IMS 3.0
Ink Management System

USER MANUAL

SPECIALTY INKS

wilflex™

Introduction

Ink Management Software (IMS) has been an essential component in textile ink rooms since the late 1980s when the first pigment concentrates (PC) systems were introduced. Using color systems offer a simple, efficient method to achieve Pantone® simulations and develop custom color. Every day, printers around the world count on the IMS 3.0 system to help them save time and money throughout the production process.

IMS 3.0 is a cloud-based solution for managing color and inventory in the textile screen printing market.* Offering tools for color creation and standardizing, IMS 3.0 manages daily maneuvers in a highly functional ink room by providing color management and communication agility. Color chip images appear with formulations to help with visual communication. The color display will also be featured when emailing formulas and creating reports. The new platform and updated functionality will continue to add functional support and innovation to the concept of total ink room management.

From consistent, repeatable color matches in the ink room to smooth running inks on press, Avient color systems deliver the results that printers trust to grow their business. See the graphic below to learn how IMS 3.0 can improve three critical areas of ink room functionality.

How Can IMS 3.0 Improve Your Ink Room Management?

Communication	• Provides expanded communication methods • Creates customized labeling • Offers visual color display • Accessible in the cloud, providing sharable formulas
Inventory Management	• Scans inventory • Visualizes inventory • Provides purchasing trends • Displays color trends
Consistent Quality = Productivity and Repeatability	• Approve more colors • Filters advanced options • Applies user preferences • Automates ink room management

* Not all features are available for all brands.

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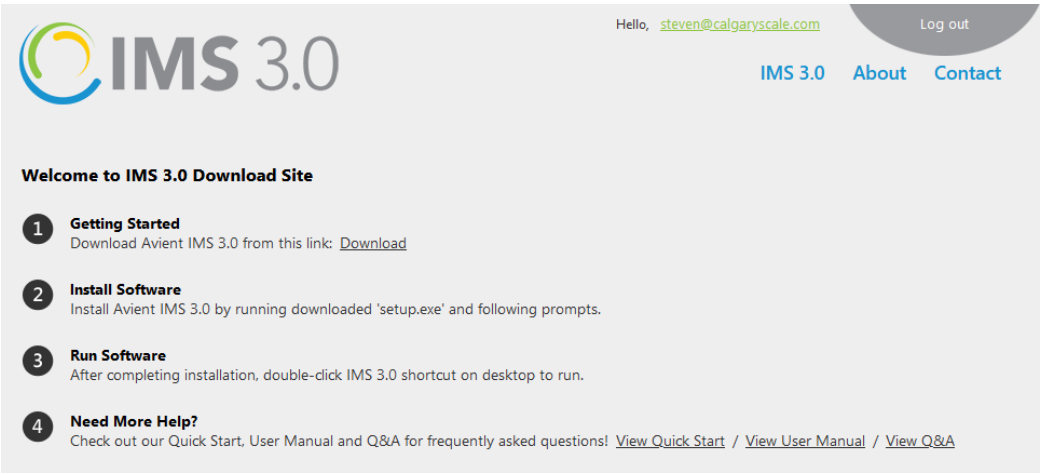
INSTALLATION

INSTALLING IMS 3.0

The IMS 3.0 download is available to Avient color system users by registering on the IMS 3.0 site. The following three steps will guide you through a successful installation.

1. To install IMS 3.0 on a Windows system, go to http://ims3.azurewebsites.net/Account/Login
2. Enter your login credentials
3. Download



4. Once the download is complete, open the software and log back in using the same credentials to access the system.

HARDWARE ENVIRONMENT

REQUIREMENT	DESCRIPTION
Processor	x86 or x64 1 GHz Pentium processor or equivalent (minimum); 1 GHz Pentium processor or equivalent (recommended)
RAM	512 MB (minimum); 1 GB (recommended)
Hard Disk	Up to 1.5 GB of available space may be required
Display	800 x 600, 256 colors (minimum); 1024 x 768 high color, 32-bit (recommended)
Internet	Internet accessible

GETTING STARTED

Filters	Apply all filters and set up default values and printers
Pantone® Numbers	Enter number exactly as it appears in the Pantone Formula Guide (i.e. 032 C is Orange 032 C, entering a space between C or U)
Custom Color Search	Select User Formula button in upper left corner
Creating Custom Palette/ Modifying Standard Colors	Begin formula search in the User Formula area; if a custom color is not found, select the Standard Formulas radio button to begin a new search
Printers, Labels and Scanners	• Choose any printer with a Windows driver • Use label stock best suited for selected printer • Scan using a single line hand-held laser device

INTERFACES

The IMS 3.0 has four main interfaces: blending, communication, inventory, and settings. This section will outline each of the four interfaces and their features.

