Lower Levels and Effective Instances only are used to further define the formula selection criteria for the range of formulas specified in *Beginning Formula, Ending Formula*. The tables below describe the various formula selection criteria for printing the report.

Selection Criteria for Effective Formulas Only

Use the table below to specify the selection criteria for only the formula instance that is currently in effect as of the system date for each formula in the range you specified.

To print...	You must...
Formula instances for a specific warehouse	Specify <i>Company</i> and <i>Warehouse</i> Type either Y or N in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
Formula instances for a specific company and all of its warehouses	Specify <i>Company</i> Leave <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
All Formula instances including the entity formulas	Leave <i>Company</i> and <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
Company formula instances only	Specify <i>Company</i> Leave <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
Entity formula instances only	Leave <i>Company</i> and <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>

Selection Criteria for Formulas Regardless of Effective Date

Use the table below to specify the selection criteria for all formula instances. When you specify **N** in *Effective Instance only*, all formula are selected, regardless of the effective date.

To print...	You must...
Formula instances for a specific warehouse	Specify <i>Company</i> and <i>Warehouse</i> Type either Y or N in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
Formula instances for a specific company	Specify <i>Company</i>

To print...	You must...
and all of its warehouses	Leave <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
All formula instances, including the entity formulas	Leave <i>Company</i> and <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
Company formulas instances only	Specify <i>Company</i> Leave <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
Entity formula instances only	Leave <i>Company</i> and <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>

Printing the Report

Press to submit your report. Examples of each report type are on the following pages.

PPGFLR PPTFLR
8/01/97 8:54:27

F O R M U L A L I S T I N G

PJT

Beginning Formula PG-FORMULA1
Ending Formula
Beginning Product Category
Ending Product Category
Formula Class to Report 0 ALL
CLASS

ACTIVE	DESCRIPTION	CODE	DESCRIPTION
1	ACTIVE	1	FORMULA
2	TEST	2	RAW MATERIAL BREAKDOWN
3	REMOVE	3	INTERMEDIATE
4	OBSOLETE	4	BILL OF MATERIAL
	Document	5	PHANTOM

```
PPGFLR      PPTFLR
8/01/97     8:54:27

                                F O R M U L A   L I S T I N G

                                PAGE      1
                                PJT

-----
FORMULA          ACTIVE CLASS  ----- Y I E L D -----  --- WEIGHT PER VOLUME ---  LOSS
                CODE   CODE   CALCULATED  UM   ESTABLISHED  CALCULATED  ESTABLISHED  FACTOR
PG-FORMULA1      2     1     2422.5257  L
PG-FORMULA1 for Analysis

***** RECORDS SELECTED . . 000001
***** END OF REPORT *****
```

PSR220
8/01/97 8:54:34
PJT

F O R M U L A D E T A I L S R E P O R T

Beginning Formula PG-FORMULA1
Ending Formula
Beginning Product Category
Ending Product Category
Formula Class to Report 0 ALL

PSR220 PSR220PR
 PAGE 1
 8/01/97 8:54:34

FORMULA DETAILS REPORT

PJT

```

-----
COMPANY AND WAREHOUSE LOCATION . :      1  11
FORMULA . . . . . : PG-FORMULA1          PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2      TEST
CLASS . . . . . : 1      FORMULA
UNIT OF MEASURE . . . . . : L
1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC      ABC
LABEL CODE . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00
ESTABLISHED YIELD . . . . . :
ESTABLISHED WEIGHT PER VOLUME . . . :
CALCULATED WEIGHT PER VOLUME . . . :
CHEMICAL PROPERTIES OVERRIDE . . . :
COST OVERRIDE FORMULA . . . . . :
MSDS. OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . :
REVISION CODE AND INITIALS . . . . . :
    
```

BASE		WEIGHT/ FIX ING CRITICAL		-- SOLID --		-- LIQUID --		SOLID - BASE		LIQUID -	
UM	SEQ DESCRIPTION	INGREDIENT	VOLUME CODE RESOURCE	QUANTITY	UM	QUANTITY	UM	QUANTITY	UM	QUANTITY	UM
GL	10	PG-FRM-RM1	.40000	20.0000	GM	20.0000	L	4.2268	LB	5.2834	
		RM1 for PG-FRM	N								
GL	20	PG-FRM-RM2	.80000	10.0000	KG	10.0000	KL	22.0462	LB	24.4958	
		RM2 for PG-FRM	N								
GL	30	PG-FRM-RM3	.50000	.5000	KG	.5000	KL	1.1023	LB	2.2046	
		RM3 for PG-FRM	N								
GL	40	PG-FRM-RM4	1.02000	100.5000	KG	100.5000	KL	221.5646	LB	217.2202	
		RM4 for PG-FRM	N								
GL	50	PG-FRM-RM5	2.00000	75.0000	KG	75.0000	KL	165.3467	LB	82.6734	
		RM5 for PG-FRM	N								
*GL	60	..... Subtotal					**	414.2866	LB	331.8774	
GL	70	PG-FRM-RM6	.60000	10.0000	GM	10.0000	L	1.5850	LB	2.6417	
		RM6 for PG-FRM	N								
GL	80	PG-FRM-RM7	1.30000	20.0000	GM	20.0000	L	6.8685	LB	5.2834	
		RM7 for PG-FRM	N								
GL	90	PG-FRM-RM8	1.50000	200.0000	KG	200.0000	KL	440.9246	LB	293.9497	
		RM8 for PG-FRM	N								
GL	100	PG-FRM-RM9	.70000	1.0000	KG	1.0000	KL	2.2046	LB	3.1495	
		RM9 for PG-FRM	N								
*GL	110	..... Subtotal since last subtotal					**	451.5827	LB	305.0243	
GL	120	POTATOS	EA 1.00000	25.0000	LB	25.0000	GL	25.0000	LB	25.0000	
		POTATOS	N								
GL	130	**** End of Formula ****									

```

-----
GL      2505.5704  L      1.34970      ACCUMULATED TOTALS      890.8693  LB      661.9017
GL      L      ESTABLISHED TOTALS      LB
GL      2422.5257  L      1.34970      CALCULATED TOTALS      LB
    
```

***** END OF REPORT *****

PSR220
8/01/97 8:54:35

C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

Beginning Formula PG-FORMULA1
Ending Formula
Beginning Product Category
Ending Product Category
Formula Class to Report 0 ALL

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C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

```

-----
COMPANY AND WAREHOUSE LOCATION . : 1 11
FORMULA . . . . . : PG-FORMULA1 PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2 TEST ESTABLISHED YIELD . . . . . :
CLASS . . . . . : 1 FORMULA ESTABLISHED WEIGHT PER VOLUME . . . . . :
UNIT OF MEASURE . . . . . : L CALCULATED WEIGHT PER VOLUME . . . . . :
1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC ABC CHEMICAL PROPERTIES OVERRIDE . . . . . :
LABEL CODE . . . . . : COST OVERRIDE FORMULA . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00 MSDS. OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . :
REVISION CODE AND INITIALS . . . . . :
-----
    
```

M S D S DATA

```

-----
PRODUCT CLASS DESCRIPTION . . . . : Product class for formula PG-FORMULA1 *
TRADE NAME . . . . . : Trade Name for PG-FORMULA1 (printed on Lab rpt) *
SPECIAL INSTRUCTIONS . . . . . :
MSDS TYPE . . . . . :
STANDARD BATCH UM AND SIZES . . . : L 437.0000
HIGH BOILING POINT . . . . . : 100.0 VAPOR PRESSURE . . . . . : 1.00
LOW BOILING POINT . . . . . : 99.5 VAPOR DENSITY . . . . . : 1.00
EVAPORATION RATE . . . . . : 1.000 LOWEST FLASHPOINT . . . . . : 150.0
LOWER EXPLOSION LEVEL . . . . . : 10.0
HEALTH CODE . . . . . : 2* FLAMMABILITY CODE . . . . . : 3
REACTIVITY CODE . . . . . : 1 PERSONNEL CODE . . . . . : X
PHYSICAL STATE . . . . . : SOLID APPEARANCE . . . . . : APPEARANCE OF PG-FORMULA1
ODOR . . . . . : MODERATE ESTER WATER SOLUBILITY . . . . . : SPARINGLY SOLUBLE *
-----
    
```

INGREDIENTS AND INSTRUCTIONS

BASE	SEQ	INGREDIENT	WEIGHT/ FIX ING CRITICAL	CODE	RESOURCE	VOLUME	QUANTITY	UM	-- SOLID --	-- LIQUID --	SOLID - BASE	LIQUID -		
UM	DESCRIPTION						QUANTITY	UM	QUANTITY	UM	QUANTITY	UM		
	10	PG-FRM-RM1	.40000				20.0000	GM		20.0000	L	4.2268	LB	5.2834
GL		RM1 for PG-FRM	N											
	20	PG-FRM-RM2	.80000				10.0000	KG		10.0000	KL	22.0462	LB	24.4958
GL		RM2 for PG-FRM	N											
	30	PG-FRM-RM3	.50000				.5000	KG		.5000	KL	1.1023	LB	2.2046
GL		RM3 for PG-FRM	N											
	40	PG-FRM-RM4	1.02000				100.5000	KG		100.5000	KL	221.5646	LB	217.2202
GL		RM4 for PG-FRM	N											
	50	PG-FRM-RM5	2.00000				75.0000	KG		75.0000	KL	165.3467	LB	82.6734
GL		RM5 for PG-FRM	N											
	60	Subtotal								**	414.2866	LB		331.8774

*GL

70	PG-FRM-RM6		.60000	10.0000	GM	10.0000	L	1.5850	LB	2.6417		
GL	RM6 for PG-FRM		N									
80	PG-FRM-RM7		1.30000	20.0000	GM	20.0000	L	6.8685	LB	5.2834		
GL	RM7 for PG-FRM		N									
90	PG-FRM-RM8		1.50000	200.0000	KG	200.0000	KL	440.9246	LB	293.9497		
GL	RM8 for PG-FRM		N									
100	PG-FRM-RM9		.70000	1.0000	KG	1.0000	KL	2.2046	LB	3.1495		
GL	RM9 for PG-FRM		N									
110 Subtotal since last subtotal								**	451.5827	LB	305.0243
*GL												
120	POTATOS	EA	1.00000	25.0000	LB	25.0000	GL	25.0000	LB	25.0000		
GL	POTATOS		N									
130	**** End of Formula ****											

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C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

```

-----
COMPANY AND WAREHOUSE LOCATION . :      1  11
FORMULA . . . . . : PG-FORMULA1          PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2      TEST
CLASS . . . . . : 1      FORMULA
UNIT OF MEASURE . . . . . : L
:1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC      ABC
LABEL CODE . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00
-----
    
```

```

ESTABLISHED YIELD . . . . . :
ESTABLISHED WEIGHT PER VOLUME . . . . :
CALCULATED WEIGHT PER VOLUME . . . .
CHEMICAL PROPERTIES OVERRIDE . . . . :
COST OVERRIDE FORMULA . . . . . :
MSDS OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . :
REVISION CODE AND INITIALS . . . . . :
    
```

```

-----
GL          2505.5704 L          1.34970          ACCUMULATED TOTALS          890.8693 LB          661.9017
ESTABLISHED TOTALS          LB
GL          L          1.34970          CALCULATED TOTALS          LB
GL          2422.5257 L
    
```

***** END OF REPORT *****

PSR220
8/01/97

8:54:42

C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

Beginning Formula PG-FORMULA1
Ending Formula
Beginning Product Category
Ending Product Category
Formula Class to Report 0 ALL

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C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

```

-----
COMPANY AND WAREHOUSE LOCATION . :      1  11
FORMULA . . . . . : PG-FORMULAl          PG-FORMULAl for Analysis
ACTIVE CODE . . . . . : 2      TEST
CLASS . . . . . : 1      FORMULA
UNIT OF MEASURE . . . . . : L
1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC      ABC
LABEL CODE . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00
ESTABLISHED YIELD . . . . . :
ESTABLISHED WEIGHT PER VOLUME . . . . :
CALCULATED WEIGHT PER VOLUME . . . . :
CHEMICAL PROPERTIES OVERRIDE . . . . :
COST OVERRIDE FORMULA . . . . . :
MSDS OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . :
REVISION CODE AND INITIALS . . . . . :
    
```

Q C DATA

<----- TEMPLATE DATA ----->				<----- Q C DATA ----->				FORMULA TARGET VALUES			
PRINT ON	DELETE	ORIGINAL	LAST			MINIMUM	MAXIMUM	NORMAL	VARIANCE		
TEST ID	SEQ	DESCRIPTIONS	RATINGS	COMMENTS	UM	VALUE	VALUE	VALUE	PERCENTAGE		
BATCH	TICKET	STATUS	UPDATE	UPDATE							
ABC3	3	TEST 3 FOR 'ABC'	RATE1 - ABC3	COMMENT 1 FOR ABC3 *	XXXX	10.00000-	10.00000	1.00000	20.000		
N	ACTIVE	8/12/94	3/15/95								
PGTSTF	15	DESC 2 FOR TEST3	RATE2 - ABC3	COMMENT 2 FOR ABC3 *							
N	ACTIVE	10/12/94	3/15/95	TV/PGTSTF/R1	TFUM	15.10000	15.20000	15.30000	.150		
		TEMPL/PGTSTF/DS2	TV/PGTSTF/R2	TV/PGTSTF/COMMENT 2.							

M S D S DATA

```

-----
PRODUCT CLASS DESCRIPTION . . . . : Product class for formula PG-FORMULAl *
TRADE NAME . . . . . : Trade Name for PG-FORMULAl (printed on Lab rpt) *
SPECIAL INSTRUCTIONS . . . . . :
MSDS TYPE . . . . . :
STANDARD BATCH UM AND SIZES . . . : L          437.0000
HIGH BOILING POINT . . . . . : 100.0
LOW BOILING POINT . . . . . : 99.5
EVAPORATION RATE . . . . . : 1.000
LOWER EXPLOSION LEVEL . . . . . : 10.0
HEALTH CODE . . . . . : 2*
REACTIVITY CODE . . . . . : 1
PHYSICAL STATE . . . . . : SOLID
ODOR . . . . . : MODERATE ESTER
VAPOR PRESSURE . . . . . : 1.00
VAPOR DENSITY . . . . . : 1.00
LOWEST FLASHPOINT . . . . . : 150.0
FLAMMABILITY CODE . . . . . : 3
PERSONNEL CODE . . . . . : X
APPEARANCE : APPEARANCE OF PG-FORMULAl
WATER SOLUBILITY . . . . . : SPARINGLY SOLUBLE *
    
```

----- INGREDIENTS AND INSTRUCTIONS -----									
BASE		WEIGHT/ FIX ING CRITICAL	-- SOLID --		-- LIQUID --		SOLID - BASE		LIQUID -
UM	SEQ	INGREDIENT DESCRIPTION	VOLUME CODE RESOURCE	QUANTITY	UM	QUANTITY	UM	QUANTITY	UM
GL	10	PG-FRM-RM1 RM1 for PG-FRM	.40000 N	20.0000	GM	20.0000	L	4.2268	LB
GL	20	PG-FRM-RM2 RM2 for PG-FRM	.80000 N	10.0000	KG	10.0000	KL	22.0462	LB
GL	30	PG-FRM-RM3 RM3 for PG-FRM	.50000 N	.5000	KG	.5000	KL	1.1023	LB
GL	40	PG-FRM-RM4 RM4 for PG-FRM	1.02000 N	100.5000	KG	100.5000	KL	221.5646	LB
GL	50	PG-FRM-RM5 RM5 for PG-FRM	2.00000 N	75.0000	KG	75.0000	KL	165.3467	LB
*GL	60 Subtotal					**	414.2866	LB
									331.8774

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C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

```

-----
COMPANY AND WAREHOUSE LOCATION . :      1  11
FORMULA . . . . . : PG-FORMULA1          PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2      TEST
CLASS . . . . . : 1      FORMULA
UNIT OF MEASURE . . . . . : L
1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC      ABC
LABEL CODE . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00
ESTABLISHED YIELD . . . . . :
ESTABLISHED WEIGHT PER VOLUME . . . . :
CALCULATED WEIGHT PER VOLUME . . . . :
CHEMICAL PROPERTIES OVERRIDE . . . . :
COST OVERRIDE FORMULA . . . . . :
MSDS OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . :
REVISION CODE AND INITIALS . . . . . :
    
```

----- INGREDIENTS AND INSTRUCTIONS -----

BASE	SEQ	INGREDIENT	WEIGHT/ FIX ING CRITICAL	-- SOLID --	-- LIQUID --	SOLID - BASE	LIQUID -
UM	DESCRIPTION	CODE	VOLUME	QUANTITY	UM	QUANTITY	UM
GL	70	PG-FRM-RM6	.60000	10.0000	GM	10.0000	L
		RM6 for PG-FRM	N			1.5850	LB
GL	80	PG-FRM-RM7	1.30000	20.0000	GM	20.0000	L
		RM7 for PG-FRM	N			6.8685	LB
GL	90	PG-FRM-RM8	1.50000	200.0000	KG	200.0000	KL
		RM8 for PG-FRM	N			440.9246	LB
GL	100	PG-FRM-RM9	.70000	1.0000	KG	1.0000	KL
		RM9 for PG-FRM	N			2.2046	LB
	110	..... Subtotal since last subtotal				**	451.5827
							LB
*GL	120	POTATOS	EA	1.00000	25.0000	25.0000	GL
		POTATOS	N			25.0000	LB
GL	130	**** End of Formula ****					
			1.34970			ACCUMULATED TOTALS	890.8693
GL	2505.5704	L					LB
						ESTABLISHED TOTALS	
GL		L					LB
			1.34970			CALCULATED TOTALS	
GL	2422.5257	L					LB

***** END OF REPORT *****

Printing the Formula Count Report

On occasion, check your system for the number and types of formula records you have on file to determine whether there are any that you can remove or reclassify. The *Print Formula Count* option generates a report that provides an overview of the records you have on file.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Print Formula Count Report* [PFCO]

The report includes the total number of formulas on file in each of the available formula classifications: active, obsolete, remove, and test. The report also identifies the formula with the highest number of lines and gives the number of lines contained in that formula.

This report does not have a selection screen; it runs automatically when you select this option.

The other two options in the *Code Files Maintenance* menu, *Work with Quality Control Test Type* and *Work with Quality Control Template*, are discussed in the “Working with Quality Control Test Types and Templates” part.

Notes

The part consists of the following topics:

Topic	Page
Overview of Formula Comments	3-2
Creating Formula Comments	3-3
Editing Formula Comments	3-5
Performing a Comment Where-Used Search	3-7
Printing Formula Comments	3-10

Overview of Formula Comments

Formula comments contain information relevant to the formula, such as how often to stir the ingredients or what tests to perform.

You can use the same comment in several formulas and you can perform a search to find where a comment is used. Additionally, you can edit existing comments for future use without changing the verbiage in formulas that use the original comment.

Objectives

After you complete this part, you should be familiar with how to:

- Create and edit formula comments
- Print formula comments
- Perform a comment where-used search

Creating Formula Comments

Use the *Work with Formula Comments* option to create the following three types of comments:

- Normal
- Variable, which requires a dependent value
- Subtotal, which prints on the formula listing and the batch ticket, if you customize the batch ticket to print subtotals

Assign comments to a formula on the Ingredients and Instructions screen, which is in the *Work with Formula* option.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Work with Formula Comments [WWFC]*

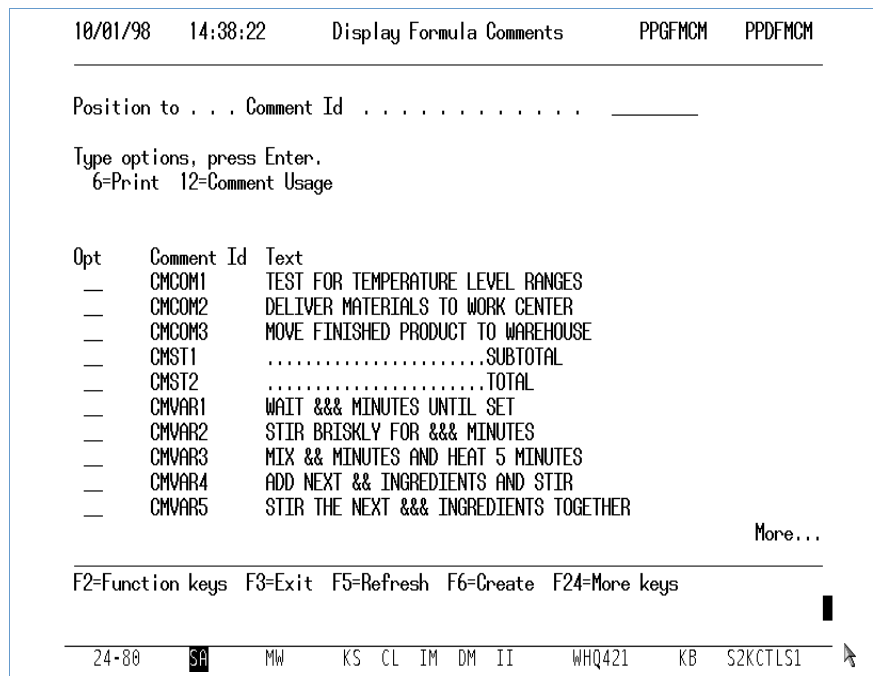


Figure 3-1: Work with Formula Comments selection screen

To create a comment, type an identifier in the *Comment Id* field and press [F6]. All comment identifiers must begin with **CM**.

Type **6** in the *Opt* field and press [Enter] to print an individual comment. Press [F8] to print all of the comments.

The two subtotal comments you can construct are **CMST1**, which subtotals up to the line holding this comment, and **CMST2**, which performs a subtotal since the last subtotal.

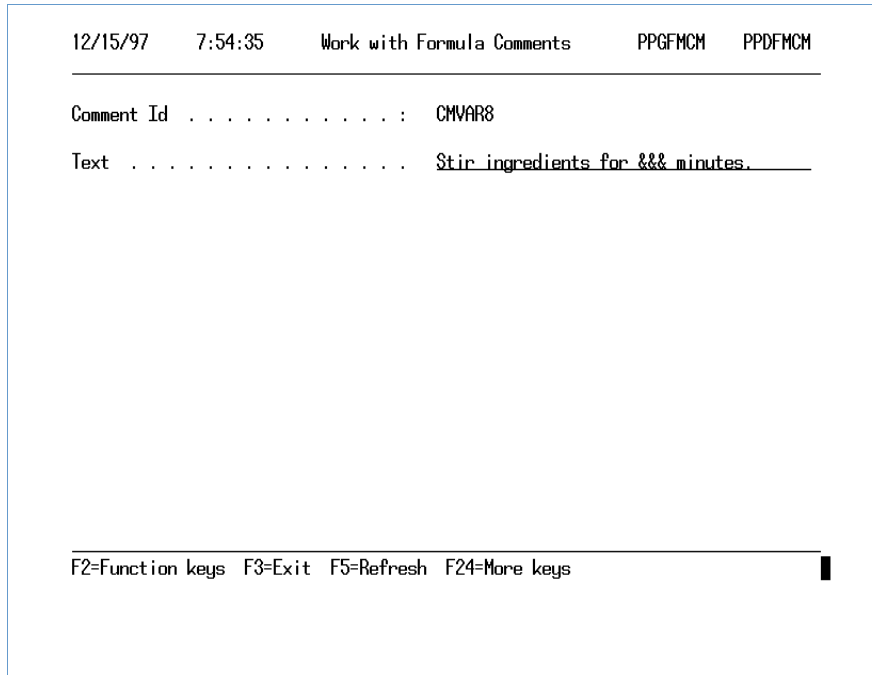


Figure 3-2: Work with Formula Comments screen

Type the comment associated with this identifier in the *Text* field and press [Enter] .

The screen above shows an example of a variable comment for identifier **CMVAR8**. When you use this comment on a formula, you can type **CMVAR8 10**, where 10 is the value for the dependent variable.

Once you establish this comment, whenever you select **CMVAR8** the comment text displays with the variable you specify. For example, if you type **10**, this comment displays “Stir ingredients for 10 minutes.”

Press [F7] on this screen to display a where-used list of formulas using this comment.

Editing Formula Comments

The *Work with Formula Comments* option also allows you to edit existing comments.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Work with Formula Comments [WWFC]*

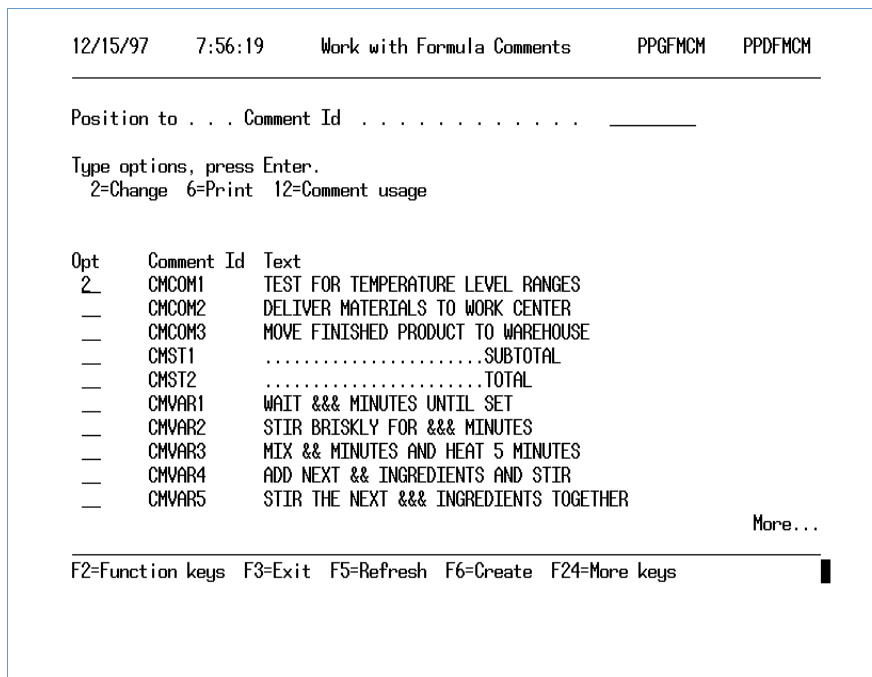


Figure 3-3: Work with Formula Comments selection screen

To select a comment to edit, type **2** in the *Opt* field and press [Enter].

```

12/15/97   7:57:01   Work with Formula Comments   PPGFMCM   PPDFMCM
-----
Comment Id . . . . . : CMCOM1
Text . . . . .       TEST FOR TEMPERATURE LEVEL RANGES
Want to Change on all Formulas . . N (Y=Yes, N=No)

-----
F2=Function keys  F3=Exit  F5=Refresh  F24=More keys

```

Figure 3-4: Work with Formula Comments screen

Type the new comment in the *Text* field and press [Enter].

The *Want to Change on all Formulas* field displays only if this comment already exists in formulas. Type **Y** in this field to replace the text in all formulas. Type **N** to use the new comment only in new formulas.

Performing a Comment Where-Used Search

Use *Work with Formula Comments* to perform a search for formulas that use a particular comment.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Work with Formula Comments [WWFC]*

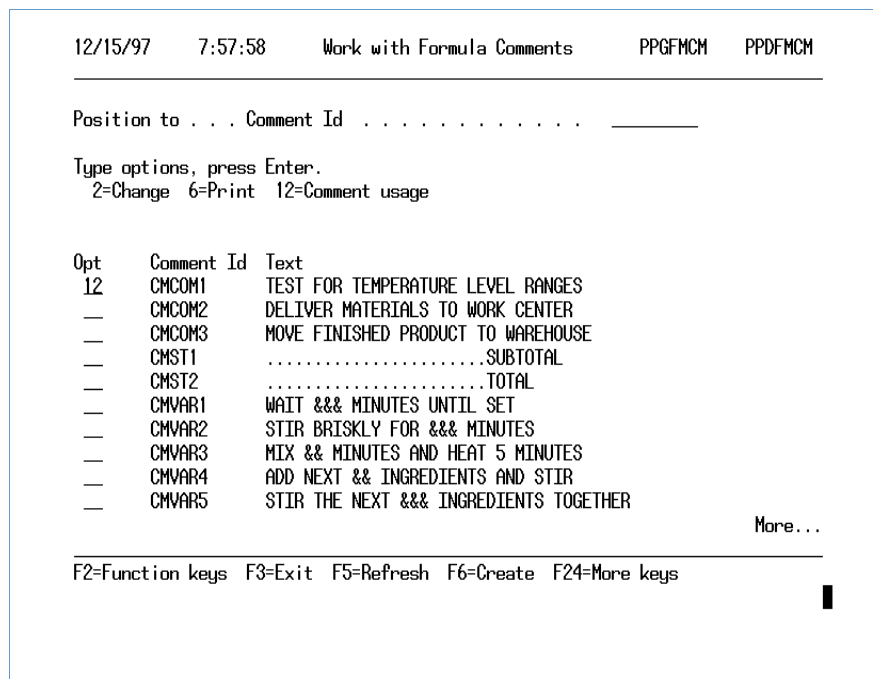


Figure 3-5: *Work with Formula Comments* selection screen

To perform a where-used search, type **12** in the *Opt* field to select a comment and press [Enter].

Access the same list by typing **2** in the *Opt* field, pressing [Enter], and then pressing [F7].

You can also view, print, and perform a where-used search of comments by selecting the *Display Formula Comments* option.

```

11/19/02  10:13:51      Work with Formula Comments      PPGFMCM  PPDFMCM
-----
Comment Id . . . . . :  CMCOM1
                        TEST FOR TEMPERATURE LEVEL RANGES
Type options, press Enter.
  5=Display
      FBE
Opt Formula      Cd Co  Wh  Description
- DAN
- DAN
- DAN
- DAN
- DAN
- DAN
- DAN
- DEGF0RM3
- KBSFORMGLOBAL
  5 SCHFBFBE      AUT  DER WH1  sch fbe - Autumn version
= SCHFORMREPLACE
                        schformreplace
                                                More...
-----
F2=Function keys  F3=Exit  F8=Print  F10=QuikAccess  F24=More keys

```

Figure 3-6: Work with Formula Comments Where-Used screen

This screen displays all the formulas that use the comment you selected. Press [F8] to print this cross-reference.

To view formula information, type 5 in the *Opt* field and press [Enter].

```

11/19/02  10:16:37      Display Formula      PRGFM  PRDFM
-----
Formula . . . . . :  SCHFBFBE      AUT  DER WH1
                    sch fbe - Autumn version
Select one or more of the following. Then press Enter.

  Attribute
- General Information
- Ingredients and Instructions
- Descriptive Information

- Display Synonyms
- Maintain Costs
- Display Extended Descriptions
- Display Notes
-----
F2=Function keys  F3=Exit  F6=Save  F8=Print  F24=More keys

```

Figure 3-7: Display Formula Attribute selection screen

Type **1** in the *Opt* field to select an attribute for this formula, and press [Enter], or press [F9] to display all attributes sequentially.

Formula attribute information and screens are discussed in the “Working with Formulas” part.

Printing Formula Comments

You can print a single comment, a range of comments or all comments by using the *Print Formula Comments* option.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Print Formula Comments* [PFC]

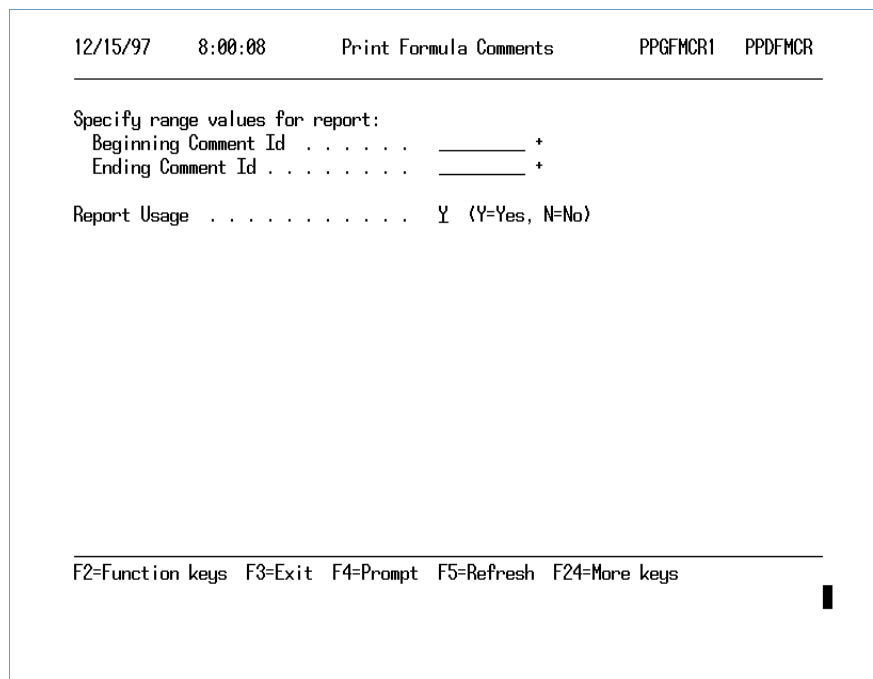


Figure 3-8: Print Formula Comments screen

To print a single comment, type the comment identifier in the *Beginning Comment Id* field.

To print a range of comments, complete both the beginning and ending comment identifier fields. To print all comments, leave both fields blank.

Report Usage

Type **Y** in the *Report Usage* field to list the formulas that use each comment.

Press [Enter] to generate the report. A sample Formula Master Comments report is on the next page.

PPGFMCR PPTFMCR
8/01/97 13:08:41

F O R M U L A M A S T E R C O M M E N T S R E P O R T

PAGE 1
WMM

COMMENT ID COMMENT TEXT USED IN: FORMULA FORMULA FORMULA
CMBEGINF **** Beginning of Formula **** PG TEST FORMULA 1
CMCOM1 Test for temperature level ranges.
CMDEL Deliver Materials to Work center
CMENDF **** End of Formula ****
CMLIN -----
CMMOVE Move finished product to warehouse
CMSTIR Stir for 10 minutes
CMSTOT
CMST1 Subtotal
CMST2 Subtotal since last subtotal
CMTOT
CMTRANS Transfer item to intermediate storage.
CMVAR1 Wait && minutes until firm. RED PAINT
CMVAR2 Stir briskly for &&& minutes.
CMVAR3 Stir occasionally for &&& minutes.

***** RECORDS SELECTED . . 000015

***** END OF REPORT *****

Notes

Part 4

Performing Ingredient Substitutions

4

The part consists of the following topics:

Topic	Page
Overview of Performing Ingredient Substitutions	4-2
Performing a Global Ingredient Replacement	4-3

Overview of Performing Ingredient Substitutions

Use the *Work with Substitutions* option to perform ingredient replacements. When you make an ingredient substitution, the system calculates new quantities of replacement ingredients using the factor you type on the screen. In addition to recalculating quantities, the system recalculates yield, weight per volume, chemical properties, and costs for formulas affected by the replacement.

Caution: Prior to performing a substitution, perform a system backup. Also, make sure you end costing. All users must be signed off of the Infinium MM Suite while the substitution is in process. Running the *Work with Substitutions* option may take a considerable amount of time depending on the size of your formula files. When the substitution is complete, make sure you restart costing.

Objective

After you complete this part, you should understand how to execute a global ingredient replacement.

Performing a Global Ingredient Replacement

You can perform a global ingredient replacement, which allows you to replace formula ingredients with up to three new ingredients in all or designated formulas.

As a precautionary measure, the system can save all raw material, formula, and product records as a duplicate object prior to processing an ingredient replacement.

To tell the system to create the duplicate object, use the *Control Files* menu, *Work with Entity* option. Set the *Save Files before Mass Substitution* field to **Y**.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Work with Substitutions* [WWS]

Defining Formula Specifics for the Substitution

```
11/21/02  10:40:15      Work with Substitutions      PS061S  PS061F
-----

Specify whether or not to replace ingredients in:

  RM Breakdown Formulas . . . . .  N  (Y=Yes, N=No)
  Obsolete Formulas . . . . .      N  (Y=Yes, N=No)

  Include Lower Levels . . . . .    Y  (Y=Yes, N=No)
  Include All FBE Instances . . . . N  (Y=Yes, N=No)

-----
F2=Function keys  F3=Exit  F5=Refresh  F10=QuikAccess  F18=Message line
```

Figure 4-1: Work with Substitutions prompt screen

You can substitute ingredients in formulas only if you have the proper authority.

RM Breakdown Formulas

Obsolete Formulas

Type **Y** in the *RM Breakdown Formulas* and *Obsolete Formulas* fields to include these formula classes in the substitution.

Include All FBE Instances

Specify yes to perform the substitution for all formula instances regardless of the effective date.

Specify no to perform the substitution for only the formula instance that is currently in effect as of the system date for each formula in the range you specified.

Formula by Location

The *Company* and *Warehouse* fields on the next screen and the *Include Lower Levels* and *Include All FBE Instances* fields on this screen are used to further define the formula selection criteria for formulas you specify on the next screen in the *Formula* or *Intermediate* fields. The tables below describe the various formula selection criteria.

Include Lower Levels

Use the *Include Lower Levels* field to indicate whether the substitutions should be made to the formula instances that are lower in the formula hierarchy. For example, if you specify a company, leave the warehouse blank, specify **Y** in *Include Lower Levels*, and specify **Y** in *Include All FBE Instances*, the system substitutes the ingredients in all of that company's warehouse level formulas and the company level formula.

Selection Criteria for Effective Formulas Only

Use the table below to specify the selection criteria to perform the substitution for only the formula instance that is currently in effect as of the system date for each formula in the range you specified.

To substitute ingredients in...	You must...
Formula instances for a specific warehouse	Type either Y or N in <i>Include Lower Levels</i> Type N in <i>Include All FBE Instances</i> Specify <i>Company</i> and <i>Warehouse</i> on the next screen

To substitute ingredients in...	You must...
Formula instances for a specific company and its warehouses	Type Y in <i>Include Lower Levels</i> Type N in <i>Include All FBE Instances</i> Specify <i>Company</i> on the next screen Leave <i>Warehouse</i> blank on the next screen
All Formula instances including the entity formulas	Type Y in <i>Include Lower Levels</i> Type N in <i>Include All FBE Instances</i> Leave <i>Company</i> and <i>Warehouse</i> blank on the next screen
Company formula instances only	Type N in <i>Include Lower Levels</i> Type N in <i>Include All FBE Instances</i> Specify <i>Company</i> on the next screen Leave <i>Warehouse</i> blank on the next screen
Entity formulas instances only	Type N in <i>Include Lower Levels</i> Type N in <i>Include All FBE Instances</i> Leave <i>Company</i> and <i>Warehouse</i> blank on the next screen

Selection Criteria for Formulas Regardless of Effective Date

Use the table below to specify the selection criteria for all formula instances. When you specify **Y** in *Include All FBE Instances*, all formula instances are selected, regardless of the effective date.

To substitute ingredients in...	You must...
Formula instances for a specific warehouse	Type either Y or N in <i>Include Lower Levels</i> Type Y in <i>Include All FBE Instances</i> Specify <i>Company</i> and <i>Warehouse</i> on the next screen

To substitute ingredients in...	You must...
Formula instances for a specific company and all of its warehouses	Type Y in <i>Include Lower Levels</i> Type Y in <i>Include All FBE Instances</i> Specify <i>Company</i> on the next screen Leave <i>Warehouse</i> blank on the next screen
All formula instances, including entity formulas	Type Y in <i>Include Lower Levels</i> Type Y in <i>Include All FBE Instances</i> Leave <i>Company</i> and <i>Warehouse</i> blank on the next screen
Company formulas instances only	Type N in <i>Include Lower Levels</i> Type Y in <i>Include All FBE Instances</i> Specify <i>Company</i> on the next screen Leave <i>Warehouse</i> blank on the next screen
Entity formula instances only	Type N in <i>Include Lower Levels</i> Type Y in <i>Include All FBE Instances</i> Leave <i>Company</i> and <i>Warehouse</i> blank on the next screen

Press [Enter] to continue to the next screen.

Defining the Ingredient Replacements

Formula		Formula or		Ingredient to be replaced +	
QC Type +	Co +	Whse +	Intermediate		
			SUGAR COOKIES	RAW01	
Replacing ingr	1 . .		RAW03	+ Factor 1 . .	.5
	2 . .		RAW04	+ 2 . .	.5
	3 . .			+ 3 . .	
Replacing ingr	1 . .			+ Factor 1 . .	
	2 . .			+ 2 . .	
	3 . .			+ 3 . .	
Replacing ingr	1 . .			+ Factor 1 . .	
	2 . .			+ 2 . .	
	3 . .			+ 3 . .	

More...

F2=Function keys F3=Exit F4=Prompt F10=QuikAccess F18=Message line

Figure 4-2: Work with Substitutions ingredient replacement screen

You can run this option for the following:

- A specific quality control test type attached to formulas
- A specific formula or intermediate
- All formulas

Formula QC Type

To run the substitution for a specific quality control test, type the test in the *Formula QC Type* field.

Formula or Intermediate

To run the substitution for a specific formula or intermediate, complete the *Formula or Intermediate* field.

To run the substitution for all formulas, leave both the *Formula QC Type* and *Formula or Intermediate* fields blank.

Ingredient to be replaced, Replacing ingr

Type the ingredient to be replaced in the *Ingredient to be replaced* field and the substitute ingredient or ingredients in the *Replacing ingr 1 - 3* fields.

You can replace one ingredient with up to three different ingredients. In this example **RAWMATERIAL XXX** is being replaced with **NEW RAWMATERIAL A** and **NEW RAWMATERIAL B**.

Factor

You determine the ratio of the replacing ingredients by your entries in the *Factor* fields. All factors on a replacement must total to **1.0**.

You can perform up to five different replacements at one time with this option. To enter more than three, you must press [PgDn].

This option automatically generates the following reports:

- Recap of Changed Yields and Weight/Volume
- Formula Ingredient Modification
- Global Ingredient Replacement

Press [Enter] to submit this job.

All replacing ingredients must be valid items defined in either Infinium CA or Infinium PF.

Part 5

Executing a Material Usage Search

5

The part consists of the following topics:

Topic	Page
Overview of Executing a Material Usage Search	5-2
Performing a Single Material Usage Search	5-3
Performing a Multiple Material Usage Search	5-5

Overview of Executing a Material Usage Search

The *Formula Management* options enable you to perform a single- and multiple-material usage search.

If you perform a material search on one or two materials, the system also searches the Product file for the *Formula used* and *Container Bill of Material* field values. You can readily distinguish the products from the formulas because on the Cross-reference Result screen, the products are always listed last, and you can only display information on the listed formulas.

Refer to the *Infinium Cross Applications Guide to System Controls and Materials Maintenance* for a detailed description of size codes.

Objectives

After you complete this part, you should know how to:

- Perform a single material usage search
- Perform a multiple material usage search

Performing a Single Material Usage Search

You can also perform a material usage search in the *Work with Formula* option by typing **12** next to a formula on the Work with Formula Selection screen and pressing [Enter].

You can perform a formula where-used search on individual materials.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Display Material Usage [DMU]*

```
11/20/02   10:38:15   Display Material Where Used   CAGMUD   CADMUD
-----
Specify a maximum of 10 materials to search for

Material and Size Code +
SUGAR      +
-----
-----
-----
-----
-----
-----
-----
-----
-----
-----
-----

F2=Function keys  F3=Exit  F4=Prompt  F5=Refresh  F24=More keys
```

Figure 5-1: Display Material Where Used screen

To perform a single material usage search, complete the first *Material* field only and press [Enter]. Valid entries for this field are raw materials, resources, formulas, and products.

Remember when searching on products to use the *Size Code* field if your products require them.

```

11/20/02   10:39:43   Display Material Where Used   CAGMUD   CADMUD
-----
Materials searched . . . . . :
Material and Size Code   Description
SUGAR                   sugar

                                                    Bottom
-----
Cross-reference Result           Count :   120
Select one or more of the following. Then press Enter
Formula or Product         Co Whse Description      Quantity UM  Act
= SCHFBE                   DER      sch fbe - ch         2.0000 LB  ACT
- SCHFBE                   DER      sch fbe - ch         1.0000 LB  TES
- SCHFBE                   SPR DER      sch fbe - ch         1.0000 LB  TES
- SCHFBE                   WIN DER      sch fbe - ch         1.0000 LB  TES
- SCHFBE                   DER WH1  sch fbe - No         1.0000 LB  TES
- SCHFBE                   AUT DER WH1  sch fbe - Aut         .9091 LB  ACT
                                                    More...
-----
F2=Function keys F3=Exit F8=Print F10=QuikAccess F24=More keys

```

Figure 5-2: Cross-reference Result screen

This screen displays all of the formula instances containing the one material specified on the previous screen. The system displays the FBE code value for the formula instance next to the *Formula or Product* column. When searching on one material, the formula quantity, unit of measure and status display on the result section of this screen.

The *Act* display field identifies the status of the formula, bill of material or product. For a formula or a bill of material, the possible values are **ACTIVE**, **TEST**, **REMOVE** and **OBSOLETE**. The active code is established in the *Work with Formula* function in Infinium PF or the *Work with BOM* function in Infinium CA.

The description of the formula/bill of material active codes is stored in object PSE85001 in the Infinium CA program library. For a product, the possible values are **ACTIVE**, **OBSOLETE** and **REMOVE**. The active code is established in the *Work with Product* function in Infinium CA. The description for the product active codes is found in message file PRMSG with IDs **CON0012**, **CON0013** and **CON0014**.

Type any character in the field to the left of the formula and press [Enter] to access the Display Formula Attribute screen.

From the Display Formula Attribute screen, you can view formula information.

If a material is used more than once in a result formula, the system marks the formula with a preceding asterisk. If you view a formula where a material is used more than once, the system converts the remaining occurrences of the material to the first material occurrence's unit of measure.

Press [F8] to print this cross reference.

Performing a Multiple Material Usage Search

You can perform a where-used search on a combination of materials within formulas.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Display Material Usage [DMU]*

```
11/20/02  10:40:08  Display Material Where Used  CAGMUD  CADMUD
-----
Specify a maximum of 10 materials to search for

Material and Size Code +
SUGAR_____  ___
FLOUR_____  ___
_____      ___
_____      ___
_____      ___
_____      ___
_____      ___
_____      ___
_____      ___
_____      ___

-----
F2=Function keys  F3=Exit  F4=Prompt  F5=Refresh  F24=More keys
```

Figure 5-3: Display Material Where Used screen

To perform a multiple material usage search, complete up to 10 of the *Material* fields and press [Enter].

Material and Size Code	Description
SUGAR	sugar
FLOUR	flour

Bottom

Formula or Product	Co Whse	Description	Act
= SCHFBE		sch fbe - ch	ACT
- SCHFBE	DER	sch fbe - ch	TES
- SCHFBE	SPR DER	sch fbe - ch	TES
- SCHFBE	WIN DER	sch fbe - ch	TES
- SCHFBE	DER WH1	sch fbe - No	TES
- SCHFBE	AUT DER WH1	sch fbe - Aut	ACT

More...

F2=Function keys F3=Exit F8=Print F10=QuikAccess F24=More keys

Figure 5-4: Cross-reference Result screen

This screen displays all of the formula instances containing all of the materials you listed on the Display Material Where Used screen. The system displays the FBE code value for the formula instance next to the *Formula or Product* column.

Type any character in the field to the left of a formula to select the formula and press [Enter] to access the Display Formula Attribute screen.

From the Display Formula Attribute screen you can select various attributes for viewing.

Press [F8] to print this cross reference.

Part 6

Working with Archived Formulas and Audit Notes

6

The part consists of the following topics:

Topic	Page
Overview of Working with Archived Formulas	6-2
Displaying Archived Formulas	6-3
Printing Archived Formulas	6-9
Transferring Archived Formulas	6-10
Editing, Displaying, and Printing Audit Notes	6-12
Understanding Formula Replacements	6-14
Performing a Formula Replacement	6-17

Overview of Working with Archived Formulas

Archived formulas and audit notes serve as a historical references to past versions of formulas. You can display, edit, and print archived formulas. You can also transfer an archived formula back to the Formula Master files.

You determine your system's formula archival and audit note capability through your control setup in Infinium PF.

Refer to the “Working with Setup Files and Purges” part for detailed information on how to prepare your system for archival and audit features.

The system allows you to maintain up to 9998 archived formulas and formula notes for each master formula.

If you have not implemented Formula by Location, you can have only one version of a formula in the Formula Master files. That version is the master copy for production. If you have FBL formulas, you can have only one version per location of a formula in the Formula Master files.

Use the *Transfer Archived Formula* option to accomplish the following:

- Display formulas from the Formula Archive files
- Print formulas from the Formula Archive files
- Transfer a formula from the Formula Archive files to the Formula Master files for use in production

Objectives

After you complete this part, you should know how to:

- Display and print archived formulas
- Edit, display, and print audit notes
- Understand and perform a formula replacement
- Transfer archived formulas back to the Formula Master files

Displaying Archived Formulas

You can view various attributes for an archived formula.

Use the menu path below.