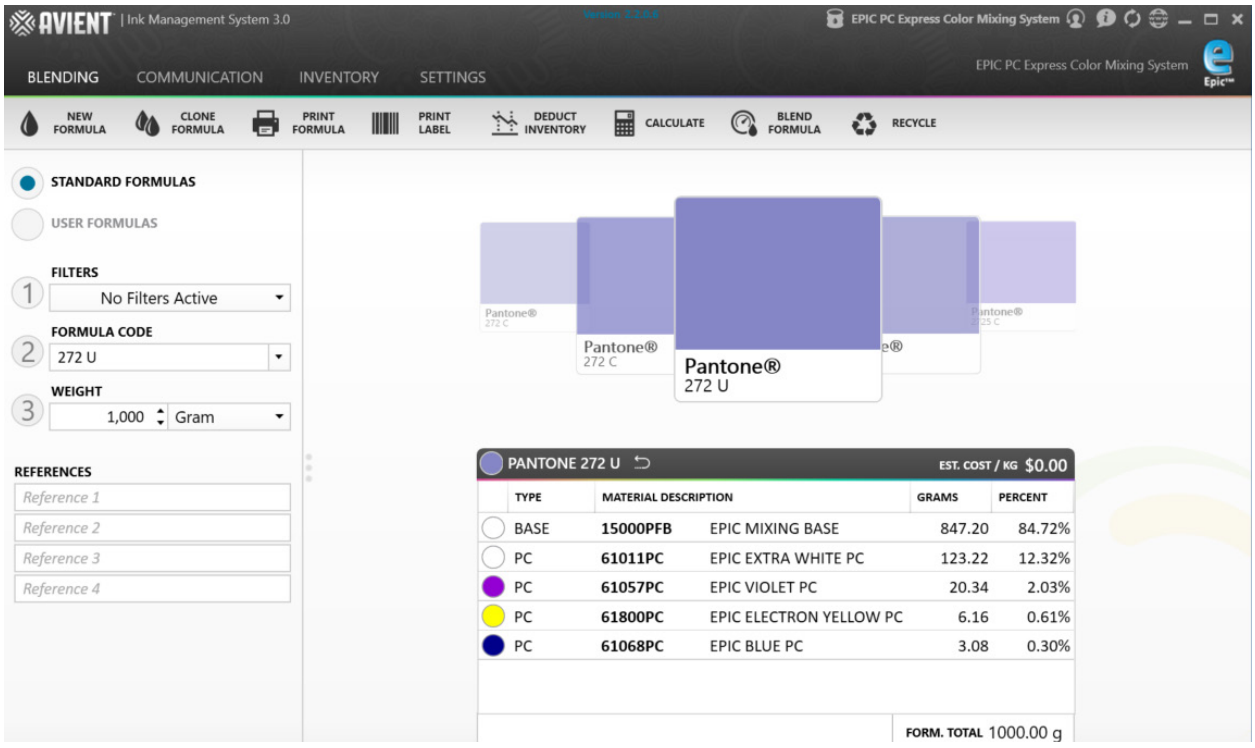
MAIN INTERFACE NAVIGATION

The navigation panel is the first element in the user interface. This navigation bar remains throughout the software.

1. Four tabs quickly switch between the Blending, Communication, Inventory, and Settings interfaces.
2. Color Systems Selection, Logout, About, Refresh, Minimize, Full Screen, and Close buttons.
3. Displays the current Color System in use.

Blending Interface

The blending interface is the first user interface shown upon starting the software.



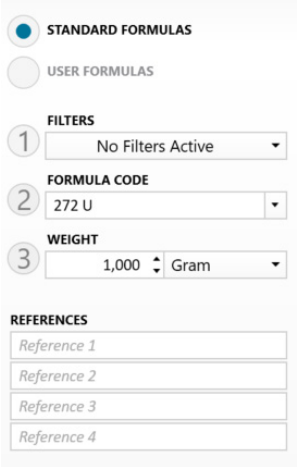
BLENDING INTERFACE NAVIGATION

Below is a labeled image of the Blending Screen Bar with function descriptions.