- ▶ *Formula Archival/Audit*
 - ▼ *Transfer Archived Formula [TAF]*

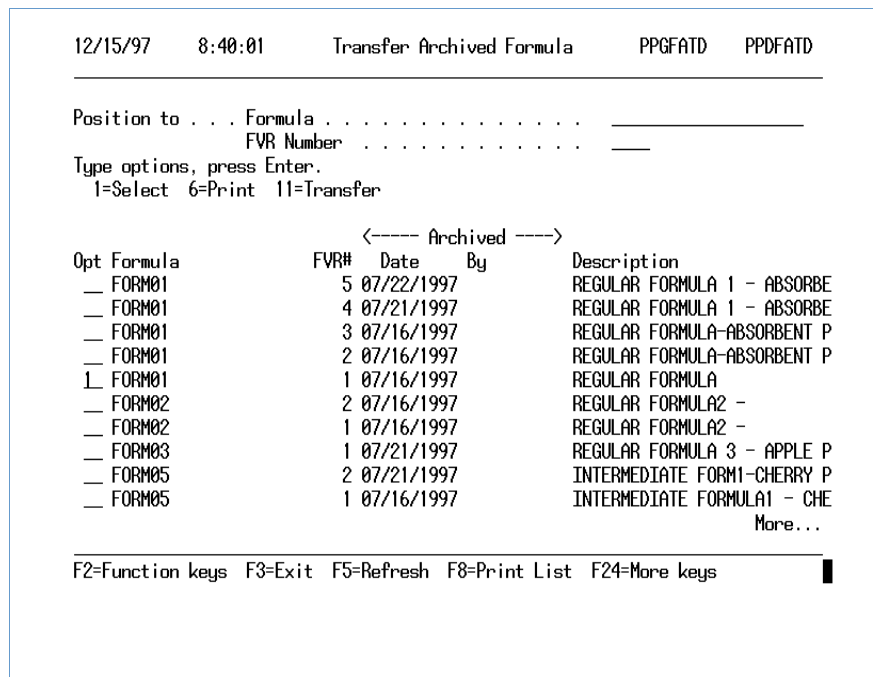


Figure 6-1: Transfer Archived Formulas selection screen

This screen displays a list of archived formulas. You can position the list by formula and version number. To position the list, type the beginning letters of a formula in the *Formula* field and press [Enter].

To view formula information only, type **1** in the *Opt* field and press [Enter].

If certain users should only view and print archived formulas and audit notes, design their menus to have access to only the display options and not the *Transfer Archived Formula* and *Work with Audit Notes* options.

Archived Formula Attributes

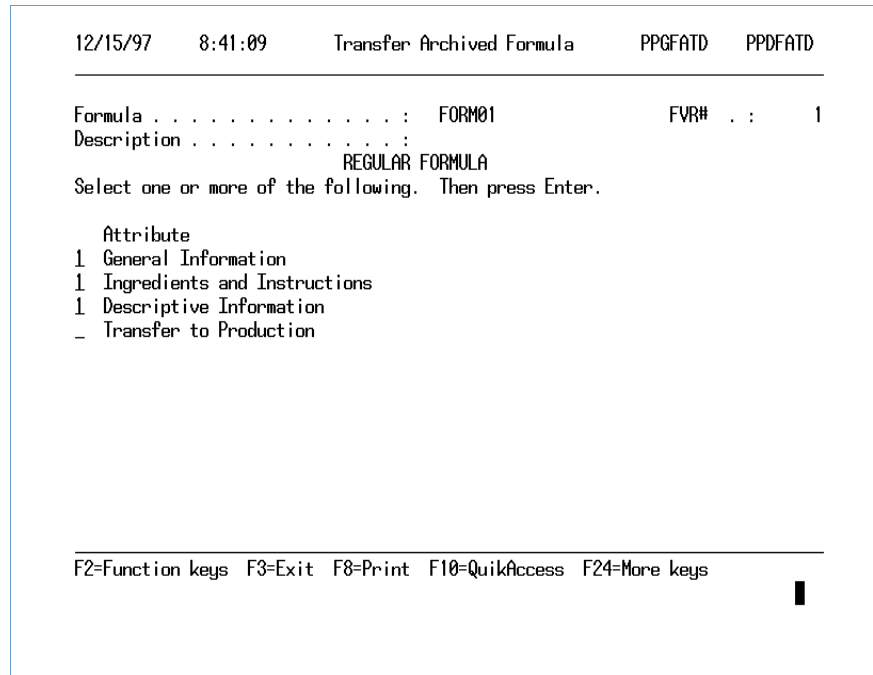


Figure 6-2: Transfer Archived Formula Attribute selection screen

To select a single attribute, type **1** in the *Opt* field and press [Enter].

To access the attribute screens sequentially, type **1** in the *Opt* field beside each and press [Enter]. This section discusses all attributes on the following pages except Transfer to Production, which is covered in a later section of this part.

You can also display and print archived formulas using the *Display Archived Formulas* option. The display option is less resource intensive than this option.

General Information

```
12/15/97   8:41:38   Transfer Archived Formula   PPGFATD   PPDFATD

-----
                        General Information                               Page 1 of 2
Formula . . . . . : FORM01                                           FVR# . : 1
Description . . . . . :
                        REGULAR FORMULA
Active Code . . . . . : 1 ACTIVE
Class . . . . . : 1 FORMULA
Unit of Measure . . . . . : GL
Standard Batch Unit of Measure . . : GL
Standard Batch Sizes . . . . . : 100.0000

Standard Process (Equipment Code) :
Established Yield . . . . . : .0000
Established Weight per Volume . . : .00000
Loss Percentage . . . . . : .0000
Apply Loss % at Ingredient Level : 0 (Y=Yes, N=No)
Clingage Loss Percentage . . . . . : .0000
Rework Limit Percentage . . . . . : .00
Formula QC Test Type . . . . . : GAF STRAINER GAF

-----
F2=Function keys F3=Exit F10=QuikAccess F12=Cancel F18=Message line
```

Figure 6-3: General Information screen 1

This screen displays general information on the archived formula. Press [Enter] to proceed to the second General Information screen.

Basic Regulatory Information

```
12/15/97   8:41:54   Transfer Archived Formula   PPGFATD   PPDFATD
-----
                                General Information                               Page 2 of 2
Formula . . . . . : FORM01                               FVR# . : 1
Description . . . . . :
                                REGULAR FORMULA

MSDS Sort Type . . . . . :
MSDS Revision Code . . . . . :
Formula Last Revision Date . . . . . : 00/00/0000
Initials of Person Revising . . . . . :

-----
F2=Function keys  F10=QuikAccess  F12=Cancel  F18=Message line
```

Figure 6-4: General Information screen 2

This screen displays the remaining general information data. Press [Enter] to proceed.

Ingredients and Instructions

12/15/97	8:42:52	Transfer Archived Formula	PPGFATD	PPDFATD
Ingredients and Instructions				View: >
Formula	FORM01		FVR#	1
Description	REGULAR FORMULA			
Seq	Material and Size Code	Quantity	UM	LC Fixed Ingr Code
Manufacturing Instructions & Desc				
10	RAW01 WATER	50.0000	GL	R
20	RAW11 ABSORBENT PELLETS	40.0000	LB	
30	HAZRAW08 AROMATIC	34.0000	GL	
40	HAZRAW01 ALCOHOL	12.0000	GL	R
				Bottom
Yield	100.2105		GL	
F2=Function keys F3=Exit F10=QuikAccess F12=Cancel F24=More keys				

Figure 6-5: Ingredients and Instructions screen

This screen displays archived ingredients and instructions information. Press [Enter] to continue.

Descriptive Information

11/19/02	11:29:32	Transfer Archived Formula	PPGFATD	PPDFATD			
Position to . . . Formula							
FBE Code							
FVR Number							
Type options, press Enter.							
1=Select 6=Print 11=Transfer							
FBE <----- Archived ----->							
Opt	Formula	Co	Whse	Cd	FVR#	Date	By
<u>11</u>	SCHFBETRANSFER		DER WH1	WIN	1	11/19/2002	DER
	sch fbe - ch effective from an						
<u>—</u>	SCHFBETRANSFER2		DER WH1	AUT	2	11/19/2002	DER
	Formula Transfer - FBE testing						
<u>—</u>	SCHFBETRANSFER2		DER WH1	AUT	1	11/19/2002	DER
	sch fbe - ch effective from an						
<u>—</u>	SCHFBETRANSFER2NEW				1	11/19/2002	DER
	Formula Transfer - FBE testing						
<u>—</u>	SCHFBE5				1	11/13/2002	DER
	class 4 formula						
							More...
F2=Function keys F3=Exit F5=Refresh F8=Print List F24=More keys							

Figure 6-6: Descriptive Information screen

This screen displays archived descriptive information.

Press [F14] to view archived quality control information. You can also press [F13] to view archived regulatory information.

Printing Archived Formulas

You can print a complete list of archived formulas.

Use the menu path below.

- ▶ *Formula Archival/Audit*
 - ▼ *Transfer Archived Formula [TAF]*

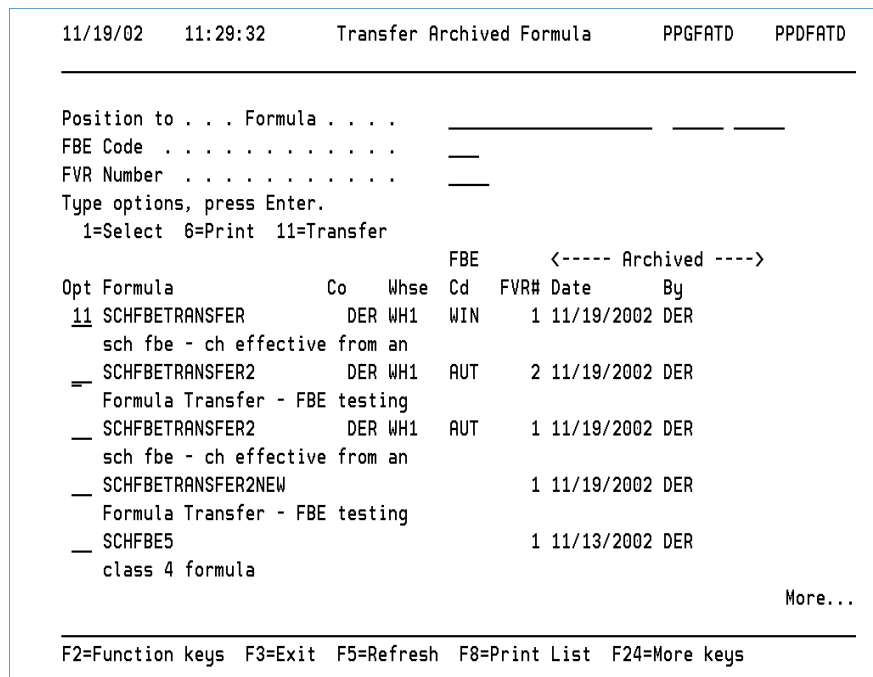


Figure 6-7: Transfer Archived Formula selection screen

Press [F8] to generate the list of archived formulas on your system. The system displays the message **"Archived Formulas list is printed."**

To print a single archived formula, type **6** in the *Opt* field next to the formula and press [Enter]. This generates a comprehensive formula report.

You can also print archived formula information by selecting a formula from this screen. Type **1** in the *Opt* field, press [Enter] and then press [F8].

Transferring Archived Formulas

You can transfer an archived formula back to the Formula Master files if you rename the formula.

You can also transfer an archived formula to the Formula Master files with the same name. This requires two steps: performing the transfer and then performing a formula replacement. Formula replacement is discussed later in this part.

Use the menu path below.

- ▶ *Formula Archival/Audit*
 - ▼ *Transfer Archived Formula [TAF]*

```
11/19/02  11:36:40      Transfer Archived Formula      PPGFATD  PPDFATD
-----
Position to . . . Formula . . . .
FBE Code . . . . .
FVR Number . . . . .
Type options, press Enter.
  1=Select  6=Print 11=Transfer
FBE      <----- Archived ----->
Opt Formula      Co  Whse Cd  FVR# Date  By
11 SCHFBETRANSFER      DER WH1 WIN  1 11/19/2002 DER
sch fbe - ch effective from an
SCHFBETRANSFER2      DER WH1 AUT  2 11/19/2002 DER
Formula Transfer - FBE testing
SCHFBETRANSFER2      DER WH1 AUT  1 11/19/2002 DER
sch fbe - ch effective from an
SCHFBETRANSFER2NEW      1 11/19/2002 DER
Formula Transfer - FBE testing
SCHFBE5      1 11/13/2002 DER
class 4 formula
More...
-----
F2=Function keys  F3=Exit  F5=Refresh  F8=Print List  F24=More keys
```

Figure 6-8: Transfer Archived Formula selection screen

Type **11** beside the archived formula and press [Enter] to transfer it back to the Formula Master files.

```

11/20/02   13:57:37   Transfer Archived Formula   PPGFATD   PPDFATD
-----
                        Formula Transfer Confirmation

Archived Formula . . . : SCHFBETRANSFER      WIN  DER WH1   FVR# . :   1
Description . . . . . : sch fbe - ch effective from and through date

Transfer as Formula . . . . . NEWTRF_____
Active Code . . . . .      2 (1=Active, 2=Test)

-----
F2=Function keys  F3=Exit  F10=QuikAccess  F12=Cancel  F24=More keys

```

Figure 6-9: Formula Transfer Confirmation screen

Type the new identifier for this formula in the *Transfer as Formula* field, complete the *Active Code* field, and press [Enter].

When you transfer an FBL formula back to production, the system creates the formula as an entity formula and keeps track of its original location. However, you can replace any formula with the transferred formula providing you have the proper authority.

You can also transfer a formula by selecting the Transfer to Production attribute from the Transfer Archived Formula Attribute screen.

Editing, Displaying, and Printing Audit Notes

You can use an audit note to explain why you changed a formula.

Use the menu path below.

- ▶ *Formula Archival/Audit*
 - ▼ *Work with Audit Notes [WWAN]*

Managing Audit Notes

Opt	Formula	FBE Cd	CO	WHSE	FVR Number	Audited Date	Audited by
-	FORM 0003 KDL PRGFI		KDL	KDL1	7	06/13/2002	KDL
-	FORM 0008 KDL				1	06/14/2002	KDL
-	FORMTRS				1	06/13/2002	SHX
-	FORMLAT				2	06/24/2002	SHX
-	FORMLAT				1	06/24/2002	SHX
-	HWCBOMFORM2		C01	C01W1		06/23/2002	HWC
-	HWCFORM01				1	11/19/2002	HWC
<u>2</u>	HWCFORM01	FEB	OPC	OPC1	2	11/19/2002	HWC
=	HWCFORM01	FEB	OPC	OPC1	1	11/19/2002	HWC
-	HWCFORM01	WIN	OPC	OPC1	1	11/19/2002	HWC

More...

Figure 6-10: Work with Audit Notes selection screen

You can do the following from this screen:

- Edit a formula audit note by typing **2** in the *Opt* field and pressing [Enter]. The edit screen is on the next page.
- Display a formula audit note by typing **5** in the *Opt* field and pressing [Enter].
- Print a specific formula audit note by typing **6** in the *Opt* field and pressing [Enter].
- Print a comprehensive listing of all audit notes by pressing [F8].

You can also display and print audit notes using the *Display Audit Notes* option.

Changing Audit Notes

11/19/02	11:00:32	Work with Audit Notes	PPGANM	PPDANM
Formula		HWCFORM01	FEB OPC OPC1	
Formula HWCFORM01			FVR# . :	2
Date and Time of Revision		11/19/2002	6:36:48	
MSDS Revision Code				
Initials of Person Revising				
Program, Work Station and User		PRGFM	QPADEV000Z	HWC
Notes				
Testing of seasonal				

_____				More...
F2=Function keys F3=Exit F6=Save F8=Print F24=More keys				

Figure 6-11: Work with Audit Notes screen

You can edit the note on this screen, if necessary. Press [F6] to save any changes you make.

You can also print from this screen by pressing [F8].

If in the Infinium PF *Control Files* menu, *Work with Entity Controls* option, you set the *Allow Formula Audit Capability* field to **3**, which disables notes, the system captures only the information at the top of this screen.

Understanding Formula Replacements

Formula replacement takes the contents of an existing formula and places them into another formula.

Since you must rename a formula during a transfer, it is often more advantageous to continue using the old formula's name. To do this, first perform the transfer, and then perform the replacement.

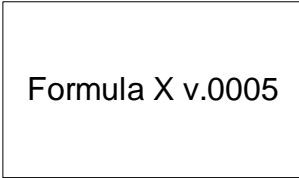
For example, your company always uses **Formula X** version 0005 for production. This version resides in the Formula Master files. Someone decides to add one gallon of water to the formula. The production version now becomes **Formula X** version 0006. The system archives the old version 0005. After a few batches, you discover that version 0006 is not a quality formula and production should return to the version 0005 formula.

Follow the steps below to correct this situation.

- 1 When you transfer a formula back to the Formula Master files you must rename it to avoid duplicate names. On the transfer confirmation page you enter **NewFormulaXV0005** as the Transfer as Formula and complete the transfer of the formula back to the Formula Master File.
- 2 Production prefers to use the name **Formula X** because that is what they have always used. The next step is perform a formula replacement. You use NewFormulaXV0005 as the transferred formula and Formula X as the formula to be replaced.

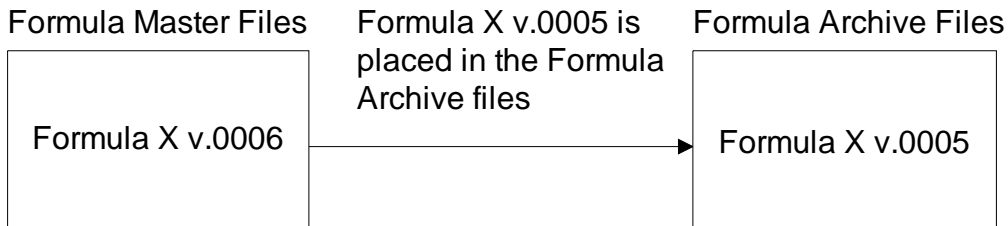
Formula Situation

Formula Master Files



This is your original formula in the Formula Master files. Production decides to alter the formula.

You add one gallon of water to Formula X v. 0005. You save the new formula and archive the old formula.



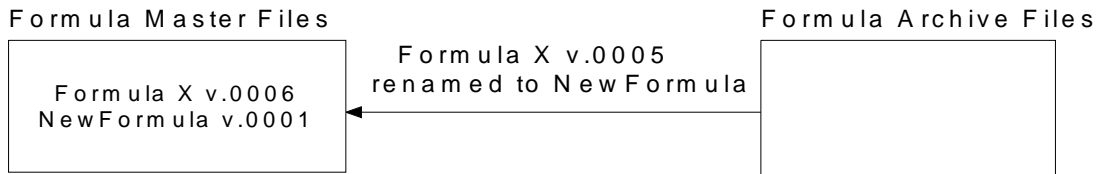
You want to move the old formula without water back to the Formula Master files because that is the formula that should be used for production. You also want to use the same formula name, Formula X, in production.

The steps to accomplish this are shown in the Formula Solution diagram.

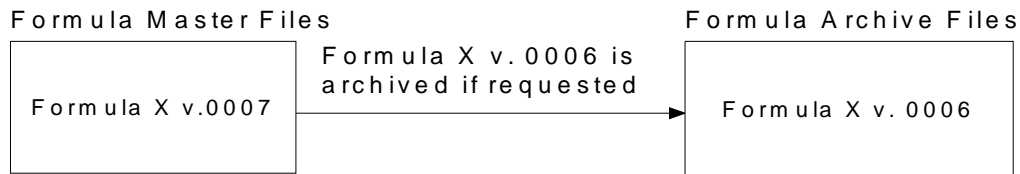
Figure 6-12: Formula Situation

Formula Solution

STEP 1 - Transfer Formula X v. 0005 back to the Formula Master Files.



STEP 2 - Perform a formula replacement. You need the data from New Formula v.0001 (Transferred Formula) and the name of the old Formula X (Formula to be replaced).



Now the old Formula X is in the Formula Master files under the same name and without the extra gallon of water. The system increments the version number to 0007 because a change has occurred.

Note: The New Formula v. 0001 no longer exists. Basically, New Formula v. 0001 was renamed to Formula X v. 0007.

Figure 6-13: Formula Solution

Performing a Formula Replacement

Remember, formula replacement takes the contents of an existing formula and places them into another formula.

Use the menu path below.

- ▶ *Formula Archival/Audit*
 - ▼ *Replace Formula [RF]*

11/20/02 13:58:20 Replace Formula MMGRFM MMDRFM

Transferred Formula

Company	_____	+
Warehouse	_____	+
Formula	NEWTRF	+
FBE Code	_____	+

F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys

Figure 6-14: Replace Formula – Transferred Formula screen

The data in the formula you specify on this screen ~~data in the *Transferred Formula* field~~ replaces the formula data in the formula you specify on the next screen.

Note: The system does not replace the values in the *Seasonal*, *Effective From Date*, and *Effective Through Date* fields. These values are retained for the formula you specify on the next screen.

Company, Warehouse

Specify the company and warehouse that identifies the instance of the formula you want to use.

Formula

Type the formula containing the data you want to keep.

FBE Code

Specify the FBE code value that identifies the instance of the formula you want to use.

11/20/02	14:18:34	Replace Formula	MMGRFM	MMDRFM
Transferred Formula		Archived Formula		
Company :		Company :	DER	
Warehouse :		Warehouse :	WH1	
Formula :	NEWTRF	SCHFBETRANSFER		
FBE Code :		FBE Code :	WIN	
Formula to be replaced				
Company :		DER	+	
Warehouse :		WH1	+	
Formula :		SCHFBEREPLACE5	+	
FBE Code :			+	
Provide additional information about the resulting, replaced Formula				
Set Status to be Active :		Y	(Y=Yes, N=No)	
Reset MSDS Print flag :		Y	(Y=Yes, N=No)	
Before replacing,				
Archive :		Y	(Y=Yes, N=No)	
Create an Audit Record :		Y	(Y=Yes, N=No)	
F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys				

Figure 6-15: Replace Formula – Formula to be replaced screen

Archived Formula

When you use a previously archived formula instance to replace the contents of a formula, the system displays the *FBE Code* of that previously archived formula. If you have implemented formula by location, the system also displays the *Company* and *Warehouse* for that formula instance.

Formula

Type the formula whose contents you are replacing. The formula ID of the formula you are replacing remains as the formula’s identifier.

Note: The system retains the values in the *Seasonal*, *Effective From Date*, and *Effective Through Date* fields for the formula instance you specify on this screen. These values are not replaced.

FBE Code

Specify the FBE code value that identifies the instance of the formula whose contents you want to replace.

Set Status to be Active

You can make the resulting formula active by typing **Y**. Type **N** in this field if you want the formula to be in test status.

Reset MSDS Print Flag

You can also reset the Material Safety Data Sheet print flag by typing **Y**. This signals Infinium RM to generate a new MSDS when you sell a product using this formula, since the ingredients have changed.

Before Replacing, Archive

Create an Audit Record

At this point you can archive the formula you are replacing and create an audit record on the replacement by typing **Y** in both the *Archive* and *Create an Audit Record* fields. Formula archival and audit notes are subject to Control file parameters.

After the replacement is complete, there is no longer a formula in the Formula Master files with the same identifier as the formula you specified as the Transferred Formula.

Note: The transferred formula cannot be an ingredient in any other formula. Additionally, there cannot be any active inventory for this formula.

Formula by Location

If you have implemented formula by location, you cannot specify an entity formula in the Transferred Formula section if lower level formula instances exist for that formula ID.

If you specify an entity formula in the Formula to be Replaced section and lower level formula instances exist for the same formula ID, the system displays a warning message to alert you that formulas exist that are lower in the formula resolution hierarchy and may need to be updated. Press [F21] to override the message and continue.

When you use a previously archived formula instance to replace the contents of a formula, the system displays the *Company*, *Warehouse* and *FBE Code* of that previously archived formula.

Notes

Part 7

Working with Quality Control Test Types and Templates

7

The part consists of the following topics:

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Creating and Maintaining Quality Control Test Types	7-6
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Overview of Material, Product, and Formula Quality Control

The *Quality Control* options in Infinium PF allow you to monitor quality for materials, products, and/or formulas using test types and templates.

You must create test types and templates prior to using the *Quality Control* options in Infinium PF.

The information in the table below summarizes the steps you follow to perform material and product quality control. Details regarding these steps are in this and the remaining parts of this guide.

Formula quality control follows the same steps and uses the same systems and menu options as materials and products, up to the point where you enter sample or actual test results. Then, for formula quality control, use Infinium MC options to enter the actual quality control data after you produce batches.

Refer to the *Infinium Manufacturing Control Guide to Setup and Processing* for an extensive discussion of formula quality control.

The first column in the table indicates the order in which to perform the procedure. The second column lists the normal quality control procedures. The third column lists the system and menu options you use to perform the procedure. The fourth column directs you to the appropriate part in this guide that discusses the procedure.

Material and Product Quality Control

Step	Procedure	System/Menu Options	Part
1	Define the quality checks appropriate for your materials and products.	N/A	N/A
2	Create a quality control test type.	Infinium PF, <i>Code Files Maintenance, Work with QC Test Type</i>	Working with Quality Control Test Types and Templates
3	Create a quality control template.	Infinium PF, <i>Code Files Maintenance, Work with QC Template</i>	

Material and Product Quality Control

Step	Procedure	System/Menu Options	Part
4	Assign the test type and template to materials or products.	Infinium PF or Infinium CA, <i>Raw Material/Resource Management, Work with Raw Materials/Resource or Product Management, Work with Products</i>	
5	Assign target values to the template.	Infinium PF, <i>Quality Control, Work with Material Target Value</i>	Entering Target Values
6	Enter sample and/or actual test results for materials or products.	Infinium PF, <i>Quality Control, Work with Samples/Actuals</i>	Entering Actual Test Results/Material Retesting
7	Perform material retesting on retest items.	Infinium PF, <i>Quality Control, Work with Material Retesting</i>	
8	Periodically run the Retest or Expire report.	Infinium PF, <i>Quality Control, Print Retest/Expire Report</i>	Printing Quality Controls Reports
9	Periodically purge statistical process control data.	Infinium PF, <i>Code Files Maintenance, Purge Statistical Proc. Control</i>	Working with Setup Files and Purges

Objectives

After you complete this part, you should be able to:

- Create and modify quality control test types and templates
- Assign quality control test types to materials, products, and formulas
- Print quality control templates

Understanding Quality Control Test Types and Templates

Before using the *Quality Control* options, you must determine the quality checks you want to perform on your materials, products, and formulas. Once you have decided upon these quality checks, you must do the following:

- 1 Create one quality control test type per group of materials, products, or formulas. A quality control test type is a broad test identifier for a group of tests.
- 2 Create a template for each test type. A template consists of the group of checks you want the system to perform.
- 3 Assign the test type and template to the appropriate materials, products, or formulas.

For example, you decide to test a material called Blue Aqua w/Primer in strainer GAF and a material called Gray Aqua in strainer Vorti-siv. Your test types might be GAF and SIV. Within these broad test types, you might want to test for more specific components, such as yield, viscosity, grind, weight per gallon, gloss, and reduction. These specific tests are what you define in creating the template.

Keep in mind that while two different templates can have the same components, you can have only one template per test type.

The Quality Control Test Types diagram in Figure 7-1 shows this example in more detail.

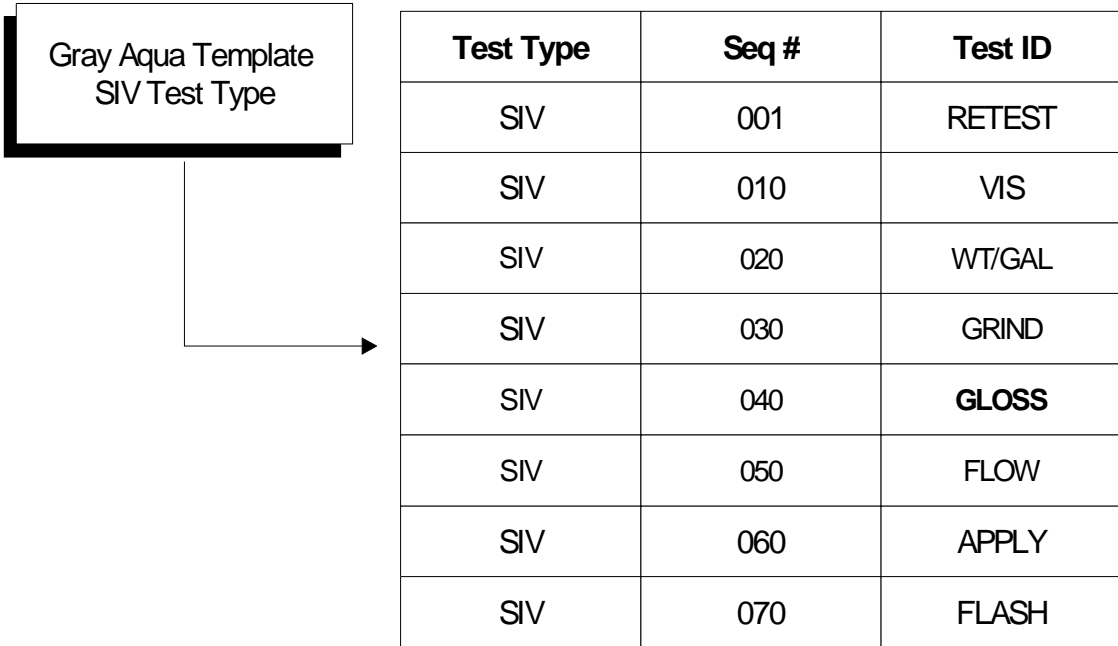
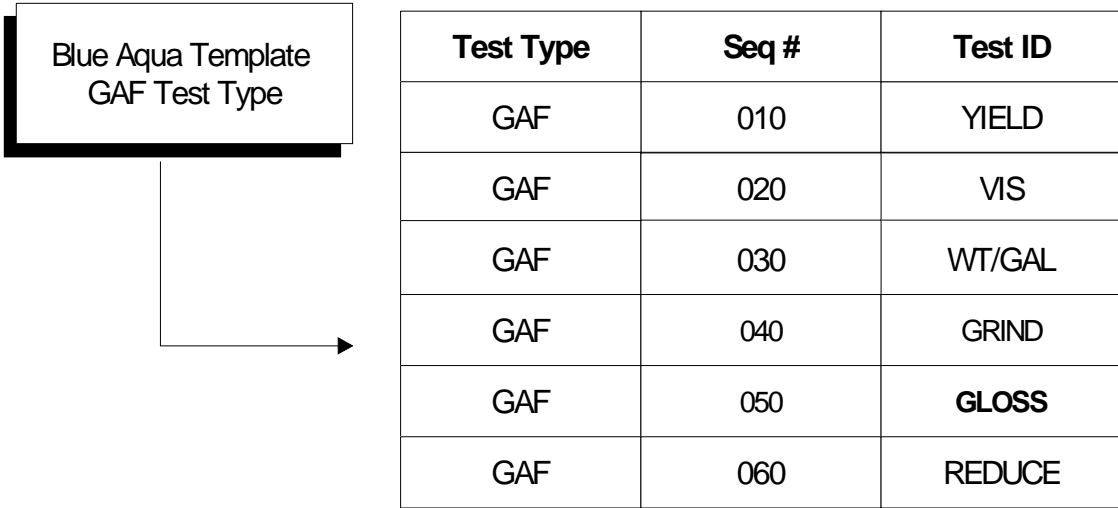


Figure 7-1: Quality Control Test Types

Creating and Maintaining Quality Control Test Types

You must create Quality Control Test Type codes before you can use them to identify quality control templates and the tests they comprise. In general, the test type identifies a group of raw materials, purchased products, or formulas, where each item in the group is subject to the same quality control checks.

Use the menu path below.

- ▶ *Code Files Maintenance*
 - ▼ *Work with QC Test Type [WWQCTT]*

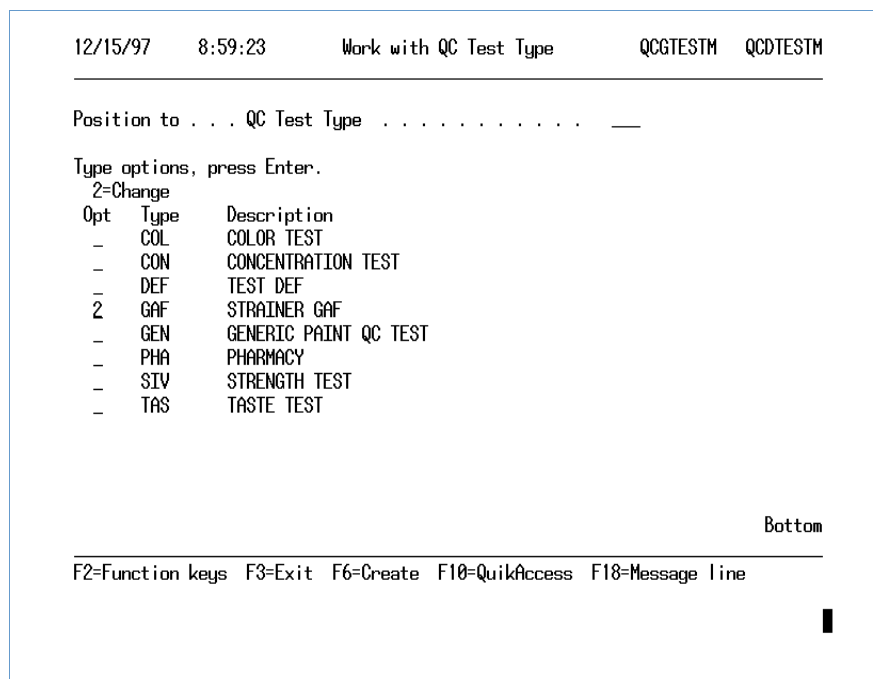


Figure 7-2: Work with QC Test Type selection screen

To create a test type, type an identifier in the *QC Test Type* field and press [F6]. To modify an existing record, type **2** beside it and press [Enter].

QC Test Type Basic Information

```
12/15/97    9:00:37    Work with QC Test Type    QCGTESTM    QCDTESTM

-----

QC Test Type . . . . . : GAF
Description . . . . . : STRAINER GAF
Batch Ticket Type . . . . . : 0
Effective Start Date . . . . . :
Effective End Date . . . . . :
Status Code . . . . . : 1    1=Active, 2=Obsolete

Created by . . . . . : AM2000
Date of Creation . . . . . : 07/16/1997

Last Modified by . . . . . :
Date of Last Modification . . . . . :

-----

F2=Function keys  F3=Exit  F10=QuikAccess  F12=Cancel  F24=More keys
```

Figure 7-3: Work with QC Test Type screen

Use this screen to define general descriptive information to a QC test type.

Description

Complete the *Description* field if you want to summarize the test type.

Batch Ticket Type

The system uses the *Batch Ticket Type* field with formula quality control only. If your company uses more than one type of batch ticket, type the 2-character code that identifies the batch ticket on which you want the quality control information to print.

In all forms, the printing of certain information, including the location on the form, is your responsibility. Review the standard batch ticket format to determine whether or not the information is included and in the right position. If not, modify the print program to meet your needs.

Created by, Date of Creation

You can override the *Created by* and *Date of Creation* field default values, which the system bases on your user sign-on.

Effectivity Start Date, Effectivity End Date

These optional fields are for information only.

Status Code

If you are modifying an existing active test type, the *Status Code* field defaults to **1**. Type **2** to make this test type obsolete. Type **3** or press [F22] twice to delete this test type from the system. The system displays a message that you cannot delete a test type if it is assigned to a material, product, or formula.

You cannot change the *Created by*, *Date of Creation*, *Modified by*, and *Date of Modification* field values.

Press [Enter] to save your entries.

Creating and Maintaining Quality Control Templates

After you define the test type, you must create the template. The template defines the group of tests to be run for the materials, products, or formulas to which you assign the quality control test type.

Use the menu path below.

- ▶ *Code Files Maintenance*
 - ▼ *Work with QC Test Template [WWQCT]*

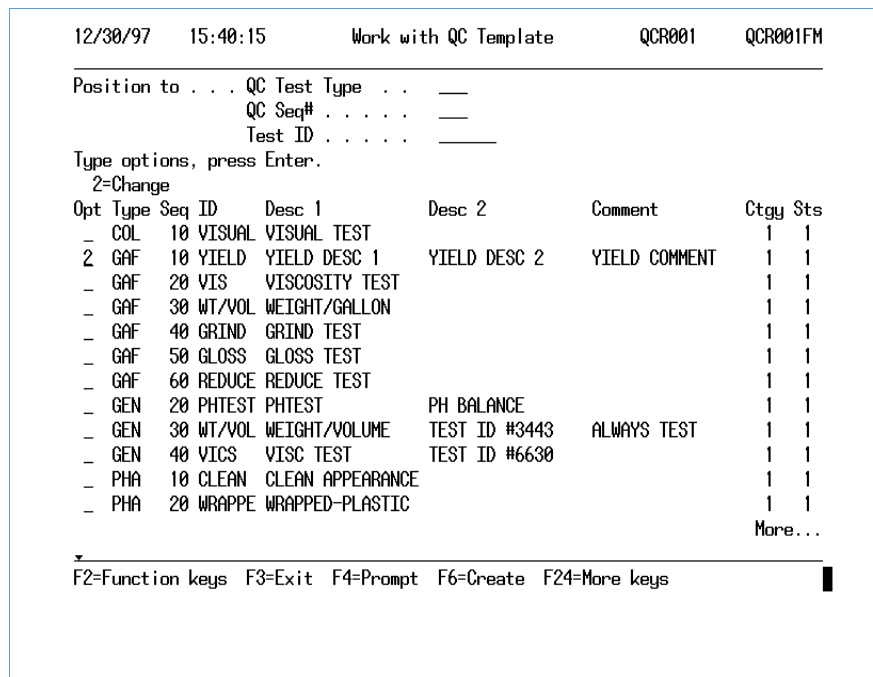


Figure 7-4: Work with QC Template selection screen

To create the quality control template, complete the *QC Test Type*, *QC Seq#*, and *QC Test ID* fields. The unique combination of these three fields makes up the identifier for this quality control record. You cannot repeat a combination of these three values in a test type. To edit an existing template, type **2** beside it and press [Enter].

You can have two identical test ID's in one template, but they must have different sequence numbers. For example, if you wanted to test the yield at the beginning of the testing cycle and then again at the end, you might define the **YIELD** test ID with sequence numbers of **010** and **080**.

If the template you are creating has several components, you will access this screen several times. For example, if your template has ten test ID's, you will access this screen ten times to create each individual record.

QC Test Type

Complete this field with the broad identifier you created for this group of materials, products, or formulas.

QC Seq#

This field designates the line number where the quality control data displays on the template, where it prints on the batch ticket, and in which order the system performs the tests.

Assign sequence numbers in increments of at least ten to make it easier to insert additional tests at a later date.

The system reserves sequence numbers 001 and 002 for the retest and expire checks, respectively. When you define the retest and expire tests, leave the *QC Seq#* field blank. The system automatically assigns the sequence numbers for these tests.

QC Test ID

This field defines the type of test you are performing. Tests can represent descriptive or characteristic information.

The test ID **RETEST** identifies materials that require routine quality control to ensure their integrity. The test ID **EXPIRE** identifies materials that you must use within a specific period of time. Retest and expire tests are in the "Entering Actual Test Results/Material Retesting" part.

Press [F6] to create the template after making your entries or select an existing template and press [Enter].

12/15/97	9:02:45	Work with QC Template	QCR001	QCR001FM
<hr/>				
QC Test Type	:	GAF STRAINER GAF		
QC Seq#	:	10		
Test ID	:	YIELD		
QC Desc 1	:	YIELD_DESC 1		
QC Desc 2	:	YIELD_DESC 2		
QC Comment	:	YIELD_COMMENT		
QC Category	:	1 (1=Prt on Bat Tkt, 2=Char)		
Delete Code	:	1 (1=Active, 2=Obsolete, 3=Remove)		
New QC Seq#	:	---		
<hr/>				
F2=Function keys F3=Exit F10=QuikAccess F12=Cancel F24=More keys				

Figure 7-5: Work with QC Template screen

The *QC Test Type*, *QC Seq#*, and *QC Test ID* fields default from the previous screen.

QC Desc 1

You must complete the *QC Desc 1* field with a description of this test.

QC Desc 2, QC Comment

If you have additional information about this test, type it in the *QC Desc 2* and/or *QC Comment* fields.

QC Category

This field defaults to **1**, indicating that this information prints on the batch ticket for formulas. Remember that you must customize your forms to accept this information.

Type **2** to designate this test as characteristic or descriptive information that should not print on any form.

Delete Code

This field defaults to **1** indicating this is an active test ID. Type **2** to make this test ID obsolete, which means that you cannot assign it to any materials, products, or formulas.

Marking a test ID obsolete does not delete it from the system. To remove a test ID from the system, type **3** in the *QC Delete Code* field or press [F22] twice.

New QC Seq#

If you are changing an existing template, the *New QC Seq#* field allows you to change the position of this test ID.

Caution: Changing the order of the template does not automatically change any values associated with the template test. Values remain in the same position as when they were originally entered.

Press [Enter] to accept your entries.

Assigning Quality Control Test Types to Raw Materials

After you create a test type and template, you must assign them to the appropriate materials, products, or formulas. This section shows you how to assign a test type to a material using Infinium PF. You can also access the *Work with Raw Materials/Resource* option using the *Infinium CA Master Files* menu.

Use the menu path below.

- ▶ *Raw Material/Resource Management*
 - ▼ *Work with Raw Materials/Resource* [WWRMR]

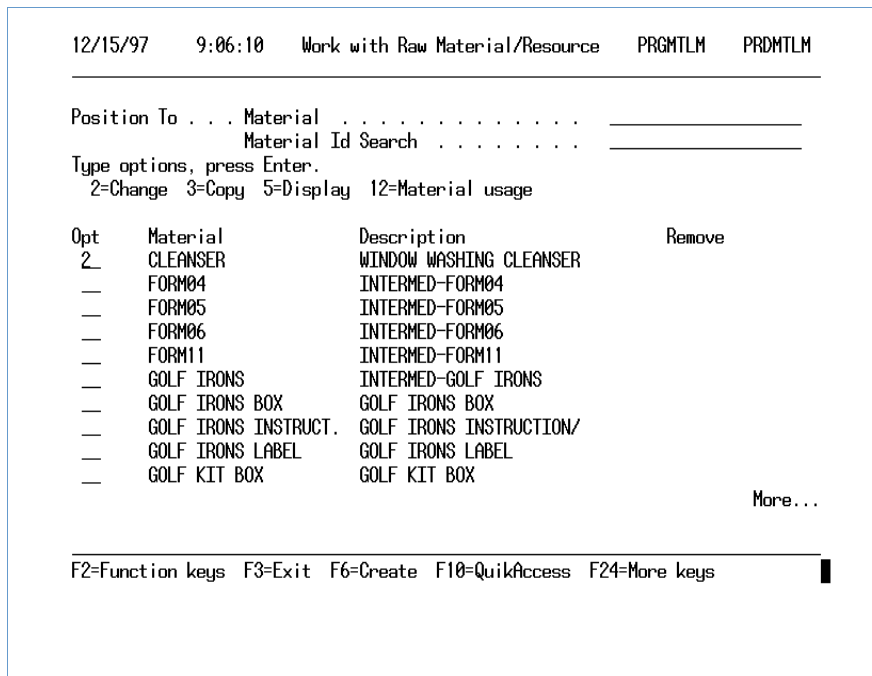


Figure 7-6: *Work with Raw Materials/Resource* selection screen

To select a material, type **2** in the *Opt* field and press [Enter].

```
12/15/97   9:06:46   Work with Raw Material/Resource   PRGMTLM   PRDMLM
-----
Material . . . . . :  CLEANSER

Select one or more of the following.  Then press Enter

Opt  Attribute
-   General Information
-   Inventory Information
-   Chemical Properties Information
-   Regulatory Information
-   Costing Information
1  Miscellaneous Information
-   Purchasing Information
-   Maintain Synonyms
-   Maintain Costs
-   Maintain Item/Warehouse Information

-----
F2=Function keys  F3=Exit  F8=Print  F9=Select All  F24=More keys
```

Figure 7-7: Raw Materials/Resource Attribute selection screen

Type any character in the *Opt* field to select the Miscellaneous Information attribute and press [Enter].

Assigning the QC Test Type to a Raw Material

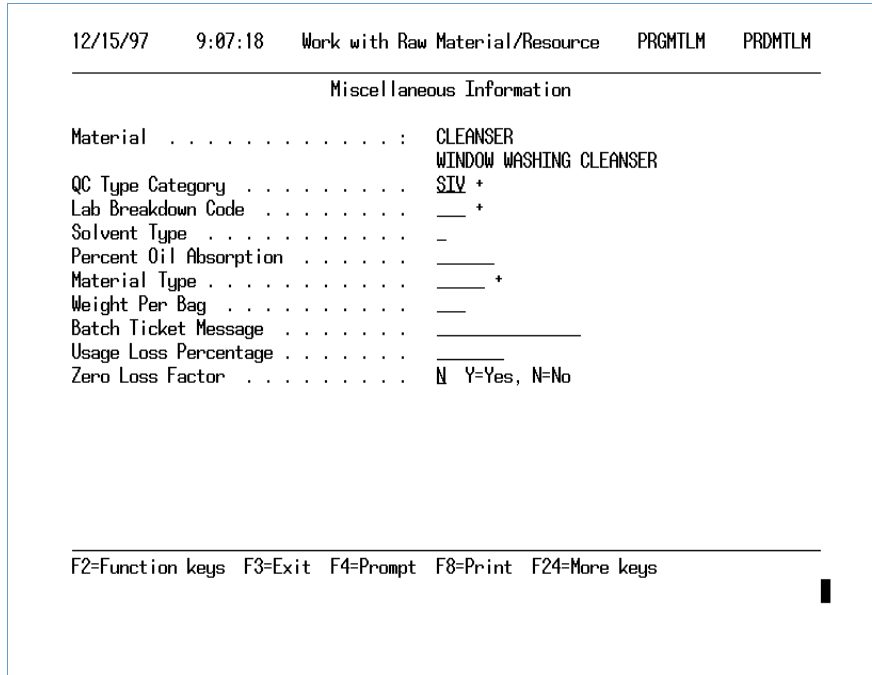


Figure 7-8: Miscellaneous Information Attribute screen

Type the test type you want to assign to this raw material in the *QC Type Category* field.

Assigning a test type to a raw material does not restrict the use of the raw material in any way, nor does assigning a test type require that quality control tests be performed. The code that you type in the *QC Type Category* field is merely a reference to the template of tests that you may perform on this material.

Assigning Quality Control Test Types to Products

The following screens show you how to assign a test type to a product using Infinium PF. You can also access the *Work with Products* option using the Infinium CA *Master Files* menu.

Use the menu path below.

- ▶ *Product Management*
 - ▼ *Work with Products* [WWP]

```
12/15/97 9:10:40 Work with Products PRGPRDM PRDPRDM
-----
Position to . . . Product . . . . . _____ Size . . . ___ +
Product Id Search . _____
Type options, press Enter.
2=Change 3=Copy 5=Display 6=Print 12=Product usage

Opt Product Size Name Status
-- COLA 6PK ORANGE SODA (SIX PACK UNIT) Active
-- COLA 8PK ORANGE SODA (EIGHT PACK UNIT) Active
-- GOLF BAG EA GOLF BAG Active
-- GOLF IRONS EA GOLF IRONS Active
-- GOLF KIT EA GOLF KIT Active
-- GOLF WOODS EA GOLF WOODS Active
2_ PROD01 CHERRY PIE Active
-- PROD02 APPLE PIE Active
-- PROD03 KITTY LITTER Active
-- PROD04 WHITE PAINT Active
More . . .

-----
F2=Function keys F3=Exit F4=Prompt F6=Create/Update F24=More keys
```

Figure 7-9: *Work with Products* selection screen

To select a product, type **2** in the *Opt* field and press [Enter].

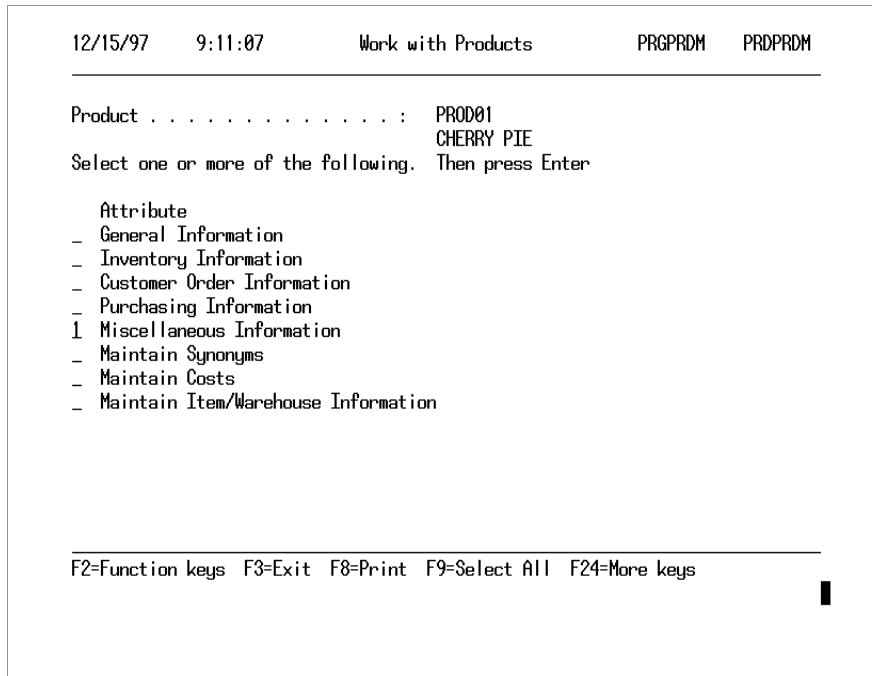


Figure 7-10: Work with Products Attribute selection screen

Type **1** in the *Opt* field to select the Miscellaneous Information attribute and press [Enter].

Assigning a QC Test Type to a Purchased Product

```

12/15/97   9:13:30           Work with Products           PRGPRDM   PRDPRDM
-----
                                Miscellaneous Information           Page 1 of 2
Product . . . . . :   PROD01
                                CHERRY PIE

Inbound MSDS Required . . . . . N Y=Yes, N=No
SARA Components Tracked . . . . . N Y=Yes, N=No
Inbound MSDS Number . . . . . _____

Product Report Type . . . . . ____ +
Product Type . . . . . ____ +
Inventory Class . . . . . ____ +
Sales Reference . . . . . _____
Alpha Search Code . . . . . _____
Private Label Code . . . . . ____ +
Product Label Code . . . . . _____

-----
F2=Function keys  F3=Exit  F4=Prompt  F8=Print  F24=More keys

```

Figure 7-11: Miscellaneous Information screen 1

Press [Enter] to access the second Miscellaneous Information screen.

```

12/15/97   9:14:12           Work with Products           PRGPRDM   PRDPRDM
-----
                                Miscellaneous Information           Page 2 of 2
Product . . . . . :   PROD01
                                CHERRY PIE

Fixed Labor Cost per Container . . _____
Fixed Burden Cost per Container . . _____
Capital Item . . . . . 0 0=Not a capital item,
                                1=Capital item/not accrued,
                                2=Capital item/accrued

DOT Hazard Class . . . . . ____ +
DOT Packaging Group . . . . . ____
DOT Line Number . . . . . PEBTSH ____ +

QC Type Category . . . . . IAS
Process Comments . . . . . _____

Usage Loss Percentage . . . . . _____
Zero Loss Factor . . . . . N Y=Yes, N=No

-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuikAccess  F24=More keys

```

Figure 7-12: Miscellaneous Information screen 2

Type the test type you want to assign to this product in the *QC Type Category* field.

Assigning a test type to a product does not restrict the use of the product in any way, nor does assigning a test type mean that you must perform quality control tests. The code that you type in the *QC Type Category* field is merely a reference to the template of tests that may be performed on this product.

Assigning Quality Control Test Types to Formulas

In order for you to assign a test type to a formula, your system must be set up to validate quality control test types. To do this, type **Y** in the *Validate Formula QC Type Code* field in the *Work with Entity* option on the *Control Files* menu in Infinium PF.

The following screens show how to assign a test type to a formula using Infinium PF. Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Work with Formula [WWF]*

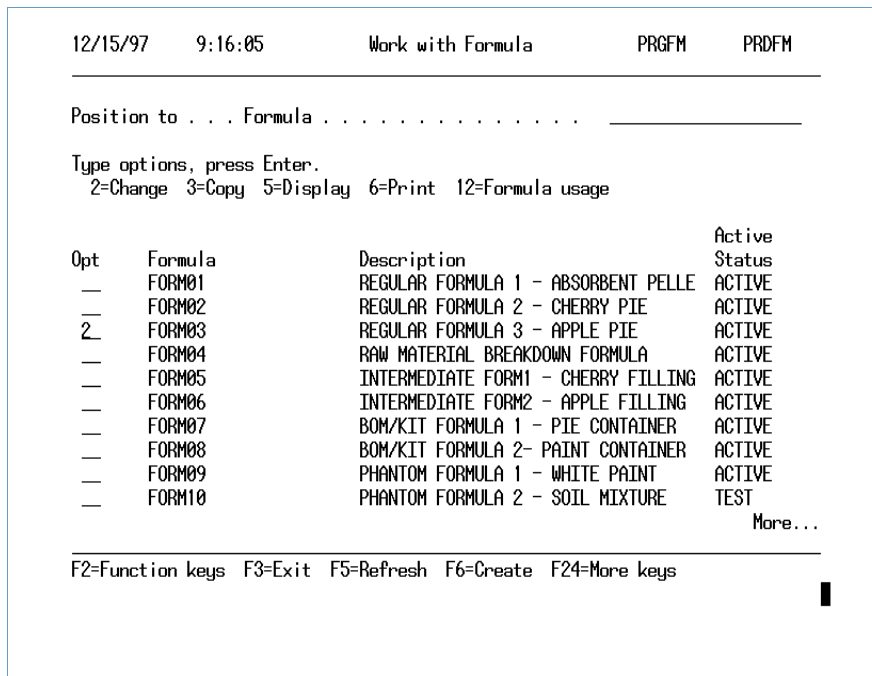


Figure 7-13: Work with Formula selection screen

To select a formula, type **2** in the *Opt* field and press [Enter].

```

12/15/97   9:16:42           Work with Formula           PRGFM   PRDFM
-----
Formula . . . . . : FORM03
                  REGULAR FORMULA 3 - APPLE PIE
Select one or more of the following. Then press Enter.

  Attribute
  1 General Information
  - Ingredients and Instructions
  - Descriptive Information
  - Rebulk Formula

  - Maintain Synonyms
  - Maintain Costs
  - Maintain Extended Descriptions
  - Maintain Notes

-----
F2=Function keys F3=Exit F6=Save F8=Print F24=More keys

```

Figure 7-14: Work with Formula Attribute selection screen

Type **1** in the *Opt* field to select the General Information attribute and press [Enter].

Assigning QC Test Types to Formulas

```

12/15/97   9:17:17           Work with Formula           PRGFM   PRDFM
-----
                                General Information           Page 1 of 2
Formula . . . . . : FORM03                               FVR# . : 2
Description . . . . . : REGULAR FORMULA 3 - APPLE PIE
-----
Active Code . . . . . 1 1-4
Class . . . . . 1 1-5
Unit of Measure . . . . . EA +
Standard Batch Unit of Measure . . EA +
Standard Batch Sizes . . . . . 100.0000
-----
Standard Process (Equipment Code) . ---
Established Yield . . . . . .0000
Established Weight/Volume . . . . . .0000
Loss Percentage . . . . . .0000
Apply Loss % at Ingredient Level . N (Y=Yes, N=No)
Clingage Loss Percentage . . . . . .0000
Rework Limit Percentage . . . . . .00
Formula QC Test Type . . . . . IAS +
-----
F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys

```

Figure 7-15: General Information screen 1

Type the test type you want to assign to this formula in the *Formula QC Test Type* field.

Assigning a test type to a formula does not restrict the use of the formula in any way, nor does assigning a test type mean that you must perform quality control tests. The code that you type in the *Formula QC Test Type* field is merely a reference to the template of tests that you may perform on this formula.

When you set your system to validate quality control test types, the *Formula QC Test Type* field becomes a required entry on this screen.

If you do not validate quality control test types, the *Formula QC Test Type* field does not display.

Printing Quality Control Templates

This option allows you to decide what information to include when you print a quality control template listing.

Use the menu path below.

- ▶ *Code Files Maintenance*
 - ▼ *Work with QC Template [WWQCT]*

QC Test Print Options

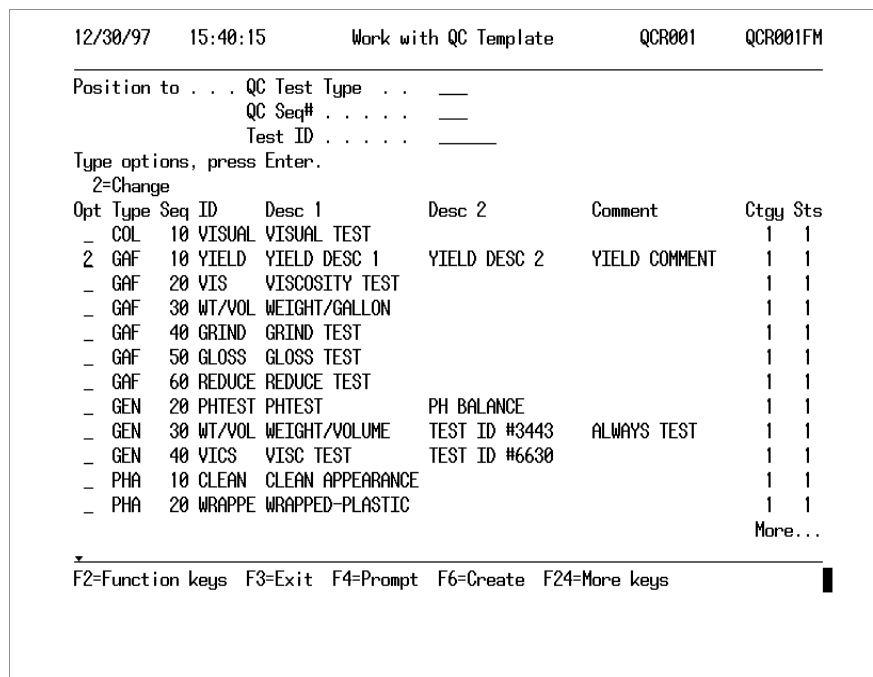


Figure 7-16: Work with QC Template selection screen

Press [F8] on this screen to access the Work with QC Template Print Options screen.

Defining Your QC Report

12/15/97	9:18:25	Work with QC Template	QCR001	QCR001FM
<hr/>				
Print Options				
Beginning QC Test Type		—		
Ending QC Test Type		—		
Beginning Sequence Number		—		
Ending Sequence Number		—		
Beginning QC Test ID		—		
Ending QC Test ID		—		
<hr/>				
F2=Function keys F3=Exit F10=QuikAccess F12=Cancel F18=Message line				
<hr/>				

Figure 7-17: Work with QC Template Print Options screen

You can generate a variety of reports based on how you complete the fields on this screen.

Leave all the fields blank to print a complete list of test types with corresponding template information.

If you complete just the beginning fields, the listing starts from that point and prints every test type that follows.

You can complete the appropriate combination of fields to limit your report information to print within a range of test types, sequence numbers, and/or test ID's.

This sample screen requests a report for the GAF test type that includes all template information. The template listing for GAF is on the next page.

QCR002
7/24/96

QCR002P
8:08:06

Q U A L I T Y C O N T R O L T E M P L A T E L I S T I N G

PAGE 1
WMM

TEST TYPE	DESCRIPTION	Q.C. ID	TEST SEQ NO.	DESCRIPTION 1	DESCRIPTION 2	COMMENT	PRINT CODE	DELETE CODE
GAF	STRAINER GAF	YIELD	010	YIELD DESC 1	YIELD DESC 2	YIELD COMMENT 1	B	A
GAF	STRAINER GAF	VIS	020	VIS DESC 1	VIS DESC 2	VIS COMMENT 1	B	A
GAF	STRAINER GAF	WT/GAL	030	WT/GAL DESC 1	WT/GAL DESC 2	WT/GAL COMMENT 1	B	A
GAF	STRAINER GAF	GRIND	040	GRIND DESC 1	GRIND DESC 2	GRIND COMMENT 1	B	A
GAF	STRAINER GAF	GLOSS	050	GLOSS DESC 1	GLOSS DESC 2	GLOSS COMMENT 1	B	A
GAF	STRAINER GAF	REDUCE	060	REDUCE DESC 1	REDUCE DESC 2	REDUCE COMMENT 1	B	A
GAF	STRAINER GAF	RVISC	070	RVISC DESC 1	RVISC DESC 2	RVISC COMMENT 1	B	A
GAF	STRAINER GAF	APPLY	080	APPLY DESC 1	APPLY DESC 2	APPLY COMMENT 1	B	A
GAF	STRAINER GAF	CURE	090	CURE DESC 1	CURE DESC 2	CURE COMMENT 1	B	A
GAF	STRAINER GAF	PH	100	PH DESC 1	PH DESC 2	PH COMMENT 1	B	A
GAF	STRAINER GAF	STD	110	STD DESC 1	STD DESC 2	STD COMMENT 1	B	A
GAF	STRAINER GAF	COLOR	120	COLOR DESC 1	COLOR DESC 2	COLOR COMMENT 1	B	A

***** END OF REPORT *****

Notes

The part consists of the following topics:

Topic	Page
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Entering and Modifying Target Values for Materials and Products	8-3
Entering and Modifying Target Values for Formulas	8-9
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Overview of Entering Target Values

Prior to performing quality control tests on your materials, products, and formulas, you can enter the values that you expect as a result of those tests. These values are called target values.

The system saves this quality control data to a file that you can use to interface with a PC-based package. If you do not use such a package, periodically purge the quality control data from this file. For more information about purging this data, see the “Working with Setup Files and Purges” part.

Objectives

After you complete this part, you should be able to enter material target values. You should also be familiar with how to:

- Enter product and formula target values
- Modify material, product, and formula target values
- Print material, product, and formula target values

Entering and Modifying Target Values for Materials and Products

Enter target values for materials and products using the *Work with Material Target Value* option.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Work with Material Target Value* [WWMTV]

Defining Material Target Values

```
12/15/97  9:25:06  Work with Material Target Value  QCGTVP  QCDTVP
-----
Company . . . . . IS1 +
Warehouse . . . . . ISW1 +
Material . . . . . HAZBAM02 _____ +
Vendor . . . . . _____ +

-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuickAccess  F18=Message line
```

Figure 8-1: *Work with Material Target Value* prompt screen

To create a material target value record, complete the *Company*, *Warehouse*, and *Material* fields. When you press [Enter], the system searches for the test type and template assigned to this material or product.

To edit an existing record, type the identifier in the *Material* field or prompt and select the material you plan to use.

To set up target values by vendor, complete the *Vendor* field. This allows you to enter separate target values for each vendor who supplies you with this material or product.

Establishing Material Target Values

This screen displays the test type and template associated with the material you selected on the Work with Material Target Value prompt screen.

```

12/15/97   9:25:44   Work with Material Target Value   QCGTVP   QCDTV
-----
Company and Warehouse . . . . . :   IS1   ISW1
Material . . . . . :   HAZRAM02
QC Test Type . . . . . :   GAF   STRAINER GAF
Vendor . . . . . :

Type options, press Enter.
  2=Change  5=Display
QC Template  QC Desc   QC Desc   QC   QC   QC   QC
Opt Description 1  Rating 1   Rating 2  Target Value  MS  Test ID  Seq
- YIELD DESC 1
- VISCOSITY TEST
- WEIGHT/GALLON
- GRIND TEST
- GLOSS TEST
  2  REDUCE TEST
                                     YIELD  10
                                     VIS     20
                                     WT/VOL  30
                                     GRIND   40
                                     GLOSS   50
                                     REDUCE   60

                                     Bottom

-----
F2=Function keys  F3=Exit  F8=Print  F10=QuikAccess  F24=More keys

```

Figure 8-2: Work with Material Target Value selection screen

To enter target values for this material, type **2** in the *Opt* field and press [Enter].

To display target value information, type **5** in the *Opt* field and press [Enter].

You can press [F8] to print this information. See the topic titled “Printing Target Values” for more details.

Material Target Value Specifics

Use this screen to define your quality control template.

```

12/15/97   9:26:37   Work with Material Target Value   QCGTVP   QCDTV
-----
Company and Warehouse . . . . . :   IS1   ISW1
Material . . . . . :   HAZRAW02
QC Test Type . . . . . :   GAF   STRAINER GAF
Sequence and Test Id . . . . . :   060   REDUCE   REDUCE TEST

-----
Desc/Rating 1 . . . . . :   TEST 1
Desc/Rating 2 . . . . . :   TEST 2
Comment 1 . . . . . :   USE MANUAL XYZ
Comment 2 . . . . . :
Measurement Standard . . . . . :
Minimum Value . . . . . :   .00000
Maximum Value . . . . . :   .00000
Target Value . . . . . :   .00000
Variance Percentage . . . . . :   .000
Status Code . . . . . :   1 (1=Active, 2=Obsolete, 3=Remove)
Effective Start Date . . . . . :
Effective End Date . . . . . :
Print on Purchase Order . . . . . :   N (Y=Yes, N=No)

-----
F2=Function keys  F3=Exit  F7=Additional Detail  F24=More keys

```

Figure 8-3: Work with Material Target Value screen

Desc/Rating 1, Desc/Rating 2

Use the *Desc/Rating 1* and *Desc/Rating 2* fields for additional descriptions of this test or for subjective ratings of the test, such as pass or fail.

Comment 1, Comment 2

Use the *Comment 1* and *Comment 2* fields for additional comments about this material or test.

Measurement Standard

This field subjectively defines the unit of measure for the target values you are entering. This measurement standard is not related to unit of measure as generally described and it does not have to be a valid unit of measure. For example, you might use PPM (parts per million) as the unit of measure for this material.

Minimum Value, Maximum Value

Type your expected target results in the *Minimum Value* and *Maximum Value* fields to define the range of acceptable results for this quality control test. The system does not require entries in these fields.

Target Value

Type the target value you expect from this test in this field. If this test is for retesting or expiration, type the number of days until this material or product should be retested or expires. Retest and Expire test IDs are discussed in the “Working with Quality Control Test Types and Templates” and “Entering Actual Test Results/Material Retesting” parts.

Variance Percentage

This field indicates the acceptable tolerance above and below the target value you establish. The system does not use this field value for any calculation.

Status Code

This field defaults to **1**, which means this test is active. Type **2** to make this information obsolete. Type **3** or press [F22] twice to delete this information from the system.

The system tracks the history of actual quality control data. When you delete tests from the template, you cannot retrieve the historical data, which remains in the system.

Effective Start Date, Effective End Date

These fields are for information only.

Print on Purchase Order

Type **Y** in this field to include the field value information from this screen on a purchase order through Infinium PM. You can include information from one, several, or all of these fields.

As with all forms, the printing of certain information, including the location on the form, is your responsibility. Review the standard purchase order format to determine whether or not the information is included and in the right position. If not, you must modify the print program to meet your needs.

Press [F13] to access User-Defined fields and [F14] to access notes for this item.

The system controls the Notes window through the system-defined code values in the Code type NTE. Infinium recommends that you do not change these code values.

Some files that have User-Defined fields do not allow you to create company specific User-Defined fields. The following is a list of files that do not allow company specific user-defined fields:

File Name	Description
RAWMATPF	Raw Material/Resource file
MANFILPF	Product file
RAWMSDPF	Hazardous Raw Material file
PHYSICPF	Hazardous Formula file
QCFORMPF	Formula Target Values file

Press [F7] to access the Additional Detail screen.

Displaying Additional Information on QC Tests

```

12/16/97  14:51:45  Work with Material Target Value  QCGTVP  QCDTV
-----
Company and Warehouse . . . . . :  IS1  ISW1
Material . . . . . :  HAZRAW02
QC Test Type . . . . . :  GAF  STRAINER GAF
Sequence and Test Id . . . . . :  010  YIELD  YIELD DESC 1
-----
Additional Detail
Desc 2 . . . . . :  YIELD DESC 2
Comment . . . . . :  YIELD COMMENT
Vendor . . . . . :
QC Category . . . . . :  B
Original Update . . . . . :
Original Update User . . . . . :  PJT
Last Update . . . . . :
Last Update User . . . . . :
-----
F2=Function keys  F3=Exit  F10=QuikAccess  F12=Cancel  F18=Message line

```

Figure 8-4: Additional Detail screen

Use this screen to display additional information on the QC test. Press [Enter] to return to the Work with Material Target Value screen.

```

12/15/97  10:29:23  Work with Material Target Value  QCGTVP  QCDTV
-----
Company and Warehouse . . . . . :  IS1  ISW1
Material . . . . . :  HAZRAW02
QC Test Type . . . . . :  GAF  STRAINER GAF
Vendor . . . . . :
-----
Type options, press Enter.
  2=Change  5=Display
QC Template  QC Desc  QC Desc  QC  QC  QC  QC
Opt Description 1  Rating 1  Rating 2  Target Value  MS  Test ID  Seq
-  YIELD DESC 1
-  VISCOSITY TEST
-  WEIGHT/GALLON
-  GRIND TEST
-  GLOSS TEST
-  REDUCE TEST  TEST 1  TEST 2
                                           GLOSS  50
                                           REDUCE  60
-----
Bottom
-----
F2=Function keys  F3=Exit  F8=Print  F10=QuikAccess  F24=More keys

```

Figure 8-5: Work with Material Target Value selection screen

When you press [Enter] on the Material Target Value screen, this screen redisplay showing the target value information you entered.

Entering and Modifying Target Values for Formulas

Enter target values for formulas using the *Work with Formula Target Values* option.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Work with Formula Target Values* [WWFTV]

Defining Formula Target Values

```
11/20/02  13:30:56  Work with Formula Target Values  QCGFTV  QCDFTV
-----
Company . . . . . _____ +
Warehouse . . . . . _____ +
Formula . . . . . FORM01 _____ +
FBE Code . . . . . _____ +
QC Company . . . . . _____ +
QC Customer . . . . . _____ +

-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuikAccess  F18=Message line
```

Figure 8-6: *Work with Formula Target Values* prompt screen

Formula

Specify the formula for which you want to define target values.

Company

Warehouse

If you have implemented FBL, you can also enter the *Company* and *Warehouse* to identify the instance of the formula.

FBE Code

Specify the FBE code value that identifies the instance of the formula you want to use.

QC Company

QC Customer

To set up formula target values by company and customer, complete the *QC Company* and *QC Customer* fields. This allows you to enter separate target values for each company/customer combination.

If you are creating target values for an FBL formula specific to a customer, the formula's *Company* and the *QC Company* must be the same.

If you have accessed this screen by pressing [F14] on the Work with Formula Descriptions screen, which is discussed in the "Working with Formulas" part, the *Formula*, *Company*, *Warehouse* and *FBE Code* fields are display only.

Establishing Tests for Formula Target Values

```
12/15/97  10:31:14  Work with Formula Target Values  QCGFTV  QCDFTV
-----
Formula . . . . . : FORM01
                  REGULAR FORMULA 1 - ABSORBENT PELLETS
Formula QC Test Type . . . . . : GAF      STRAINER GAF
Company . . . . . :
Customer . . . . . :
Type options, press Enter.
  2=Change  5=Display
  QC Template  QC Desc   QC Desc   QC      QC      QC      QC
Opt Description 1 Rating 1   Rating 2 Target Value MS Test ID Seq
- YIELD DESC 1
- VISCOSITY TEST
- WEIGHT/GALLON
- GRIND TEST
2 GLOSS TEST
- REDUCE TEST
                                     GLOSS 50
                                     REDUCE 60

                                     Bottom
-----
F2=Function keys  F3=Exit  F8=Print  F10=QuikAccess  F24=More keys
```

Figure 8-7: Work with Formula Target Values selection screen

This screen displays the test type and template associated with the formula you selected on the Work with Formula Target Values prompt screen.

Although you would not normally use the same test type for both a material and a formula, keep in mind that material target values assigned to a test type do not display if you use the same test type for a formula.

To enter or modify target values for this formula, type **2** in the *Opt* field and press [Enter].

To display target value information, type **5** in the *Opt* field and press [Enter].

Press [F8] to print this information. See the section titled “Printing Target Values” for more details. You can also print this information using the *Print Formula Target Values* option.

Defining Formula Target Value Specifics

```

12/15/97  10:31:44  Work with Formula Target Values  QCGFTV  QCDFTV
-----
Formula          FORM01
Company
QC Test Type     GAF   STRAINER GAF
Test ID . . . . . GLOSS  GLOSS TEST
Sequence . . . . . 050
-----
Desc/Rating 1 . . . . . TEST ONE
Desc/Rating 2 . . . . . TEST TWO
Comment 1 . . . . .
Comment 2 . . . . .
Measurement Standard . . . . .
Minimum Value . . . . . .0000
Maximum Value . . . . . .0000
Target Value . . . . . .0000
Variance Percentage . . . . . .000
Status Code . . . . . 1 (1=Active, 2=Obsolete, 3=Remove)
Effective Start Date . . . . .
Effective End Date . . . . .
Print on Batch Ticket . . . . . N (Y=Yes, N=No)
-----
F2=Function keys  F3=Exit  F7=Additional detail  F24=More keys

```

Figure 8-8: Work with Formula Target Values screen

Use this screen to define target values for formulas.

Desc/Rating 1, Desc/Rating 2

Use the *Desc/Rating 1* and *Desc/Rating 2* fields for additional descriptions of this test or for subjective ratings of the test, such as pass or fail.

Comment 1, Comment 2

Use the *Comment 1* and *Comment 2* fields for additional comments about this material or test.

Measurement Standard

This field subjectively defines the unit of measure for the target values you are entering. This measurement standard is not related to unit of measure as generally

described and it does not have to be a valid unit of measure. For example, you might use PPG (parts per gallon) as the unit of measure for this formula.

Minimum Value, Maximum Value

Type your expected target results in the *Minimum Value* and *Maximum Value* fields to define the range of acceptable results for this quality control test. These are not required entries.

Target Value

Type the target value you expect from this test in this field.

Variance Percentage

This field indicates the acceptable tolerance above and below the target value you establish. The system does not use this field value for any calculation.

Status Code

This field defaults to **1**, which means this test is active. Type **2** to make this information obsolete. Type **3** or press [F22] twice to delete this information from the system.

Effective Start Date, Effective End Date

These fields are for information only.

Print on Batch Ticket

Type **Y** to include the field value information from this screen on a batch ticket. You can include information from one, several, or all of these fields.

The printing of certain information, including the location on the form, is your responsibility. Review the standard batch ticket format to determine whether or not the information is included and in the right position. If not, you have to modify the print program to meet your needs.

Press [F13] to access user defined fields for this option, [F14] to create item notes, and [F7] to access the Additional Details screen.

The Notes window is controlled by system-defined code values in the Code type NTE. Infinium recommends that you do not change these code values.

The system tracks the history of actual quality control data. When you delete tests from the template, you cannot retrieve the historical data, which remains in the system.

Displaying Additional Information on QC Tests

```

12/15/97  10:33:15  Work with Formula Target Values  QCGFTV  QCDFTV
-----
Formula          FORM01
Company
QC Test Type     GAF  STRAINER GAF
Test ID . . . . . GLOSS  GLOSS TEST
Sequence . . . . . 050
-----
Additional Detail
Desc 2 . . . . . :
Comment . . . . . :
Customer . . . . . :
QC Category. . . . . : B
Original Update . . . . . :
Original Update User . . . . . : PJT
Last Update . . . . . :
Last Update User . . . . . :
-----
F2=Function keys  F3=Exit  F10=QuikAccess  F12=Cancel  F18=Message line

```

Figure 8-9: Additional Details screen

Use this screen to display additional information on the QC test. Press [Enter] to return to the Work with Formula Target Values screen.

```

12/15/97  10:33:53  Work with Formula Target Values  QCGFTV  QCDFTV
-----
Formula . . . . . : FORM01
REGULAR FORMULA 1 - ABSORBENT PELLETS
Formula QC Test Type . . . . . : GAF  STRAINER GAF
Company . . . . . :
Customer . . . . . :
Type options, press Enter.
  2=Change  5=Display
QC Template  QC Desc  QC Desc  QC  QC  QC  QC
Opt Description 1  Rating 1  Rating 2  Target Value  MS  Test ID  Seq
- YIELD DESC 1
- VISCOSITY TEST
- WEIGHT/GALLON
- GRIND TEST
- GLOSS TEST  TEST ONE  TEST TWO
- REDUCE TEST
-----
Bottom
-----
F2=Function keys  F3=Exit  F8=Print  F10=QuikAccess  F24=More keys

```

Figure 8-10: Work with Formula Target Values selection screen

When you press [Enter] on the Work with Formula Target Values screen, this screen redisplay showing the target value information.

Printing Material and Product Target Values

You can customize how material and product target values print and what information is included on the report.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Work with Material Target Value [WWMTV]*

```
12/15/97  10:35:07  Work with Material Target Value  QCGTVP  QCDTVP
-----
Company . . . . .  IS1  +
Warehouse . . . . .  ISW1  +
Material . . . . .  HAZRAW02  _____  +
Vendor . . . . .  _____  +

-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuickAccess  F18=Message line
```

Figure 8-11: Work with Material Target Value prompt screen

Complete the *Company*, *Warehouse*, and *Material* fields.

To print target values by vendor, complete the *Vendor* field.

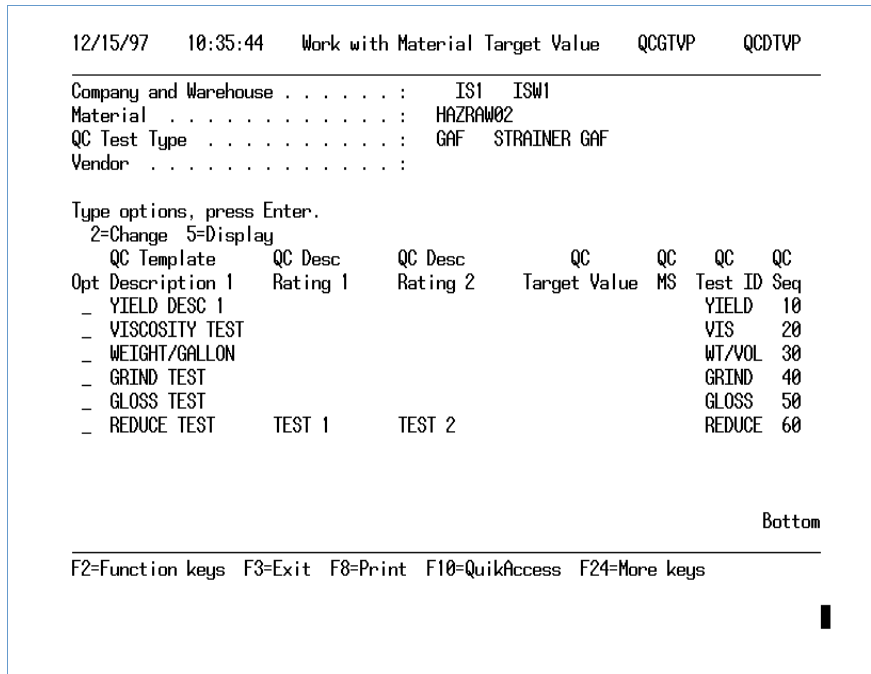


Figure 8-12: Work with Material Target Value selection screen

Press [F8] to display the Work with Material Target Value Print Options screen.

Do not type any character in the *Opt* field to print the target value listing.

Print Selection Criteria

```
12/15/97  10:36:16  Work with Material Target Value  QCGTVP  QC DTVP
-----
Vendor . . . . . :
Beginning Company . . . . .  IS1  +
Beginning Warehouse . . . . .  ISW1  +
Ending Company . . . . .  _____  +
Ending Warehouse . . . . .  _____  +
Beginning Material . . . . .  HAZBRAW02  _____  +
Ending Material . . . . .  HAZBRAW04  _____  +

-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuikAccess  F24=More keys
```

Figure 8-13: Work with Material Target Value Print Options screen

You can generate a variety of reports based on how you complete the fields on this screen. The system defaults the beginning company, warehouse, and material field values. You can override any of the default values to customize the report.

Leave all the fields blank to print a complete list of all materials with target values. If you have not entered values for a test ID, that test does not print on the list.

You can complete the appropriate combination of fields to qualify your report information. For example, to print a range of materials, type a beginning and ending material in those fields. Press [F8] to print the report.

An example of a QC Material Target Value Listing is on the following page.

QCGTVR QCTTVR
7/24/96 11:07:55

Q.C. MATERIAL TARGET VALUE LISTING

PAGE 1
WMM

VENDOR.....: *ALL

CO/WHS/MT/SZ/VND	QC	SEQ	DESC 1	DESC 2	U/M	MIN. VALUE	MAX. VALUE	TARGET VALUE	VARIANCE (+/-)	DESC. ONE	DESC. TWO	COMMENT ONE	COMMENT TWO	PO	PRT LAST UPDATE	ORIGINAL UPDATE	ST
1	11		GRAY AQUA W/PRIMER														
			GAF YIELD 10 YIELD DESC 1	YIELD DESC 2						SET OVERNITE D/R 2		COMMENT 1	COMMENT 2	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF VIS 20 VIS DESC 1	VIS DESC 2				30.00000		#Z ZAHN GARD ZAHN GARD		ZAHN GARD	ZAHN GARD	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF WT/GAL 30 WT/GAL DESC 1	WT/GAL DESC 2				9.71000		RATING 1 RATING 2		COMMENT 1	COMMENT 2	N	4/11/96	4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF GRIND 40 GRIND DESC 1	GRIND DESC 2		5.00000				N.S. N.S.		N.S.	N.S.	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF GLOSS 50 GLOSS DESC 1	GLOSS DESC 2				12.50000		RATING 1 RATING 2		COMMENT 1	COMMENT 2	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF REDUCE 60 REDUCE DESC 1	REDUCE DESC 2						25/30 V-250 25/30 V-250		25/30 V-250	25/30 V-250	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF RVISC 70 RVISC DESC 1	RVISC DESC 2		25.00000	30.00000			RATING 1 RATING 2		COMMENT 1	COMMENT 2	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF APPLY 80 APPLY DESC 1	APPLY DESC 2						DIP DIP		DIP	DIP	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF CURE 90 CURE DESC 1	CURE DESC 2						AIR DRY AIR DRY		AIR DRY	AIR DRY	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF PH 100 PH DESC 1	PH DESC 2				8.50000		RATING 1 RATING 2		COMMENT 1	COMMENT 2	N		4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF STD 110 STD DESC 1	STD DESC 2						LB LB		LB	LB	N	4/11/96	4/11/96	A
1	11		BLUE AQUA W/PRIMER														
			GAF COLOR 120 COLOR DESC 1	COLOR DESC 2						HARSHAW HARSHAW		HARSHAW	HARSHAW	N		4/11/96	A

***** END OF REPORT *****

Printing Formula Target Values

You can customize how formula target values print and what information is included on the report.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Work with Formula Target Value [WWFTV]*

Print Selections for Formulas

```
12/15/97  10:37:04  Work with Formula Target Values  QCGFTV  QCDFTV
-----
Formula . . . . . FORM01 _____ +
Company . . . . . _____ +
Customer . . . . . _____ +

-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuikAccess  F18=Message line
```

Figure 8-14: Work with Formula Target Values prompt screen

Complete the *Formula* field.

To print target values by company and/or customer, complete those fields as well.

```

12/15/97  10:37:35  Work with Formula Target Values  QCGFTV  QCDFTV
-----
Formula . . . . . : FORM01
                    REGULAR FORMULA 1 - ABSORBENT PELLETS
Formula QC Test Type . . . . . : GAF      STRAINER GAF
Company . . . . . :
Customer . . . . . :
Type options, press Enter.
  2=Change  5=Display
QC Template  QC Desc  QC Desc      QC      QC      QC      QC
Opt Description 1  Rating 1  Rating 2  Target Value  MS  Test ID  Seq
- YIELD DESC 1
- VISCOSITY TEST
- WEIGHT/GALLON
- GRIND TEST
- GLOSS TEST      TEST ONE  TEST TWO
- REDUCE TEST
                    GLOSS  50
                    REDUCE  60

Bottom
-----
F2=Function keys  F3=Exit  F8=Print  F10=QuikAccess  F24=More keys

```

Figure 8-15: Work with Formula Target Values selection screen

Press [F8] to print the QC Formula Target Value Listing. A sample report follows.

COMPANY:		CUSTOMER:										
FORMULA	TYP	IDENT	SEQ	UM	MIN VALUE	TARGET VALUE	DSC/RATING 1	COMMENT 1	PRT	ORIGINAL	LST UPDT	DEL
					MAX VALUE	VARIANCE	DSC/RATING 2	COMMENT 2				
PROCESS MFG FORMULA	SIV	RETEST	1			60.00000	DAYS	DAYS	N		4/11/96	A
							DAYS	DAYS				
	VIS		10		35.00000		#3 ZAHN GARD	#3 ZAHN GARD	N		4/11/96	A
					50.00000		#3 ZAHN GARD	#3 ZAHN GARD				
	WT/GAL		20			8.65000	RATING 1	COMMENT 1	N		4/11/96	A
							RATING 2	COMMENT 2				
	GRIND		30			7.50000	RATING 1	COMMENT 1	N		4/11/96	A
							RATING 2	COMMENT 2				
	GLOSS		40		90.00000		RATING 1	COMMENT 1	N		4/11/96	A
							RATING 2	COMMENT 2				
	FLOW		50			6.00000	RATING 1	COMMENT 1	N	4/11/96	4/11/96	A
							RATING 2	COMMENT 2				
	APPLY		60				SPRAY	SPRAY	N		4/11/96	A
							SPRAY	SPRAY				
	FLASH		70				5 MINUTES	5 MINUTES	N		4/11/96	A
							5 MINUTES	5 MINUTES				
	CURE		80				5 MIN. 240	5 MIN. 240	N		4/11/96	A
							5 MIN. 240	5 MIN. 240				
	PENCIL		90				B+	B+	N		4/11/96	A
							B+	B+				
	PH		100		8.50000		RATING 1	COMMENT 1	N		4/11/96	A
					8.80000		RATING 2	COMMENT 2				
	STD		110				LB	LB	N		4/11/96	A
							LB	LB				
	COLOR		120				HARSHAW	HARSHAW	N		4/11/96	A
							HARSHAW	HARSHAW				

***** END OF REPORT *****

Notes

Part 9

Entering Actual Test Results and Material Retesting

9

The part consists of the following topics:

Topic	Page
Overview of Entering Actual Test Results and Material Retesting	9-2
Entering Actual Results for Materials and Products	9-3
Retesting Materials and Products	9-8

Overview of Entering Actual Test Results and Material Retesting

This part discusses the process of entering actual quality control test results for purchased raw materials and products, and retesting of materials and products.

The normal process of handling material quality control begins with Infinium IC or Infinium PF and Infinium PM. You can mark a material's inventory record with an inspection flag to send a material obtained through Infinium PM to an inspection inventory type, rather than on-hand inventory. You can also assign a storage index to this material.

You can perform tests on materials in the inspection inventory type and then record the results using the *Work with Samples/Actuals* option. After making your entries, transfer the materials from inspection inventory to on-hand inventory through Infinium IC.

Remember that for formula quality control, use Infinium MC options to enter the actual quality control data after you produce batches. Refer to the *Infinium Manufacturing Control Guide to Setup and Processing* for an extensive discussion of formula quality control.

Objectives

After you complete this part, you should be able to:

- Enter actual test results for materials and products
- Retest materials and products

Entering Actual Results for Materials and Products

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Work with Samples/Actuals* [WWSA]

Samples/Actuals

```
12/16/97    9:02:31    Work with Samples/Actuals    QCGAVM    QCDAVM
-----
Position to . . . Co and Whse . . . .  _IS1 +  ISW1 +
                Material . . . . .  _____ +
                Inventory Type . .  _ +
                Storage Index . . .  _____ +
                Close Seq Number .  _ +

Select one or more of the following. Then press Enter.
   Co Whse Material      Size <----- Storage Index ----->
1  IS1 ISW1 HAZRAM01
   Inv Type . . : AA  CS-RT Number : 00100
-  IS1 ISW1 RAW07
   Inv Type . . : AA  CS-RT Number : 00100

                                                                 Bottom

-----
F2=Function keys  F3=Exit  F4=Prompt  F6=Create  F24=More keys
```

Figure 9-1: Work with Samples/Actuals prompt screen

Use this screen to identify a new quality control actual record by completing the top of the screen and pressing [F6], or modify an existing record by selecting it and pressing [Enter].

Press [F9] to default in pre-inventory information for your quality control inventory type and storage location. Define this information in Infinium PF *Control Files*.

The *Company* and *Warehouse* field values default from the *Work with User/Warehouse File* option in Infinium CA, based on your user ID. You can

override these required fields if your user profile is set to use multiple companies and warehouses.

Material

Complete this field with the material or product for which you want to enter actual results. Press [F4] to prompt for a list of materials.

The system displays a message if you type a raw material that is cross-referenced to a product. The system then automatically enters the correct product identifier.

Inventory Type

Type a valid inventory type in this field to classify the status of this item or press [F4] to prompt for a list of inventory types.

The three fields under the *Material* field are actually storage index fields that you name using the *Infinium CA Control Files* menu. You can give these three storage index fields any name you choose. For more information about storage indexes, refer to the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

Close Sequence Number

This field identifies the generation of the test per material. If you leave this field blank, the system automatically increments this number by one. For example, if this is the first test of a material and you do not make an entry in this field, the close sequence number is **001**. If you perform a second test on the same material in the same storage location and you do not make an entry in this field, the system increments this field to **002**, and so on.

The system reserves close sequence number **000** for your target values.

The table below shows an example of the different ways the *Close Sequence Number* field can be populated.

Material/Product	Test Occurrence	Value You Type in Close Sequence Number field	System Generated Close Sequence Number
Blue Aqua w/Primer	First Test	None	001
	Second Test	None	002
	Repeat First Test	001	None
	Third Test	None	003
	Repeat Third Test	003	None

If you discover you made an error when performing a test, type the close sequence number in the *Close Sequence Number* field to change information for this test.

Press [Enter] to save your entries if you are modifying an existing record or press [F6] to create a new record.

General Information on Samples/Actuals

```

12/16/97    9:04:44    Work with Samples/Actuals    QCGAVM    QCDAVM
-----
Company and Warehouse . . . . . : IS1 ISW1
Material . . . . . : HAZRAW01

Aisle . . . . . :
Bin . . . . . :
Lot# . . . . . :
Inventory Type . . . . . : AA ON HAND INVENTORY
Close Sequence Number . . . . . : 001

SAMPLE Date . . . . . : 12161997
SAMPLE Time . . . . . : 9:00:30
SAMPLE Person . . . . . : PJT
SAMPLE Close Number . . . . . : 1
SAMPLE ID . . . . . : _____
Vendor . . . . . : _____ *
Purchase Order Number . . . . . : _____
Receiver Number . . . . . : _____
Assume Target Values . . . . . : N (Y=Yes, N=No)
-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuickAccess  F24=More keys

```

Figure 9-2: Work with Samples/Actuals screen 1

The display fields at the top of the screen default from the Work with Samples/Actuals prompt screen.

You can override the SAMPLE field values, which default from the system. These fields identify the sample you are testing.

Vendor

The system uses this field in conjunction with the *Assume Target Values* field. If you entered vendor-specific target values for this material or product, you must complete this field to display those values on the Work with Sample/Actuals screen 2. Vendor-specific target values are discussed in the “Entering Target Values” part.

You can only prompt on the *Vendor* field if your profile exists in Infinium PL.

Purchase Order Number, Receiver Number

The Purchase Order Number and Receiver Number fields are optional.

Assume Target Values

This field defaults to **N**. If you change this value, the system automatically displays the target values established for this material or product. These values display on the Work with Samples/Actuals screen 2, where you enter the actual results.

Press [Enter] to proceed.

Specific Information on Samples/Actuals

```
12/16/97    9:05:15    Work with Samples/Actuals    QCGAVM    QCDAVM

Company and Warehouse . . . . . : IS1 ISW1
Material . . . . . : HAZRAW01
Storage Index . . . . . :
Inventory Type . . . . . : AA ON HAND INVENTORY
Close Sequence Number . . . . . : 001

Template Desc    Actual Value    Desc Rating1    Desc Rating2    Target Value    MS
One / Two                               /Min. Value     /Max. Value     /Variance %
YIELD DESC 1    38.00000    ZAHN GARD      ZAHN GARD      35.00000    ___
VISCOSITY TEST    _____    _____    _____    _____    ___
WEIGHT/GALLON    45.00000    WT RATING      _____    50.00000    ___
GRIND TEST    _____    _____    _____    _____    ___
GLOSS TEST    75.00000    GLOSS RATE 1    _____    75.00000    ___
REDUCE TEST    _____    _____    _____    _____    ___

Bottom

F2=Function keys  F3=Exit  F10=QuickAccess  F24=More keys
```

Figure 9-3: Work with Samples/Actuals screen 2

Use this screen to enter the actual results of this quality control test. If the value you type in the *Actual Value* field is outside the minimum and maximum values established, the system highlights that field when you press [Enter]. Press [F21] to override this message and accept the results.

Press [F13] to access user-defined fields for samples/actuals or press [F14] to create notes.

The system controls the Notes window by the system-defined code values in the Code type NTE. Infinium recommends that you do not change these code values.

To add additional comments specific to this test, press [F11].

The actual values that you type display on this screen the next time you access it using this combination of material and close sequence number.

Samples/Actuals Comments

When you press [F11] from the Work with Samples/Actuals screen 2, the system displays a screen similar to Figure 9-4

Template Desc	Actual Value	Desc Rating1 /Min. Value	Desc Rating2 /Max. Value	Target Value	MS /Variance %
Company and Warehouse	IS1 ISW1				
Material	HAZRAW01				
Storage Index					
Inventory Type	AA ON HAND INVENTORY				
Close Sequence Number	001				
YIELD DESC 1	38.00000	ZAHN GARD	ZAHN GARD	35.00000	
YIELD DESC 2		20.00000	40.00000		
Comments 1	ZAHN GARD	2			
VISCOSITY TEST					
Comments 1		2			
WEIGHT/GALLON	45.00000	WT RATING		50.00000	
Comments 1		45.00000	65.00000		
Comments 1		2			
					More . . .
F2=Function keys F3=Exit F10=QuikAccess F24=More keys					

Figure 9-4: Work with Samples/Actuals Comment screen

This screen displays comments already established for this test. Edit these comments, or add new comments specific to this test. For example, if you accepted test results that were outside the target range, you might explain why on this screen.

Press [Enter] to return to the Work with Samples/Actuals prompt screen.

Retesting Materials and Products

The *Work with Material Retesting* option allows you to enter quality control data for materials that require retesting. You can keep the results of multiple tests separate so that you can maintain a history of quality control data for each item.

The Retest and Expire reports help you determine the items that need to be retested or are in danger of being out of date.

You can enter data for up to 99 retests per material, per storage index, per close sequence number. Remember that you can use the close sequence number to identify multiple rounds of testing for a material. The retest number becomes an extension of the close sequence number to identify the round of retesting that has been done on that material.

For example, you order 150 gallons of the gray aqua w/primer material. You receive the material in three monthly shipments of 50 gallons each, and you store each individual shipment in two locations. Each shipment is tested with consecutive close sequence numbers. The template defines the retest at 30 days.

The Material Retesting diagram in Figure 9-5 shows how the close sequence and retest numbers become identifiers for each round of testing. In this diagram, the June shipment is stored in location INDEXA and INDEXB with close sequence number 001 and retest number 00. When it is retested in July, the location and close sequence number remain the same, but the retest number increments to 01.

In the diagram, the close sequence number and retest number make up the storage index identifier. For INDEXA 001 00, 001 is the close sequence number and 00 is the retest number.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Work with Material Retesting* [WWMR]

Material Retesting

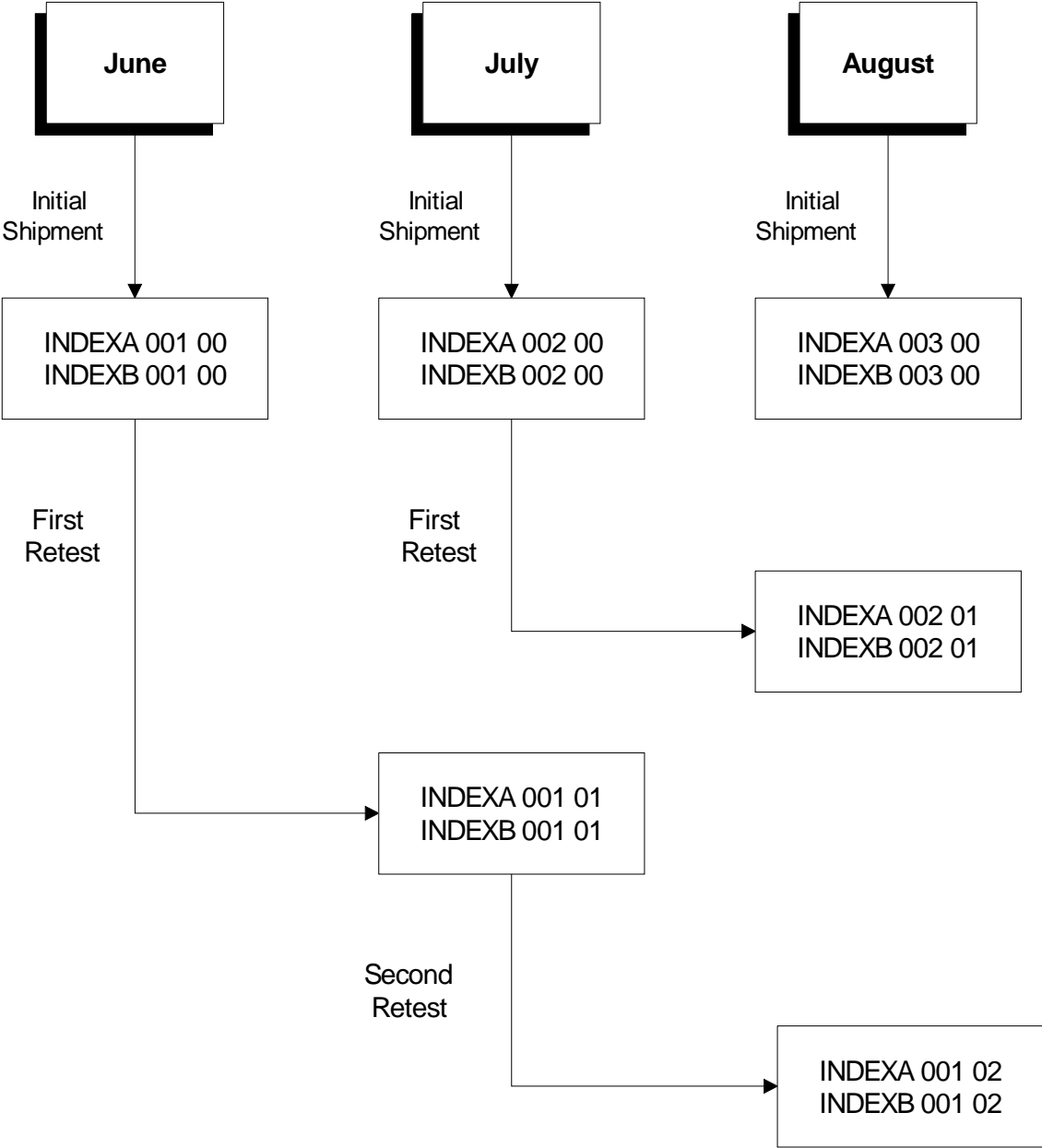


Figure 9-5: Material Retesting

Material Retesting

```
12/16/97   9:17:56   Work with Material Retesting   QCGAVM   QCDAVM
-----
Position to . . . Co and Whse . . . .  __IS1 *  ISW1 *
Material . . . . . HAZRAW01          ___ *
Inventory Type . .  AA *
Storage Index . . . _____ *
Close Seq Number .  001 *  Retest Number . . .  01

Select one or more of the following. Then press Enter.
  Co Whse Material      Size <----- Storage Index ----->
-  IS1 ISW1 HAZRAW01
  Inv Type . . : AA  CS-RT Number : 00101
-  IS1 ISW1 RAW07
  Inv Type . . : AA  CS-RT Number : 00100

Bottom

-----
F2=Function keys  F3=Exit  F4=Prompt  F6=Create  F24=More keys
```

Figure 9-6: Work with Material Retesting prompt screen

Use the fields at the top of the screen to position the display or to create a new record by entering values and pressing [F6]. If you are positioning the display, type **1** beside the record you want to use and press [Enter].