1. Create a new formula
2. Clone a formula
3. Print a formula
4. Print a label
5. Deduct current formula from inventory
6. Calculate a formula cost
7. Blend a formula
8. Recycle a formula

BLENDING INTERFACE FORMULA OPTIONS

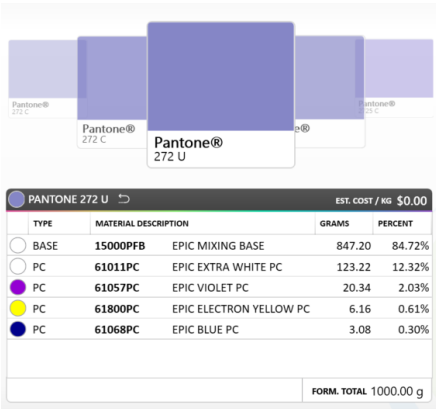
Below is a labeled image of the formula options with function descriptions.



1. Toggle between a list of standard formulas and a list of formulas you have created (User Formulas).
2. Create filters to manage your database and select your desired weight.
3. Create user references to your formulas; references are useful for searching and organizing information.

FORMULA SELECTOR & INGREDIENT TABLE

Below is a labeled image of the Formula Selector and its associated ingredients and weights.



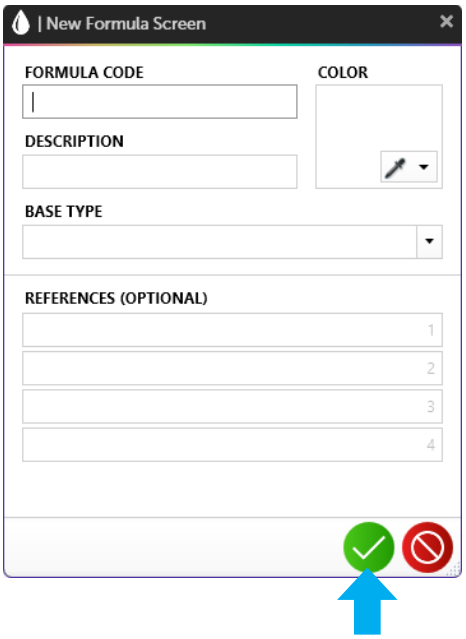
1. The Formula Selector uses a carousel to scroll through a selection of colors. Scroll using the left and right arrow keys while on the Formula Selector or by clicking one of the visual color chips.
2. Formula details are displayed in the table, including: Formula Type, Material Description, Material Code, Weight in grams (default), as well as the percentage of each ingredient found in the mix.

BLENDING INTERFACE FEATURES

This section will cover each function available within the Blending Interface, beginning with new formula creation.

Create a New Formula

1. Click the “New Formula” button on the Blending Screen bar.

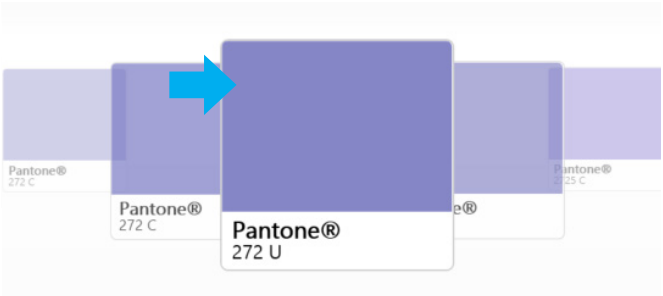


2. Selecting the “New Formula” button will prompt a dialog box to input details about the formula you are creating, including formula code, description, base type, references (optional) and color.

3. Once you have entered the required fields, click the button at the bottom of the panel. You will be redirected to “User Formulas”, which will display the newly created formula. From this screen, you can add or remove ingredients, edit or delete your formula.