The retest number, combined with the close sequence number, becomes the identifier for this round of retesting.

General Information on Material Retesting

```
12/16/97    9:19:40    Work with Material Retesting    QCGAVM    QCDAVM

-----

Company and Warehouse . . . . . :   IS1 ISW1
Material . . . . . :   HAZRAW01

Aisle . . . . . :
Bin . . . . . :
Lot# . . . . . :
Inventory Type . . . . . :   AA ON HAND INVENTORY
Close Sequence Number . . . . . :   001
Retest . . . . . :   01
RETEST Date . . . . . :   00000000
RETEST Time . . . . . :   9:13:37
RETEST Person . . . . . :   PJT
RETEST Shift Close Number . . . . . :   1
RETEST ID . . . . . :   PJT02
Vendor . . . . . :   _____ +
Purchase Order Number . . . . . :   _____
Receiver Number . . . . . :   _____

-----

F2=Function keys  F3=Exit  F4=Prompt  F10=QuikAccess  F24=More keys
```

Figure 9-7: Work with Material Retesting screen 1

The *Close Sequence Number* and *Retest* fields are display only on this screen along with the top of the screen default fields.

You can override the RETEST field values, which default from the system.

Vendor

The system uses this field in conjunction with the *Assume Target Values* field, which is on the Work with Samples/Actuals screen 1. If you entered vendor-specific target values for this material or product, you must complete this field to display those values on the Work with Sample/Actuals screen 2. Vendor-specific target values are discussed in the “Entering Target Values” part. This field is optional.

You can only prompt on the *Vendor* field if you are setup to use Infinium PL.

Purchase Order Number, Receiver Number

The Purchase Order Number and Receiver Number fields are optional.

Press [Enter] to record your entries.

Specific Information on Material Retesting

```

12/16/97   9:20:09   Work with Material Retesting   QCGAVM   QCDAVM
-----
Company and Warehouse . . . . . :   IS1 ISW1
Material . . . . . :   HAZRAM01
Storage Index . . . . . :
Inventory Type . . . . . :   AA ON HAND INVENTORY
Close Sequence Number . . . . . :   001
Retest . . . . . :   01

Template Desc      Actual Value  Desc Rating1  Desc Rating2  Target Value  MS
One / Two
YIELD DESC 1      38.00000    /Min. Value   /Max. Value   35.00000    ___
VISCOSITY TEST    GOOD        STILL OK
WEIGHT/GALLON     76.00000
GRIND TEST        PASS
GLOSS TEST        50.00000
REDUCE TEST

Bottom

-----
F2=Function keys  F3=Exit  F10=QuikAccess  F24=More keys
    
```

Figure 9-8: Work with Material Retesting screen 2

Use this screen to enter the retest results of this quality control test. If the value you type in the *Actual Value* field is outside the minimum and maximum values established, the system highlights that field when you press [Enter]. You can press [F21] to override this message and accept the results.

To add comments specific to this test, press [F11].

Material Retesting Comments

```

12/16/97   9:20:09   Work with Material Retesting   QCGAVM   QCDAVM
-----
Company and Warehouse . . . . . :   IS1 ISW1
Material . . . . . :   HAZRAM01
Storage Index . . . . . :
Inventory Type . . . . . :   AA ON HAND INVENTORY
Close Sequence Number . . . . . :   001
Retest . . . . . :   01

Template Desc   Actual Value   Desc Rating1   Desc Rating2   Target Value   MS
One / Two      /Min. Value   /Max. Value   /Variance %
YIELD DESC 1   38.00000      _____   _____   35.00000   _____
YIELD DESC 2   _____   20.00000     40.00000
Comments 1     _____   2 _____
VISCOSITY TEST _____   GOOD       STILL OK   _____
Comments 1     SEND TO QC   _____   _____
WEIGHT/GALLON 76.00000      _____   _____   50.00000   _____
Comments 1     _____   45.00000     65.00000
Comments 1     _____   2 _____
More...

-----
F2=Function keys F3=Exit F10=QuikAccess F24=More keys

```

Figure 9-9: Work with Material Retesting Comment screen

This screen displays comments already established for this test. You can edit these comments or add new comments specific to this test. For example, if the retest results are outside the target range, you might explain why on this screen.

Press [Enter] to return to the Work with Material Retesting prompt screen.

Notes

This part of the guide focuses on the Quality Control reports that are available in Infinium PF.

The part consists of the following topics:

Topic	Page
Overview of Quality Control Reports	10-2
Printing the Material Analysis Report	10-3
Printing the Retest and Expire Reports	10-6

Overview of Quality Control Reports

Use the Material Analysis report to view target values and actual results of material tests. The Retest and Expire reports identify those materials that need to be retested or that have expired.

The Formula Target Value report is discussed in the “Entering Target Values” part.

Objective

After you complete this part, you should understand the Quality Control reports.

Infinium PF provides the following Quality Control reports:

- Material Analysis
- Formula Target Values
- Retest
- Expire

Printing the Material Analysis Report

The Material Analysis report lists quality control target values and actual results of material tests.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Print Material Analysis Report [PMAR]*

```
12/15/97  10:52:05  Print Material Analysis Report  QCGAVR  QCDAVR
-----
Beginning Company and Warehouse . .  __IS1 +  ISW1  +
Ending Company and Warehouse . . .  ____ +  ____ +
Vendor . . . . .  _____ +
Beginning Material . . . . .  _____  __ +
Ending Material . . . . .  _____  __ +

-----
F2=Function keys  F3=Exit  F4=Prompt  F8=Print  F24=More keys
```

Figure 10-1: Print Material Analysis Report prompt screen

You can generate a report that has a variety of information based on how you complete the fields on this screen.

To print a report that includes all material analysis information for all materials at all locations, leave all the fields blank.

To print a report with all material analysis information for all materials associated with that company and warehouse, you can complete just the beginning and ending company and warehouse fields.

To print a report for a single material, complete just the *Beginning Material* field. For a range of materials, complete the beginning and ending material fields accordingly.

To make this report vendor-specific, complete the *Vendor* field.

To print the report, press [F8]. A sample Material Analysis report is on the next page.

QCGAVR QCTAVR
7/24/96 15:25:20

Q U A L I T Y C O N T R O L M A T E R I A L A N A L Y S I S

PAGE 1
WMM

VENDOR.....:																	
Comp.	Whs.	Material	Size	LOT	SUBLOT	BIN	Inv. Type	Vendor	Last Update	Close Seq#	Rt#	Test ID	Desc/Rating 1 Comment 1	Desc/Rating 2	QC Actual Value Comment 2	St/Ms	P/F
WMM	1	BLUE AQUA W/PRIMER			QC ROW	QC BIN	NA		4/12/96	000		VIS			37.00000		Pass
									4/12/96	000		WT/GAL			9.63000		Pass
									4/12/96	000		GRIND			6.05000		Pass
									4/12/96	000		RVISC			28.00000		Pass
									4/12/96	000		PH			8.42000		Pass
									4/19/96	001		VIS			37.00000		Pass
									4/19/96	001		WT/GAL			9.63000		Pass
									4/19/96	001		GRIND			6.05000		Pass
									4/19/96	001		RVISC			28.00000		Pass
									4/19/96	001		PH			8.42000		Pass
									4/19/96	001	01	VIS			42.00000		Pass
									4/19/96	001	01	WT/GAL			10.00000		Pass
									4/19/96	001	01	GRIND			8.20000		Pass
									4/19/96	001	01	RVISC			28.50000		Pass
									4/19/96	001	01	PH			8.42000		Pass
									4/19/96	002		VIS			31.00000		Pass
									4/19/96	002		WT/GAL			9.63000		Pass
									4/19/96	002		GRIND			8.00000		Pass
									4/19/96	002		GLOSS			12.75000		Pass
									4/19/96	002		RVISC			30.00000		Pass
									4/19/96	002		PH			8.72000		Pass
									4/19/96	002	01	VIS			31.50000		Pass
									4/19/96	002	01	WT/GAL			9.63000		Pass
									4/19/96	002	01	GRIND			8.00000		Pass
									4/19/96	002	01	GLOSS			12.75000		Pass
									4/19/96	002	01	RVISC			30.00000		Pass
									4/19/96	002	01	PH			8.72000		Pass

Printing the Retest and Expire Reports

The Retest report lists materials in stock that require retesting and the Expire report lists materials that have expired.

Before you run *Print Retest/Expire Report*, you must use *Work with Samples/Actuals* to enter the QC test data for the manufactured products that you want to include in the Retest/Expire report.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Print Retest/Expire Report [PRER]*

```
12/15/97  10:52:55  Print Retest/Expire Report  QCGRER1  QCDRER1
-----
Beginning Company and Warehouse . .  _IS1_ +  _ISW1_ +
Ending Company and Warehouse . . .  _____ +  _____ +

Beginning Date . . . . . 00000000
Ending Date . . . . . 12151997

Beginning Material . . . . . _____ _ +
Ending Material . . . . . _____ _ +

Products or Raw Materials . . . . . 1 1=Product, 2=RM
Expiration Date or Retest Date . . . 1 1=Expiration, 2=Retest

-----
F2=Function keys F3=Exit F4=Prompt F8=Print F24=More keys
```

Figure 10-2: Print Retest/Expire Report prompt screen

You can generate a Retest or Expire report that has a variety of information based on how you complete the fields on this screen.

To print a report that includes all information for all materials or products at all locations, leave all the fields blank.

To indicate the date range for your report, use the beginning and ending date fields.

To print a report with information for all materials or products associated with that company and warehouse, you can complete just the beginning and ending company and warehouse fields.

To print a report for a single material or product, complete just the *Beginning Material* field. For a range of materials or products, complete the beginning and ending material fields accordingly.

Products or Raw Materials

Type **1** in this field to run the report for products or **2** to run the report for raw materials.

Expiration Date or Retest Date

Leave this field at **1** to list items that have expired. Type **2** to list items that should be retested.

The system calculates retest and expiration dates by adding the target value total days to the receipt date of the material. Type the target value in the *Target Value* field using the Work with Material Target Value Screen 1.

Press **F8** to print the report. A sample Retest report is shown on the next page.

QCGRER QCTRER
7/24/96 11:18:14

Q U A L I T Y C O N T R O L R E T E S T R E P O R T

PAGE 1
WMM

RAW MATERIALS ONLY

						-----Inventory-----	Close	Original	Last	Days to	Due for	Days to				
Comp. Wks.	Material	Size	LOT	SUBLOT	BIN	Type	Quantity	MS	Seq#	Vendor	Test Date	Test Date	Retest	Retest?	Expire	Expired?
WMM	1	BLUE AQUA W/PRIMER		QC ROW	QC BIN	NA NO INV. FOUND			000		4/12/96		22	No		
									001		4/19/96		29	No		
									002		4/19/96		29	No		
WMM	1	BLUE AQUA W/PRIMER	1	1	1	AA	100.0000	*GL	001		4/20/96		30	No		

***** END OF REPORT *****

The part consists of the following topics:

Topic	Page
Overview of Setup Files and Purges	11-2
Defining Entity Controls	11-3
Defining Company Controls	11-8
Defining Warehouse Controls	11-10
Purging the Formula Master Files	11-12
Purging Archived Formulas	11-14
Purging Audit Notes	11-16
Purging Statistical Process Control Data	11-18
Purging Pre-Inventory Data	11-19
Clearing Application Files	11-20

Overview of Setup Files and Purges

This part of the guide explains how to define your Control and Code files and how to utilize the Utilities. The information in this part explains some fundamental setup and maintenance functions.

Objectives

After you complete this part, you should be familiar with the following:

- Control Files
- Code Files Maintenance
- Purges

Defining Entity Controls

The hierarchy for retrieving default information within the Control files is to first search the warehouse level, then the company level, and finally the entity level.

The system accesses the Entity controls after searching the Warehouse and Company files for information. You can set more defaults at the entity level than the other levels.

Use the menu path below.

- ▶ *Control Files*
 - ▼ *Work with Entity Controls [WWEC]*

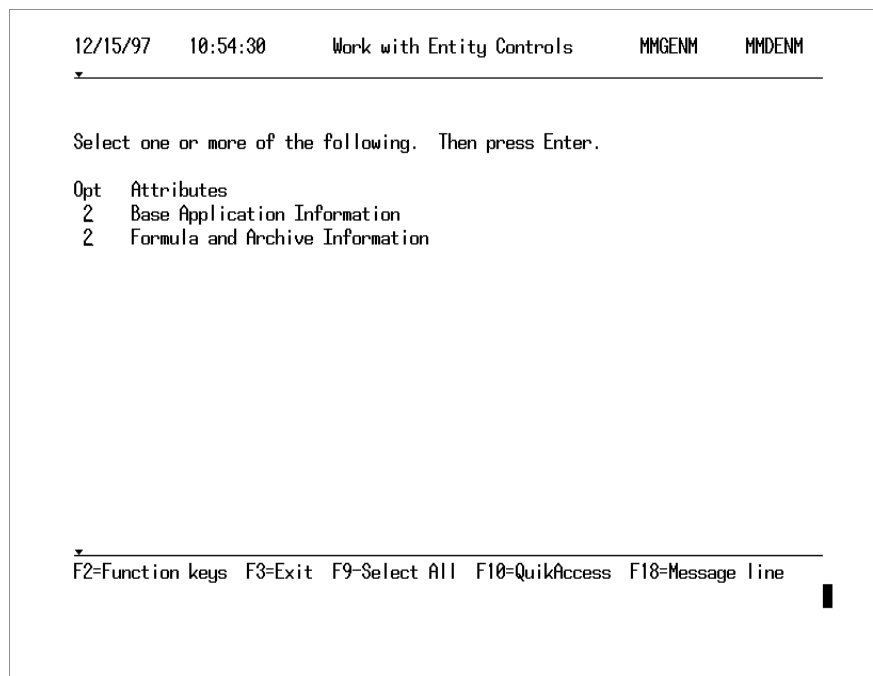


Figure 11-1: Work with Entity Controls Attribute selection screen

Type any character beside the attributes you want to update and press [Enter]. You can also press [F9] to select both attributes.

Entity Base Application Information

7/27/00	11:04:01	Work with Entity Controls	MMGENM	MMDENM
Base Application Information				
Maintain Material Chemical Props . . .	Y	(Y=Yes, N=No)		
Auto Maintain Formula Chem Props . . .	Y	(Y=Yes, N=No)		
Validate Formula QC Type Code . . .	Y	(Y=Yes, N=No)		
Save Files before Mass Substitution	Y	(Y=Yes, N=No)		
QC Pre-Inventory Defaults				
Inventory Type	NA	+		
First Part of Storage Index . . . :				
Second Part of Storage Index . . .		TEST ROW		
Third Part of Storage Index . . .		TEST BIN		
VOC Calculation Method	8	1, 2, 3		
VOC User Exit				
F2=Function keys F3=Exit F4=Prompt F10=QuikAccess F24=More keys				

Figure 11-2: Work with Entity Controls Base Application Information screen

The fields on this screen control various settings and defaults for formula management and quality control.

Maintain Material Chemical Props

Set this field to **Y** to print chemical property and MSDS information on various reports.

Auto Maintain Formula Chem Props

Type **Y** in this field to signal the system to create a formula chemical property file, FORMCHPR, which you can use with Infinium Query.

Use this file to perform chemical property calculations beyond those included in Infinium LA.

Validate Formula QC Type Code

This field verifies that the entry in the *Formula QC Type* field for a formula is a valid quality control test. Refer to the “Working with Quality Control Test Types and Templates” part.

If you type **Y** in this field, the system requires a QC Type on the first Formula Management General Information screen. If you type **N** in this field, the *Formula QC Type* field does not display on the first General Information screen.

Save Files before Mass Substitution

This field works with the *Work with Substitutions* option. If you type **Y** in this field, the system creates a duplicate object prior to the substitution.

Inventory Type

You can define a default inventory type for materials that must go through Quality Control prior to use in production. This field prompts against the Inventory Type file.

Storage Index Fields

Use the three storage index fields to identify where the system should store quality control inventory for pre-inventory items. This becomes the default for the [F9] pre-inventory items in Quality Control within the *Work with Samples/Actuals* option.

VOC Calculation Method

The system uses VOC calculations in Infinium LA and Infinium RM. The following are valid codes:

- 1** $\text{VOC} = ((\text{Lbs} - \text{Exempt Solvent by Wt}) / (\text{Gls} - \text{Exempt Solvent by Vol})) \times (\text{Pct Nonexempt Solvent by Wt} / (100 - \text{Pct Exempt Solvent by Vol}))$
- 2** $\text{VOC} = (\text{Lbs} / \text{Gls}) \times (\text{Pct Nonexempt Solvent by Wt} / (100 - \text{Pct Exempt Solvent by Vol}))$
- 3** $\text{VOC} = \text{Total Nonexempt Solvent by Wt} / \text{Gls}$

If you leave this field blank, the system uses method **2** as the default.

Press [Enter] to continue.

Entity Formula and Archive Information

12/15/97	10:55:35	Work with Entity Controls	MMGENM	MMDENM
Formula and Archive Information				
Formula Controls				
Display Specific Gravity	Y	(Y=Yes, N=No)		
Formula Archival				
Allow Formula Archive Capability . .	1	(0=No, 1=Yes, 2=Auto)		
Allow Formula Audit Capability . . .	1	(0, 1, 2=Auto Notes, 3=Auto No Notes)		
Archive All Formula Data	Y	(Y=Yes, N=Only Descriptive Data)		
Archive Formulas Mass Substitution	Y	(Y=Yes, N=No)		
F2=Function keys F3=Exit F4=Prompt F10=QuikAccess F24=More keys				

Figure 11-3: Work with Entity Controls Formula and Archive Information screen

Use this screen to set the archive and audit note controls.

Display Specific Gravity

This field controls whether or not a formula's specific gravity displays on the Ingredients and Instructions screen.

Allow Formula Archive Capability

This field gives you the ability to save old versions of formulas in separate files.

Valid entries for this field are:

- 0** Turns the archive feature off
- 1** Allows archiving by selecting to do so on the Formula Update Confirmation screen when you update formulas
- 2** Automatically creates an archive record every time you save a formula

Infinium recommends that you initially set the *Allow Formula Archive Capability* to **1** in your test environment so you become familiar with archiving screens.

Allow Formula Audit Capability

Formula audit notes comprise a notelog that allows you to document why you altered and archived a formula.

Valid entries for this field are:

- 0 Turns the note log ability off
- 1 Allows you to create a note by selecting to do so on the Formula Update Confirmation screen
- 2 Automatically creates the audit note header information whenever you save a formula, and then displays the Work with Audit Notes screen
- 3 Automatically creates the audit note header information whenever you save a formula but does not allow you to enter audit notes

Audit header information includes the following fields: Formula, FVR# , Description, MSDS Revision Code, and Initials of Person Revising.

Additional captured header information includes the date and time of the revision, the program used, the workstation of the formula reviser and user sign-on.

Archive All Formula Data

This field specifies how much of the formula to archive. Whenever you archive a formula, the system saves the general information and the ingredients and instruction data. Type **Y** to archive all of the remaining formula data and **N** to archive only the basics.

Archive Formulas Mass Substitution

This field relates to the *Work with Substitutions* option. If you set this field to **Y**, the system archives all formulas affected by the mass substitution prior to ingredient replacement.

Press [F3] to exit and save your entries.

Defining Company Controls

To set base application controls differently by company, use the *Work with Company Controls* option.

Use the menu path below.

- ▶ *Control Files*
 - ▼ *Work with Company Controls* [WWCC]

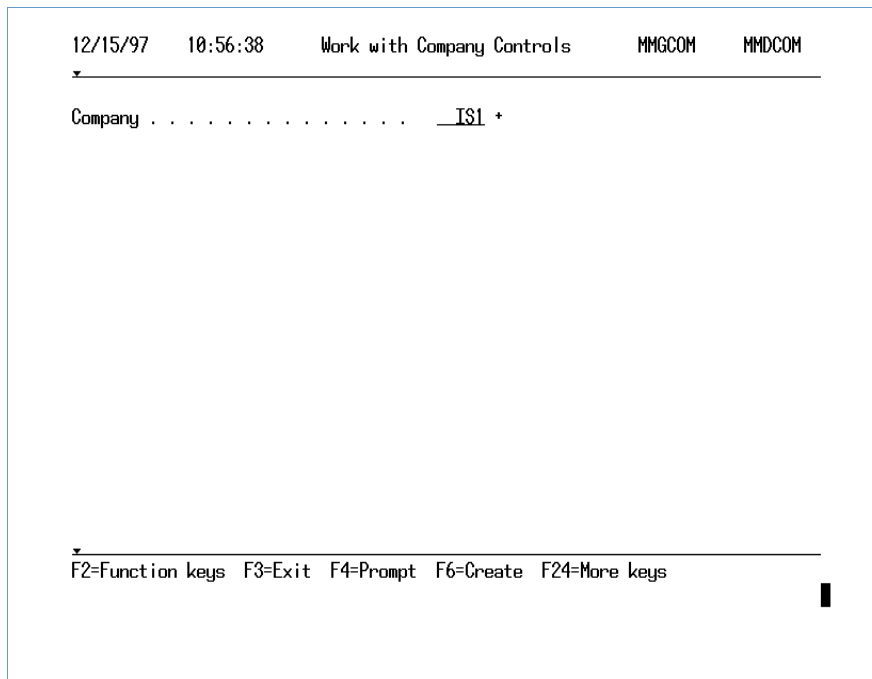


Figure 11-4: *Work with Company Controls* prompt screen

You must create a company before you can define the base application company control settings.

Type the desired company in the *Company* field or press [F4] to display a list of valid companies. Press [F6] to create the company control record.

All companies must exist in Infinium CA prior to creating company records in Infinium PF. Create material and formula defaults for companies in Infinium PF. Create the actual company record in Infinium CA.

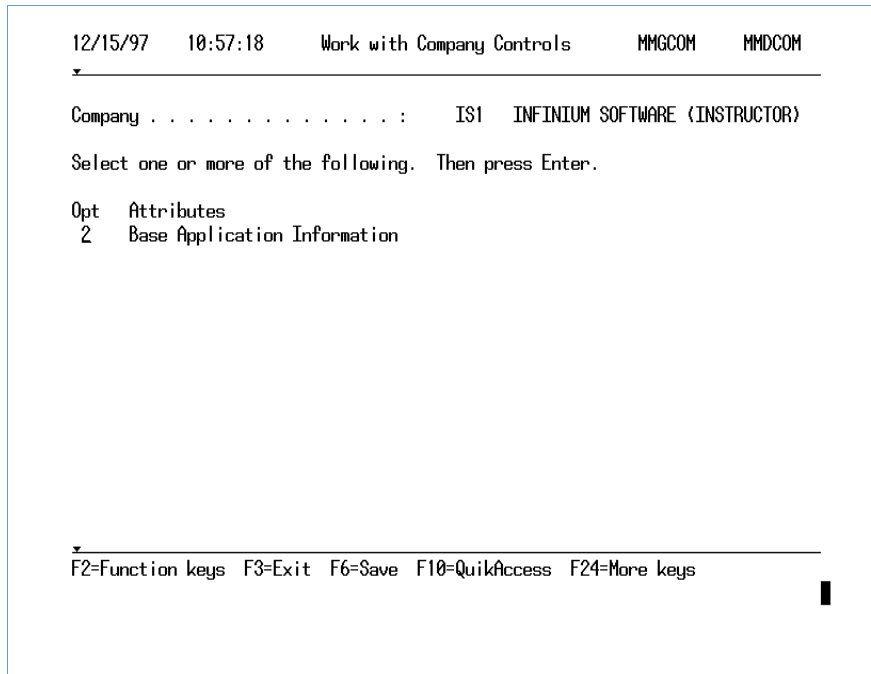


Figure 11-5: Work with Company Controls Attribute selection screen

Type any character in the *Opt* field to select the attribute and press [Enter].

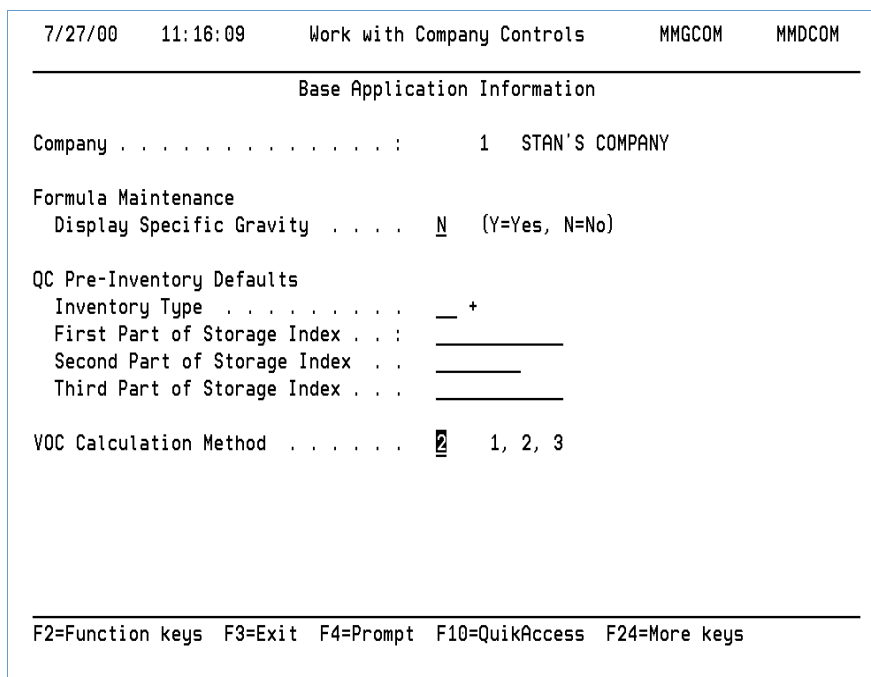


Figure 11-6: Work with Company Controls Base Application Information screen

On this screen you can alter settings by company. Press [F3] to exit and save your changes.

Defining Warehouse Controls

To set base application controls differently by warehouse, use the *Work with Warehouse Controls* option.

Use the menu path below.

- ▶ *Control Files*
 - ▼ *Work with Warehouse Controls* [WWWC]

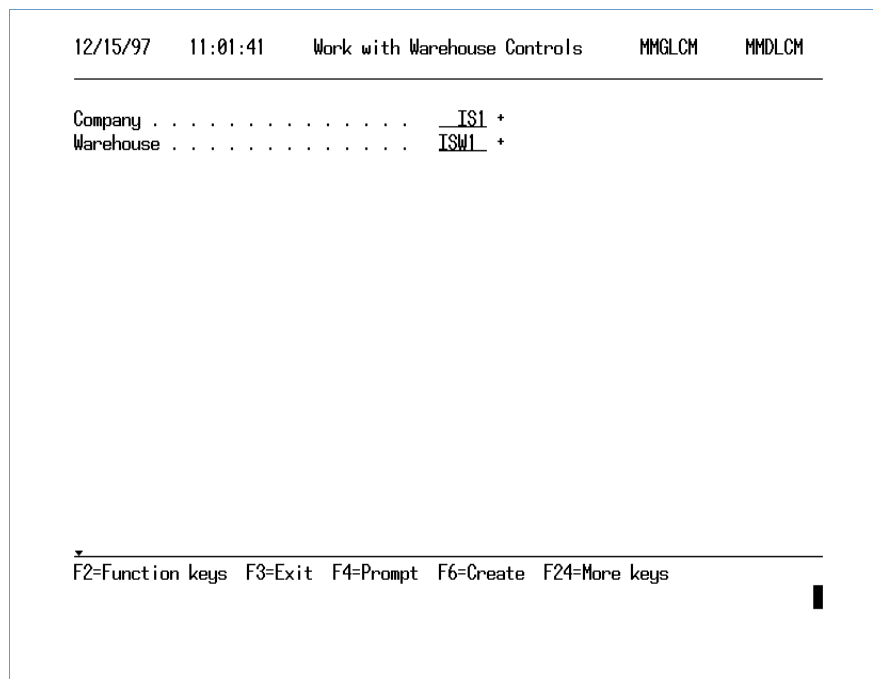


Figure 11-7: Work with Warehouse Controls prompt screen

You must create a warehouse before you can define the warehouse base application control settings.

Type the company and warehouse in the *Company* and *Warehouse* fields or press [F4] to prompt on them and select a company/warehouse combination. Press [F6] to create the warehouse record.

Like companies, warehouses must already exist in Infinium CA before you can create a warehouse control record in Infinium PF.

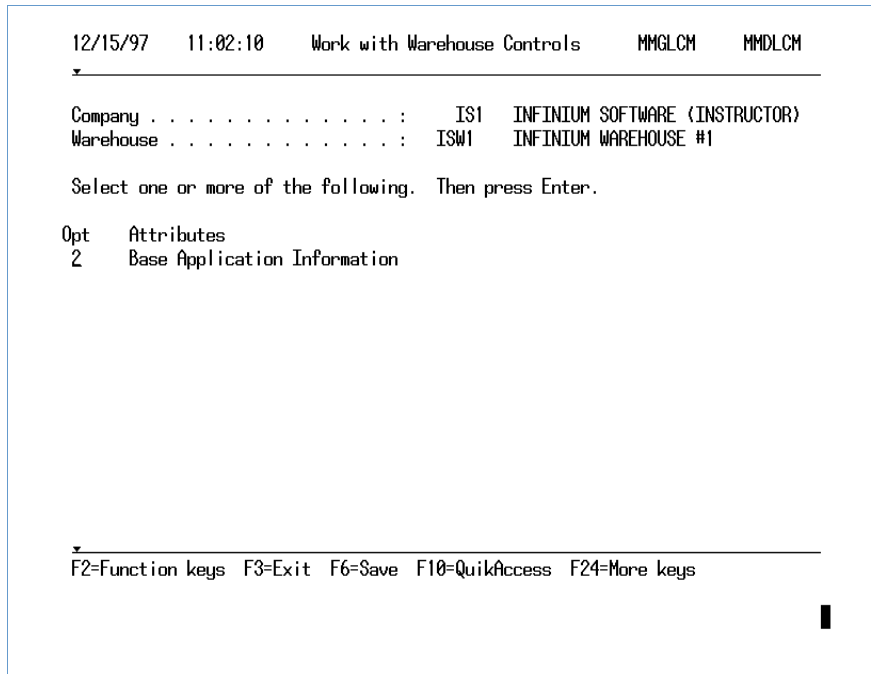


Figure 11-8: Work with Warehouse Controls Attribute selection screen

Type any character in the *Opt* field to select the attribute and press [Enter].

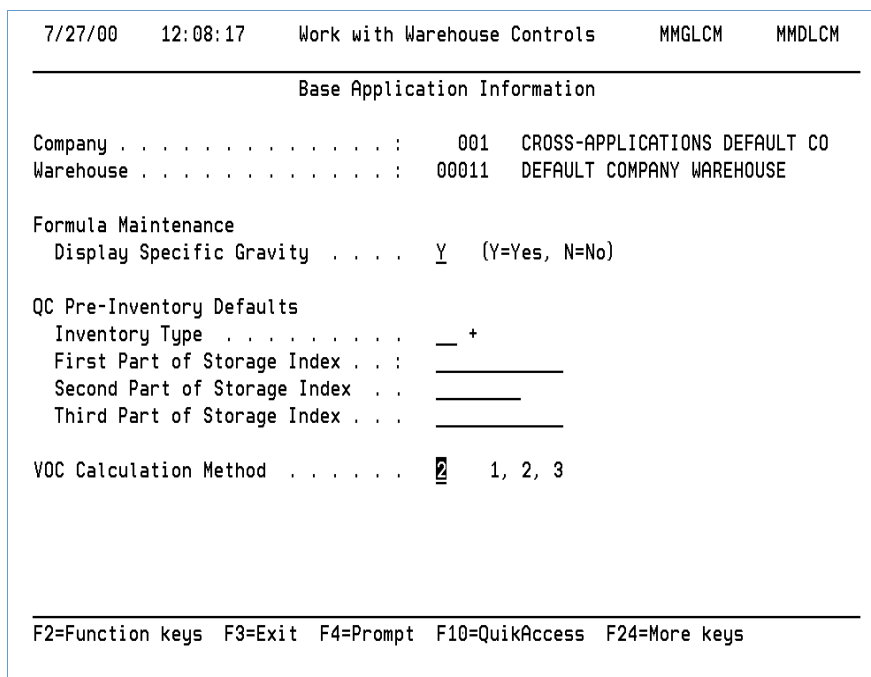


Figure 11-9: Work with Warehouse Controls Base Application Information screen

On this screen you can alter settings by warehouse. Press [F3] to exit and save your changes.

Purging the Formula Master Files

Use this option to remove formula and bill of material/kit records that have a **3** (remove) specified in the *Active Code* field on the General Information Attribute screen of the *Work with Formula* option.

If you have multiple instances of a formula, an entity-level formula is purged only if all of the lower level formulas with the same formula identifier are set to a status of **Remove** as well. Similarly, a company level formula cannot be purged until formulas at the warehouse level are purged.

Caution: Be sure to have a backup of your database library before executing any purges.

Use the menu path below.

- ▶ *Utilities*
 - ▼ *Purge Formula Master File* [PFMF]

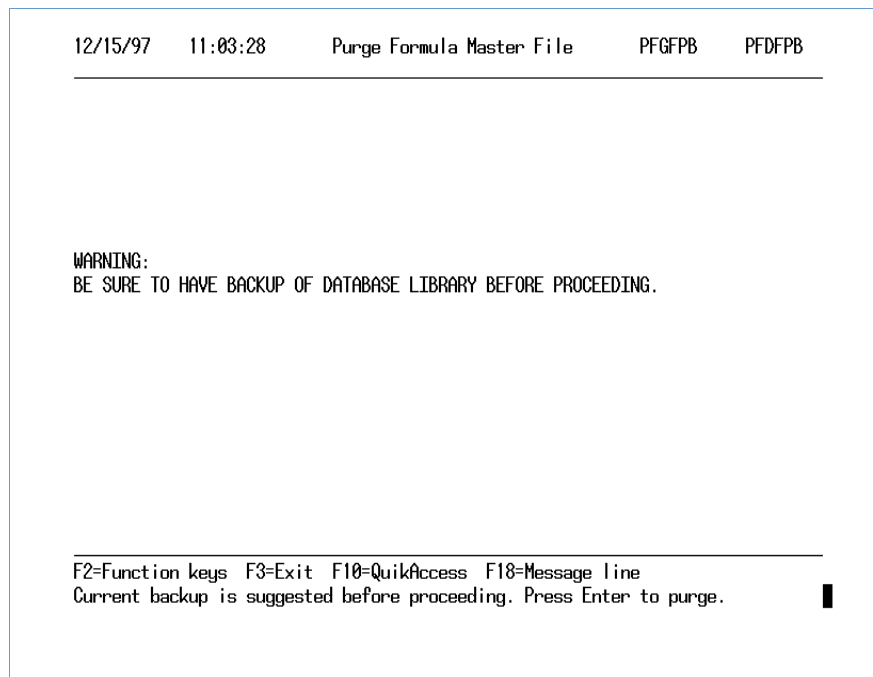


Figure 11-10: Purge Formula Master File screen

Press [Enter] to execute the purge or [F3] to exit the option without purging the file.

The system does not generate a report of purged records.

This purge deletes records in the files listed in the table below.

File Identifier	File Name
FORMHDR	Formula Header file
FORMDETL	Formula Detail file
FORMINST	Formula Ingredient and Instructions file
PRDCSTPF	Product Cost file
FORMCHPR	Formula Chemical Properties file
QCFORMPF	Formula QC Target Values file
PHYSICPF	Regulatory Physical Properties file
MRPPA	Regulatory Phrase Assignments file
MRPFL	Regulatory Formula Translations file
PRPUM	Unit of Measure and Conversion file

The system also deletes any extended item descriptions or item notes associated with the formulas in the purge.

Purging Archived Formulas

This option purges archived formulas by a cut-off date, version number, or both.

If you have multiple instances of a formula, an entity-level formula is purged only if all of the lower level formulas with the same formula identifier are set to a status of **Remove** as well. Similarly, a company level formula cannot be purged until formulas at the warehouse level are purged.

Use the menu path below.

- ▶ *Utilities*
 - ▼ *Purge Archived Formulas [PAF]*

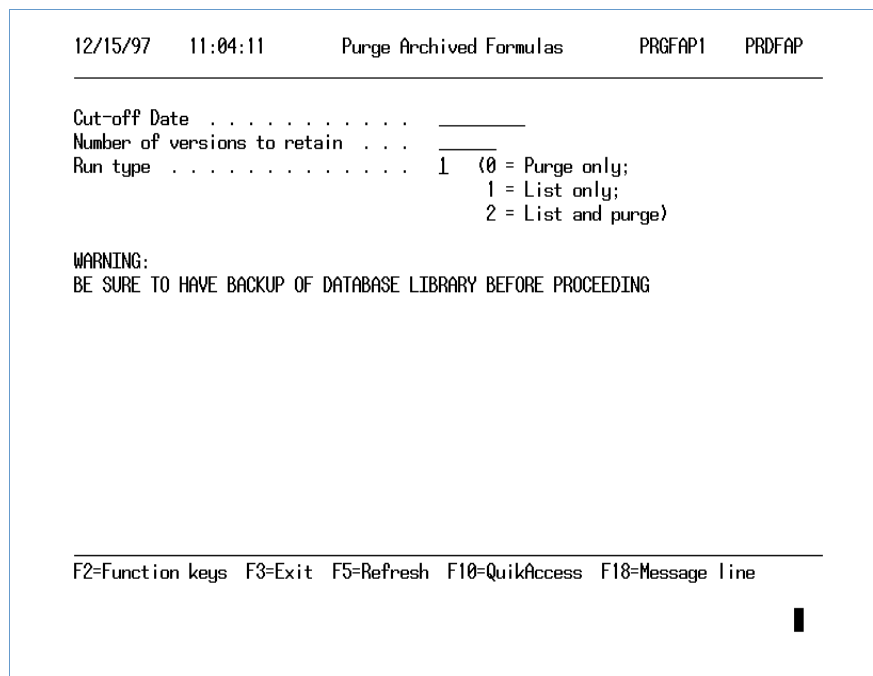


Figure 11-11: Purge Archived Formulas screen

You can generate a list of the purge formulas prior to and during the purge. If you choose to purge by version number, use the *Number of versions to retain* field to indicate how many versions to keep in the Formula Archive files.

For example, in the Formula Archive files you have versions 0001 - 0005 of **Formula ABC**. Type **2** in the *Number of versions to retain* field. This means after

the purge, versions 0004 and 0005 will still be in the Formula Archive files because they are the latest two versions of **Formula ABC**.

If you purge archived formulas or audit notes by both cut-off date and version number, then version number takes precedence. For example, if your cut-off date is 6/1/02 and versions to retain is three, and one formula's latest three version numbers are all before 6/1/02, then three versions remain in the Formula Archive files.

This purge deletes records in the files listed in the table below.

File Identifier	File Name
AFHDR	Archived Formula Header file
AFDETL	Archived Formula Details file
AFINST	Archived Formula Instructions file
AFPCST	Archived Formula Product Cost file
AFCHPR	Archived Formula Chemical Properties file
ARQCPF	Archived Formula QC Target Values file
AFPHYS	Archived Formula Physical Properties file
AFPFL	Archived Formula Translations file

Purging Audit Notes

This option enables you to purge the audit notes on archived formulas by cut-off date, version number, or both.

The system does not remove entity level audit notes if any location-specific formulas exist with the same formula identifier. Similarly, the system does not remove company level audit notes if any warehouse level instances exist with the same identifier for that company.

Use the menu path below.

- ▶ *Utilities*
 - ▼ *Purge Formula Audit Notes [PFAN]*

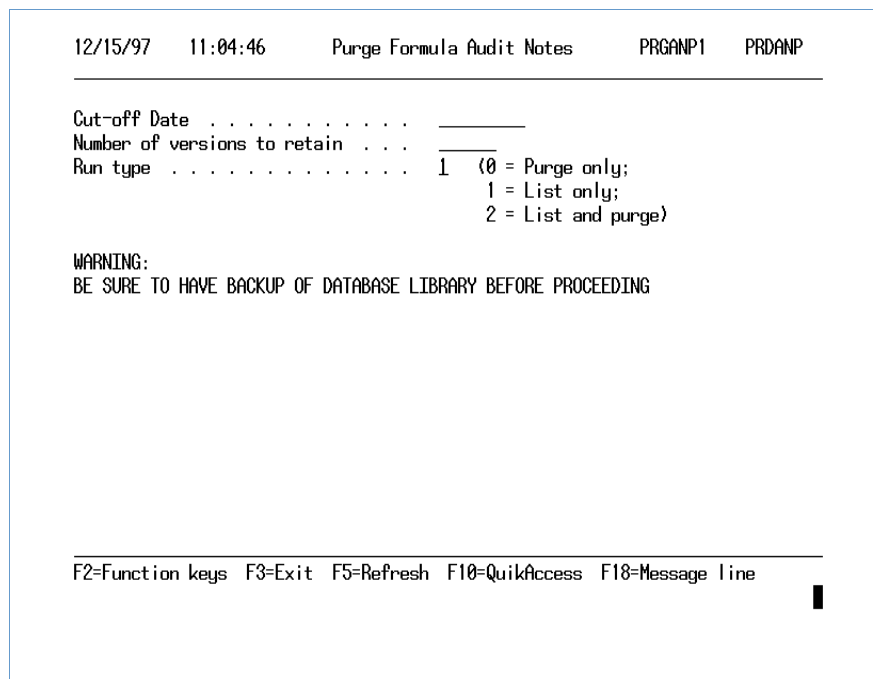


Figure 11-12: Purge Formula Audit Notes screen

You can generate a list of the purge audit notes prior to and during the purge. If you choose to purge by version number, use the *Number of versions to retain* field to indicate how many versions to keep in the Formula Audit files.

For example, in the Formula Audit files you have versions 0001 - 0008 of **Formula xxx**. Type **3** in the *Number of versions to retain* field. This means after the purge,

versions 0006, 0007, and 0008 remain in the Formula Audit files because they are the latest three versions of **Formula XXX**.

This purge deletes records in the AUDITHDR, Audit Header file, and in the AUDITDTL, Audit Detail file.

Purging Statistical Process Control Data

As part of your periodic system clean-up, purge the file that collects quality control information. This file provides the interface between the Quality Control modules in Infinium PF and Infinium MC, and your PC-based statistical process control (SPC) program.

Use the menu path below.

- ▶ *Utilities*
- ▼ *Purge Statistical Proc. Control [PSPC]*

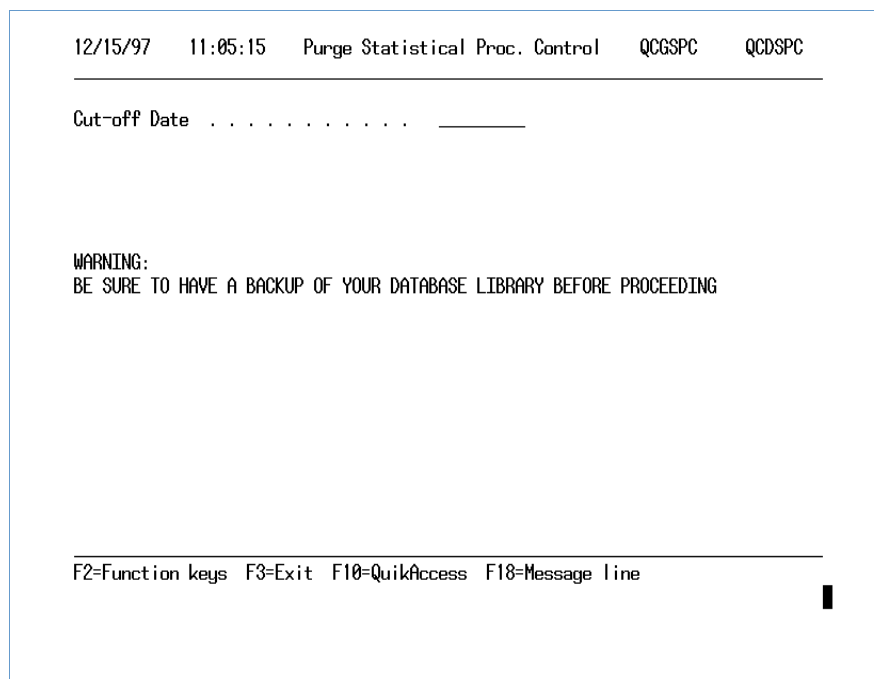


Figure 11-13: Purge Statistical Proc. Control screen

Specify the date of the last record you want the system to delete. When you execute the purge, the system deletes all records prior to and including the date you specify. The system does not delete records after the date you specify.

This purge deletes records in the QC SPC Data file, QCPSPC.

Purging Pre-Inventory Data

When you receive inventory items as quality control pre-inventory by pressing [F9] when entering actual results, you assign them to a theoretical storage index. Because you receive inventory at the same pre-inventory storage index, you must use this option to purge data for items that are now in onhand inventory.

Use the menu path below.

- ▶ *Utilities*
- ▼ *Purge Pre-Inventory Data [PPID]*

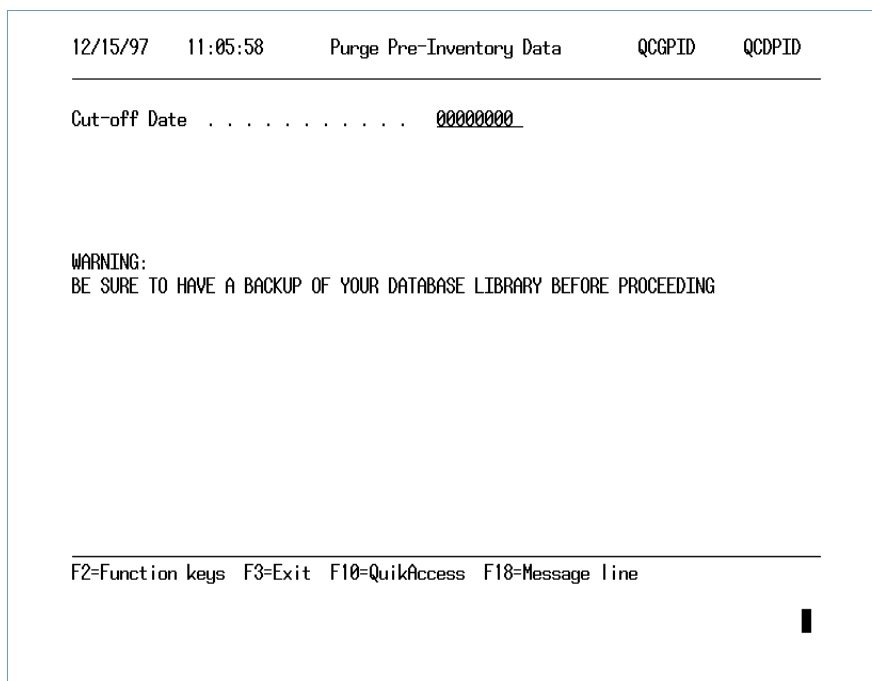


Figure 11-14: Purge Pre-Inventory Data screen

Type the date of the last pre-inventory records you want the system to remove. The system deletes all pre-inventory records with dates prior to and including the date you specify. All physical inventory records after the date you specify remain in the file.

This purge deletes records in the QC Samples for Materials file, QCPSAM, and in the QC Actual Values for Materials file, QCPMAV.

Clearing Application Files

Use the *Clear Application Files* option if you want to clear test data and go live on the same database. This option clears all files in your default library in Infinium PF except for the files listed in the table below.

File Identifier

LTFSUB	MRPPA	MMPLC
MRPPD	MPPCO	MRPSA
MPPEN	MRPSF	MPPTD
PFDDSSRC	MPPWH	PPPCO
MRPCO	PPPEN	MRPEN
PPPLC	MRPLC	QYPTAGF
MRPML	QYPTAGFL	PFCLSRC
PFRPGSRC	QDDSSRC	QCLSRC
QRPGSRC		

Use the menu path below.

- ▶ *Utilities*
 - ▼ *Clear Application Files* [CLRF]

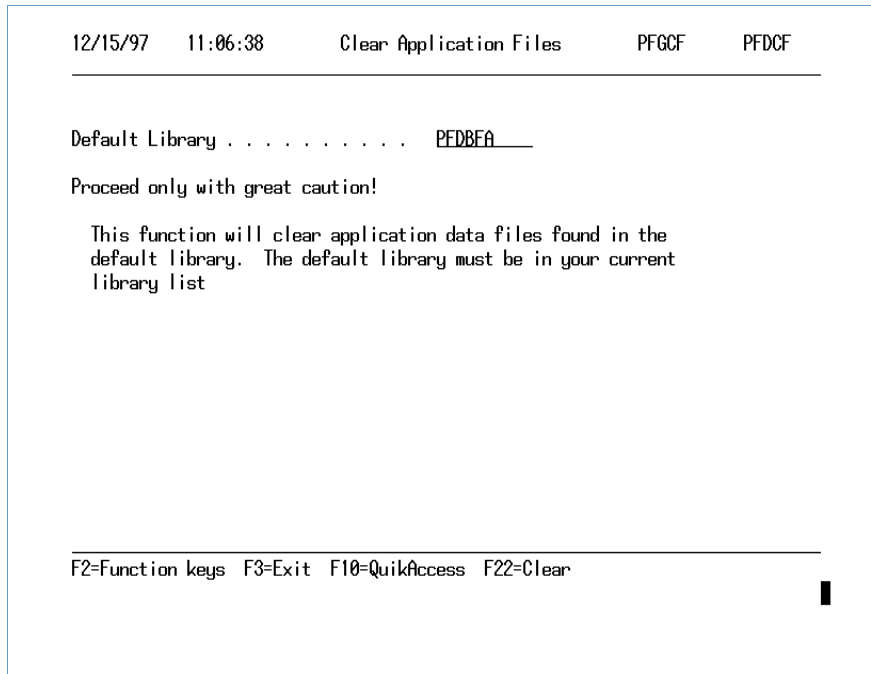


Figure 11-15: Clear Application Files screen

Press [F22] to clear the files or press [F3] to exit and cancel this option.

The *Plan ID* field in Infinium MP does not reset when using the *Clear Application Files* function in Infinium PF. To reset the Plan Identifier, you must use the *Work with Entity* function in Infinium MP.

Notes

This part of the guide focuses on the document format capabilities available in Infinium PF.

The part consists of the following topics:

Topic	Page
Overview of Document Format Capabilities	12-2
Maintaining Files	12-4
Printing the Substitution Master Listing	12-5
Identifying and Defining a Document Format	12-7
Printing a Sample Document Format	12-11
Understanding Special Codes in Document Format Capabilities	12-12
Creating the Document Format for a Certificate of Analysis	12-17
Deleting a Document Format	12-22

Overview of Document Format Capabilities

The *Document Format Capabilities* menu permits you to create your own documents using information from Infinium PF, Infinium OP, Infinium AR, and Infinium MC.

You begin by designing the format for a document. In the places where you want system information to default, type substitution codes. These codes are placeholders. When you generate a document format, the system substitutes the placeholders with the actual system data.

For example, you include the substitution code **##CN**, which represents customer name, in your document format. When you generate a document format entering general information, the accurate customer name replaces the **##CN** substitution code.

Before you begin using Document Format Capabilities, be sure your company uses the files referenced by the codes you want to use in your format. For example, if you want to pull in a batch number on a product but you do not have Infinium MC, then you cannot use the batch number code.

The normal steps of creating a document format include:

- 1 Printing the Substitution Master Listing
- 2 Identifying the document format
- 3 Defining descriptive information for the document format
- 4 Entering text and codes to create the format
- 5 Printing a sample format

Objectives

After you complete this part, you should understand Document Format Capabilities and know how to:

- Maintain files that integrate with Document Format Capabilities
- Print the Substitution Master Listing
- Identify and define a document format
- Create a document format layout
- Print a sample document

- Understand special substitution codes
- Create a certificate of analysis
- Print formats with substitution codes
- Delete document formats

Maintaining Files

The *Document Format Capabilities* options use the files listed in the first column in the table below, that are maintained in the systems listed in the second column. Be sure you have all the systems installed that you need to use for substitution codes.

File	Systems
KLCUSFIL, Customer File	Infinium OP or Infinium CA
MANFILPF, Product File	Infinium PF or Infinium CA
MFGCHDR, Batch Header File	Infinium MC
OPPOHD, Order Processing Header File	Infinium OP
OPPODT, Order Processing Detail File	
SHIPFILE, Customer Ship-to File	Infinium OP or Infinium CA
QCHISTPF, Quality Control History File	Infinium PF and Infinium MC
QCTEMPPF, Quality Control Template File	

Printing the Substitution Master Listing

The first step in creating a document format is to print the list of substitution symbols. This tells you what codes are available to use.

Included on the report are the substitution symbol, description, file and record names, field name and length, data type, and number of decimals.

To print the report, select the *Print Valid Substitutions* option within the *Document Format Capabilities* menu. The system does not display a screen.

A sample of the listing is on the next page.

08/03/95 11:41:22

Substitution Master Listing

PAGE 1

SUBSTITUTION	DESCRIPTION	FILE NAME	RECORD NAME	FIELD NAME	DATA TYPE	FIELD LENGTH	DEC
//CD	Current Date Format mm/dd/yy				N	6	
##B#	Manufacturing Batch #	MFGCHDR	MCHHEAD	MCBTCH	A	12	
##C#	Customer Number	KLCUSFIL	CUSREC	CFCUST	A	6	
##CC	Customer City	KLCUSFIL	CUSREC	CFCITY	A	24	
##CN	Customer Name	KLCUSFIL	CUSREC	CFSTL1	A	30	
##CP	Customer Telephone Number	KLCUSFIL	CUSREC	CFPNUM	A	18	
##CS	Customer State	KLCUSFIL	CUSREC	CFSTTE	A	2	
##CZ	Customer Zip Code	KLCUSFIL	CUSREC	CFZIP	A	10	
##C1	Customer Address Line 1	KLCUSFIL	CUSREC	CFSTL1	A	30	
##C2	Customer Address Line 2	KLCUSFIL	CUSREC	CFSTL3	A	30	
##C3	Customer Address Line 3	KLCUSFIL	CUSREC	CFSTL4	A	30	
##C4	Customer Address Line 4	KLCUSFIL	CUSREC	CFSTL5	A	30	
##MD	Manufacturing Production Date	MFGCHDR	MCHHEAD	MCCPDT	N	6	
##MF	Manufactured Formula	MFGCHDR	MSHEAD	MCFORM	A	20	
##OPO#	Order Processing Order Shipment Number	OPPOHD	OPROHD	OHORD	A	9	
##OPOB	Order Processing Shipment Back Order Number	OPPOHD	OPROHD	OHBOARD	A	2	
##OPOD	Order Processing Order Shipment Date	OPPOHD	OPROHD	OHSRDT	P	6	
##OPOI	Order Processing Invoice Number	OPPOHD	OPROHD	OHINVO	A	9	
##OPOQ	Order Processing Actual Shipped Quantity	OPPODT	OPRODT	OISQTY	P	13	4
##OPPO	Order Processing Customer Purchase Order Number	OPPOHD	OPROHD	OHCUPD	A	36	
##OPSR	Order Processing Customer Sales Reference Number	OPPODT	OPRODT	OICPRD	A	20	
##PD	Product Description	MANFILPF	MNREC	MNDESC	A	30	
##PR	Product Number	MANFILPF	MNREC	MNMF#	A	20	
##QC	Quality Control Test Value	QCHISTPF	QCHISREC			12	
##QD	Quality Control Test Description	QCTEMPPF	QCTEMP	QCDCS1	A	16	
##RT	Run Time Substitution						
##S#	Ship To Number	SHIPFILE	SHIP	SSHCOD	A	2	
##SC	Ship To City	SHIPFILE	SHIP	SCITY	A	24	
##SI	Product Size	MANFILPF	MNREC	MNSIZE	A	3	
##SN	Ship To Name	SHIPFILE	SHIP	SLIN1	A	30	
##SP	Ship To Telephone Number	SHIPFILE	SHIP	SPHONE	A	18	
##SS	Ship To State	SHIPFILE	SHIP	SSTATE	A	2	
##SZ	Ship To Zip Code	SHIPFILE	SHIP	SZIP	A	10	
##S1	Ship To Address Line 1	SHIPFILE	SHIP	SLIN2	A	30	
##S2	Ship To Address Line 2	SHIPFILE	SHIP	SLIN3	A	30	
##S3	Ship To Address Line 3	SHIPFILE	SHIP	SLIN4	A	30	
##S4	Ship to Address Line 4	SHIPFILE	SHIP	SLIN4	A	30	

* * * E N D O F R E P O R T * * *

Identifying and Defining a Document Format

You can create a document format with a one to four position numeric name.

Use the menu path below.

- ▶ *Document Format Capabilities*
 - ▼ *Work with Document Formats [WWDF]*

Identifying a Document Format

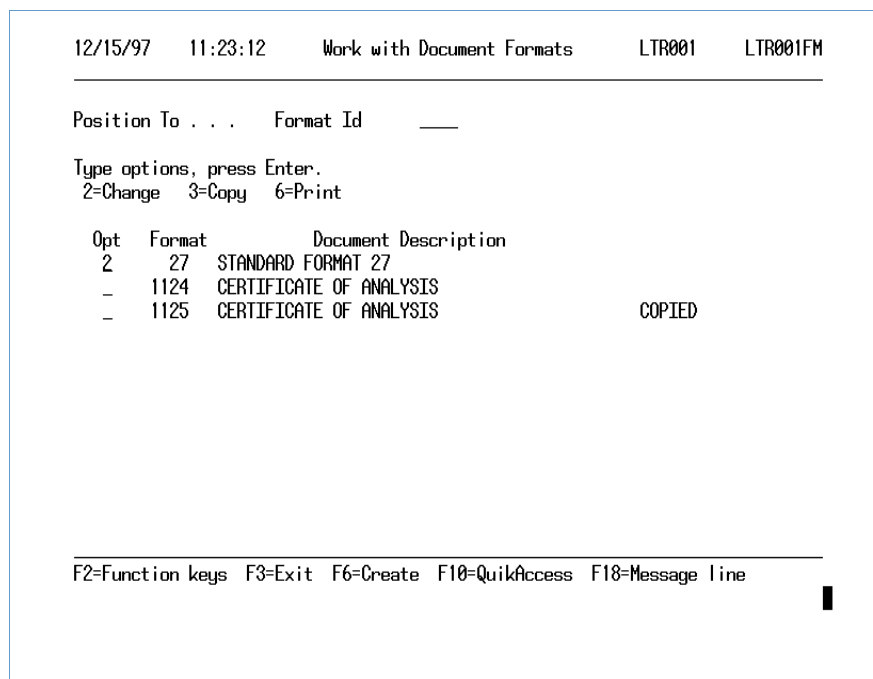


Figure 12-1: Work with Document Formats selection screen

To create a new document format, type the identifier in the *Format Id* field and press [F6].

You can copy existing document formats by typing **3** in the *Opt* field and pressing [Enter]. The system prompts you to name the new format. To edit an existing format, type **2** in the *Opt* field and press [Enter].

Adding Descriptive Information to a Document Format

```
1/07/98  12:25:43  Work with Document Formats  LTR001  LTR001FM
-----

Format Id . . . . . : 27
Definition . . . . . :
                    STANDARD FORMAT 27
-----

Last Maintained by . . . . . : AM2000
Last Maintenance Date . . . . . : 07/21/1997

-----

F2=Function keys  F3=Exit  F5=Refresh  F10=QuikAccess  F24=More keys
```

Figure 12-2: Work with Document Formats screen 1

You can type a definition or description of up to 50 characters for this particular document format. *Last Maintained by* and *Last Maintenance Date* are display only fields.

Press [Enter] after you make your entries to create the layout of the document format.

Designing a Document Format Template

12/15/97	11:23:51	Work with Document Formats	LTR001	LTR001FM
Format Id	27	STANDARD FORMAT 27		
Seq		Verbiage		
10				
20		PRODUCT GUARANTEE		
30				
40		INFINIUM SOFTWARE IS PLEASE TO HAVE YOUR BUSINESS AND WE HOPE YOU ARE		
50		HAPPY WITH YOUR LATEST PURCHASE.		
60				
70		CUSTOMER: ##CN	ORDER NO.:	##PO
80		##C1		
90		##C2		
100		##C3		
110		##C4	##CS	##CZ
120				
130				
140		SHIP DATE: ##OD	BATCH ID: ##B	*
F2=Function keys F3=Exit F5=Refresh F6=Create F24=More keys				

Figure 12-3: Work with Document Formats screen 2

On this screen and on as many subsequent screens as needed, you create the layout of the document format.

As in Formula Management, every line that you plan to use must have a sequence number. All lines default to 9999, and you can have up to 9999 lines. The last line must be 9999, indicating the end of the document format.

Sequence lines in increments of 10 or more so that you can insert lines at a later date, if needed. Line numbers automatically resequence to the original sequence once you save your entries.

You can type text and substitution symbols on the verbiage lines. Type all substitution codes in upper case letters. Each line accepts 132 characters; however, keep in mind that a standard 8 1/2 × 11 page accepts only 70 characters per line and 60 lines per page. As you type substitution codes, be sure that they match the Substitution Master Listing exactly.

Refer to the Substitution Master Listing to determine the amount of space needed after each code. Use the spacebar to insert the correct number of spaces after each code. For example, the code **##CC** represents “Customer City.” The entry in this field can be as long as 24 characters, so you need to be sure you have at least 24 spaces from the start of **##CC** to the beginning of the next code.

In addition to the codes on the Substitution Master Listing, several special codes are available to you. These codes are covered in the “Creating the Document Format for a Certificate of Analysis” section of this part.

Press [PgDn] to proceed to the next page of your document format.

Designing a Document Format Template

12/15/97	11:23:51	Work with Document Formats	LTR001	LTR001FM
Format Id	27	STANDARD FORMAT 27		
Seq		Verbiage		
150	PRODUCT: ##PR	_____		
160	_____			
170	YOU HAVE A FULL ONE-YEAR GUARANTEE ON ALL ASPECTS ON THE ABOVE			
180	LISTED PRODUCT. IF YOU HAVE ANY QUESTIONS OR PROBLEMS PLEASE			
190	GIVE US A CALL.			
200	_____			
210	_____			
220	CERTIFIED BY:	DATE:	_____	
230	TITLE: _____			
240	_____			
9999	_____			
_____	_____			
_____	_____			
_____	_____			
F2=Function keys F3=Exit F5=Refresh F6=Create F24=More keys				

Figure 12-4: Work with Document Formats screen 3

Remember, your document format can be up to 9999 lines, and your last line must be 9999.

Press [F6] to save your document format.

Printing a Sample Document Format

You can print a sample document format with the substitution codes.

Use the menu path below.

- ▶ *Document Format Capabilities*
 - ▼ *Work with Document Formats [WWDF]*

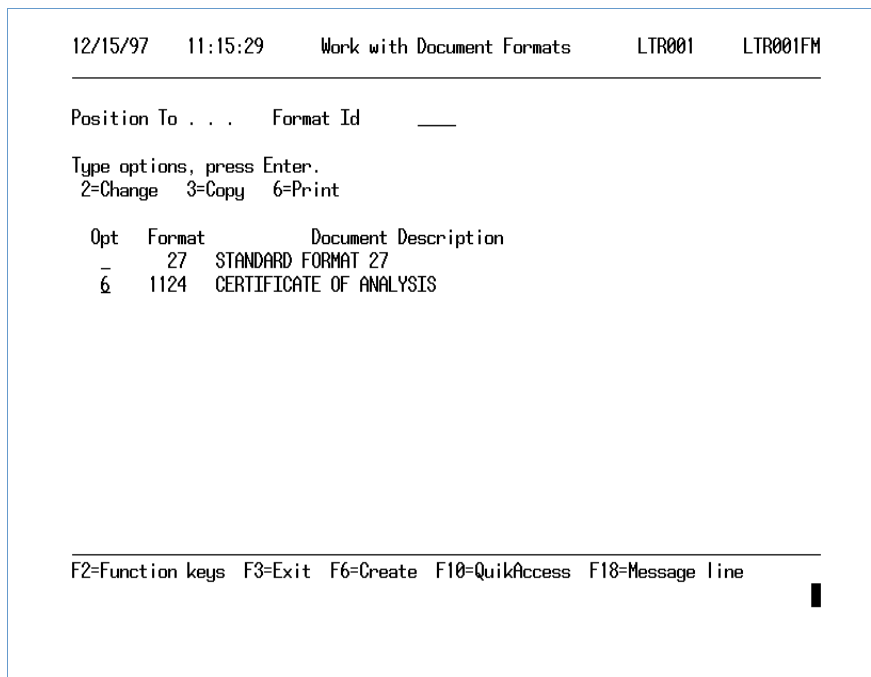


Figure 12-5: Work with Document Formats selection screen

To print your document format without the system data, type **6** in the *Opt* field beside the format and press [Enter].

Understanding Special Codes in Document Format Capabilities

Many companies use certificates of analysis to ensure product quality for their customers. You can create a certificate of analysis using the *Document Format Capabilities* menu.

Document Format Capabilities allows you to retrieve quality control information from batches created in Infinium MC. The quality control information you use is for formulas only. You can pull in quality control values for any Quality Control Test ID including:

- Normal values (also referred to as target values)
- Actual test results
- Quality control test descriptions and ratings

Remember, quality control templates are a combination of a test type, 3-digit sequence numbers, and 6-digit test identifiers. The following example is in the “Working with Quality Control Test Types and Templates” part:

Test Type	Seq #	Test ID
GAF	010	YIELD
GAF	020	VIS
GAF	030	WT/GAL
GAF	040	GRIND
GAF	050	GLOSS
GAF	060	REDUCE

Before you begin your certificate of analysis, review the following tables of special codes that are available. Become familiar with the available codes and how they work before you create a certificate of analysis or any document format that retrieves quality control information.

**Special
Substitution
Code**

Purpose

##RT This code allows you to add special verbiage at the end of a document format. Type this verbiage when you select the *Print Formats With Substitutions* option. Each time you print, the system purges this verbiage. Retype the verbiage the next time you print.

For example, one month you might type **"Happy Thanksgiving"** at the end of all formats and the next month you might type **"Merry Christmas."**

##ENDPAG If the page is less than 60 lines long, type this code on a blank line to designate the end of a page. The line you use must have a sequence number.

##QD Use this code to retrieve quality control test descriptions from a quality control template. The template is referenced by the quality control formula type code in the formula record. You must follow the code with the additional information below, which corresponds to the quality control template.

- A 3-digit quality control test sequence number that indicates where the test is positioned on the template

For example, ## QD001 refers to the first sequence number on the quality control template.

- A 6-character quality control test identifier

If the test is not 6 characters, be sure to type spaces for the remaining positions. For example, if the test identifier is VISC, type VISC and then press the spacebar twice.

##QD030VISC would be your entry if you want to retrieve the quality control test description from your designated formula's quality control test template, specifically line 030 of the VISC test.

**Special
Substitution
Code**

Purpose

##QC	<p>This code refers to quality control values you want the system to retrieve. You can retrieve normal or actual values depending on the information you type after the code. The ##QC code must be followed with the information shown below.</p> <ol style="list-style-type: none">1 A 3-digit close sequence number identifying the manufacturing batch (see choices are listed below)<ul style="list-style-type: none">• Type 000 for normal batch values.• Type 999 for data from the last close sequence of a reported batch.• Type any other 3-digit code to specify the close sequence number of a specific batch.2 A 3-digit quality control test sequence number that indicates where the test is positioned on the template3 A 6-character quality control test identifier <p>If the test identifier is not the full 6 characters, you must leave enough space to account for all 6 positions.</p>4 A 1-character code referring to the information you want retrieved:<ul style="list-style-type: none">• Type 1 to retrieve data from the <i>Desc/Rating 1</i> field in the quality control template.• Type 2 to retrieve data from the <i>Desc/Rating 2</i> field in the quality control template.• Type N to retrieve data from the <i>Normal Value</i> field in the quality control template.
-------------	--

The following pages contain tables that include examples using the **##QD** and **##QC** codes.

Examples Using the ##QD Substitution Code

Part 1	Part 2	Complete code and interpretation
##QD plus a 3-digit quality control test sequence number	6-character test identifier from the quality control template	
##QD030	PHTEST	##QD030PHTEST
This designates line 030 from the quality control template.	This refers to the PHTEST quality control test identifier.	This code is retrieving the quality control test description from your designated formula's quality control test template, specifically line 030, PHTEST.
##QD040	MACH12	##QC040MACH12
This designates line 040 from the quality control template.	This refers to the MACH12 quality control test identifier.	This code is retrieving the quality control test description from your designated formula's quality control test template, specifically line 040, MACH12.

Examples Using the ##QC Substitution Code

Part 1	Part 2	Part 3	Part 4	Complete code and interpretation
##QC with 3-digit batch close sequence number	3-digit quality control test sequence number	6-character test identifier from the quality control template	1-character information retrieval code	
##QC001	050	VISC	N	##QC001050VISC N
This designates the specific batch close sequence of 001 to use for information retrieval.	This refers to the 050 quality control test sequence number.	This refers to the VISC quality control test identifier.	This designates retrieval from the <i>Normal Value</i> field.	This code retrieves the data in the <i>Normal Value</i> field from the 050 test sequence number under the VISC identifier. Note the two spaces after VISC .

Examples Using the ##QC Substitution Code

Part 1	Part 2	Part 3	Part 4	Complete code and interpretation
##QC with 3-digit batch close sequence number	3-digit quality control test sequence number	6-character test identifier from the quality control template	1-character information retrieval code	
##QC999	010	WEIGHT	1	##QC999010WEIGHT1
This designates the last close sequence of a reported batch.	This refers to the 010 quality control test sequence number.	This refers to the WEIGHT quality control test identifier.	This designates retrieval from the <i>Desc/Rating 1</i> field on the quality control template.	This code retrieves the data in the <i>Desc/Rating 1</i> field from the 010 test sequence number under the WEIGHT identifier.
##QC000	020	COLOR	2	##QC000020COLOR 2
This designates the system to use the batch target/normal values defined in Quality Control.	This refers to the 020 quality control test sequence number.	This refers to the COLOR quality control test identifier.	This designates retrieval from the <i>Desc/Rating 2</i> field in the quality control template.	This code retrieves normal quality control values from <i>Desc/Rating 2</i> field from the 020 test sequence number under the COLOR identifier. Note the single space after COLOR .

Creating the Document Format for a Certificate of Analysis

Once you are familiar with the special codes, you can create a document format using those codes.

Use the menu path below.

- ▶ *Document Format Capabilities*
 - ▼ *Work with Document Formats [WWDF]*

```
12/15/97  11:17:18  Work with Document Formats  LTR001  LTR001FM
-----
Position To . . .  Format Id  ____
Type options, press Enter.
2=Change  3=Copy  6=Print

Opt  Format      Document Description
-    27  STANDARD FORMAT 27
-    1124 CERTIFICATE OF ANALYSIS
2    1125 CERTIFICATE OF ANALYSIS          COPIED

-----
F2=Function keys  F3=Exit  F6=Create  F10=QuikAccess  F18=Message line
```

Figure 12-6: Work with Document Formats selection screen

Type the document format number in the *Format Id* field and press [F6].

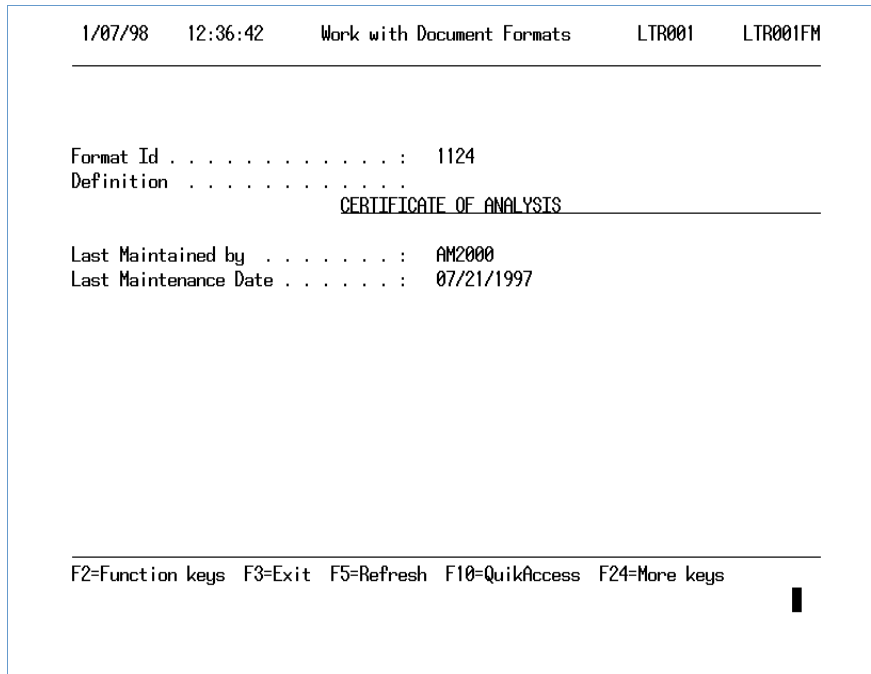


Figure 12-7: Work with Document Formats screen 1

Type the description of this format in the *Definition* field and press [Enter].

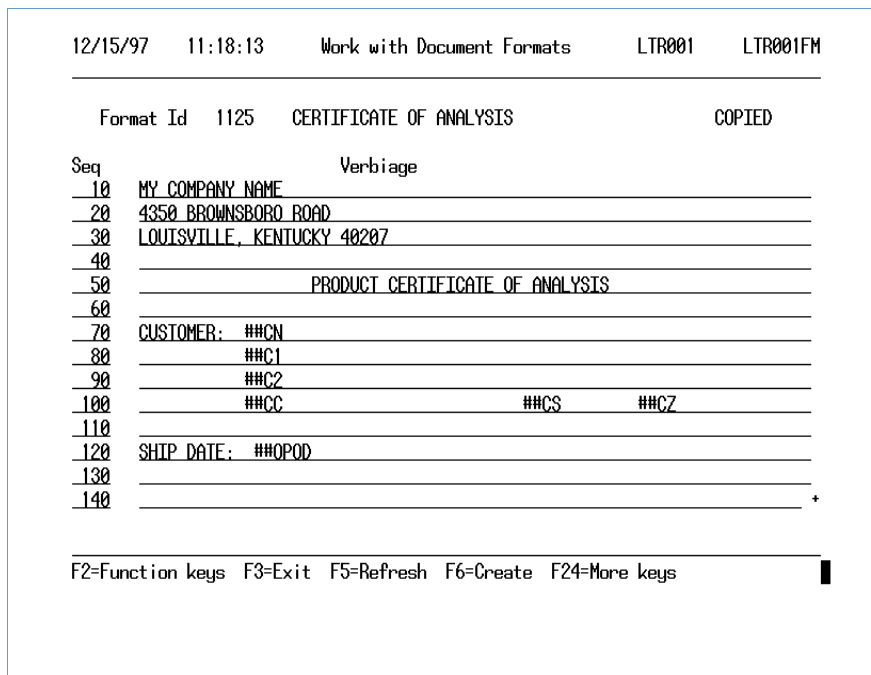


Figure 12-8: Work with Document Formats screen 2

This screen shows you a sample of a Certificate of Analysis. Type the verbiage and codes in the order you need them.

Be sure to leave enough space after a substitution code so there is enough room for the full field value to print.

```

12/15/97  11:18:13  Work with Document Formats  LTR001  LTR001FM
-----
Format Id  1125  CERTIFICATE OF ANALYSIS  COPIED

Seq      Verbiage
150  BATCH ID:  ##B#  PRODUCTION DATE:  ##MD
160  PRODUCT:  ##PR  QTY:  ##QQ
170  _____
180  _____
190  CUSTOMER PURCHASE ORDER #:  ##OPPO
200  _____
210  _____
220  _____
230  Q.C. TEST  NORMAL VALUE  ACTUAL VALUE
240  _____
250  ##QD030PHTEST  ##QC000030PHTESTN  ##QC999030PHTEST1
260  ##QD010WEIGHT  ##QC000010WEIGHTN  ##QC999010WEIGHT1
270  ##QD020COLOR  ##QC000020COLOR N  ##QC999020COLOR 1
9999  _____  +

F2=Function keys  F3=Exit  F5=Refresh  F6=Create  F24=More keys

```

Figure 12-9: Work with Document Formats screen 3

This document format uses the special quality control codes. Press [F6] to save your format.

Printing Formats with Substitution Codes

Use the *Print Formats with Substitutions* option to print documents with information retrieved from the Infinium files. If you type a code for your format, but no information is in the file, the system leaves the space where the information is to print blank.

If you type a code incorrectly, for example, if a quality control test from the template for this particular product or batch is wrong, the system displays a warning message.

To print formats, identify the format to print and then complete the Print Formats with Substitutions screen.

Use the menu path below.

- ▶ *Document Format Capabilities*
 - ▼ *Print Formats with Substitutions* [PFWS]

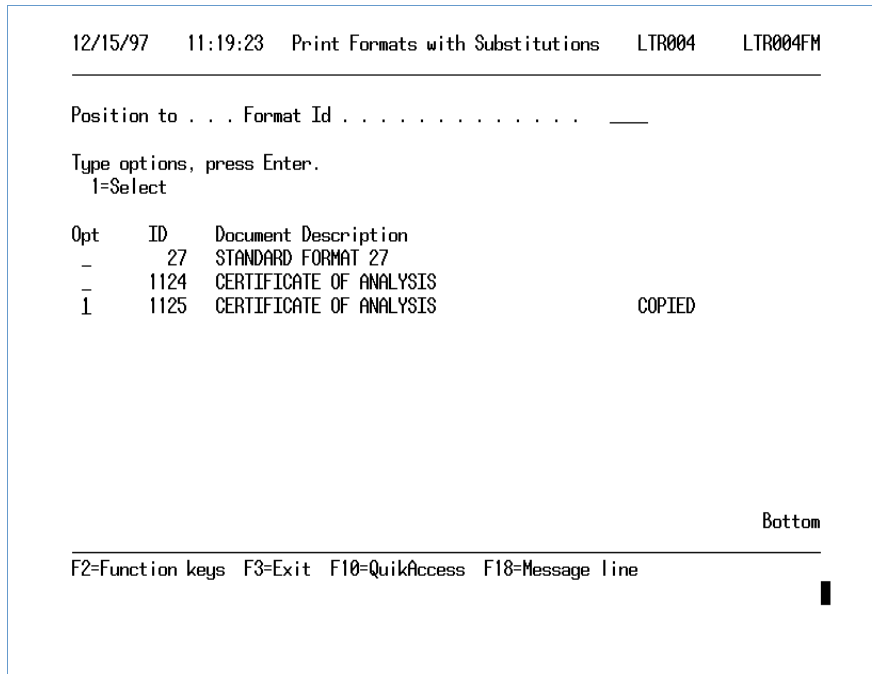


Figure 12-10: Print Formats With Substitutions selection screen

Type **1** beside the format you want to print and press [Enter]. Use the *Format Id* field to reposition the list of identifiers that display. To do so, type a format identifier or a partial identifier in this field and press [Enter].

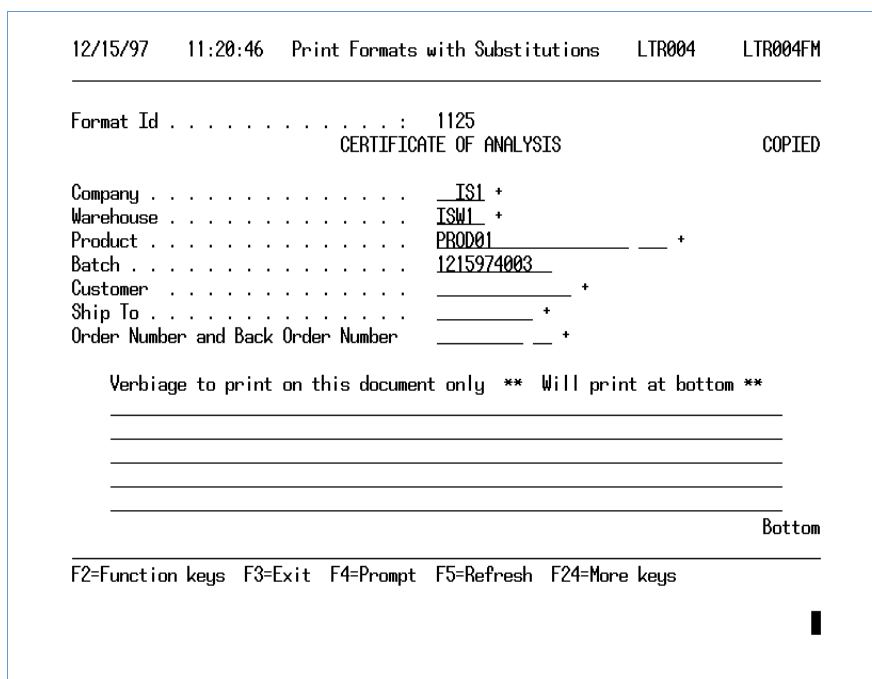


Figure 12-11: Print Formats With Substitutions screen

The format identifier and description display at the top of the screen. On this screen you specify information to print on the form. This indicates which Infinium records the system accesses to retrieve information for printing, as designated by the substitution codes typed on the document format.

For example, if you typed codes for the customer name, address, city, state, and zip, then your entry in the *Customer* field on this screen is necessary so the system can retrieve the address information.

The system does not validate your entries on this screen on-line; however, if you type an invalid code, an invalid request message prints on your format where the incorrect code was entered.

Make your entries on this screen as needed. The system requires entries in the *Company* and *Warehouse* fields.

The remaining fields depend on which substitution codes you used on your document format. For example, if your document format contains the code for customer number, complete the *Customer* field.

The *Verbiage to print on this document only ** Will print at bottom *** field allows you to type verbiage for this document format at the end of the format. You must type the **##RT** code at the end of your document format for this to display. The verbiage can be up to five lines with 70 characters per line.

Press [Enter] to print the format.

Several function keys are available to you. They include:

- [F5] This key clears the screen so that you can begin again if you make a mistake.

- [F12] This key cancels the information on the screen and redisplay the first screen of this option.

- [F3] This key exits the format and displays the *Document Format Capabilities* menu.

Deleting a Document Format

You have the capability to delete document formats.

Use the menu path below.

- ▶ *Document Format Capabilities*
 - ▼ *Work with Document Formats [WWDF]*

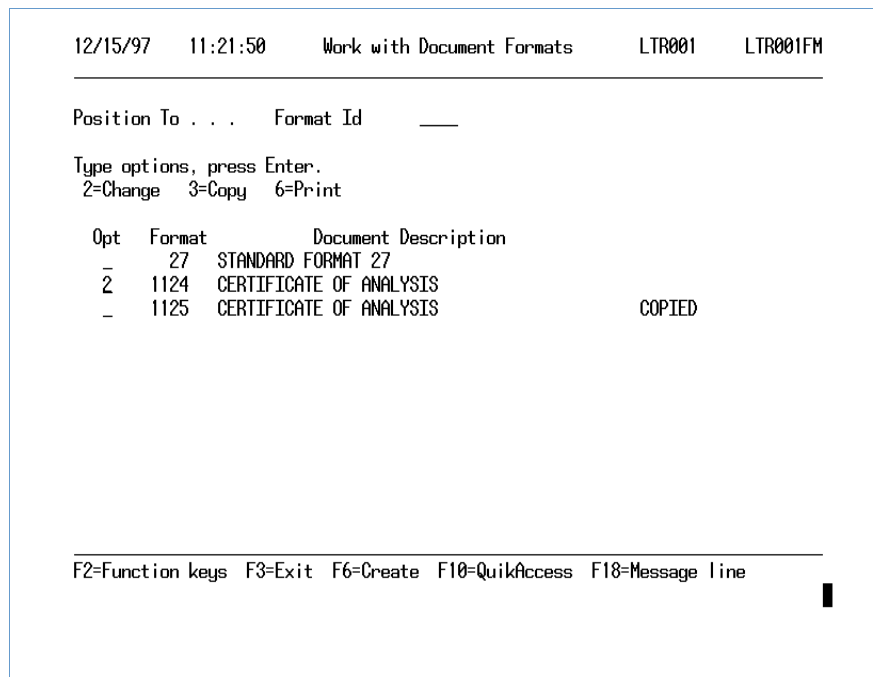


Figure 12-12: Work with Document Formats selection screen

Type **2** beside the document format you want to delete and press [Enter].

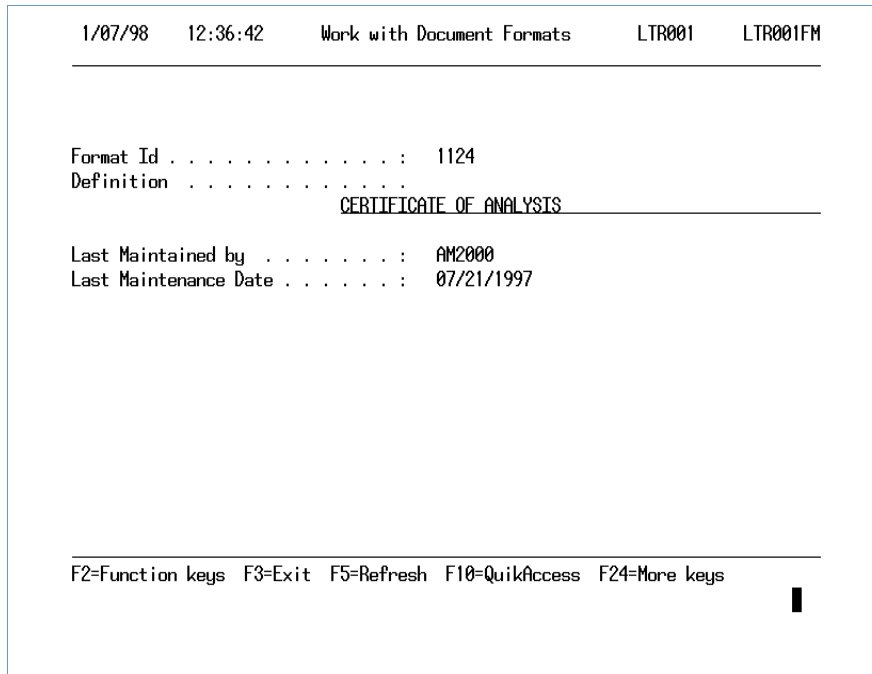


Figure 12-13: Work with Document Formats screen

Press [F22] twice to delete the format.

Notes

Appendix A

Infinium PF Reports



The appendix contains consists of the following topics:

Topic	Page
Printing Formulas	A-2
Printing the Formula Count Report	A-18
Printing Formula Comments	A-20
Printing Quality Control Templates	A-23
Printing the Material Analysis Report	A-26
Printing Retest and Expire Reports	A-29
Printing the Substitution Master Listing	A-32
Printing the Archived Formula Listing	A-34
Printing the Audit Notes Listing	A-36

Printing Formulas

You can print information for one formula, a range of formulas, or all formulas.

The same choices are also available for product category formula reports. You assign product categories to products and you can print formulas associated with a certain product which is connected to a specific product category.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Print Formula (Range or All) [PF]*

```
11/27/02  14:14:36  Print Formula (Range or All)  PPGFR  PPDFR
-----
Report on . . . . .  1  1=Formula, 2=Product Category
Company . . . . .  _____ +
Warehouse . . . . .  _____ +
Include Lower Levels . . . . .  Y  (Y=Yes, N=No)

Specify range values for report:
Beginning range value . . . . .  _____ +
Ending range value . . . . .  _____ +

Effective Instances only . . . . .  N  (Y=Yes, N=No)

Report Type . . . . .  2  1-4
Formula Class to Report . . . . .  0  0-5

-----
F2=Function keys  F3=Exit  F4=Prompt  F5=Refresh  F24=More keys
```

Figure A-1: Print Formula (Range or All) screen

Beginning range value, Ending range value

To print a report for one formula, complete the *Beginning range value* field. To print the report for a range of formulas, complete both the *Beginning range value* and *Ending range value* fields. Additionally, to run a report for all formulas or categories, leave both of these fields blank.

Report Type

The four report types are:

- 1 Formula Listing
- 2 Formula Detail Listing
- 3 Comprehensive Detail Listing with MSDS data
- 4 Comprehensive Detail Listing with QC and MSDS information

Formula Class to Report

You can designate the class of formula to print. Classes are:

- 0 All formulas regardless of classification
- 1 Formulas
- 2 Raw Material Breakdown Formulas
- 3 Intermediate Formulas
- 4 Bills of Material/Kits (Process)
- 5 Phantom Formulas

You can print individual formulas by pressing [F8] on the Work with Formula Attribute screen or by typing **6** next to a formula on the Work with Formula Selection screen. Additionally, many of the formula attribute screens have print keys available on them in both the display and maintenance modes.

A Formula Count report is also available from the Infinium PF *Formula Management* menu, using the *Print Formula Count* option. This report counts all formulas by formula type and identifies the longest formula you have on the system.

Effective Instances only

Specify yes to select only the formula instance that is currently in effect as of the system date for each formula in the range you specified.

Specify no to select all formula instances regardless of the effective date.

Formula by Location

Company, Warehouse, Include Lower Levels and Effective Instances only are used to further define the formula selection criteria for the range of formulas specified in *Beginning Formula, Ending Formula*. The tables below describe the various formula selection criteria for printing the report.

Selection Criteria for Effective Formulas Only

Use the table below to specify the selection criteria for only the formula instance that is currently in effect as of the system date for each formula in the range you specified.

To print...	You must...
Formula instances for a specific warehouse	Specify <i>Company</i> and <i>Warehouse</i> Type either Y or N in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
Formula instances for a specific company and all of its warehouses	Specify <i>Company</i> Leave <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
All Formula instances including the entity formulas	Leave <i>Company</i> and <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
Company formula instances only	Specify <i>Company</i> Leave <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>
Entity formula instances only	Leave <i>Company</i> and <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type Y in <i>Effective Instances only</i>

Selection Criteria for Formulas Regardless of Effective Date

Use the table below to specify the selection criteria for all formula instances. When you specify **N** in *Effective Instance only*, all formula are selected regardless of the effective date.

To print...	You must...
Formula instances for a specific warehouse	Specify <i>Company</i> and <i>Warehouse</i> Type either Y or N in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
Formula instances for a specific company and all of its warehouses	Specify <i>Company</i> Leave <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
All formula instances, including the entity formulas	Leave <i>Company</i> and <i>Warehouse</i> blank Type Y in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
Company formulas instances only	Specify <i>Company</i> Leave <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>
Entity formula instances only	Leave <i>Company</i> and <i>Warehouse</i> blank Type N in <i>Include Lower Levels</i> Type N in <i>Effective Instances only</i>

PPGFLR PPTFLR
8/01/02 8:54:27

F O R M U L A L I S T I N G

PJT

 Company IS1
 Warehouse ISW1
 Include Lower Levels Yes
 Beginning Formula PG-FORMULA1
 Ending Formula PG-FORMULA1
 Beginning Product Category
 Ending Product Category
 Effective Instances Only No
 Formula Class to Report 0 ALL

ACTIVE		CLASS	
CODE	DESCRIPTION	CODE	DESCRIPTION
1	ACTIVE	1	FORMULA
2	TEST	2	RAW MATERIAL BREAKDOWN
3	REMOVE	3	INTERMEDIATE
4	OBSOLETE	4	BILL OF MATERIAL
	Document	5	Phantom Formula

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F O R M U L A L I S T I N G

PAGE 1
PJT

FORMULA	ACTIVE CODE	CLASS CODE	----- CALCULATED	Y I E L D UM	----- ESTABLISHED	--- WEIGHT PER VOLUME --- CALCULATED	--- ESTABLISHED	-- LOSS FACTOR
PG-FORMULA1 PG-FORMULA1 for Analysis	2	1	2422.5257	L		1.34970		

***** RECORDS SELECTED . . 000001

***** END OF REPORT *****

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 8/01/02 8:54:34
 PJT

F O R M U L A D E T A I L S R E P O R T

Company	IS1
Warehouse	ISW1
Include Lower Levels	Yes
Beginning Formula	PG-FORMULA1
Ending Formula	PG-FORMULA1
Beginning Product Category	
Ending Product Category	
Effective Instances Only	No
Formula Class to Report	0 ALL

FORMULA DETAILS REPORT

```

COMPANY AND WAREHOUSE LOCATION . : 1 11
FORMULA . . . . . : PG-FORMULA1 PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2 TEST ESTABLISHED YIELD . . . . . :
CLASS . . . . . : 1 FORMULA ESTABLISHED WEIGHT PER VOLUME . . . . . :
UNIT OF MEASURE . . . . . : L CALCULATED WEIGHT PER VOLUME . . . . . :
1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC. TYPE . . . . . : ABC ABC CHEMICAL PROPERTIES OVERRIDE . . . . . :
: COST OVERRIDE FORMULA . . . . . :
: MSDS. OVERRIDE FORMULA . . . . . :
: LABEL CODE . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00 ROUGH CUT CAPACITY PLANNING FORMULA . :
REVISION CODE AND INITIALS . . . . :
  
```

BASE		WEIGHT/ FIX ING CRITICAL		-- SOLID --		-- LIQUID --		SOLID - BASE		LIQUID -	
SEQ	INGREDIENT	VOLUME	RESOURCE	QUANTITY	UM	QUANTITY	UM	QUANTITY	UM	QUANTITY	UM
10	PG-FRM-RM1	.40000		20.0000	GM	20.0000	L	4.2268	LB	5.2834	
GL	RM1 for PG-FRM		N								
20	PG-FRM-RM2	.80000		10.0000	KG	10.0000	KL	22.0462	LB	24.4958	
GL	RM2 for PG-FRM		N								
30	PG-FRM-RM3	.50000		.5000	KG	.5000	KL	1.1023	LB	2.2046	
GL	RM3 for PG-FRM		N								
40	PG-FRM-RM4	1.02000		100.5000	KG	100.5000	KL	221.5646	LB	217.2202	
GL	RM4 for PG-FRM		N								
50	PG-FRM-RM5	2.00000		75.0000	KG	75.0000	KL	165.3467	LB	82.6734	
GL	RM5 for PG-FRM		N								
60	Subtotal						**	414.2866	LB	331.8774	
*GL											
70	PG-FRM-RM6	.60000		10.0000	GM	10.0000	L	1.5850	LB	2.6417	
GL	RM6 for PG-FRM		N								
80	PG-FRM-RM7	1.30000		20.0000	GM	20.0000	L	6.8685	LB	5.2834	
GL	RM7 for PG-FRM		N								
90	PG-FRM-RM8	1.50000		200.0000	KG	200.0000	KL	440.9246	LB	293./0097	
GL	RM8 for PG-FRM		N								
100	PG-FRM-RM9	.70000		1.0000	KG	1.0000	KL	2.2046	LB	3.1495	
GL	RM9 for PG-FRM		N								
110	Subtotal since last subtotal						**	451.5827	LB	305.0243	
*GL											
120	POTATOS	EA	1.00000	25.0000	LB	25.0000	GL	25.0000	LB	25.0000	
GL	POTATOS		N								
130	**** End of Formula ****										

GL	2505.5704	L	1.34970	ACCUMULATED TOTALS	890.8693	LB	661.9017
GL		L		ESTABLISHED TOTALS		LB	
GL	2422.5257	L	1.34970	CALCULATED TOTALS		LB	

***** END OF REPORT *****

PSR220

C O M P R E H E N S I V E F O R M U L A R E P O R T

8/01/02 8:54:35

PJT

Company IS1
Warehouse ISW1
Include Lower Levels Yes
Beginning Formula PG-FORMULA1
Ending Formula PG-FORMULA1
Beginning Product Category
Ending Product Category
Effective Instances Only No
Formula Class to Report 0 ALL

C O M P R E H E N S I V E F O R M U L A R E P O R T

 COMPANY AND WAREHOUSE LOCATION . : 1 11
 FORMULA : PG-FORMULA1 PG-FORMULA1 for Analysis
 ACTIVE CODE : 2 TEST ESTABLISHED YIELD :
 CLASS : 1 FORMULA ESTABLISHED WEIGHT PER VOLUME :
 UNIT OF MEASURE : L CALCULATED WEIGHT PER VOLUME :
 1.34970
 PERCENTAGE LOSS : CHEMICAL PROPERTIES OVERRIDE :
 CLINGAGE LOSS : COST OVERRIDE FORMULA :
 FORMULA QC. TYPE : ABC ABC MSDS OVERRIDE FORMULA :
 LABEL CODE : ROUGH CUT CAPACITY PLANNING FORMULA :
 FORMULA LAST REVISION DATE : 0/00/00 REVISION CODE AND INITIALS :
 ----- M S D S DATA -----

 PRODUCT CLASS DESCRIPTION : Product class for formula PG-FORMULA1 *
 TRADE NAME : Trade Name for PG-FORMULA1 (printed on Lab rpt) *
 SPECIAL INSTRUCTIONS :
 MSDS TYPE :
 STANDARD BATCH UM AND SIZES . . . : L 437.0000
 HIGH BOILING POINT : 100.0 VAPOR PRESSURE : 1.00
 LOW BOILING POINT : 99.5 VAPOR DENSITY : 1.00
 EVAPORATION RATE : 1.000 LOWEST FLASHPOINT : 150.0
 LOWER EXPLOSION LEVEL : 10.0
 HEALTH CODE : 2* FLAMMABILITY CODE : 3
 REACTIVITY CODE : 1 PERSONNEL CODE : X
 PHYSICAL STATE : SOLID APPEARANCE : APPEARANCE OF PG-FORMULA1
 ODOR : MODERATE ESTER WATER SOLUBILITY : SPARINGLY SOLUBLE *
 ----- INGREDIENTS AND INSTRUCTIONS -----

BASE		WEIGHT/ FIX ING CRITICAL	-- SOLID --	-- LIQUID --	SOLID - BASE	LIQUID -
SEQ	INGREDIENT	VOLUME	QUANTITY UM	QUANTITY UM	QUANTITY UM	QUANTITY
UM	DESCRIPTION	CODE RESOURCE				
10	PG-FRM-RM1	.40000	20.0000 GM	20.0000 L	4.2268 LB	5.2834
GL	RM1 for PG-FRM	N				
20	PG-FRM-RM2	.80000	10.0000 KG	10.0000 KL	22.0462 LB	24.4958
GL	RM2 for PG-FRM	N				
30	PG-FRM-RM3	.50000	.5000 KG	.5000 KL	1.1023 LB	2.2046
GL	RM3 for PG-FRM	N				
40	PG-FRM-RM4	1.02000	100.5000 KG	100.5000 KL	221.5646 LB	217.2202
GL	RM4 for PG-FRM	N				
50	PG-FRM-RM5	2.00000	75.0000 KG	75.0000 KL	165.3467 LB	82.6734
GL	RM5 for PG-FRM	N				
60	Subtotal			**	414.2866 LB	331.8774
*GL						
70	PG-FRM-RM6	.60000	10.0000 GM	10.0000 L	1.5850 LB	2.6417 GL
RM6	for PG-FRM	N				
80	PG-FRM-RM7	1.30000	20.0000 GM	20.0000 L	6.8685 LB	5.2834
GL	RM7 for PG-FRM	N				
90	PG-FRM-RM8	1.50000	200.0000 KG	200.0000 KL	440.9246 LB	293./0097
GL	RM8 for PG-FRM	N				

100	PG-FRM-RM9		.70000	1.0000	KG	1.0000	KL	2.2046	LB	3.1495	GL
RM9 for	PG-FRM		N								
110		.....	Subtotal since last subtotal					**	451.5827	LB	305.0243
*GL											
120	POTATOS	EA	1.00000	25.0000	LB	25.0000	GL	25.0000	LB	25.0000	
GL	POTATOS		N								
130		****	End of Formula	****							

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 PAGE 2
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C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

```

-----
COMPANY AND WAREHOUSE LOCATION . : 1 11
FORMULA . . . . . : PG-FORMULA1 PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2 TEST ESTABLISHED YIELD . . . . . :
CLASS . . . . . : 1 FORMULA ESTABLISHED WEIGHT PER VOLUME . . . . . :
UNIT OF MEASURE . . . . . : L CALCULATED WEIGHT PER VOLUME . . . . . :
:1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC ABC CHEMICAL PROPERTIES OVERRIDE . . . . . :
LABEL CODE . . . . . : COST OVERRIDE FORMULA . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00 MSDS OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . :
REVISION CODE AND INITIALS . . . . . :
-----

```

```

-----
GL 2505.5704 L 1.34970 ACCUMULATED TOTALS 890.8693 LB 661.9017
ESTABLISHED TOTALS LB
GL L 1.34970 CALCULATED TOTALS LB
GL 2422.5257 L
-----

```

***** END OF REPORT *****

PSR220
8/01/02 8:54:42

C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

Company	IS1
Warehouse	ISW1
Include Lower Levels	Yes
Beginning Formula	PG-FORMULA1
Ending Formula	PG-FORMULA1
Beginning Product Category	
Ending Product Category	
Effective Instances Only	No
Formula Class to Report	0 ALL

C O M P R E H E N S I V E F O R M U L A R E P O R T

```

COMPANY AND WAREHOUSE LOCATION . : 1 11
FORMULA . . . . . : PG-FORMULA1 PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2 TEST ESTABLISHED YIELD . . . . . :
CLASS . . . . . : 1 FORMULA ESTABLISHED WEIGHT PER VOLUME . . . . . :
UNIT OF MEASURE . . . . . : L CALCULATED WEIGHT PER VOLUME . . . . . :
1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC ABC CHEMICAL PROPERTIES OVERRIDE . . . . . :
LABEL CODE . . . . . : COST OVERRIDE FORMULA . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00 MSDS OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . . . . . :
REVISION CODE AND INITIALS . . . . . :
  
```

Q C DATA

<----- TEMPLATE DATA ----->				<----- Q C DATA ----->				FORMULA TARGET VALUES									
PRINT ON	DELETE	ORIGINAL	LAST	MINIMUM	MAXIMUM	TARGET	VARIANCE	TEST ID	SEQ	DESCRIPTIONS	RATINGS	COMMENTS	UM	VALUE	VALUE	VALUE	PERCENTAGE
BATCH	TICKET	STATUS	UPDATE	UPDATE	VALUE	VALUE	PERCENTAGE										
ABC3	3	TEST 3 FOR 'ABC'	RATE1 - ABC3	COMMENT 1 FOR ABC3 *	10.00000-	10.00000	20.000	N	ACTIVE	8/12//00	3/15/02						
PGTSTF	15	DESC 2 FOR TEST3	RATE2 - ABC3	COMMENT 2 FOR ABC3 *	15.10000	15.20000	.150	N	ACTIVE	10/12//00	3/15/02						
		TEMPL/PGTSTF/DS1	TV/PGTSTF/R1	TV/PGTSTF/COMMENT 1.													
		TEMPL/PGTSTF/DS2	TV/PGTSTF/R2	TV/PGTSTF/COMMENT 2.													