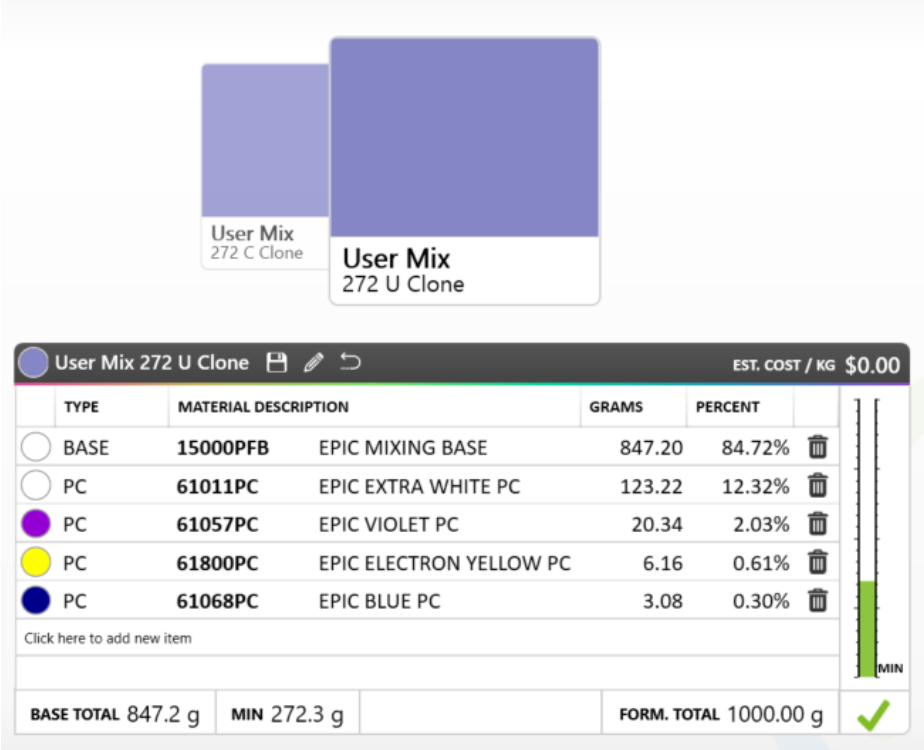
CLONE A FORMULA

1. To clone a formula, first select the target formula from the carousel.



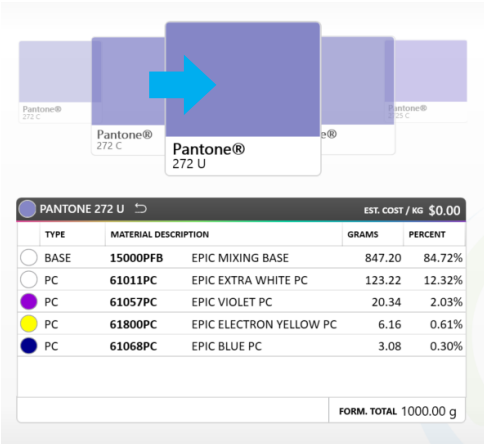
2. Click the “Clone Formula” button on the Blending Screen navigation bar.

3. A dialog box will appear with pre-populated values. Add the Formula Code and Description inputs and add references to the newly cloned formula.
4. Click the “Finish” button at the bottom of the dialog box.
5. The User Formulas will appear with the newly cloned mix.
6. Add, remove, edit or delete clone if needed.



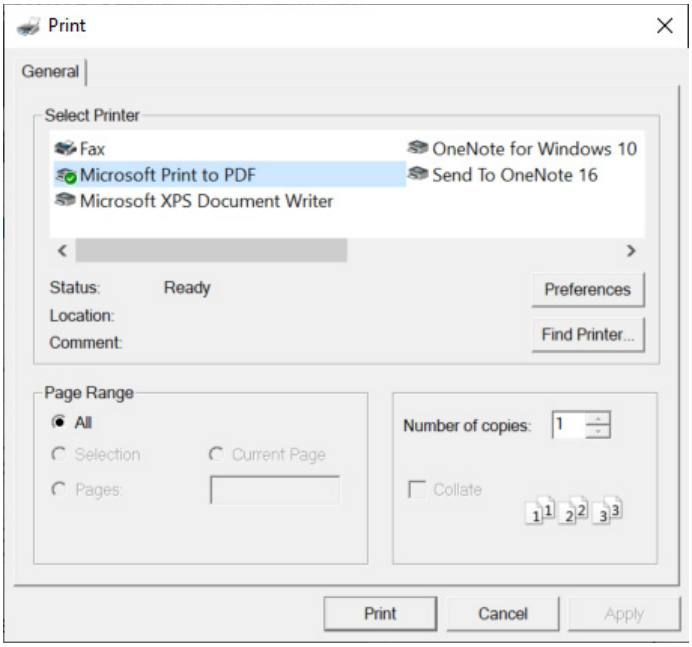
PRINT A FORMULA

1. Select the formula from the Formula Selector.



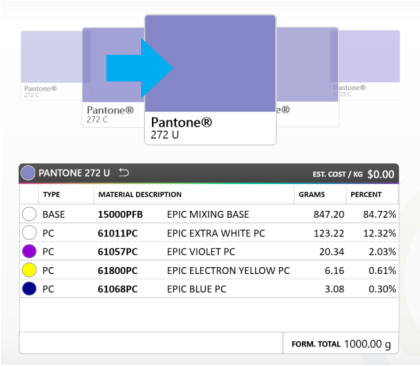
2. Click the Print Formula button on the Blending Screen navigation bar.