M S D S DATA

```

PRODUCT CLASS DESCRIPTION . . . . : Product class for formula PG-FORMULA1 *
TRADE NAME . . . . . : Trade Name for PG-FORMULA1 (printed on Lab rpt) *
SPECIAL INSTRUCTIONS . . . . . :
MSDS TYPE . . . . . :
STANDARD BATCH UM AND SIZES . . . : L 437.0000
HIGH BOILING POINT . . . . . : 100.0 VAPOR PRESSURE . . . . . : 1.00
LOW BOILING POINT . . . . . : 99.5 VAPOR DENSITY . . . . . : 1.00
EVAPORATION RATE . . . . . : 1.0000 LOWEST FLASHPOINT . . . . . : 150.0
LOWER EXPLOSION LEVEL . . . . . : 10.0
HEALTH CODE . . . . . : 2* FLAMMABILITY CODE . . . . . : 3
REACTIVITY CODE . . . . . : 1 PERSONNEL CODE . . . . . : X
PHYSICAL STATE . . . . . : SOLID APPEARANCE : APPEARANCE OF PG-FORMULA1
ODOR . . . . . : MODERATE ESTER WATER SOLUBILITY . . . . . : SPARINGLY SOLUBLE *
  
```

INGREDIENTS AND INSTRUCTIONS

BASE		WEIGHT/		-- SOLID --		-- LIQUID --		SOLID - BASE		LIQUID -	
SEQ	INGREDIENT	FIX ING CRITICAL	VOLUME	QUANTITY	UM	QUANTITY	UM	QUANTITY	UM	QUANTITY	UM
10	PG-FRM-RM1		.40000	20.0000	GM	20.0000	L	4.2268	LB	5.2834	
GL	RM1 for PG-FRM		N								
20	PG-FRM-RM2		.80000	10.0000	KG	10.0000	KL	22.0462	LB	24.4958	
GL	RM2 for PG-FRM		N								

30	PG-FRM-RM3	.50000	.5000 KG	.5000 KL	1.1023 LB	2.2046 GL
RM3 for PG-FRM		N				
40	PG-FRM-RM4	1.02000	100.5000 KG	100.5000 KL	221.5646 LB	217.2202
GL RM4 for PG-FRM		N				
50	PG-FRM-RM5	2.00000	75.0000 KG	75.0000 KL	165.3467 LB	82.6734
GL RM5 for PG-FRM		N				
60	..... Subtotal			**	414.2866 LB	331.8774
*GL						

PSR220 PSR220PR
 PAGE 2
 8/01/02 8:54:42

C O M P R E H E N S I V E F O R M U L A R E P O R T

PJT

```

-----
COMPANY AND WAREHOUSE LOCATION . : 1 11
FORMULA . . . . . : PG-FORMULA1 PG-FORMULA1 for Analysis
ACTIVE CODE . . . . . : 2 TEST ESTABLISHED YIELD . . . . . :
CLASS . . . . . : 1 FORMULA ESTABLISHED WEIGHT PER VOLUME . . . . . :
UNIT OF MEASURE . . . . . : L CALCULATED WEIGHT PER VOLUME . . . . . :
1.34970
PERCENTAGE LOSS . . . . . :
CLINGAGE LOSS . . . . . :
FORMULA QC TYPE . . . . . : ABC ABC CHEMICAL PROPERTIES OVERRIDE . . . . . :
LABEL CODE . . . . . : COST OVERRIDE FORMULA . . . . . :
FORMULA LAST REVISION DATE . . . : 0/00/00 MSDS OVERRIDE FORMULA . . . . . :
ROUGH CUT CAPACITY PLANNING FORMULA . . . . . :
REVISION CODE AND INITIALS . . . . . :
-----

```

----- INGREDIENTS AND INSTRUCTIONS -----

BASE	SEQ	INGREDIENT	WEIGHT/ FIX ING CRITICAL	-- SOLID --	-- LIQUID --	SOLID - BASE	LIQUID -
UM	DESCRIPTION	CODE	VOLUME RESOURCE	QUANTITY	UM	QUANTITY	UM
GL	70	PG-FRM-RM6	.60000	10.0000	GM	10.0000	L
		RM6 for PG-FRM	N			1.5850	LB
GL	80	PG-FRM-RM7	1.30000	20.0000	GM	20.0000	L
		RM7 for PG-FRM	N			6.8685	LB
GL	90	PG-FRM-RM8	1.50000	200.0000	KG	200.0000	KL
		RM8 for PG-FRM	N			440.9246	LB
GL	100	PG-FRM-RM9	.70000	1.0000	KG	1.0000	KL
		RM9 for PG-FRM	N			2.2046	LB
	110	..... Subtotal since last subtotal				**	451.5827
							LB
*GL	120	POTATOS	EA 1.00000	25.0000	LB	25.0000	GL
		POTATOS	N			25.0000	LB
GL	130	**** End of Formula ****					

```

-----
GL 2505.5704 L 1.34970 ACCUMULATED TOTALS 890.8693 LB 661.9017
GL L ESTABLISHED TOTALS LB
GL 2422.5257 L 1.34970 CALCULATED TOTALS LB
-----
***** END OF REPORT *****

```

Printing the Formula Count Report

On occasion, check your system for the number and types of formula records you have on file to determine whether the system can remove or classify any of them. The *Print Formula Count* option generates a report that provides an overview of the records you have on file.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Print Formula Count [PFCO]*

The report that prints includes the total number of formulas on file in each of the available formula classifications: active, obsolete, remove, and test. The report also identifies the formula with the highest number of lines and gives the number of lines contained in that formula.

This report does not have a selection screen; it runs automatically when you select this option.

The report includes the total number of formulas on file in each of the available formula classifications: active, obsolete, remove, and test. If you have implemented formula by location, the report includes global as well as FBL copies in the count.

The other two options in the *Code Files Maintenance* menu, *Work with Quality Control Test Type* and *Work with Quality Control Template*, are discussed in the “Working with Quality Control Test Types and Templates” topic.

A sample of this report is on the next page.

PSR850 PST850
10/22/96 13:21:06

F O R M U L A C O U N T R E P O R T

PAGE 1
PJT

TYPE COUNT
ACTIVE 73
OBSOLETE
REMOVE 3
TEST 10
TOTAL 86
MAXIMUM # LINES : 217
IN THE FORMULA : 200TEST

***** END OF REPORT *****

Printing Formula Comments

You can print a single comment, a range of comments, or all comments by using the *Print Formula Comments* option.

Use the menu path below.

- ▶ *Formula Management*
 - ▼ *Print Formula Comments* [PFC]

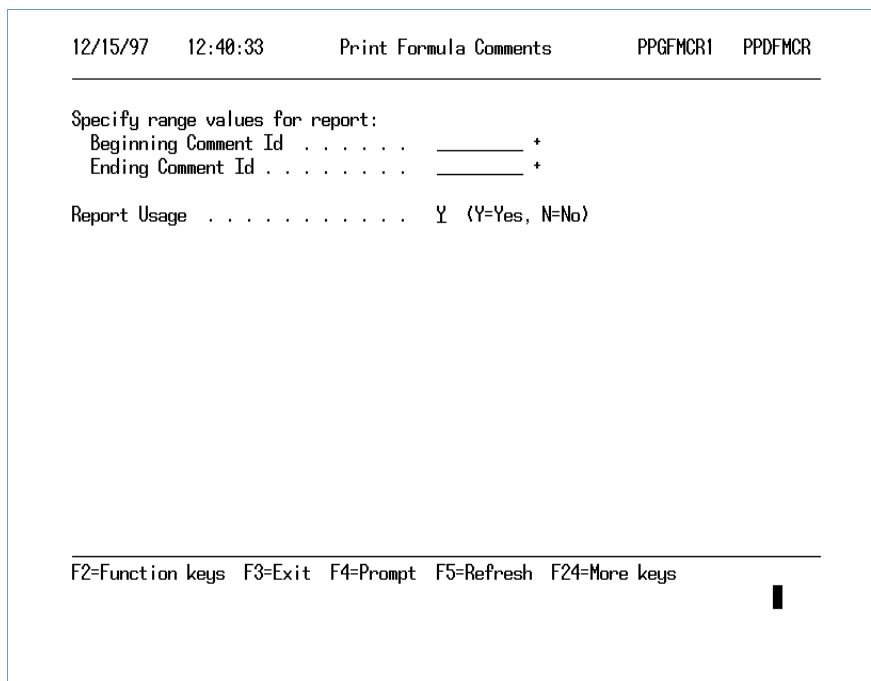


Figure A-2: Print Formula Comments screen

To print a single comment, type the comment identifier in the *Beginning Comment Id* field.

To print a range of comments, complete both the beginning and ending comment identifier fields. To print all comments, leave both fields blank.

Report Usage

Type **Y** in the *Report Usage* field to list the formulas that use each comment.

Press [Enter] to generate the report.

A sample Formula Master Comments report is on the next page.

PPGFMCR PPTFMCR FORMULA MASTER COMMENTS REPORT PAGE 1
 8/01/02 13:08:41 WMM

```

-----
COMMENT ID COMMENT TEXT USED IN: FORMULA FORMULA FORMULA
CMBEGINF **** Beginning of Formula **** PG TEST FORMULA 1
CMCOM1 Test for temperature level ranges.
CMDEL Deliver Materials to Work center
CMENDF **** End of Formula ****
CMLIN -----
CMMOVE Move finished product to warehouse
CMSTIR Stir for 10 minutes
CMSTOT
CMST1 ..... Subtotal
CMST2 ..... Subtotal since last subtotal
CMTOT
CMTRANS Transfer item to intermediate storage.
CMVAR1 Wait && minutes until firm. RED PAINT
CMVAR2 Stir briskly for &&& minutes.
CMVAR3 Stir occasionally for &&& minutes.
    
```

***** RECORDS SELECTED . . 000015

***** END OF REPORT *****

Printing Quality Control Templates

This option allows you to decide what information to include when you print a quality control template listing.

Use the menu path below.

- ▶ *Code Files Maintenance*
 - ▼ *Work with QC Template [WWQCT]*

```
12/15/97 12:41:13 Work with QC Template QCR001 QCR001FM
-----
Position to . . . QC Test Type . . . ___ +
                QC Seq# . . . . . ___
                Test ID . . . . . _____
Type options, press Enter.
2=Change
Opt Type Seq ID Desc 1 Desc 2 Comment Ctgy Sts
- COL 10 VISUAL VISUAL TEST 1 1
- GAF 10 YIELD YIELD DESC 1 YIELD DESC 2 YIELD COMMENT 1 1
- GAF 20 VIS VISCOSITY TEST 1 1
- GAF 30 WT/VOL WEIGHT/GALLON 1 1
- GAF 40 GRIND GRIND TEST 1 1
- GAF 50 GLOSS GLOSS TEST 1 1
- GAF 60 REDUCE REDUCE TEST 1 1
- GEN 20 PHTEST PHTEST PH BALANCE 1 1
- GEN 30 WT/VOL WEIGHT/VOLUME TEST ID #3443 ALWAYS TEST 1 1
- GEN 40 VICS VISC TEST TEST ID #6630 1 1
- PHA 10 CLEAN CLEAN APPEARANCE 1 1
- PHA 20 WRAPPE WRAPPED-PLASTIC 1 1
More...
-----
F2=Function keys F3=Exit F4=Prompt F6=Create F24=More keys
```

Figure A-3: Work with QC Template selection screen

Press [F8] on this screen to access the Work with QC Template Print Options screen.

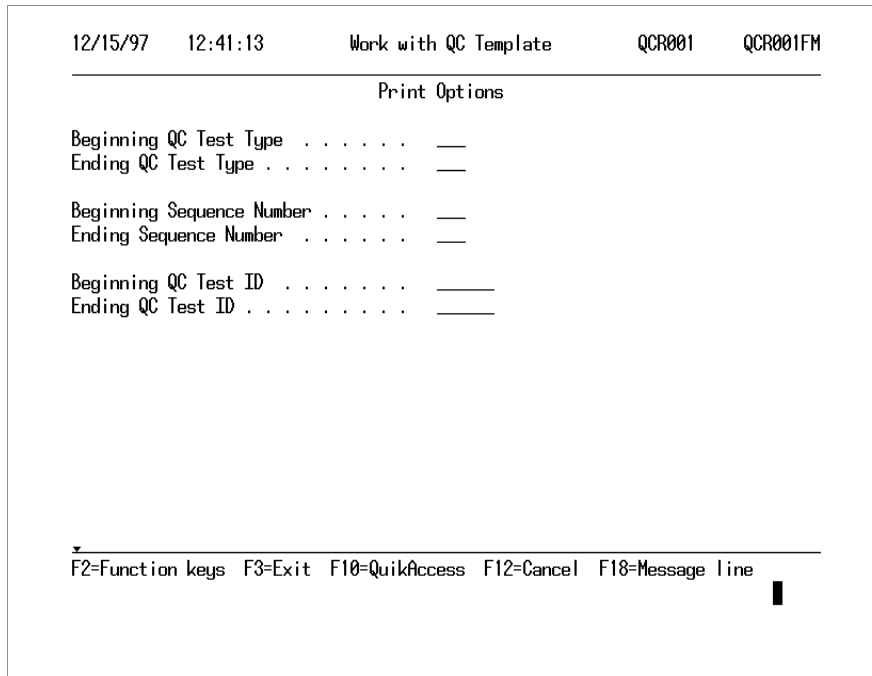


Figure A-4: Work with QC Template Print Options screen

You can generate a variety of reports based on how you complete the fields on this screen.

Leave all the fields blank to print a complete list of test types with corresponding template information.

If you complete just the beginning fields, the listing starts from that point and prints every test type that follows.

You can complete the appropriate combination of fields to limit your report information to print within a range of test types, sequence numbers, and/or test ID's.

This sample screen requests a report for the GAF test type that includes all template information. The template listing for GAF is on the next page.

TEST TYPE	DESCRIPTION	Q.C. ID	TEST SEQ NO.	DESCRIPTION 1	DESCRIPTION 2	COMMENT	PRINT CODE	DELETE CODE
GAF	STRAINER GAF	YIELD	010	YIELD DESC 1	YIELD DESC 2	YIELD COMMENT 1	B	A
GAF	STRAINER GAF	VIS	020	VIS DESC 1	VIS DESC 2	VIS COMMENT 1	B	A
GAF	STRAINER GAF	WT/GAL	030	WT/GAL DESC 1	WT/GAL DESC 2	WT/GAL COMMENT 1	B	A
GAF	STRAINER GAF	GRIND	040	GRIND DESC 1	GRIND DESC 2	GRIND COMMENT 1	B	A
GAF	STRAINER GAF	GLOSS	050	GLOSS DESC 1	GLOSS DESC 2	GLOSS COMMENT 1	B	A
GAF	STRAINER GAF	REDUCE	060	REDUCE DESC 1	REDUCE DESC 2	REDUCE COMMENT 1	B	A
GAF	STRAINER GAF	RVISC	070	RVISC DESC 1	RVISC DESC 2	RVISC COMMENT 1	B	A
GAF	STRAINER GAF	APPLY	080	APPLY DESC 1	APPLY DESC 2	APPLY COMMENT 1	B	A
GAF	STRAINER GAF	CURE	090	CURE DESC 1	CURE DESC 2	CURE COMMENT 1	B	A
GAF	STRAINER GAF	PH	100	PH DESC 1	PH DESC 2	PH COMMENT 1	B	A
GAF	STRAINER GAF	STD	110	STD DESC 1	STD DESC 2	STD COMMENT 1	B	A
GAF	STRAINER GAF	COLOR	120	COLOR DESC 1	COLOR DESC 2	COLOR COMMENT 1	B	A

***** END OF REPORT *****

Printing the Material Analysis Report

The Material Analysis report lists quality control target values and actual results of material tests.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Print Material Analysis Report [PMAR]*

```
12/15/97  12:42:30  Print Material Analysis Report  QCGAVR  QCDAVR
-----
Beginning Company and Warehouse . .  __IS1 +  ISW1  +
Ending Company and Warehouse . . .  ____ +  ____ +
Vendor . . . . .  _____ +
Beginning Material . . . . .  _____  __ +
Ending Material . . . . .  _____  __ +

-----
F2=Function keys  F3=Exit  F4=Prompt  F8=Print  F24=More keys
```

Figure A-5: Print Material Analysis Report prompt screen

You can generate a report that has a variety of information based on how you complete the fields on this screen.

To print a report that includes all material analysis information for all materials at all locations, leave all the fields blank.

To print a report with all material analysis information for all materials associated with that company and warehouse, you can complete just the beginning and ending company and warehouse fields.

To print a report for a single material, complete just the *Beginning Material* field. For a range of materials, complete the beginning and ending material fields accordingly.

To make this report vendor-specific, complete the *Vendor* field.

To print the report, press [F8]. A sample Material Analysis report is on the next page.

QCGAVR QCTAVR
7/24/02 15:25:20

Q U A L I T Y C O N T R O L M A T E R I A L A N A L Y S I S

PAGE 1
WMM

VENDOR.....:																	
Comp.	Whs.	Material	Size	LOT	SUBLOT	BIN	Inv. Type	Vendor	Last Update	Close Seq#	Rt#	Test ID	Desc/Rating 1 Comment 1	Desc/Rating 2	QC Actual Value Comment 2	St/Ms	P/F
WMM	1	GRAY AQUA W/PRIMER			QC ROW	QC BIN	NA		4/12/02	000		VIS			37.00000		Pass
									4/12/02	000		WT/GAL			9.63000		Pass
									4/12/02	000		GRIND			6.05000		Pass
									4/12/02	000		RVISC			28.00000		Pass
									4/12/02	000		PH			8.42000		Pass
									4/19/02	001		VIS			37.00000		Pass
									4/19/02	001		WT/GAL			9.63000		Pass
									4/19/02	001		GRIND			6.05000		Pass
									4/19/02	001		RVISC			28.00000		Pass
									4/19/02	001		PH			8.42000		Pass
									4/19/02	001	01	VIS			42.00000		Pass
									4/19/02	001	01	WT/GAL			10.00000		Pass
									4/19/02	001	01	GRIND			8.20000		Pass
									4/19/02	001	01	RVISC			28.50000		Pass
									4/19/02	001	01	PH			8.42000		Pass
									4/19/02	002		VIS			31.00000		Pass
									4/19/02	002		WT/GAL			9.63000		Pass
									4/19/02	002		GRIND			8.00000		Pass
									4/19/02	002		GLOSS			12.75000		Pass
									4/19/02	002		RVISC			30.00000		Pass
									4/19/02	002		PH			8.72000		Pass
									4/19/02	002	01	VIS			31.50000		Pass
									4/19/02	002	01	WT/GAL			9.63000		Pass
									4/19/02	002	01	GRIND			8.00000		Pass
									4/19/02	002	01	GLOSS			12.75000		Pass
									4/19/02	002	01	RVISC			30.00000		Pass
									4/19/02	002	01	PH			8.72000		Pass

Printing Retest and Expire Reports

The Retest report lists materials in stock that require retesting and the Expire report lists materials that have expired.

Normally you would not use or sell materials that have expired.

Before you run *Print Retest/Expire Report*, you must use *Work with Samples/Actuals* to enter the QC test data for the manufactured products that you want to include in the Retest/Expire report.

Use the menu path below.

- ▶ *Quality Control*
 - ▼ *Print Retest/Expire Report [PRER]*

```
12/15/97  12:43:27  Print Retest/Expire Report  QCGRER1  QCDRER1
-----
Beginning Company and Warehouse . .  IS1  +  ISW1  +
Ending Company and Warehouse . . .  ____  +  ____  +

Beginning Date . . . . .  00000000
Ending Date . . . . .  12151997

Beginning Material . . . . .  _____  __  +
Ending Material . . . . .  _____  __  +

Products or Raw Materials . . . . .  1  1=Product, 2=RM
Expiration Date or Retest Date . .  1  1=Expiration, 2=Retest

-----
F2=Function keys  F3=Exit  F4=Prompt  F8=Print  F24=More keys
```

Figure A-6: Print Retest/Expire Report prompt screen

You can generate a Retest or Expire report that has a variety of information based on how you complete the fields on this screen.

To print a report that includes all information for all materials or products at all locations, leave all the fields blank

To indicate the date range for your report, use the beginning and ending date fields.

To print a report with information for all materials or products associated with that company and warehouse, you can complete just the beginning and ending company and warehouse fields.

To print a report for a single material or product, complete just the *Beginning Material* field. For a range of materials or products, complete the beginning and ending material fields accordingly.

Products or Raw Materials

Type **1** in this field to run the report for products or **2** to run the report for raw materials.

Expiration Date or Retest Date

Leave **1** in this field to list items that have expired. Type **2** to list items that should be retested.

The system calculates retest and expiration dates by adding the target value total days to the receipt date of the material. Type the target value in the *Target Value* field using the Work with Material Target Value screen 1. Target values are discussed in the “Entering Target Values” part.

Press **F8** to print the report. A sample Retest report is on the next page.

QCGRER QCTREER
7/24/02 11:18:14

Q U A L I T Y C O N T R O L R E T E S T R E P O R T

PAGE 1
WMM

RAW MATERIALS ONLY

						-----Inventory-----	Close			Original	Last	Days to	Due for	Days to			
Comp.	Whs.	Material	Size	LOT	SUBLOT	BIN	Type	Quantity	UM	Seq#	Vendor	Test Date	Test Date	Retest	Retest?	Expire	Expired?
WMM	1	GRAY AQUA W/PRIMER			QC ROW	QC BIN	NA NO INV. FOUND			000		4/12/02		22	No		
										001		4/19/02		29	No		
										002		4/19/02		29	No		
WMM	1	GRAY AQUA W/PRIMER	1		1	1	AA	100.0000	*GL	001		4/20/02		30	No		

***** END OF REPORT *****

Printing the Substitution Master Listing

The first step in creating a document format is to print the list of substitution symbols. This tells you what codes are available to use.

Included on the report are the substitution symbol, description, file and record names, field name and length, data type, and number of decimals.

To print the report, select the *Print Valid Substitutions* option within the *Document Format Capabilities* menu. The system does not display a screen.

A sample listing follows.

SUBSTITUTION	DESCRIPTION	FILE NAME	RECORD NAME	FIELD NAME	DATA TYPE	FIELD LENGTH	DEC
//CD	Current Date Format mm/dd/yy				N	6	
##B#	Manufacturing Batch #	MFGCHDR	MCHHEAD	MCBTCH	A	12	
##C#	Customer Number	KLCUSFIL	CUSREC	CFCUST	A	6	
##CC	Customer City	KLCUSFIL	CUSREC	CFCITY	A	24	
##CN	Customer Name	KLCUSFIL	CUSREC	CFSTL1	A	30	
##CP	Customer Telephone Number	KLCUSFIL	CUSREC	CFNUM	A	18	
##CS	Customer State	KLCUSFIL	CUSREC	CFSTTE	A	2	
##CZ	Customer Zip Code	KLCUSFIL	CUSREC	CFZIP	A	10	
##C1	Customer Address Line 1	KLCUSFIL	CUSREC	CFSTL1	A	30	
##C2	Customer Address Line 2	KLCUSFIL	CUSREC	CFSTL3	A	30	
##C3	Customer Address Line 3	KLCUSFIL	CUSREC	CFSTL4	A	30	
##C4	Customer Address Line 4	KLCUSFIL	CUSREC	CFSTL5	A	30	
##MD	Manufacturing Production Date	MFGCHDR	MCHHEAD	MCCPDT	N	6	
##MF	Manufactured Formula	MFGCHDR	MSHEAD	MCFORM	A	20	
##OPO#	Order Processing Order Shipment Number	OPPOHD	OPROHD	OHORD	A	9	
##OPOB	Order Processing Shipment Back Order Number	OPPOHD	OPROHD	OHORD	A	2	
##OPOD	Order Processing Order Shipment Date	OPPOHD	OPROHD	OHSRDT	P	6	
##OPOI	Order Processing Invoice Number	OPPOHD	OPROHD	OHINVO	A	9	
##OPOQ	Order Processing Actual Shipped Quantity	OPPODT	OPRODT	OISQTY	P	13	4
##OPPO	Order Processing Customer Purchase Order Number	OPPOHD	OPROHD	OHCUPD	A	36	
##OPSR	Order Processing Customer Sales Reference Number	OPPODT	OPRODT	OICPRD	A	20	
##PD	Product Description	MANFILPF	MNREC	MNDESC	A	30	
##PR	Product Number	MANFILPF	MNREC	MNMF#	A	20	
##QC	Quality Control Test Value	QCHISTPF	QCHISREC			12	
##QD	Quality Control Test Description	QCTEMPPF	QCTEMP	QCDCS1	A	16	
##RT	Run Time Substitution						
##S#	Ship To Number	SHIPFILE	SHIP	SSHCOD	A	2	
##SC	Ship To City	SHIPFILE	SHIP	SCITY	A	24	
##SI	Product Size	MANFILPF	MNREC	MNSIZE	A	3	
##SN	Ship To Name	SHIPFILE	SHIP	SLIN1	A	30	
##SP	Ship To Telephone Number	SHIPFILE	SHIP	SPHONE	A	18	
##SS	Ship To State	SHIPFILE	SHIP	SSTATE	A	2	
##SZ	Ship To Zip Code	SHIPFILE	SHIP	SZIP	A	10	
##S1	Ship To Address Line 1	SHIPFILE	SHIP	SLIN2	A	30	
##S2	Ship To Address Line 2	SHIPFILE	SHIP	SLIN3	A	30	
##S3	Ship To Address Line 3	SHIPFILE	SHIP	SLIN4	A	30	
##S4	Ship to Address Line 4	SHIPFILE	SHIP	SLIN4	A	30	

* * * E N D O F R E P O R T * * *

Printing the Archived Formula Listing

You can print a list of all or selected archived formulas.

Use the menu path below.

- ▶ *Formula Archival/Audit*
 - ▼ *Transfer Archived Formula [TAF]*

```
15:20:36      Transfer Archived Formula      PPGFATD      PPDFATD
-----
Position to . . . Formula . . . . . _____
FBE Code . . . . . _____
FVR Number . . . . . _____
Type options, press Enter.
  1=Select  6=Print 11=Transfer
Opt Formula      Co  Whse Cd  FVR# Date  By  <----- Archived ----->
___ A-PROD
___ A-PROD
___ A-RAW1
___ A-RAW1
___ AFORM01
   aform01
                                                    More...
-----
F2=Function keys  F3=Exit  F5=Refresh  F8=Print List  F24=More keys
```

Figure A-7: Transfer Archived Formula selection screen

To run a report for one archived formula, type **6** beside the formula and press [Enter] .
To generate a report for all archived formulas, press [F8] .

You can also generate this report from the *Display Archived Formula* option.

A sample of this report is on the next page.

PPGFATD PPTFAL
10/21/96 14:33:50

ARCHIVED FORMULAS LISTING

PAGE 1
PJT

FORMULA	Co	Whse	FBE Code	FVR NUMBER	DESCRIPTION	ACTIVE CODE	CLASS CODE	MSDS REV CD	ARCHIVED DATE	ARCHIVED TIME
GLG				1	Final golf kit container bom	1	4		09/20/2002	11:00:13
GOLF IRONS	IS1	ISW1		2	Golf irons/kit component formula	1	3		09/19/2002	10:53:02
GOLF IRONS			1		Golf irons/kit component formula	1	3		09/19/1996	10:52:26
GOLF WOODS			1		Golf woods/kit component	1	3		09/20/1996	11:59:35

***** RECORDS SELECTED . . 000004

***** END OF REPORT *****

ACTIVE CODES: 1 - ACTIVE; 2 - TEST; 3 - REMOVE; 4 - OBSOLETE.

CLASS CODES: 1 - FORMULA; 2 - RAW MATERIAL BREAKDOWN; 3 - INTERMEDIATE; 4 - BILL OF MATERIAL; 5 - MASTER / BASE.

Printing the Audit Notes Listing

You can print a list of all audit notes for formulas or selected audit notes.

Use the menu path below.

- ▶ *Formula Archival/Audit*
 - ▼ *Work with Audit Notes [WWAN]*

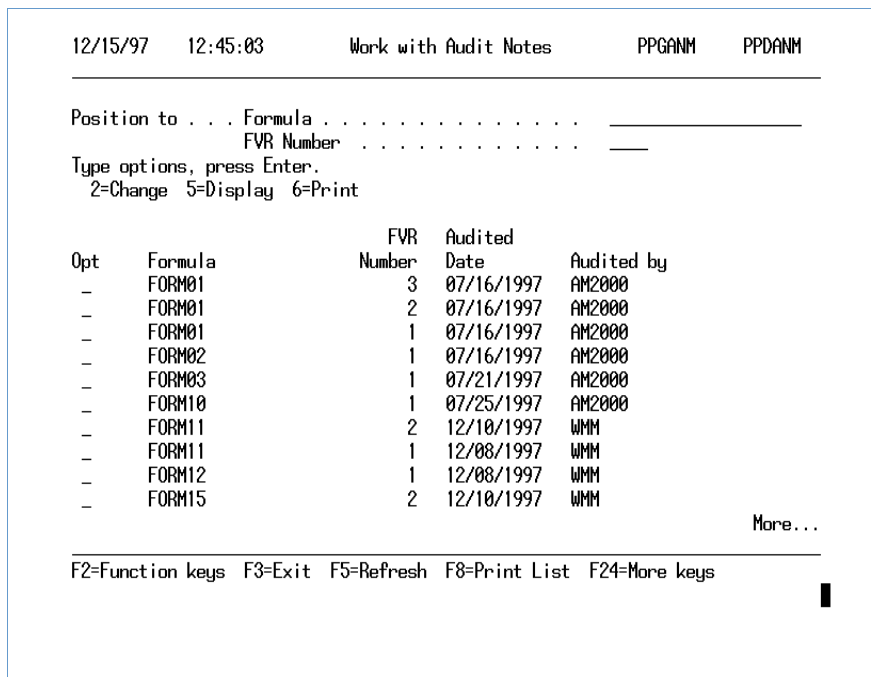


Figure A-8: Work with Audit Notes selection screen

To run a report for one formula with audit notes, type **6** beside the formula and press [Enter]. To generate a report for all formulas with audit notes, press [F8].

You can also generate this report from the *Display Audit Notes* option.

A sample of this report is on the next page.

 Company and Warehouse Location
 FORMULA : GLG Final golf kit container
 FVR NUMBER : 1
 DATE AND TIME OF REVISION : 09/20/1996 11:00:15
 MSDS REVISION CODE :
 INITIALS OF PERSON REVISING :
 PROGRAM, WORK STATION AND USER : PRGFM TRN6004S1 PJT
 NOTES :

 Company and Warehouse Location
 FORMULA : GOLF IRONS Golf irons/kit component
 FVR NUMBER : 1
 DATE AND TIME OF REVISION : 09/19/1996 10:52:27
 MSDS REVISION CODE :
 INITIALS OF PERSON REVISING :
 PROGRAM, WORK STATION AND USER : PRGFM TRN6004S1 PJT
 NOTES :

 Company and Warehouse Location
 FORMULA : GOLF IRONS Golf irons/kit component
 FVR NUMBER : 2
 DATE AND TIME OF REVISION : 09/19/1996 10:53:02
 MSDS REVISION CODE :
 INITIALS OF PERSON REVISING :
 PROGRAM, WORK STATION AND USER : PRGFM TRN6004S1 PJT
 NOTES :

 Company and Warehouse Location
 FORMULA : GOLF WOODS Golf woods/kit component
 FVR NUMBER : 1
 DATE AND TIME OF REVISION : 09/20/1996 11:59:36
 MSDS REVISION CODE :
 INITIALS OF PERSON REVISING :
 PROGRAM, WORK STATION AND USER : PRGFM TRN6004S1 PJT
 NOTES :

Notes

Appendix B

Infinium Formula Management

Menu Tree

B

This appendix contains the menu tree for Infinium PF.

Infinium Formula Management Menu Tree

Raw Material/
Resource
Management

- Work with Raw Materials/
Resource [WWRM]
- Display Raw Materials/
Resources [DRM]
- Display Material Usage [DMU]
- Display Synonyms [DSYN]
- Print Raw Material/
Resource [PRM]

Product
Management

- Work with Products [VWVP]
- Display Products [DP]
- Display Synonyms [DSYN]
- Print Products [PP]

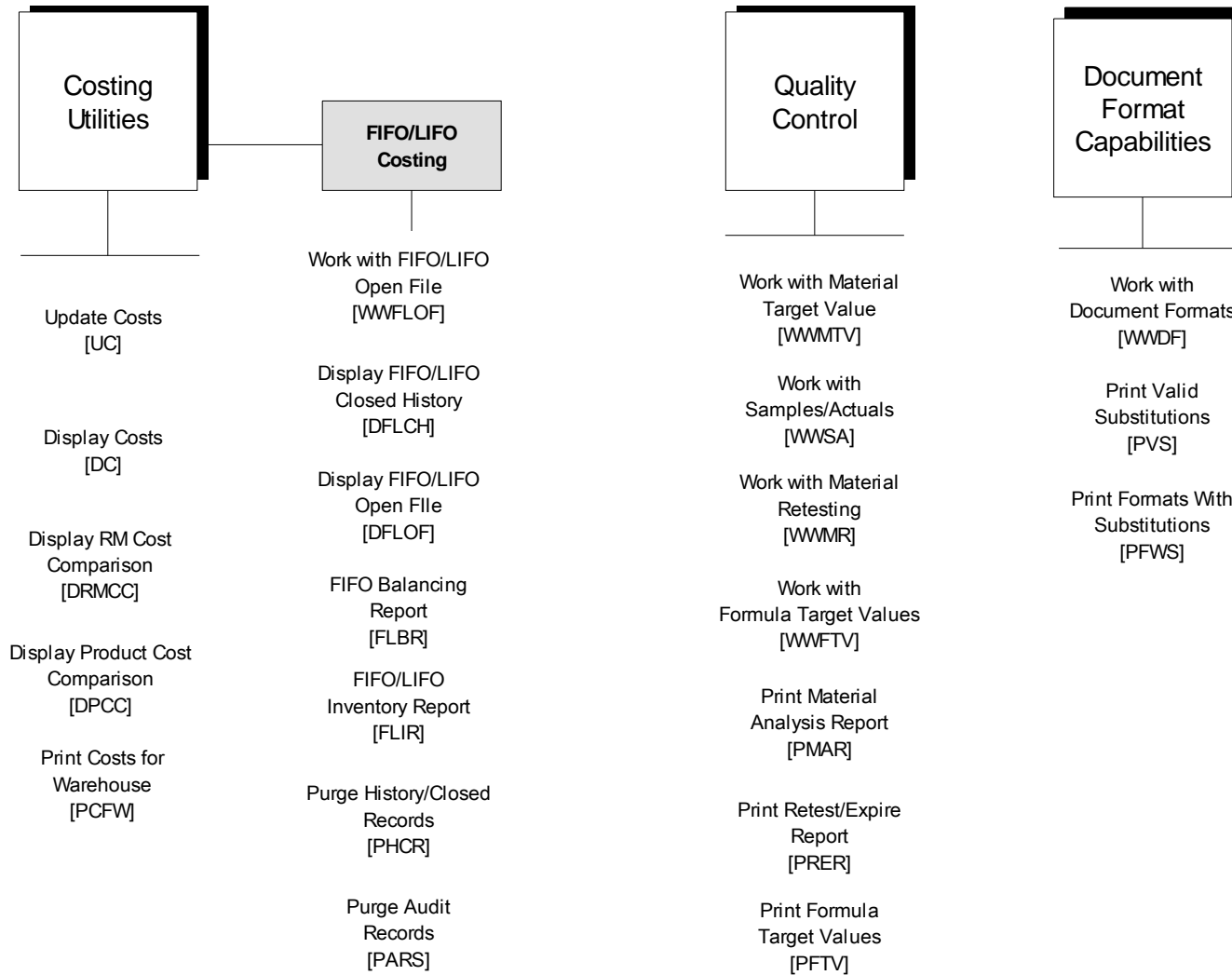
Formula
Management

- Work with Formula [WWF]
- Work with Formula Descriptions [WWFD]
- Work with Formula Comments [WWFC]
- Work with Substitutions [WWS]
- Display Formula [DF]
- Display Material Usage [DMU]
- Display Formula Descriptions [DFD]
- Display Formula Comments [DFC]
- Display Synonyms [DSYN]
- Print Formula (Range or All) [PF]
- Print Formula Comments [PFC]
- Print Formula Count [PFCO]

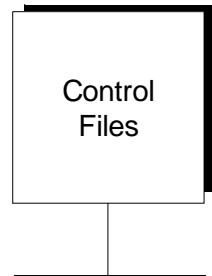
Formula
Archival/
Audit

- Transfer Archived Formula [TAF]
- Work with Audit Notes [WWAN]
- Replace Formula [RF]
- Display Archived Formula [DAF]
- Display Audit Notes [DAN]

Infinium Formula Management Menu Tree



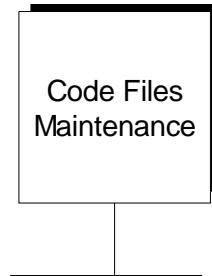
Infinium Formula Management Menu Tree



Work with
Entity Controls
[WVEC]

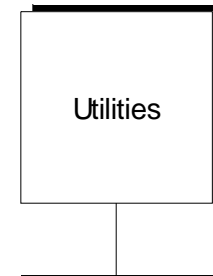
Work with
Company Controls
[WWCC]

Work with Warehouse
Controls
[WWWK]



Work with QC Test
Type
[WWQCTT]

Work with QC
Template
[WWQCT]



Purge Formula
Master File
[PFMF]

Purge Archived
Formulas
[PAF]

Purge Formula
Audit Notes
[PFAN]

Purge Statistical
Proc. Control
[PSPC]

Purge
Pre-Inventory Data
[PPID]

Clear Application
Files
[CLRF]

The part consists of the following topics:

Topic	Page
Overview	C-2
Creating a Kit	C-4
Creating the Raw Materials	C-6
Creating the Purchased Products	C-13
Creating Formulas	C-18
Creating Container Bills of Materials	C-24
Creating the Final Kit Components	C-29
Creating the Final Kit Formula	C-34
Creating the Final Kit Product	C-38
Kit Interfaces to Other Systems	C-40
Costing Kits	C-42

Overview

This appendix explains the following kit processing topics:

- Creating/maintaining a kit
- Costing a kit

A kit is a manufactured product that consists of other products as its components. An example is a child's beach kit that contains a shovel, a pail, and a rake. Another example is an epoxy that you package with a hardener and sell as a kit.

You can inventory a kit as one product or by individual components. You may sell the components individually or as part of the kit. When you sell a kit, the system calculates the cost from the various kit components, if you are chasing costs.

The example in this appendix assumes that you work at a sporting goods company. At this company, you sell a moderately priced Golf Kit. You assemble the Golf Kit from various parts you receive from different distributors. In this example, you assemble or manufacture this kit on an as needed basis per the inventory demands of regional stores.

The diagram in Figure C-1 details the elements in the Golf Kit. You inventory and sell the Golf Kit in a large box that contains two smaller boxes and the Golf Bag. Within the two smaller boxes are the irons and the woods. This appendix takes you through the setup of each of the various elements of this kit.

Golf Kit

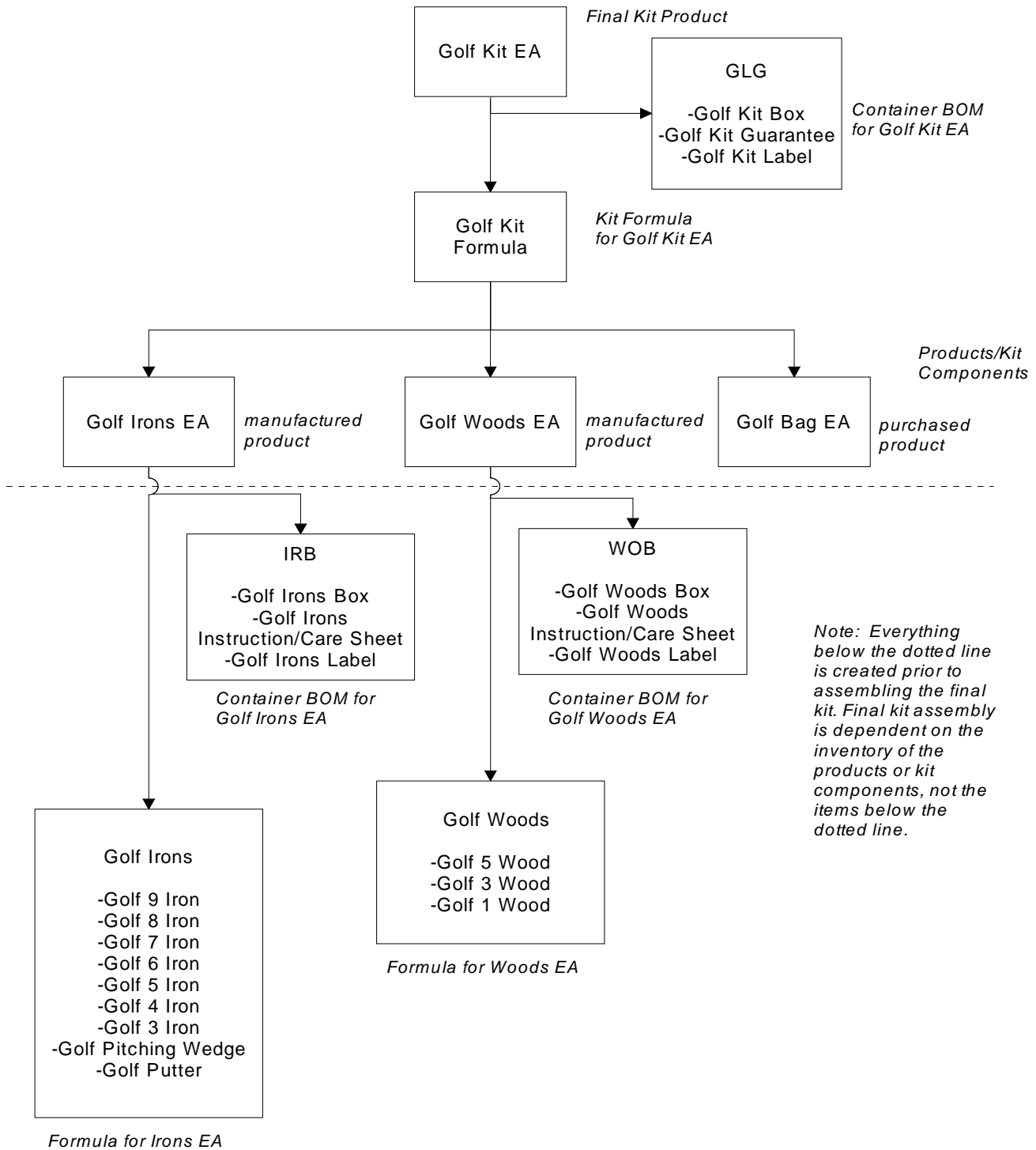


Figure C-1: Golf Kit

Creating a Kit

When you create a kit, there are several steps to ensure that you create all of the required data. Use the steps below as a checklist.

- 1 Create all raw materials/resources needed at all levels.
- 2 Create all purchased products needed at all levels.
- 3 Create the lower level formulas, if needed.*
- 4 Create the container bills of materials, if needed.*
- 5 Create the final kit components.
- 6 Create the final kit formula.
- 7 Create the final kit.

Steps with an asterisk are optional steps depending on your final kit. You can create a kit with only purchased products and no manufactured products or container bills of materials.

The topics in this appendix are organized by these steps and explain how to complete the kit creation process. Additionally, each step in Figure C-1 is illustrated throughout this appendix

Step 1: Create All Raw Materials/Resources Needed at All Levels

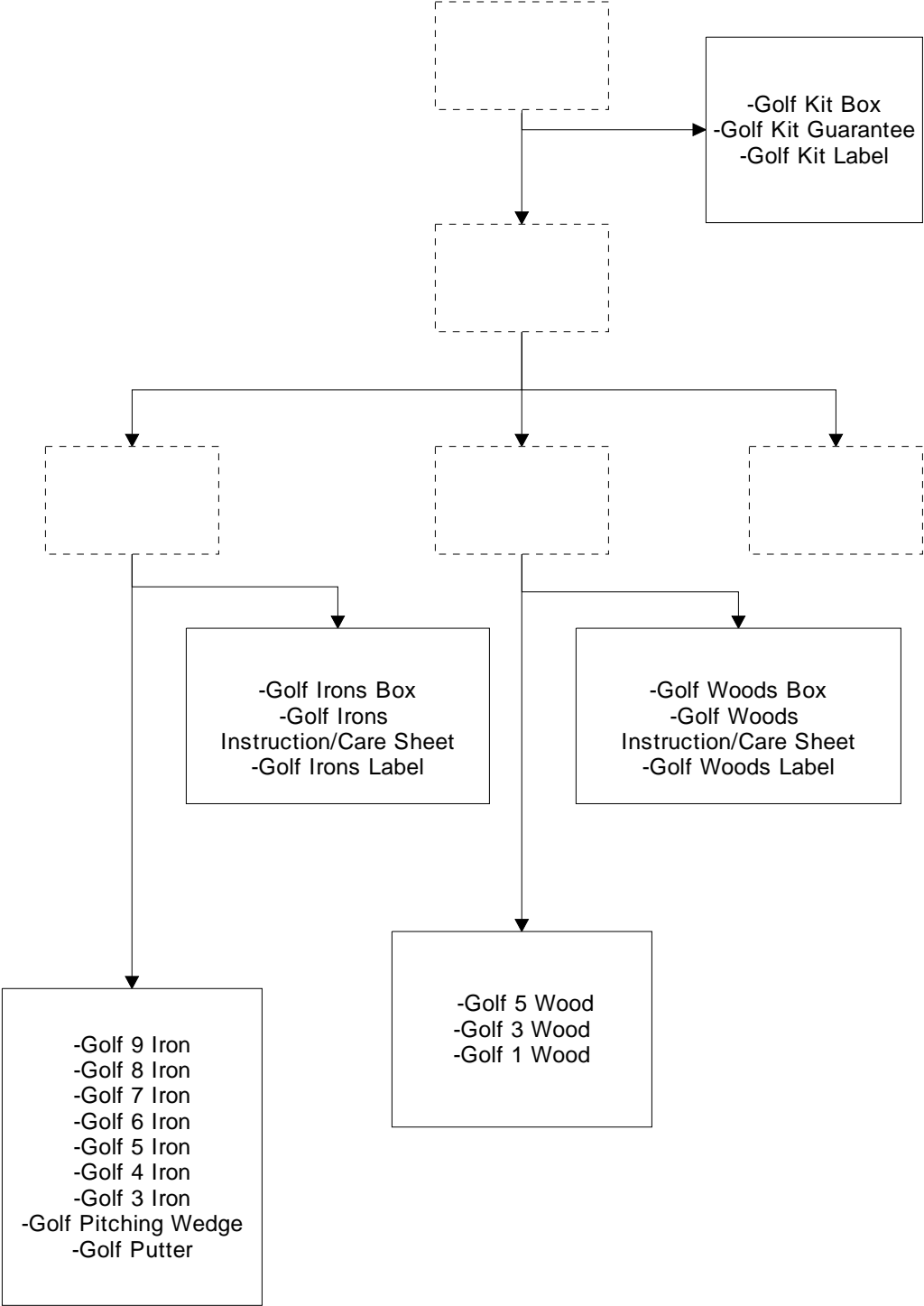


Figure C-2: Raw Materials Needed for Golf Kit EA

Creating the Raw Materials

The first step in creating a kit is to define all of the raw materials the kit or its subassemblies require. To define the kit, start at the bottom and work your way up. For the Golf Kit example, Figure C-2 displays the first items to create which are the raw material records for the lower level and container bill of materials formulas.

You can create raw material records from Infinium CA or Infinium PF.

Use the menu path below.

- ▶ Infinium CA
- ▶ *Master Files*
 - ▼ *Work with Raw Material/Resource* [WWRMR]

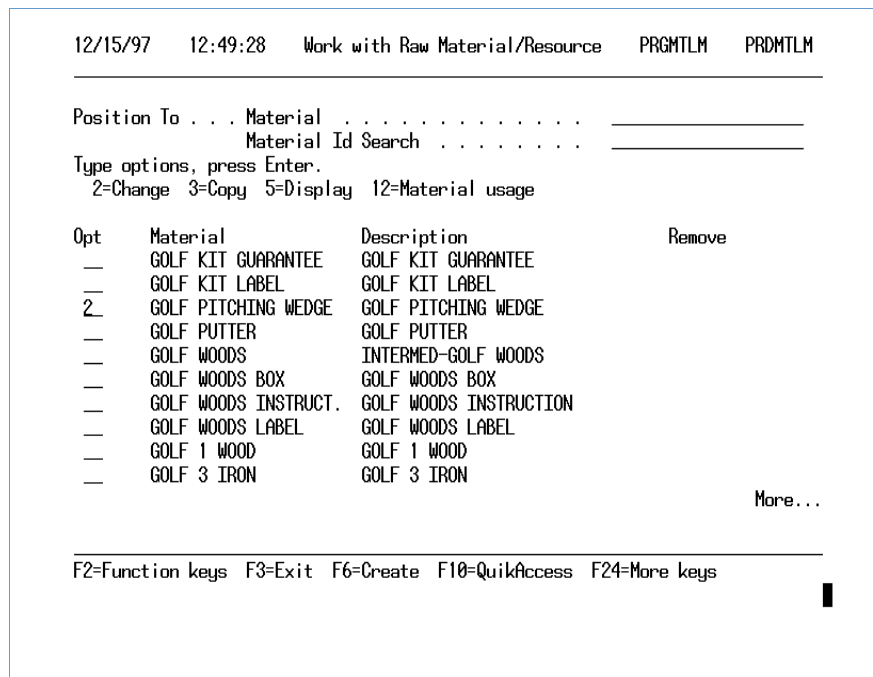


Figure C-3: Work with Raw Material/Resource prompt screen

To create a raw material, type the raw material identifier in the *Material* field and press [F6]. To change an existing raw materials, type **2** beside it and press [Enter].

For complete information on creating raw materials refer to the “Creating Raw Materials/Resources” topic in the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

```

12/15/97  12:50:57  Work with Raw Material/Resource  PRGTM  PRDMLM
-----
                                General Information
Material . . . . . : GOLF PITCHING WEDGE
Active Code . . . . . 1 1=Active, 2=Experimental, 3=Remove
Description - Line 1 . . . . . GOLF PITCHING WEDGE
Description - Line 2 . . . . .
Material Unit of Measure . . . . . EA +
Commodity Code . . . . . MISC +
G/L Partial Account . . . . .
Material Revision Level . . . . .
Sort Code . . . . .
Auto Source Capable Material . . . Y Y=Yes, N=No
Extended Description . . . . . N Y=Yes, N=No
Item Notes . . . . . N Y=Yes, N=No
Weight Per Volume . . . . .
Specific Gravity . . . . .
Alternate Material . . . . . +
Liquid Solid Code . . . . . 2 1=Liquid, 2=Solid, 3=Both
Report Type . . . . . +
Critical Resource . . . . . N Y=Yes, N=No
-----
F2=Function keys  F3=Exit  F4=Prompt  F8=Print  F24=More keys

```

Figure C-4: General Information screen

Type information in the required fields on the General Information screen. Some required fields already contain default values. These values come from the Infinium CA Control files.

Press [Enter] to proceed to the Work with Raw Material/Resource Attribute selection screen.

```
12/15/97  12:51:44  Work with Raw Material/Resource  PRGMTLM  PRDMLM
-----
Material . . . . . : GOLF PITCHING WEDGE
Select one or more of the following. Then press Enter

Opt  Attribute
-   General Information
-   Inventory Information
-   Chemical Properties Information
-   Regulatory Information
1  Costing Information
-   Miscellaneous Information
-   Purchasing Information
-   Maintain Synonyms
1  Maintain Costs
1  Maintain Item/Warehouse Information

-----
F2=Function keys  F3=Exit  F8=Print  F9=Select All  F24=More keys
```

Figure C-5: Work with Raw Material/Resource Attribute selection screen

To ensure that you set up cost information and create an Item Warehouse file record, select the following attributes on the Raw Material/Resource Attribute screen: Costing Information, Maintain Costs, and Maintain Item/Warehouse Information.

Type **1** beside these attributes and press [Enter].

```

12/15/97  12:52:24  Work with Raw Material/Resource  PRGMTLM  PRDMLM
-----
                          Costing Information

Material . . . . . :  GOLF PITCHING WEDGE
                   GOLF PITCHING WEDGE
Cost Unit of Measure . . . . . EA_ +
Cost Weight Per Volume . . . . . _____
Cost Code . . . . . R +
Process Material . . . . . N Y=Yes, N=No

-----
F2=Function keys  F3=Exit  F4=Prompt  F8=Print  F24=More keys

```

Figure C-6: Costing Information screen

In the *Cost Code* field, identify the Cost code you want to use to categorize costs. For example, determine if this is a raw material cost, a labor cost, or a container cost. In the Golf Kit example, the Golf Pitching Wedge is **R**, a raw material cost. Once you establish this value, the system protects this field. When you initially create this raw material, this is a promptable field.

Press [Enter] to proceed to the next attribute screen.

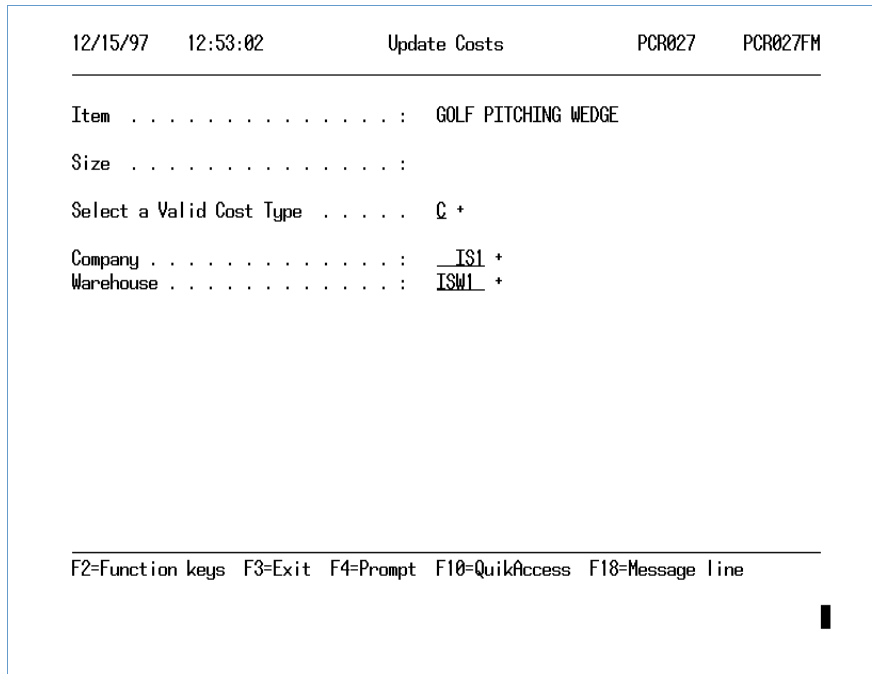


Figure C-7: Update Costs prompt screen

Type the cost type for which you are entering costs in the *Select a Valid Cost Type* field and press [Enter].

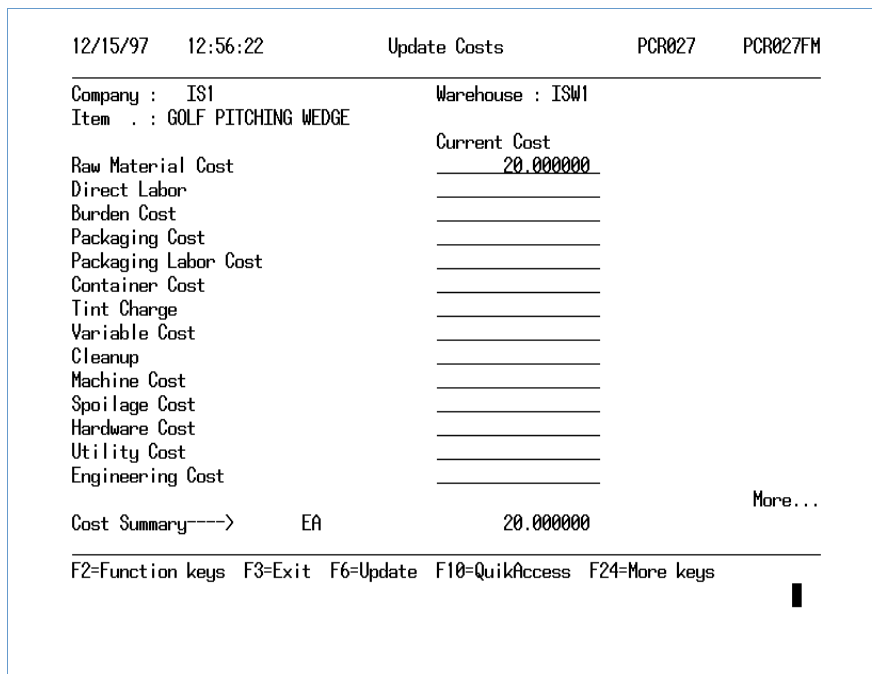


Figure C-8: Update Costs screen

Type the cost for the raw material in the appropriate Cost code field. The system directs you to the correct field since raw materials/resources have only one Cost code and this is the Cost code you defined on the Costing Information screen.

Press [F6] to update the information and then press [F3] to access the next attribute screen.

```

12/15/97  12:57:02      Work with Item Warehouse      PRGPILM  PRDPILM
-----
Position to . . . Company  __IS1 +      Warehouse ISW1 +
                    Item :  GOLF PITCHING WEDGE  Size . :
Type options, press Enter.
  2=Change  3=Copy  4=Delete  5=Display

Opt  Comp  Whse  Item          Size  Description
  2   IS1  ISW1  GOLF PITCHING WEDGE  GOLF PITCHING WEDGE

Bottom

-----
F2=Function keys  F3=Exit  F4=Prompt  F6=Create/Update  F24=More keys
  
```

Figure C-9: Work with Item Warehouse prompt screen

To create a new Item Warehouse file record, press [F6]. To edit an existing record, type **2** beside the record and press [Enter]. Infinium recommends that you create at least one level of an Item Warehouse file record.

An Item Warehouse file record is not necessary for kit processing; however, the system requires a record for Physical Inventory, Reorder Point Processing, Material Requirements Planning, Master Production Scheduling, and Infinium PM.

For information on the Item Warehouse file, refer to the *Infinium Inventory Control Guide to Setup and Processing* or the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

For the Golf Kit example, use this raw material record creation process for all records within the following formulas: Golf Irons, Golf Woods, IRB, WOB, and GLG.

In the Golf Kit example, IRB, WOB, and GLG are short names for the container bill of materials so they are easily recognizable. You can name container bill of materials any way you choose.

Step 2: Create All Purchased Products Needed at All Levels

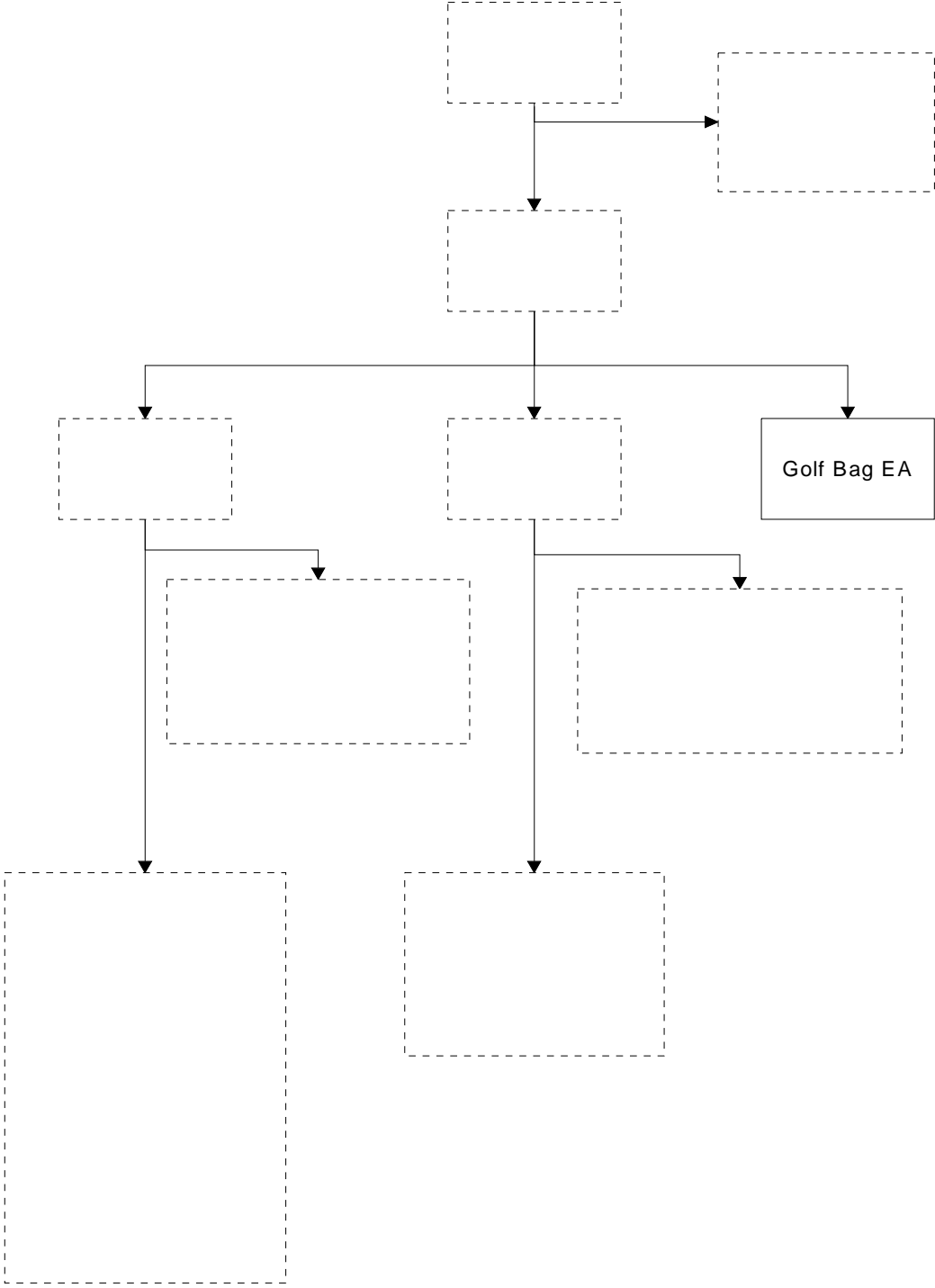


Figure C-10: Purchased Product Needed for Golf Kit EA

Creating the Purchased Products

The second step in creating a kit is to create all the purchased products needed for the kit or its subassemblies. In this Golf Kit example, the Golf Bag is the only item you purchase and include in your final kit product.

Access the *Work with Products* option from Infinium PF or Infinium CA.

Use the menu path below

- ▶ Infinium CA
- ▶ *Master Files*
 - ▼ *Work with Products* [WWP]

```
12/15/97 13:04:00      Work with Products      PRGPRDM  PRDPRDM
-----
Position to . . . Product . . . . . GOLF BAG      Size . . . EA +
                        Product Id Search . . .
Type options, press Enter.
  2=Change 3=Copy 5=Display 6=Print 12=Product usage

Opt Product          Size Name                      Status
--- PROD05           TOP SOIL                    Active
--- PROD06           WHITE MIX                   Active
--- PROD07           CHERRY COBBLER             Active
--- PROD08           SOIL MIXTURE                Active
--- PROD09           PIE PAN                     Active
--- PROD10           1 GALLON CAN               Active
--- PROD11           CHERRY PIE FILLING         Active
--- PROD12           APPLE PIE FILLING          Active
--- PROD13           SCISSORS                    (UE/PM) Active
--- PROD14           CALCULATOR                 (NM/PM) Active
                                     More . . .

-----
F2=Function keys F3=Exit F4=Prompt F6=Create/Update F24=More keys
```

Figure C-11: Work with Products prompt screen

Type the product identifier in the *Product* field and press [F6] to create the product.

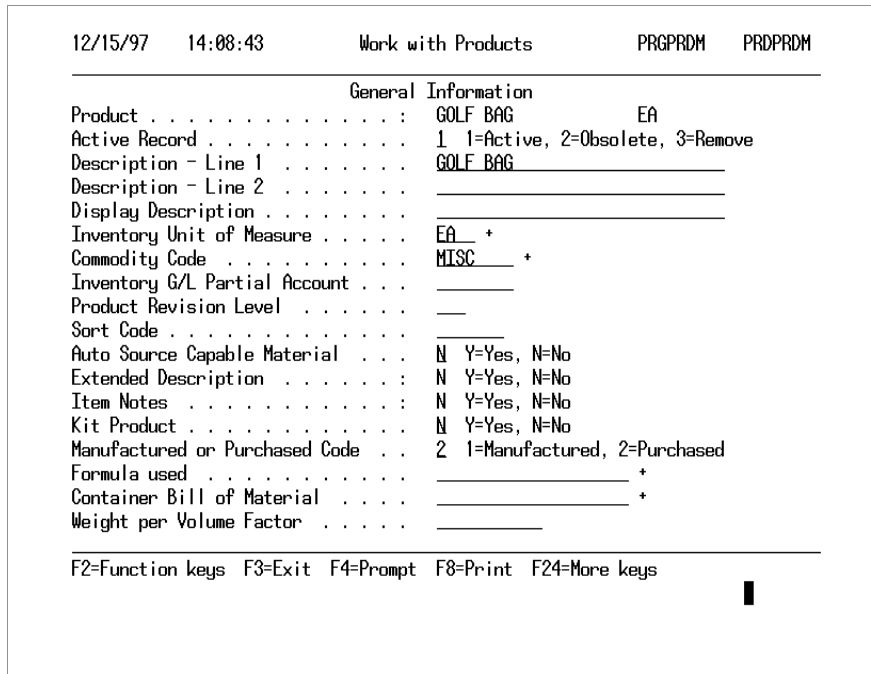


Figure C-12: General Information screen

Complete the required fields on the General Information screen and type **2** in the *Manufactured or Purchased Code* field.

Press [Enter] to access the Work with Products Attribute selection screen.

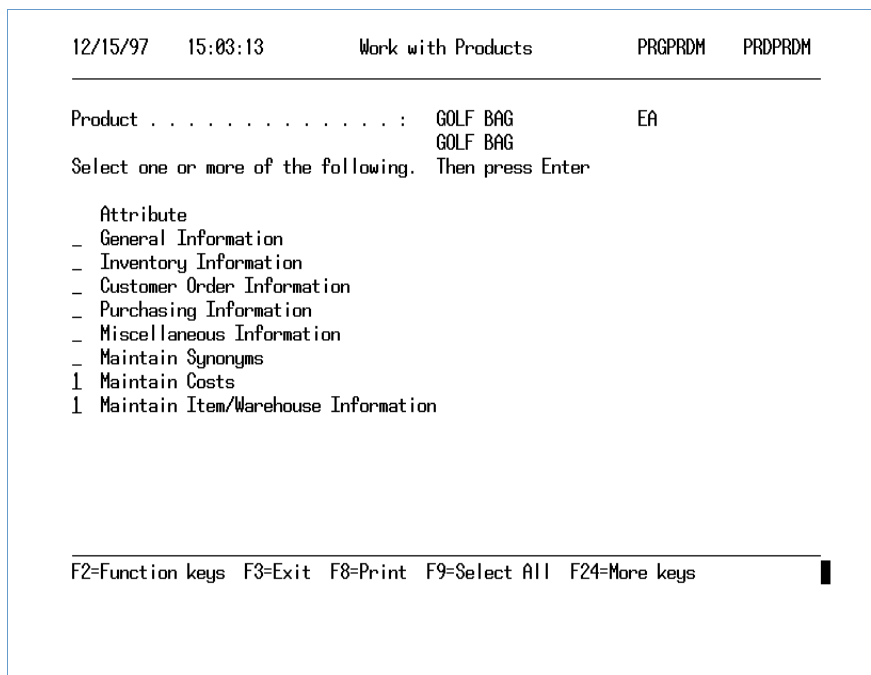


Figure C-13: Work with Products Attribute selection screen

Add costs via the Maintain Costs attribute and create an Item Warehouse file record with the Maintain Item/Warehouse Information attribute. Infinium recommends that you create at least one level of an Item Warehouse file record.

An Item Warehouse file record is not necessary for kit processing; however, the system requires a record for Physical Inventory, Reorder Point Processing, Material Requirements Planning, Master Production Scheduling, and Infinium PM.

Press [Enter] to proceed to the Update Costs prompt screen.

```
12/15/97  14:10:43          Update Costs          PCR027  PCR027FM
-----
Item . . . . . : GOLF BAG
Size . . . . . : EA
Select a Valid Cost Type . . . . . C +
Company . . . . . :  IS1 +
Warehouse . . . . . :  ISW1 +

-----
F2=Function keys  F3=Exit  F4=Prompt  F10=QuikAccess  F18=Message line
```

Figure C-14: Update Costs prompt screen

Type the cost type for which you are entering costs in the *Select a Valid Cost Type* field and press [Enter]. In the Golf Kit example, all costs are current.

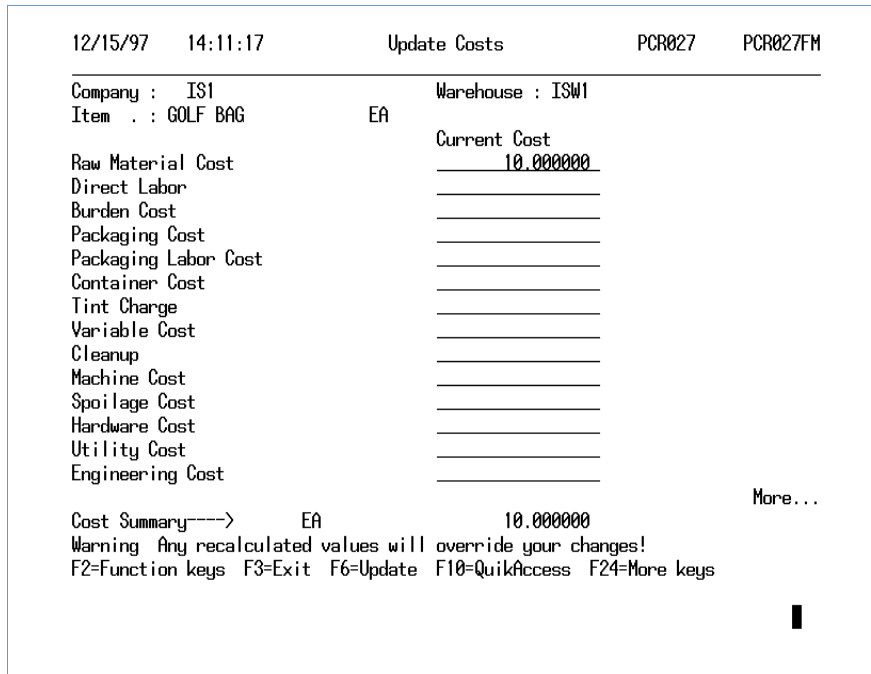


Figure C-15: Update Costs screen

Use as many of the Cost codes as you need to in order to break down the cost of this purchased product.

Press [F6] to update information and then press [F3] to access the next attribute screen.

For information on the Item Warehouse file, refer to the *Infinium Inventory Control Guide to Setup and Processing* or the *Infinium Cross Applications Guide to System Controls and Materials Maintenance*.

Step 3: Creating Formulas

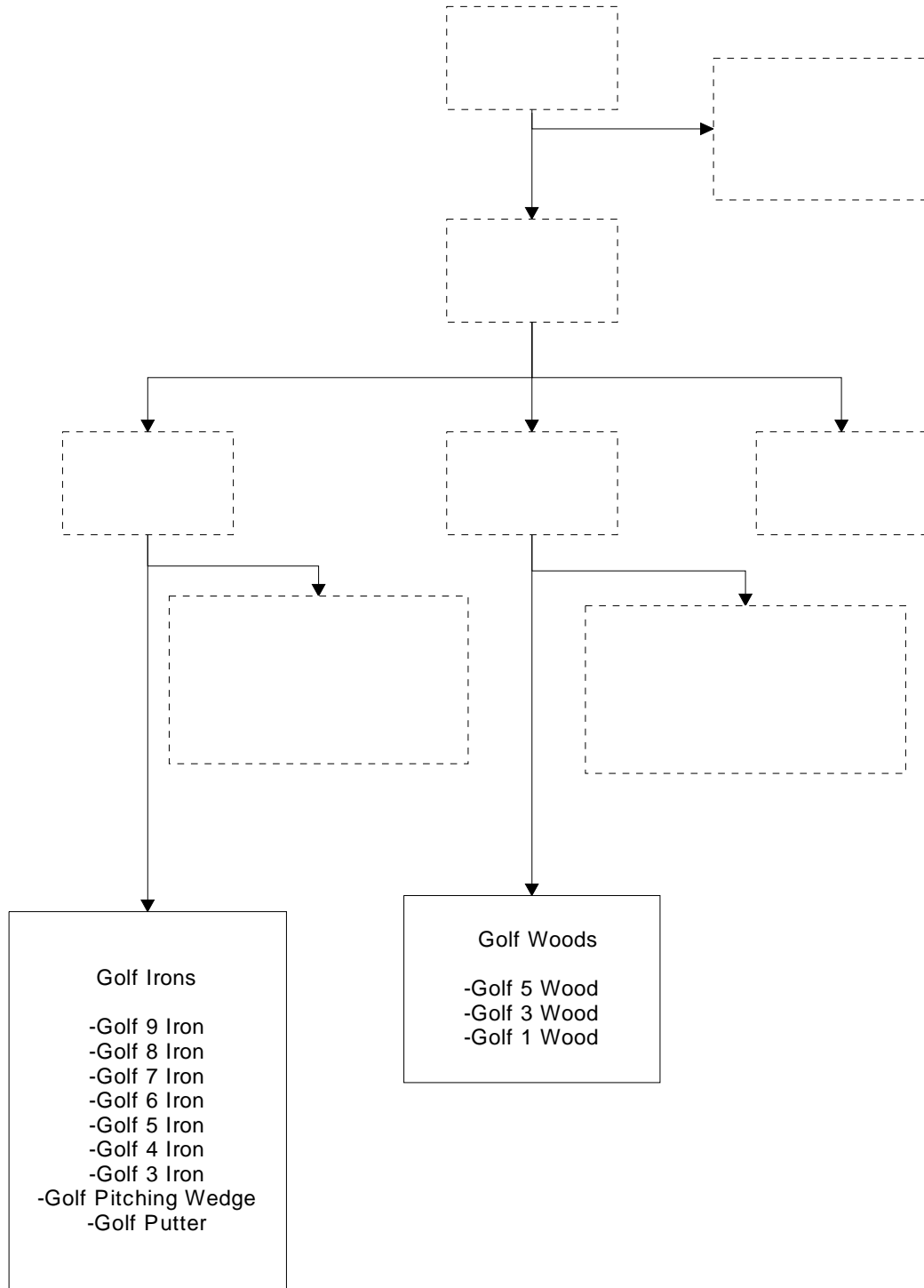


Figure C-16: Formulas Needed for Golf Kit EA

Creating Formulas

Once you create all of the raw materials and purchased products for the kit, you can create the lower level formulas. You can categorize these formulas as any type of formula.

If you choose to create all kits and have kits within kits, then you can create kit formulas in Infinium PF or Infinium CA. The kit formula options in Infinium CA are different from Infinium PF's options. You can pull the bill of materials/kit you create in Infinium CA into Infinium PF to update; however, you cannot manufacture a kit that you create in Infinium CA. The Infinium CA bill of materials/kit options are designed more for a discrete manufacturer than for a process manufacturer.

You can create only kit type formulas in Infinium CA.

Use the menu path below.

- ▶ Infinium PF
- ▶ *Formula Management*
 - ▼ *Work with Formula [WWF]*

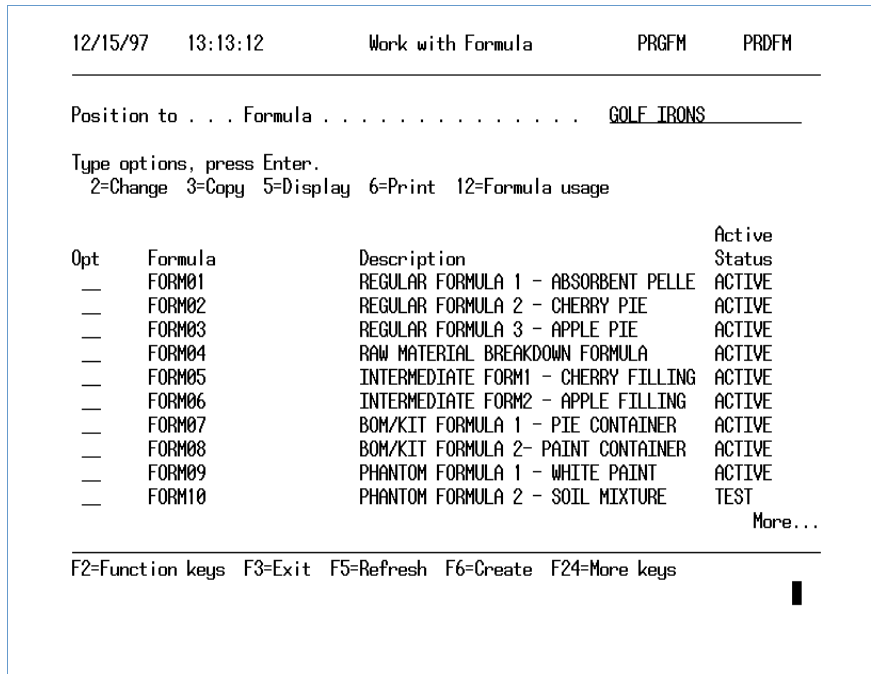


Figure C-17: Work with Formula prompt screen

To create a formula, type the identifier in the *Formula* field and press [F6]. The system displays a limited Work with Formula Attribute selection screen. Additional attributes display in edit mode. Press [Enter] on this screen to access the General Information screen.

12/15/97	13:14:42	Work with Formula	PRGFM	PRDFM
General Information			Page 1 of 2	
Formula	GOLF IRONS	FVR#	1	
Description	GOLF IRONS			
Active Code	1	1-4		
Class	1	1-5		
Unit of Measure	EA	+		
Standard Batch Unit of Measure	EA	+		
Standard Batch Sizes		1.0000		
Standard Process (Equipment Code)	—			
Established Yield		1.0000		
Established Weight/Volume		1.00000		
Loss Percentage . . . . .		.0000		
Apply Loss % at Ingredient Level	N	(Y=Yes, N=No)		
Clingage Loss Percentage . . . . .		.0000		
Rework Limit Percentage . . . . .		.00		
Formula QC Test Type	STV +			
F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys				

Figure C-18: General Information screen

This is the General Information screen for the Golf Irons formula. Complete this screen as you would for any formula, except for the fields listed below.

Class

The *Class* field designates formula categories. For a regular formula, this field should always be 1. Press your help key for information on all possible values.

Unit of Measure

Sometimes a formula actually creates one end item. To tell the system you are referring to a formula that produces one end product, type the discrete unit of measure you have defined for “each” in this field. This indicates you are defining the composition of one “each.”

Standard Batch Unit of Measure

You should also type your each unit of measure in this field for a formula that creates one end product. This value defaults into Infinium MC as the batch yield.

Standard Batch Sizes (field one), Established Yield

When you type the components of a formula on the Ingredients and Instructions screen, the system totals all ingredient quantities. Regardless of this total, your end product may be only one item. To override the total or calculated quantity, type 1 in the first *Standard Batch Sizes* field and in the *Established Yield* field to represent one item.

If you run this formula through Infinium MC, the system accurately relieves the indicated ingredient quantities and produces one final product.

Use the remainder of the fields in the *Work with Formula* option as needed and as defined in the “Working with Formulas” part in this guide.

Press [Enter] twice to return to the Formula Attribute screen. Type **1** to select the Ingredients and Instructions attribute and then press [Enter] again.

12/15/97		14:14:16		Work with Formula		PRGFM	PRDFM
Ingredients and Instructions							
Formula : GOLF IRONS				View: >			
Seq	Material and Size Code + Manufacturing Instructions & Desc +	Quantity	UM +	LC	Fixed Ingr Codes	Critical Resource?	
10	GOLF 9 IRON	1.0000	EA	B		-	
20	GOLF 8 IRON	1.0000	EA	B		----	
30	GOLF 7 IRON	1.0000	EA	B		----	
40	GOLF 6 IRON	1.0000	EA	B		----	
50	GOLF 5 IRON	1.0000	EA	B		----	
60	GOLF 4 IRON	1.0000	EA	B		----	
70	GOLF 3 IRON	1.0000	EA	B		----	
80	GOLF PITCHING WEDGE	1.0000	EA	B		----	
90	GOLF PUTTER	1.0000	EA	B		----	
Tot Wt		9.0000 EA	Tot Vol		Spec Gr .000		
			Standard Batch Size		1.0000 EA		
F3=Exit F4=Prompt F16=RM Maintenance F15=Rebulk F24=More keys							

Figure C-19: Ingredients and Instructions screen

Type the formula items and their quantities on this screen. This screen displays the items that make up the formula Golf Irons.

The line items that make up the formula Golf Woods display on the following Ingredients and Instructions screen.

Press [F3] and exit to save your entries.

12/15/97 14:15:59		Work with Formula		PRGFM	PRDFM
Ingredients and Instructions					
Formula	GOLF WOODS				View: >
Seq	Material and Size Code + Manufacturing Instructions & Desc +	Quantity	UM +	LC	Fixed Ingr Codes Critical Resource?
10	GOLF 5 WOOD	1.0000	EA	B	---
20	GOLF 3 WOOD	1.0000	EA	B	---
30	GOLF 1 WOOD	1.0000	EA	B	---
More...					
Tot Wt	3.0000 EA	Tot Vol	Spec Gr .000		
		Standard Batch Size	1.0000 EA		
F3=Exit F4=Prompt F16=RM Maintenance F15=Rebulk F24=More keys					

Figure C-20: Ingredients and Instructions screen

Step 4: Create the Container Bills of Materials

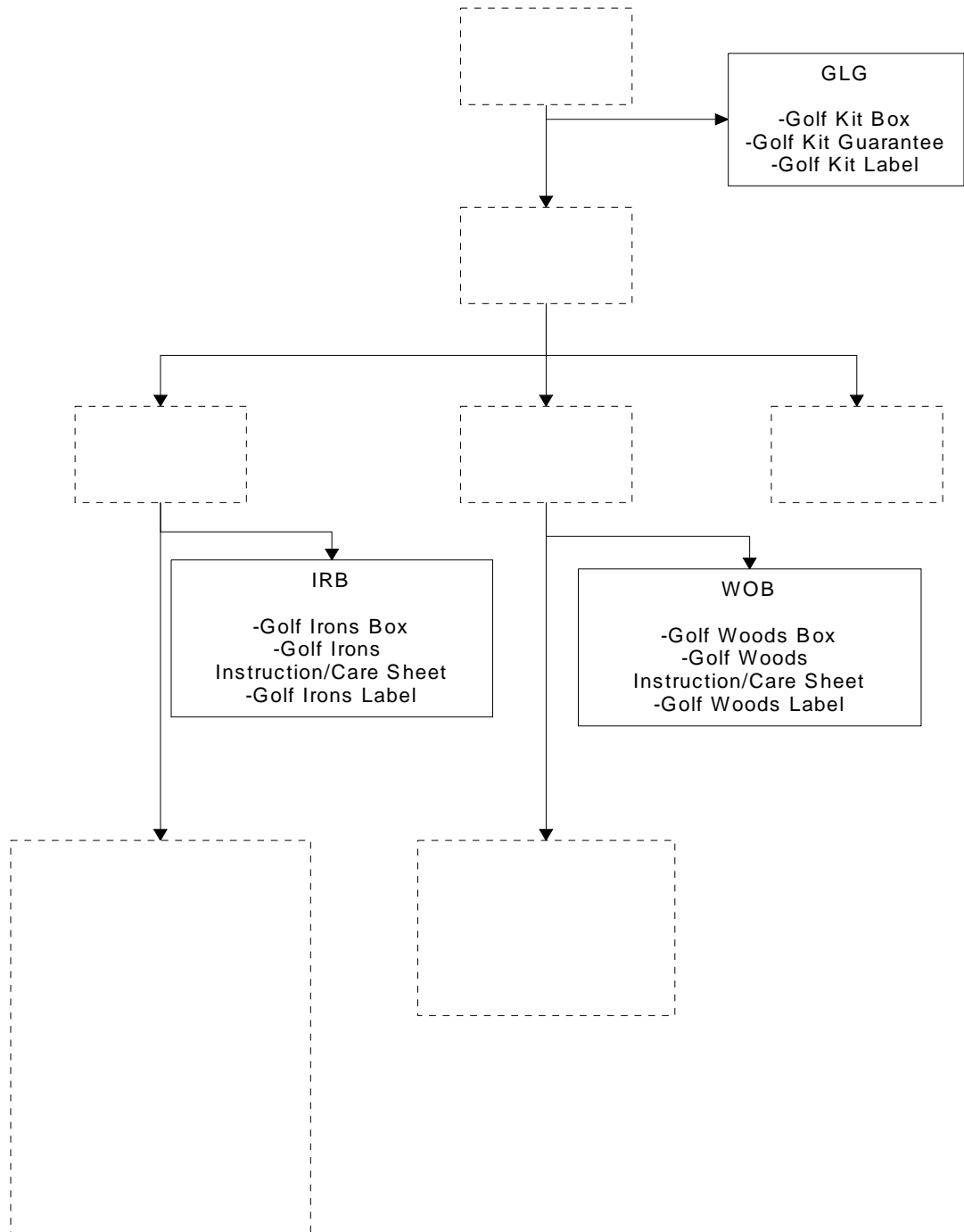


Figure C-21: Container BOM/Kit Formulas for Golf Kit EA

Creating Container Bills of Materials

After you create the lower level formulas, create any necessary container bills of materials. A container bill of materials is a formula that lists packing ingredients. For example, a container bill of materials may be a drum, a lid, and a label. In the Golf Kit example, IRB is a container bill of materials that consists of the golf irons box, the instruction/care sheet, and the label that goes on the box of irons.

A container bill of materials is often referred to as a kit. Create kits through Infinium CA or Infinium PF.

Assign container bills of materials to products in the Product file. The system includes the container bill of materials' costs within the product's costs.

The container bills of materials in the Golf Kit example have three letter identifiers. You do not have to limit yourself to three; the full 20-position field is available. This example uses three letter identifiers to readily identify the container bills of materials from the other formulas.

Use the menu path below.

- ▶ Infinium PF
- ▶ *Formula Management*
 - ▼ *Work with Formula [WWF]*

Access the General Information screen just as you did previously in Step 3 of this appendix.

12/16/97	8:09:53	Work with Formula	PRGFM	PRDFM
General Information			Page 1 of 2	
Formula	IRB	FVR#	1	
Description	CONTAINER BOM FOR IRONS EA			
Active Code	1	1-4		
Class	4	1-5		
Unit of Measure	EA	+		
Standard Batch Unit of Measure	EA	+		
Standard Batch Sizes		1.0000		
Standard Process (Equipment Code)	—			
Established Yield		1.0000		
Established Weight/Volume		1.00000		
Loss Percentage . . . . .		.0000		
Apply Loss % at Ingredient Level	N	(Y=Yes, N=No)		
Clingage Loss Percentage . . . . .		.0000		
Rework Limit Percentage . . . . .		.00		
Formula QC Test Type	STV +			
F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys				

Figure C-22: General Information screen

This is the General Information screen for IRB.

Complete the General Information screen as you did in Step 3, but be sure to type **4** in the *Class* field to identify this as a container BOM/kit formula. If you create a container BOM/kit in Infinium CA, the system automatically establishes a kit designation since container BOM/kits are the only types of formulas you can create in Infinium CA.

When you press [Enter], the system returns you to the Formula Attribute screen where you can select Ingredients and Instructions to define the container bill of materials.

12/15/97		14:17:45		Work with Formula		PRGFM	PRDFM
Ingredients and Instructions							
Formula : IRB				View: >			
Seq	Material and Size Code + Manufacturing Instructions & Desc +	Quantity	UM +	LC	Fixed Ingr Codes	Critical Resource?	
10	GOLF IRONS LABEL	1.0000	EA	B		-	
20	GOLF IRONS INSTRUCT.	1.0000	EA	B		-	
30	GOLF IRONS BOX	1.0000	EA	C		-	
Tot Wt		3.0000	EA	Tot Vol		More...	
				Standard Batch Size		1.0000	Spec Gr .000
						EA	
F3=Exit F4=Prompt F16=RM Maintenance F15=Rebulk F24=More keys							

Figure C-23: Ingredients and Instructions screen

The above screen is the Ingredients and Instructions screen for IRB. The remainder of the Golf Kit container bills of materials were created the same as IRB. Their Ingredients and Instructions screens display next.

12/15/97		14:19:07		Work with Formula		PRGFM	PRDFM
Ingredients and Instructions							
Formula : WOB				View: >			
Seq	Material and Size Code + Manufacturing Instructions & Desc +	Quantity	UM +	LC	Fixed Ingr Codes	Critical Resource?	
10	GOLF WOODS INSTRUCT.	1.0000	EA	B		-	
20	GOLF WOODS BOX	1.0000	EA	C		-	
30	GOLF WOODS LABEL	1.0000	EA	B		-	
Tot Wt		3.0000	EA	Tot Vol		More...	
				Standard Batch Size		1.0000	Spec Gr .000
						EA	
F3=Exit F4=Prompt F16=RM Maintenance F15=Rebulk F24=More keys							

Figure C-24: Ingredients and Instructions screen

Step 5: Creating the Final Kit Components

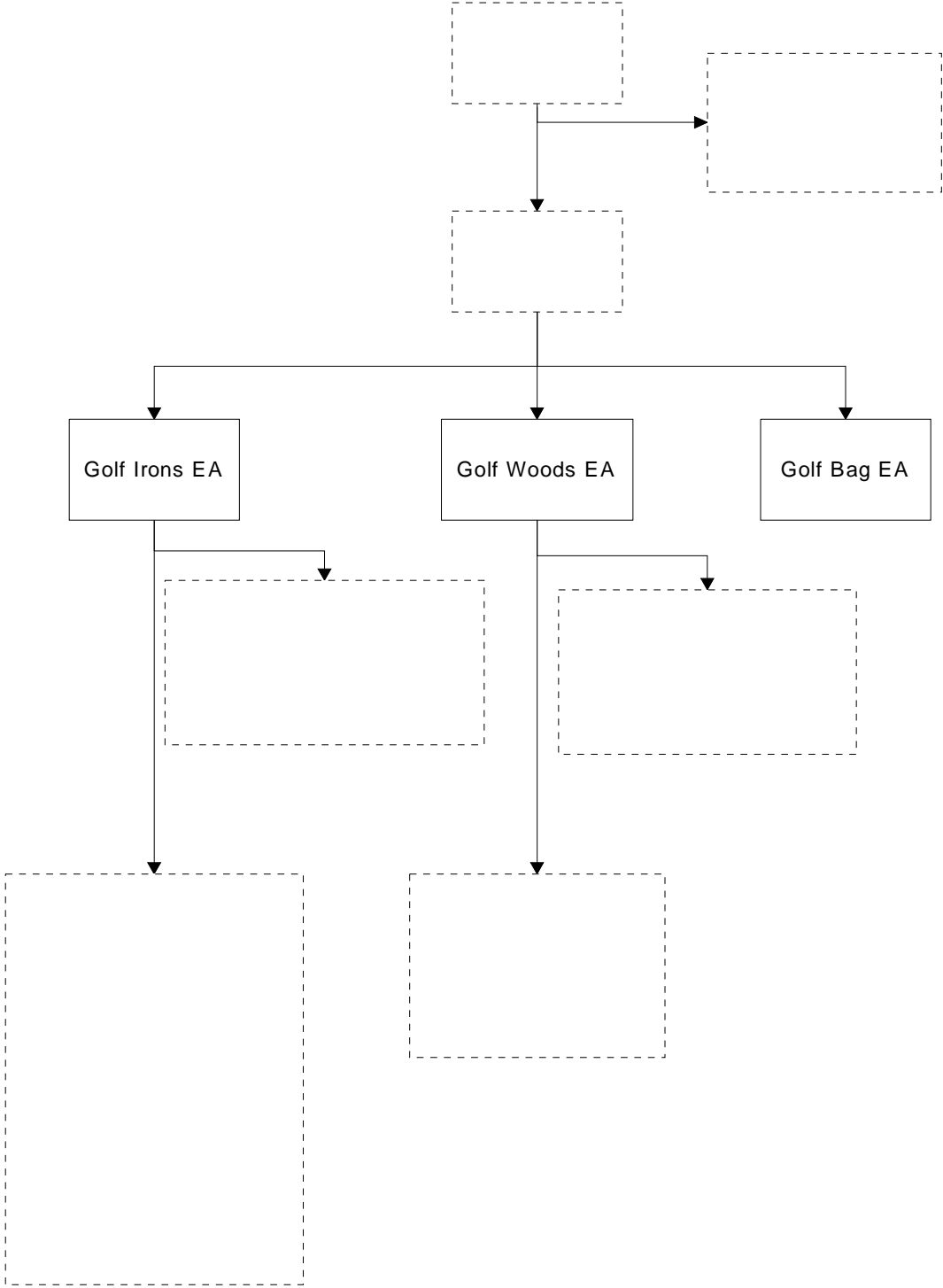


Figure C-26: Kit Components Needed for Golf Kit EA

Creating the Final Kit Components

The next step in kit processing is to create the kit components. Kit components are the end products that make up the final kit product. In the Golf Kit example, these components include Golf Irons EA, Golf Woods EA, and Golf Bag EA. However, Golf Bag EA already exists since the Golf Bag EA is a purchased product that does not depend on any other raw materials or products.

To create the remaining Golf Kit components, you need to create manufactured product records since these kit products come from formulas.

Create product records from either Infinium CA or Infinium PF.

Use the menu path below.

- ▶ Infinium CA
- ▶ *Master Files*
 - ▼ *Work with Products [WWP]*

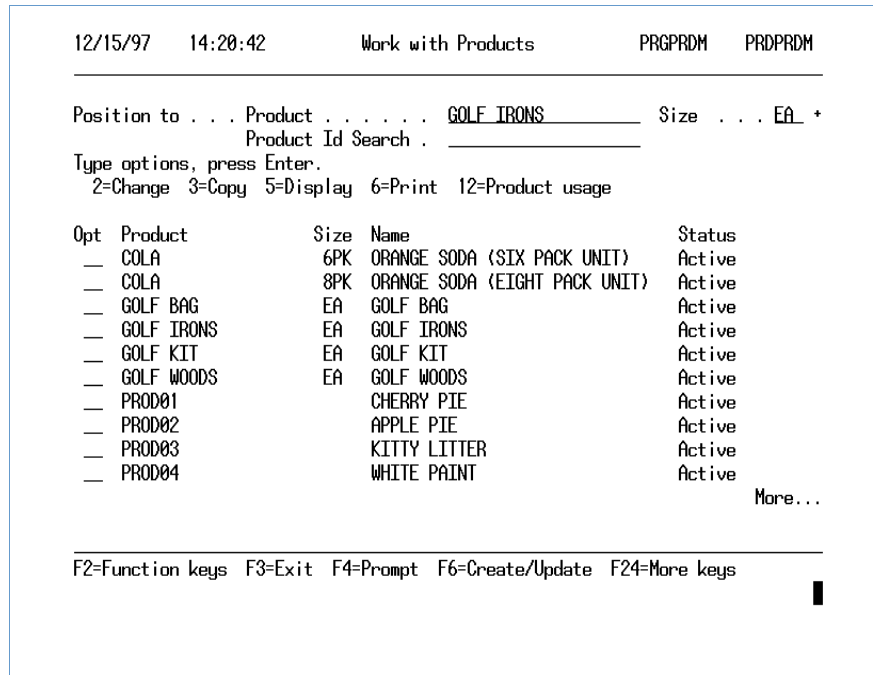


Figure C-27: Work with Products prompt screen

Type the product identifier in the *Product* field and press [F6].

```

12/15/97  14:21:28          Work with Products          PRGPRDM  PRDPRDM
-----
                                General Information
Product . . . . . : GOLF IRONS          EA
Active Record . . . . . : 1 1=Active, 2=Obsolete, 3=Remove
Description - Line 1 . . . . . : GOLF IRONS
Description - Line 2 . . . . . :
Display Description . . . . . :
Inventory Unit of Measure . . . . . : EA  +
Commodity Code . . . . . : MISC  +
Inventory G/L Partial Account . . . :
Product Revision Level . . . . . :
Sort Code . . . . . :
Auto Source Capable Material . . . : N  Y=Yes, N=No
Extended Description . . . . . : N  Y=Yes, N=No
Item Notes . . . . . : N  Y=Yes, N=No
Kit Product . . . . . : N  Y=Yes, N=No
Manufactured or Purchased Code . . : 1 1=Manufactured, 2=Purchased
Formula used . . . . . : GOLF IRONS  +
Container Bill of Material . . . . : IRB  +
Weight per Volume Factor . . . . . :
-----
F2=Function keys  F3=Exit  F4=Prompt  F8=Print  F24=More keys

```

Figure C-28: General Information screen

Complete the required fields and type **1** in the *Manufactured or Purchased Code* field. In the *Formula used* field type the product’s formula, which for Golf Irons EA is Golf Irons, and in the *Container Bill of Material* field type the appropriate identifier, which is IRB for Golf Irons EA.

Since Golf Irons EA is a manufactured product, the system costs this kit product based on the formula and container bill of material, assuming costing is running and the system is chasing costs. Press [Enter] to display the Product Attribute selection screen.

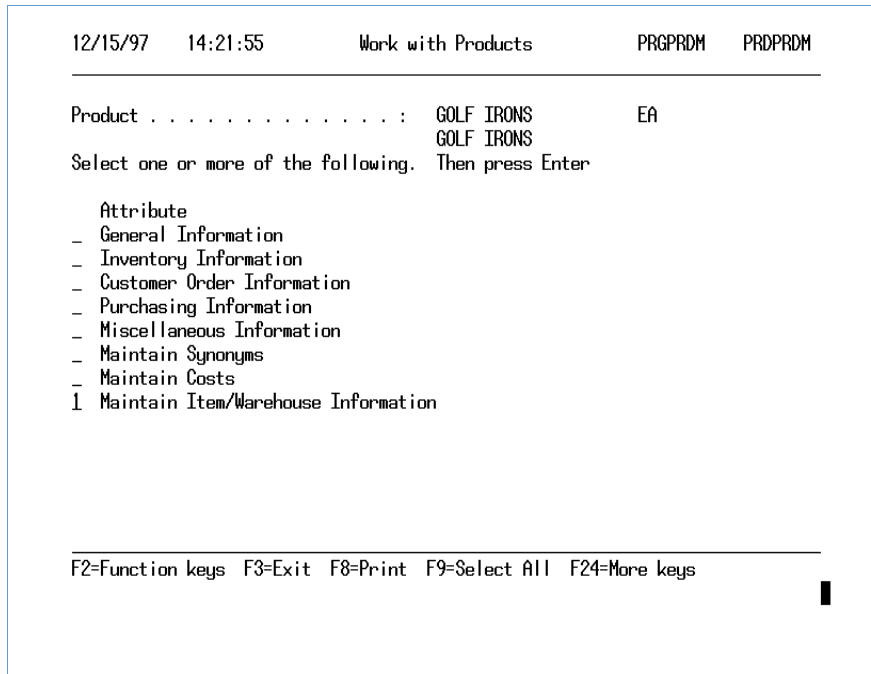


Figure C-29: Work with Products Attribute selection screen

Type **1** to select the Maintain Item/Warehouse Information attribute, which you use to create an Item Warehouse file record for Golf Irons EA.

Below is the General Information screen for Golf Woods EA.

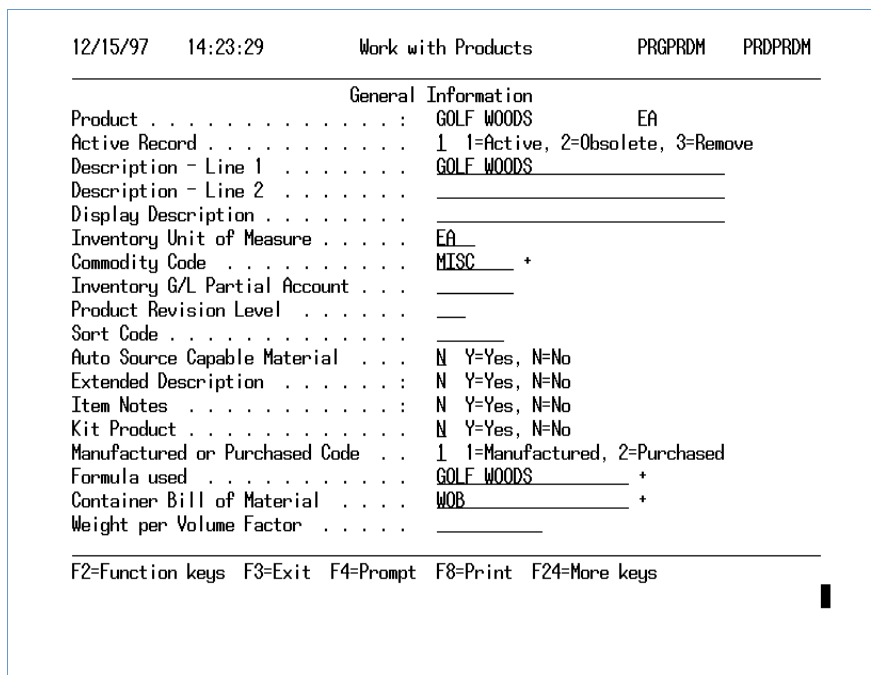


Figure C-30: General Information screen

Again, make sure the product has **1** in the *Manufactured or Purchased Code* field and complete the *Formula used* and *Container Bill of Material* fields.

Step 6: Creating the Final Kit Formula

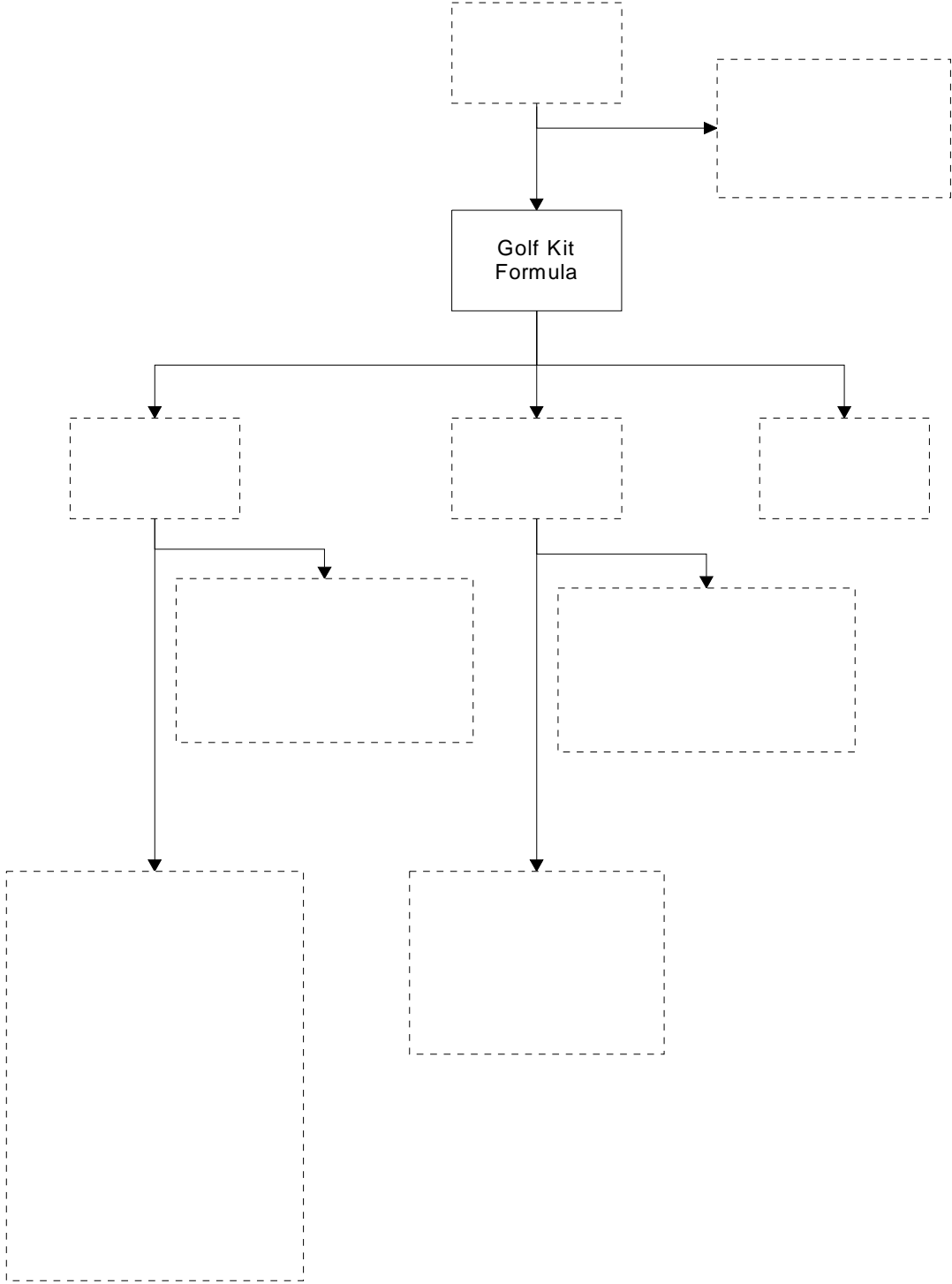


Figure C-31: Kit Formula Used for Golf Kit EA

Creating the Final Kit Formula

Once all of the components and their subassemblies exist, create the kit formula in this example, Golf Kit Formula.

Use the menu path below.

- ▶ Infinium PF
- ▶ *Formula Management*
 - ▼ *Work with Formula [WWF]*

Create a kit formula almost the same as in Step 4. The following screens in this section display specific key fields on the General Information and Ingredients and Instructions screens.

12/15/97	14:25:54	Work with Formula	PRGFM	PRDFM
		General Information	Page 1 of 2	
Formula		GOLF KIT FORMULA	FVR# . . .	1
Description	GOLF KIT FORMULA			
Active Code	1	1-4		
Class	4	1-5		
Unit of Measure	EA	+		
Standard Batch Unit of Measure	EA	+		
Standard Batch Sizes		1.0000		
Standard Process (Equipment Code)				
Established Yield		1.0000		
Established Weight/Volume		1.00000		
Loss Percentage . . . . .		.0000		
Apply Loss % at Ingredient Level	N	(Y=Yes, N=No)		
Clingage Loss Percentage . . . . .		.0000		
Rework Limit Percentage . . . . .		.00		
Formula QC Test Type	SIV	+		
F2=Function keys F3=Exit F4=Prompt F5=Refresh F24=More keys				

Figure C-32: General Information screen

Complete this screen as you would for any formula with the exception of the fields listed below.

Type the kit line items and their quantities on this screen. This screen displays the kit components that make up the Golf Kit Formula.

Press [F3] and exit to save your entries.

Step 7: Creating the Final Kit Product

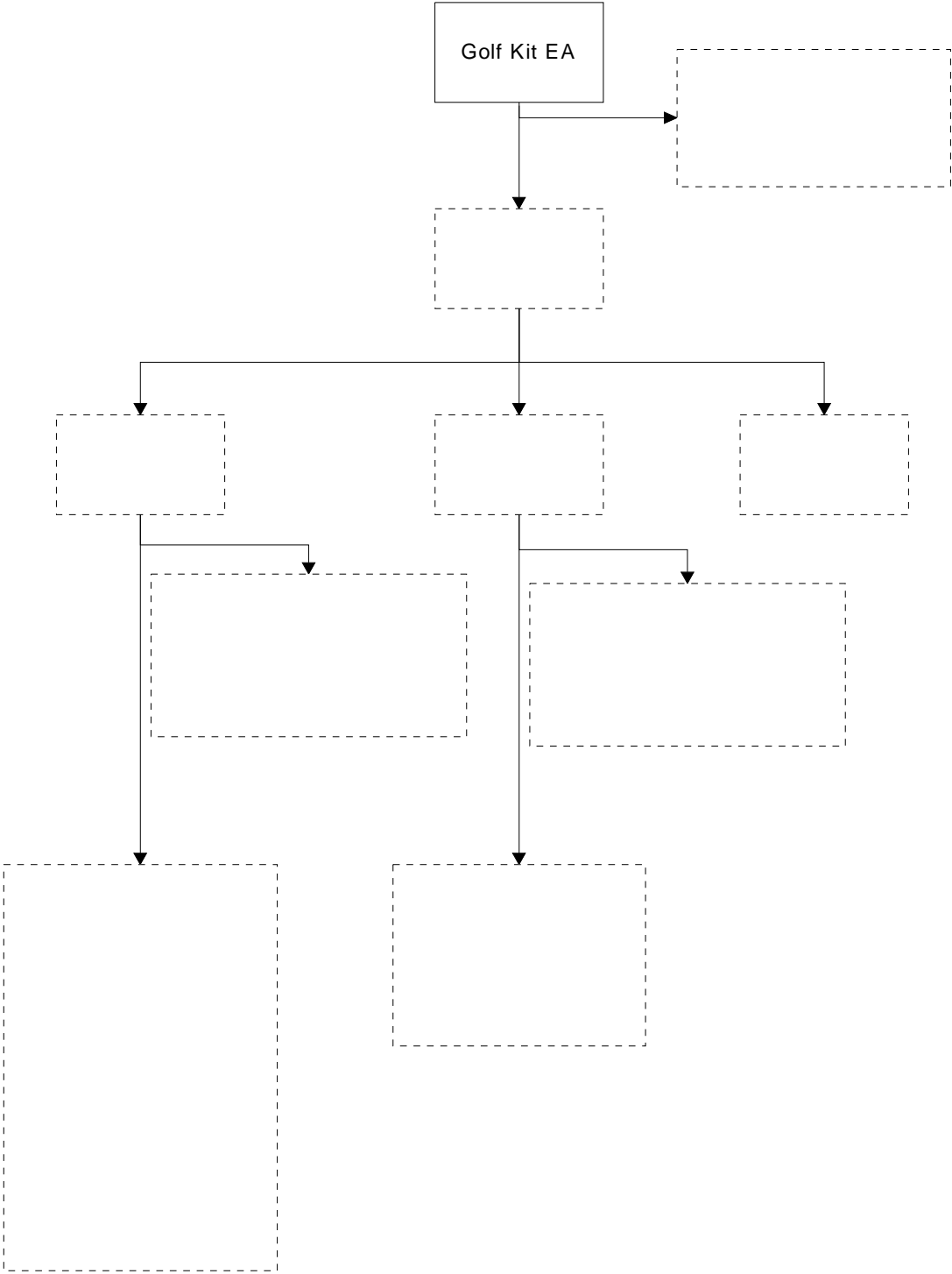


Figure C-34: Golf Kit EA

Creating the Final Kit Product

When all the raw materials, purchased products, and manufactured products and their subassemblies exist along with the kit component formula, create the final kit product.

Create product records from either Infinium CA or Infinium PF.

Use the menu path below.

- ▶ Infinium CA
- ▶ *Master Files*
 - ▼ *Work with Products [WWP]*

12/15/97	14:28:00	Work with Products	PRGPRDM	PRDPRDM
General Information				
Product	:	GOLF KIT	EA	
Active Record	:	1 1=Active, 2=Obsolete, 3=Remove		
Description - Line 1	:	GOLF KIT		
Description - Line 2	:	KIT PRODUCT FOR GOLF		
Display Description	:	_____		
Inventory Unit of Measure	:	EA		
Commodity Code	:	MISC *		
Inventory G/L Partial Account	:	_____		
Product Revision Level	:	_____		
Sort Code	:	_____		
Auto Source Capable Material	:	N Y=Yes, N=No		
Extended Description	:	N Y=Yes, N=No		
Item Notes	:	N Y=Yes, N=No		
Kit Product	:	Y Y=Yes, N=No		
Manufactured or Purchased Code	:	1 1=Manufactured, 2=Purchased		
Formula used	:	GOLF KIT FORMULA *		
Container Bill of Material	:	GLG *		
Weight per Volume Factor	:	_____		
F2=Function keys F3=Exit F4=Prompt F8=Print F24=More keys				

Figure C-35: General Information screen

Identify this product as a manufactured product by typing **1** in the *Manufactured or Purchased Code* field. Then type the appropriate formulas in the *Formula used* and *Container Bill of Material* fields.

Kit Product

Type **Y** in the *Kit Product* field. Each component of the kit must have product and formula records on file. A parameter in the *Work with Entity Controls* option in Infinium CA determines whether the system tracks inventory for kits as a single entity, or whether you inventory each component of the kit separately.

Kit Interfaces to Other Systems

Several Infinium MM and Infinium PR Suite applications handle kits. For example, in Infinium IC you can repackage kits, and in Infinium RM you can print a Material Safety Data Sheet for a kit as an end product, which combines all component information, as a component combination, or as both.

In Infinium CA you define how the system inventories kits. Several systems, such as Infinium OP, use this setting to determine how to relieve inventory for sales.

To define this, select the *Work with Entity Controls* option in Infinium CA, Control Files, and then select the Inventory Information attribute.

Use the menu path below.

- ▶ Infinium CA
- ▶ Control Files
 - ▼ Work with Entity Controls [WVEC]

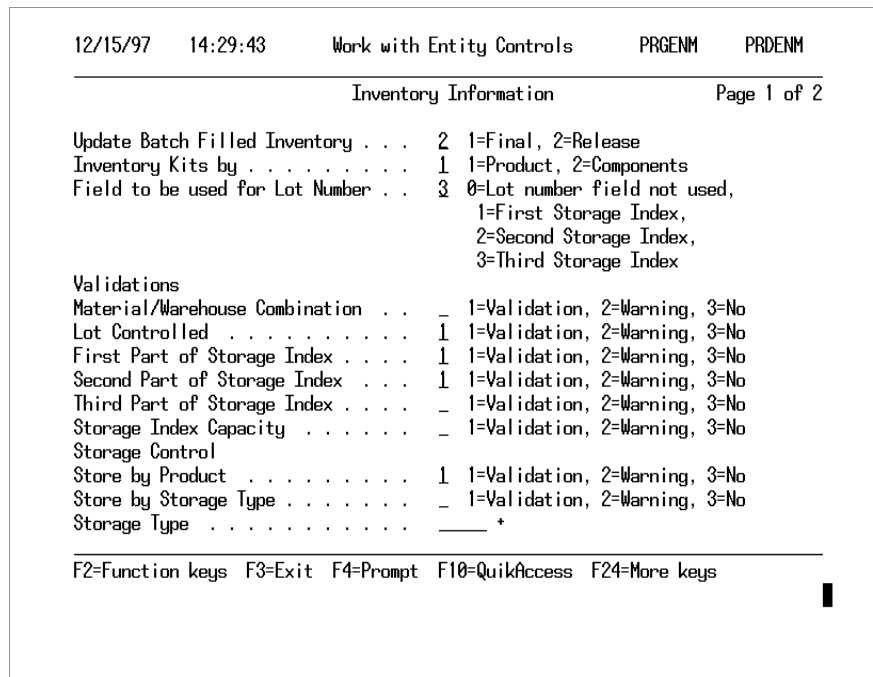


Figure C-36: Inventory Information screen 1

Use the *Inventory Kits by* field to define how the system stores and relieves kit inventory. Type **1** in this field to inventory kit products as a single component. Type **2** in this field to inventory kit products individually.

In the Golf Kit example, if you type **1** in the *Inventory Kits by* field, the system inventories the Golf Kit as one item, Golf Kit EA. If you type **2** in the *Inventory Kits by* field, the system inventories the components of Golf Kit EA separately; Golf Irons EA, Golf Woods EA, and Golf Bag EA.

Costing Kits

Once you create a kit, the system calculates costs for the kit. If you chase costs, the system automatically costs kits based on the formulas, purchased products, and raw materials within the kit itself and the kit subassemblies.

Think of costing as beginning at the lowest level and working its way up. In the Golf Kit example, the system costs the formulas Golf Irons and Golf Woods along with the container bills of materials IRB and WOB in order to cost the products Golf Irons EA and Golf Woods EA. Once the system costs those formulas, then the system can cost the Golf Kit Formula. After the system costs GLG, then the system can cost the final kit product, Golf Kit EA.

Refer to Figure C-37 for a breakdown of the element costs in the Golf Kit EA example and how the system rolls up these costs.

Product Cost Report

Refer to the Product Costing report after Figure C-37. This report is from Infinium CA, the *Display Costs* options. You must press [F8] to generate this report. The Cost codes are dependent upon your raw material definitions.

In Golf Kit EA all raw materials had an **R** (raw material) cost type with the exception of boxes used within the container bills of materials. The boxes had **C** (container) cost as their Cost code.

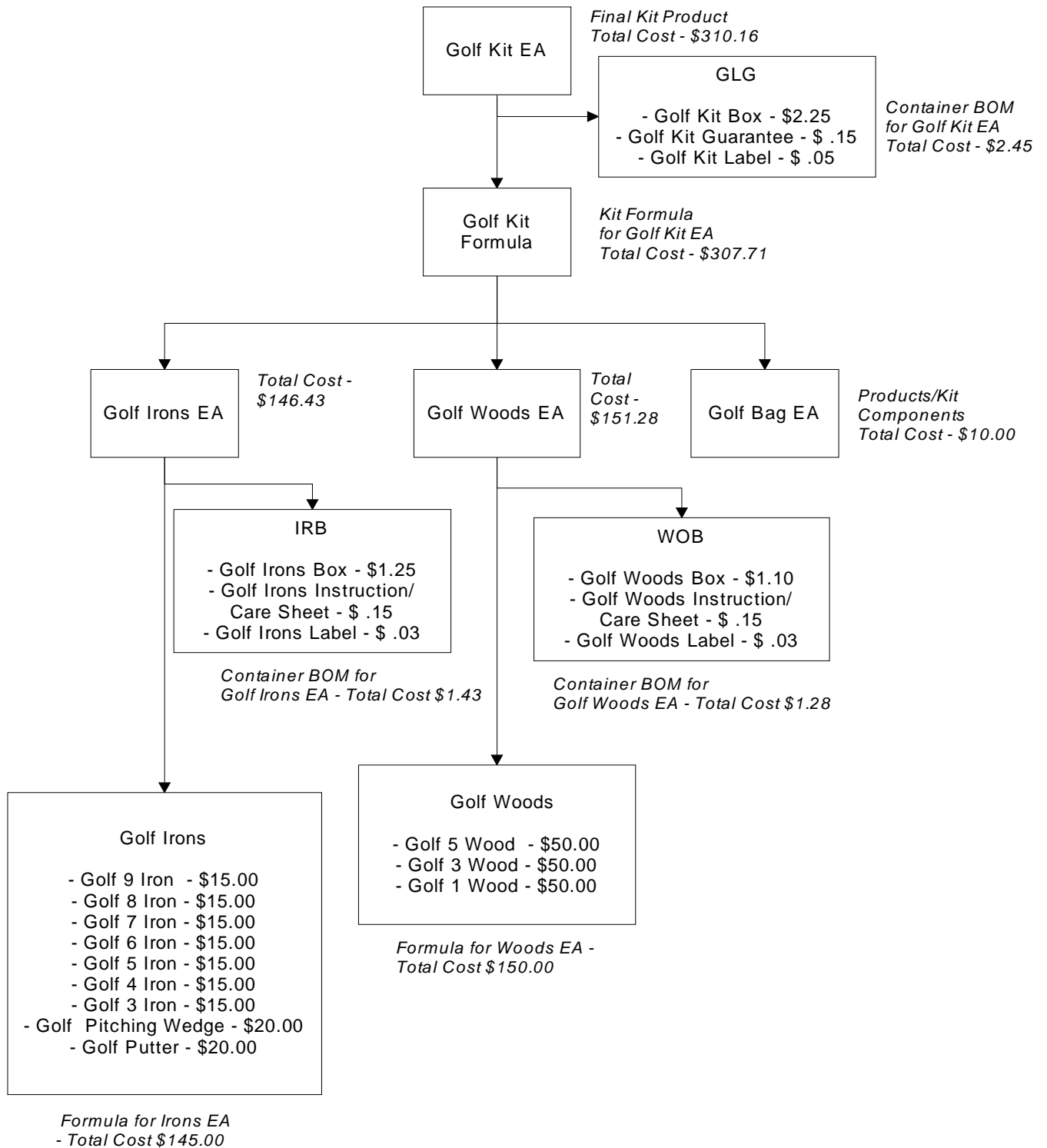


Figure C-37: Costing Golf Kit EA

PCR020 PCR020PR PRODUCT COSTING INQUIRY PAGE 1
 9/25/96 10:18:56 PJT

 *** Current Cost Used ***
 COMP/LOC CD PJS96 PJSWH NET WEIGHT INV UNITS: 1.0000 EA
 PRODUCT# GOLF KIT EA GOLF KIT MFG/PUR M ACTIVITY CD COST UNITS: 1.0000 EA
 FORMULA USED GOLF KIT FORMULA CONTAINER CODE GLG BASE UNITS : 1.0000
 FILL FACTOR 1.0000 KIT CODE K

 MATERIAL CD FILE COST/ UNITS/ EXT.
 COST UM UNIT UM CONT COST
 GOLF KIT FORMULA GOLF KIT 307.710000 EA 307.710000 EA 1.0000 7.710000 C
 GLG 2.450000 EA 2.450000 EA 1.0000 2.450000 C

 TOTAL COST---> 310.160000

 COST PER UNIT---> /EA
 Raw Material Cost ---> /EA
 Container Cost ---> /EA

***** END OF REPORT *****

Appendix D Using Fixed Ingredient Codes

D

This appendix explains in detail the functions of the Fixed Ingredient codes.

The following table shows the effects of using each code on ingredient quantities and costs in the formula and batch. An explanation of each code follows the chart.

Fixed Ingredient Code	Quantities	Quantities	Cost	Cost
	Quantity of Ingredient used in Formula	Quantity of Ingredient used in Batch	Cost per U/M for Ingredient used in Formula	Cost per U/M for Ingredient used in Batch
Valid Entries for First Fixed Ingredient Code Field				
H	Holds constant	Holds constant	$\frac{\text{Quantity} \times \text{Cost}}{\text{UM Formula Yield}}$	$\frac{\text{Quantity} \times \text{Cost}}{\text{UM Batch Yield}}$
S	Holds constant	Holds constant	$\frac{\text{Quantity} \times \text{Cost}}{\text{UM Standard Batch Size}}$	$\frac{\text{Quantity} \times \text{Cost}}{\text{UM Batch Yield}}$
V	Holds constant	Varies based on batch yield+	$\frac{\text{Quantity} \times \text{Cost}}{\text{UM Standard Batch Size}}$	$\frac{\text{Quantity} \times \text{Cost}}{\text{UM Batch Yield}}$
Valid Entry for Second Fixed Ingredient Code Field				
F	Changes all quantities based on the new quantity of the ingredient marked F (used in rebulking only)	NA	$\frac{\text{Quantity} \times \text{Cost}}{\text{UM Formula Yield}}$	NA

The system calculates the new quantity for ingredients with Fixed Ingredient code V as follows:

$$(\text{Batch Yield} / \text{Standard Batch Size}) \times \text{Original Ingredient Quantity in formula}$$

Fixed Ingredient Code	Quantities	Quantities	Cost	Cost
	Quantity of Ingredient used in Formula	Quantity of Ingredient used in Batch	Cost per U/M for Ingredient used in Formula	Cost per U/M for Ingredient used in Batch
Valid Entry for Third Fixed Ingredient Code Field				
X	Holds constant; used in Infinium LA only	NA	holds constant; used in Infinium LA only	NA

Fixed Ingredient Codes

Three codes are valid in the first field: **H**, **S**, or **V**.

H Code

Type **H** in the first *Fixed Ingr Codes* field to hold the quantity and cost of an item or resource constant for rebulking.

For example, if you increase the yield of a formula, but the increase does not affect the amount of labor required, hold labor constant by typing **H** in the *Fixed Ingr Codes* field of the labor ingredient line. The system saves this code in the formula record. The cost per unit in the formula is usually much higher than the true cost per unit when a batch is manufactured, due to different standard batch sizes.

The next two codes hold ingredient quantities constant and use the first standard batch size entry for ingredient cost calculations. You would normally assign these codes to overhead items only.

S Code

Assign the **S** (standard hold) code to resources for which the quantity and total cost for the resource should remain constant.

When you identify a resource **S** in a formula, the quantity of the resource remains the same when you rebulk the formula and the cost is based on the standard batch size. When a batch is manufactured, the quantity of the resource remains the same, but the cost per unit of that resource for the batch decreases as the batch size increases or vice versa, if the batch is for a different yield than standard batch size.

V Code

Use the **V** (variable hold) code when a resource's quantity and cost should remain constant when you rebulk the formula. However, when the formula is manufactured, the quantity should increase or decrease by the same proportion as the difference between the standard batch size and the batch yield.

Two examples of resources for which the **V** code is appropriate are production run-time labor and burden.

When you identify a resource **V** in a formula, the quantity of the resource remains the same and the cost is based on the standard batch size.

When a batch is manufactured, the quantity of the resource increases or decreases based on the difference between the standard batch size and batch yield.

For example, you specify machine time in a formula and assign the Fixed Ingredient code **V**. If you rebulk the formula, the number of hours remains the same, as does the cost for that time, which is based on the standard batch size.

When you produce a batch of the formula and enter a batch yield that is greater than the standard batch size, the system recalculates machine time to increase usage. The total cost for the batch increases based on the increased usage; however, the cost per unit of the ingredient remains the same as it was in the formula.

F Code

The code **F** in the second *Fixed Ingr Codes* field allows you to specify a new ingredient quantity and have the system recalculate the formula yield and other ingredients (provided they are not held constant) based on the percentage of change.

For example, if a formula with a calculated yield of 1000 gallons uses 100 gallons of water, you can change the formula yield by changing the quantity of water. Type **F** in the *Fixed Ingr Codes* field on the line for water. Then return to the *Qty* field of the ingredient water and type **200**. Press [F15] to rebulk the formula.

The quantities of other ingredients that do not have the Fixed Ingredient codes **H**, **S**, or **V** assigned to them increase by the same ratio as the quantity, which the system calculates as the new quantity divided by the previous quantity. The system does not save the **F** code in the Formula record.

The third *Fixed Ingr Codes* field is for use in Infinium LA only.

Effect of H, S, and V Codes

The charts on the following pages illustrate the effect of the codes **H**, **S**, and **V** for two different scenarios in Formula Management:

- Rebulking the formula
- Changing the standard batch size in the formula

The effects of these codes are also shown for four different scenarios in Infinium MC:

- 1 Manufacturing the standard formula, in which the batch yield defaults to the standard batch size
- 2 Entering a batch with a yield that is different from the standard batch size
- 3 Changing the batch yield (which defaults to the standard batch size) to the original formula

- 4 Changing the standard batch size to a value other than the formula yield, and then producing a batch with a yield that is different from both values

On the following pages, the original formula is compared to the modified formula or batch. Note the changes in the quantity and cost for items that are assigned a Fixed Ingredient code.

The system performs the same basic calculations to determine cost. The variable is the value of the formula yield, standard batch size, or batch yield, which ultimately determines the cost.

$$\# \text{ Units} \times \text{File Cost/Unit} = \text{Extended Cost}$$

$$\text{Extended Cost / Value in Divided by Column} = \text{Cost/Unit}$$

The Ingredient Cost per Unit columns shown in the following examples are calculated by the material costing program. The systems do not provide an option that allows you to view or print these per unit costs; however, the total or extended cost columns do print on the Formula Costing and Batch Costing reports available through Infinium PF and Infinium MC. The per unit costs are provided here to help illustrate the effects of the codes.

You can generate the Formula Costing report by selecting the *Costing Utilities* option and then the *Print Costs for Warehouse* option.

Standard Formula

Formula Yield = 100 lbs.

Standard Batch Size = 2000 lbs.

Ingredient	Fixed Ingredient Code	Process Material	# of Units	U/M	File Cost per Unit of Ingredient	Extended Cost	Divided by	Ingredient Cost per Unit in Formula	Cost Code
RAWSOLID1			50.00	LB	12.0000	600.0000	100	6.0000	R
RAWSOLID2			50.00	LB	12.0000	600.0000	100	6.0000	R
RAWCATLST	H	Y	10.00	LB	12.0000	120.0000	100	1.2000	R
LABOR		Y	4.00	HR	100.0000	400.0000	100	4.0000	L
LABOR	H	Y	4.00	HR	100.0000	400.0000	100	4.0000	L
LABOR	S	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
LABOR	V	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
BURDEN		Y	100.00	LB	3.0000	300.0000	100	3.0000	B
BURDEN	H	Y	100.00	LB	3.0000	300.0000	100	3.0000	B
BURDEN	S	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
BURDEN	V	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
Yield Total = 100.00/lb							Formula Cost per Unit = 27.9000/lb		
Raw Material Cost = 13.2000/lb			Direct Labor Cost = 8.4000/lb			Burden Cost = 6.3000/lb			

Formula Scenario #1: Formula Rebulk**Original Formula Yield = 100 lbs.****New Formula Yield = 500 lbs.****Standard Batch Size = 2000 lbs.**

In this example, the standard formula shown on the previous page has been rebulked from 100 lbs to 500 lbs. Notice how the new yield affects ingredient quantities that are not assigned a fixed ingredient code. Note also the change in cost that results from the new yield.

Ingredient	Fixed Ingredient Code	Process Material	# of Units ¹	U/M	File Cost per Unit of Ingredient	Extended Cost ²	Divided by ³	Ingredient Cost per Unit in Formula ⁴	Cost Code
RAWSOLID1			250.00	LB	12.0000	3000.0000	500	6.0000	R
RAWSOLID2			250.00	LB	12.0000	3000.0000	500	6.0000	R
RAWCATLST	H	Y	10.00	LB	12.0000	120.0000	500	0.2400	R
LABOR		Y	20.00	HR	100.0000	2000.0000	500	4.0000	L
LABOR	H	Y	4.00	HR	100.0000	400.0000	500	0.8000	L
LABOR	S	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
LABOR	V	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
BURDEN		Y	500.00	LB	3.0000	1500.0000	500	3.0000	B
BURDEN	H	Y	100.00	LB	3.0000	300.0000	500	0.6000	B
BURDEN	S	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
BURDEN	V	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
Yield Total = 500.00/lb							Formula Cost per Unit = 21.3400/lb		
Raw Material Cost = 12.2400/lb			Direct Labor Cost = 5.2000/lb			Burden Cost = 3.9000/lb			

¹Quantities of ingredients that are not assigned a Fixed Ingredient code are multiplied by 5 to reflect the five-fold increase in the formula yield.

²The extended cost of the ingredient also reflects the five-fold increase in the yield for ingredients without a Fixed Ingredient code.

³The system determines the cost per unit in the formula using the new formula yield of 500 pounds, except for ingredients with the Fixed Ingredient codes **S** and **V**. For these items, the cost per unit is based on the standard batch size.

⁴The system reduces the cost per unit in the formula only for ingredients with the Fixed Ingredient code **H**. The change is due to the increase in the formula yield. Remember, the quantity of these ingredients does not change, but the formula yield does.

Formula Scenario #2: Standard Batch Size Changed to 1200 lbs.

Formula Yield = 100 lbs.

Original Standard Batch Size = 2000 lbs.

New Standard Batch Size = 1200 lbs.

This example illustrates the effects of a change in the standard batch size. Remember, the system uses this quantity is used to determine the cost per unit of ingredients with the Fixed Ingredient codes **S** and **V**.

Ingredient	Fixed Ingredient Code	Process Material	# of Units	U/M	File Cost per Unit of Ingredient	Extended Cost	Divided by ¹	Ingredient Cost per unit in Formula ²	Cost Code
RAWSOLID1			50.00	LB	12.0000	600.0000	100	6.0000	R
RAWSOLID2			50.00	LB	12.0000	600.0000	100	6.0000	R
RAWCATLST	H	Y	10.00	LB	12.0000	120.0000	100	1.2000	R
LABOR		Y	4.00	HR	100.0000	400.0000	100	4.0000	L
LABOR	H	Y	4.00	HR	100.0000	400.0000	100	4.0000	L
LABOR	S	Y	4.00	HR	100.0000	400.0000	1200	0.3333	L
LABOR	V	Y	4.00	HR	100.0000	400.0000	1200	0.3333	L
BURDEN		Y	100.00	LB	3.0000	300.0000	100	3.0000	B
BURDEN	H	Y	100.00	LB	3.0000	300.0000	100	3.0000	B
BURDEN	S	Y	100.00	LB	3.0000	300.0000	1200	0.2500	B
BURDEN	V	Y	100.00	LB	3.0000	300.0000	1200	0.2500	B

Ingredient	Fixed Ingredient Code	Process Material	# of Units	U/M	File Cost per Unit of Ingredient	Extended Cost	Divided by ¹	Ingredient Cost per unit in Formula ²	Cost Code
Yield Total = 100.00/lb							Formula Cost per Unit = 28.3667/lb		
Raw Material Cost = 13.2000/lb			Direct Labor Cost = 8.6667/lb				Burden Cost = 6.5000/lb		

¹The extended cost is divided by the new standard batch size of 1200 pounds, to determine the cost per unit in the formula for ingredients with the Fixed Ingredient codes **S** and **V**.

²The system increases the cost per unit in the formula for ingredients with the Fixed Ingredient codes **S** and **V**. This increase occurs because the same total (extended) cost is spread over a smaller yield.

Scenario 1: Manufacturing Standard Formula

Formula Yield = 100 lbs.

Standard Batch Size = 2000 lbs.

Batch Yield = 2000 lbs.

When Infinium MC processes a batch of a formula, the default batch yield is the standard batch size from the Formula record. This example illustrates what happens to quantities and costs when those values are the same.

Ingredient	Fixed Ingredient Code	Process Material	# of Units	U/M	File Cost per Unit of Ingredient	Extended Cost ²	Divided by ³	Ingredient Cost per Unit in Formula ⁴	Cost Code
RAWSOLID1			1000.00	LB	12.0000	12000.0000	2000	6.0000	R
RAWSOLID2			1000.00	LB	12.0000	12000.0000	2000	6.0000	R
RAWCATLST	H	Y	10.00	LB	12.0000	120.0000	2000	0.0600	R
LABOR		Y	80.00	HR	100.0000	8000.0000	2000	4.0000	L
LABOR	H	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L

Ingredient	Fixed Ingredient Code	Process Material	# of Units	U/M	File Cost per Unit of Ingredient	Extended Cost ²	Divided by ³	Ingredient Cost per Unit in Formula ⁴	Cost Code
LABOR	S	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
LABOR	V	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
BURDEN		Y	2000.00	LB	3.0000	6000.0000	2000	3.0000	B
BURDEN	H	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
BURDEN	S	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
BURDEN	V	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
Yield Total = 2000.00/lb							Batch Cost per Unit 20.1100/lb		
Raw Material Cost = 12.0600/lb			Direct Labor Cost = 4.6000/lb				Burden Cost = 3.4500/lb		

¹The system increases quantities for ingredients that do not have a Fixed Ingredient code to reflect the batch yield of 2000 lbs. Ingredients with Fixed Ingredient codes remain the same. Ingredients with the Fixed Ingredient code **V** remain the same because the standard batch size is equal to the batch yield.

²The system recalculates the extended costs for ingredients without a Fixed Ingredient code to reflect the usage increase.

³The system uses the new batch yield of 2000 lbs to calculate the cost per unit in batch for ingredients that do not have a Fixed Ingredient code and ingredients with the Fixed Ingredient code **H**. Ingredients with the Fixed Ingredient codes **S** and **V** remain the same because the standard batch size and batch yield are the same.

⁴The cost per unit in the batch decreases from the cost per unit in the formula for ingredients with the Fixed Ingredient code **H**. The decrease occurs because the quantities that the system uses in the batch are based on the original formula yield of 100 lbs, and not the batch yield of 2000 lbs.

Scenario 2: Batch Yield changed to 5000 lbs.**Formula Yield = 100 lbs.****Standard Batch Size = 2000 lbs.****Batch Yield = 5000 lbs.**

This example illustrates how Fixed Ingredient codes affect the cost per unit of ingredient used in a batch. Compare this chart to the standard formula on the previous page. Notice that the system uses the batch yield to determine the cost per unit in the batch for ingredients with the Fixed Ingredient codes **S** and **V**, instead of the standard batch size that was used to determine the cost per unit in the formula.

Ingredient	Fixed Ingredient Code	Process Material	# of Units ¹	U/M	File Cost per Unit of Ingredient	Extended Cost ²	Divided by ³	Ingredient Cost per Unit in Formula ⁴	Cost Code
RAWSOLID1			2500.00	LB	12.0000	300.0000	5000	6.0000	R
RAWSOLID2			2500.00	LB	12.0000	300.0000	5000	6.0000	R
RAWCATLST	H	Y	10.00	LB	12.0000	120.0000	5000	0.0240	R
LABOR		Y	200.00	HR	100.0000	2000.0000	5000	4.0000	L
LABOR	H	Y	4.00	HR	100.0000	400.0000	5000	0.0800	L
LABOR	S	Y	4.00	HR	100.0000	400.0000	5000	0.0800	L
LABOR	V	Y	10.00	HR	100.0000	1000.0000	5000	0.2000	L
BURDEN		Y	5000.00	LB	3.0000	15000.0000	5000	3.0000	B
BURDEN	H	Y	100.00	LB	3.0000	300.0000	5000	0.0600	B
BURDEN	S	Y	100.00	LB	3.0000	300.0000	5000	0.0600	B
BURDEN	V	Y	250.00	LB	3.0000	750.0000	5000	0.1500	B
Yield Total = 5000.00/lb							Batch Cost per Unit = 19.6540/lb		
Raw Material Cost = 12.0240/lb			Direct Labor Cost = 4.3600/lb			Burden Cost = 3.2700/lb			

¹Quantities for ingredients without a Fixed Ingredient code increase to reflect the batch yield of 5000 lbs. Ingredients with the Fixed Ingredient code **V** increase by a factor of 2.5, which is the same ratio of increase between the standard batch size and the batch yield. All other ingredient quantities remain the same. They are based on the original formula yield of 100 lbs.

²The extended costs of ingredients that do not have a Fixed Ingredient code, or that have the Fixed Ingredient code **V**, increase as a result of the increase in quantities used.

³The system uses the new batch yield of 5000 lbs to calculate the cost per unit of all ingredients used in the batch.

⁴The system uses the cost per unit in the batch for ingredients with the Fixed Ingredient codes **H** and **S**, because the quantities are based on the original formula yield of 100 lbs, and not the batch yield of 5000 lbs.

Scenario 3: Batch Yield changed to Equal Formula Yield

Original Formula Yield = 100 lbs.

Batch Yield = 100 lbs.

Standard Batch Size
(specified in Formula record) = 2000 lbs.

This example shows the effect of changing the batch yield to the original formula yield. Notice that the system calculates ingredients with the Fixed Ingredient code **V** using the batch yield, standard batch size, and the quantity specified in the original formula.

Ingredient	Fixed Ingredient Code	Process Material	# of Units ¹	U/M	File Cost per Unit of Ingredient	Extended Cost ²	Divided by ³	Ingredient Cost per unit in Formula ⁴	Cost Code
RAWSOLID1			50.00	LB	12.0000	600.0000	100	6.0000	R
RAWSOLID2			50.00	LB	12.0000	600.0000	100	6.0000	R
RAWCATLST	H	Y	10.00	LB	12.0000	120.0000	100	1.2000	R
LABOR		Y	4.00	HR	100.0000	400.0000	100	4.0000	L
LABOR	H	Y	4.00	HR	100.0000	400.0000	100	4.0000	L
LABOR	S	Y	4.00	HR	100.0000	400.0000	100	4.0000	L
LABOR	V	Y	0.20	HR	100.0000	20.0000	100	0.2000	L
BURDEN		Y	100.00	LB	3.0000	300.0000	100	3.0000	B
BURDEN	H	Y	100.00	LB	3.0000	300.0000	100	3.0000	B

BURDEN	S	Y	100.00	LB	3.0000	300.0000	100	3.0000	B
BURDEN	V	Y	5.00	LB	3.0000	15.0000	100	0.1500	B
Yield Total = 100.00/lb							Batch Cost per Unit = 34.5500/lb		
Raw Material Cost = 13.2000/lb			Direct Labor Cost = 12.2000/lb			Burden Cost = 9.1500/lb			

¹The system calculates quantities for ingredients with the Fixed Ingredient code **V** using the batch yield of 100 lbs, as well as the standard batch size. The system calculates new quantities for the batch as follows:

$$(\text{Batch Yield}) / (\text{Std Batch Size}) \times (\text{Ingredient Qty in Original Formula})$$

²The extended cost of the ingredients with the Fixed Ingredient code **V** reflects the decrease in usage that results from the decrease in the batch yield from the standard batch size.

³The system uses the batch yield of 100 lbs to determine the cost per unit in batch for all ingredients.

⁴The cost per unit in batch increases for ingredients with the Fixed Ingredient code **S**, because the batch yield is less than the standard batch size.

Scenario 4: Standard Batch Size in Formula Record changed to 1200 lbs. and the Batch Yield is 2000 lbs.

Original Formula Yield = 100 lbs.

Batch Yield = 2000 lbs.

Original Standard Batch Size = 2000 lbs.

New Standard Batch Size = 1200 lbs.

Ingredient	Fixed Ingredient Code	Process Material	# of Units ¹	U/M	File Cost per Unit of Ingredient	Extended Cost ²	Divided by ³	Ingredient Cost per Unit in Formula ⁴	Cost Code
RAWSOLID1			1000.00	LB	12.0000	12000.0000	200	6.0000	R
RAWSOLID2			1000.00	LB	12.0000	12000.0000	2000	6.0000	R
RAWCATLST	H	Y	10.00	LB	12.0000	120.0000	2000	0.0600	R
LABOR		Y	80.00	HR	100.0000	8000.0000	2000	4.0000	L

Ingredient	Fixed Ingredient Code	Process Material	# of Units ¹	U/M	File Cost per Unit of Ingredient	Extended Cost ²	Divided by ³	Ingredient Cost per Unit in Formula ⁴	Cost Code
LABOR	H	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
LABOR	S	Y	4.00	HR	100.0000	400.0000	2000	0.2000	L
LABOR	V	Y	6.67	HR	100.0000	666.6000	2000	0.3333	L
BURDEN		Y	2000.00	LB	3.0000	6000.0000	2000	3.0000	B
BURDEN	H	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
BURDEN	S	Y	100.00	LB	3.0000	300.0000	2000	0.1500	B
BURDEN	V	Y	166.67	LB	3.0000	499.9980	2000	0.2500	B
Yield Total = 2000.00/lb								Batch Cost per Unit 20.3433/lb	
Raw Material Cost = 12.0600/lb			Direct Labor Cost = 4.7333/lb				Burden Cost = 3.5500/lb		

¹Quantities for ingredients with the Fixed Ingredient codes **H**, **S**, and **V** do not change when you rebulk the formula. However, the system recalculates quantities for ingredients with the Fixed Ingredient code **V** based on the new standard batch size of 1200 lbs, and then rescales the ingredient quantities to reflect the batch yield of 2000 lbs.

²The extended cost of the ingredients for which quantities changed reflect the increase in usage.

³The system uses the batch yield of 2000 lbs to determine the cost per unit in batch.

⁴The cost per unit in the batch decreases for ingredients with the Fixed Ingredient code **H**, because the quantities are based on the original formula yield of 100 lbs. Ingredients with the Fixed Ingredient code **S** remain the same. The cost per unit for ingredients with the Fixed Ingredient code **V** increases because the batch yield is greater than the new standard batch size.

Notes