3. A dialog box will appear with a prompt to confirm choice. Click OK.
4. Select printer and click the Print button.



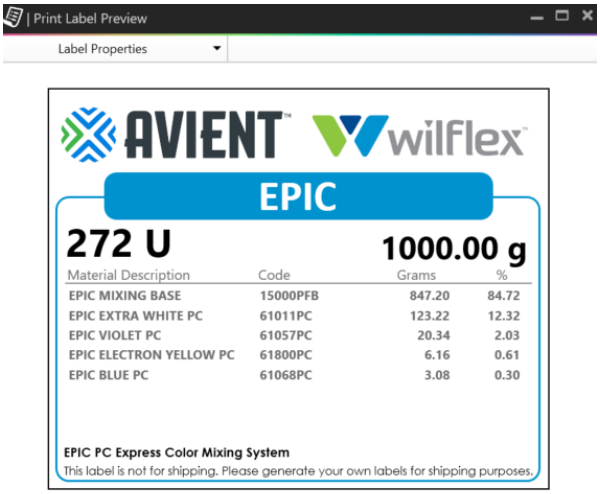
PRINT A LABEL

1. Select the target color from the Formula Selector.

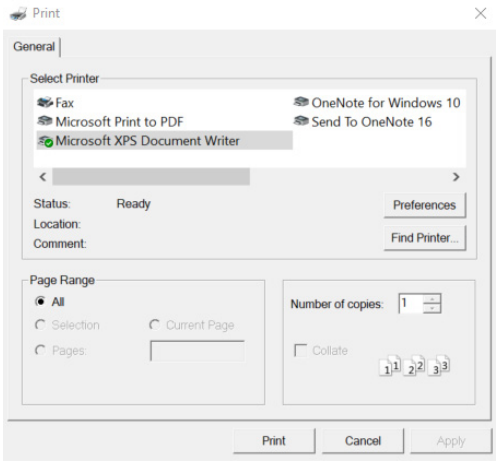


2. Click the Print Label button on the Blending Screen navigation bar.

3. A dialog box will appear with a prompt to confirm choice. Click OK.

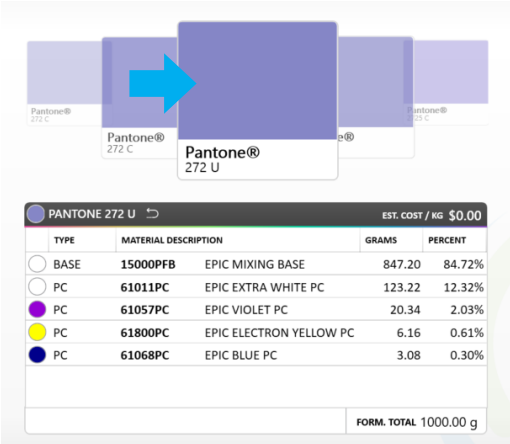


4. Select printer and click the Print Label button.



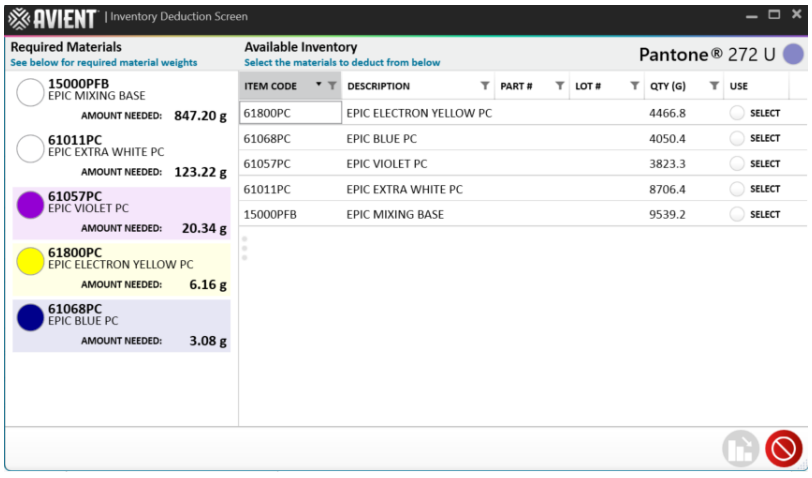
DEDUCT INVENTORY

1. Select the target formula from the Formula Selector.

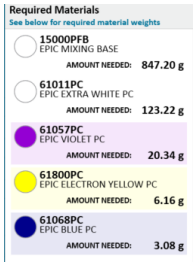


2. Click the Deduct Inventory button on the Blending Screen navigation.

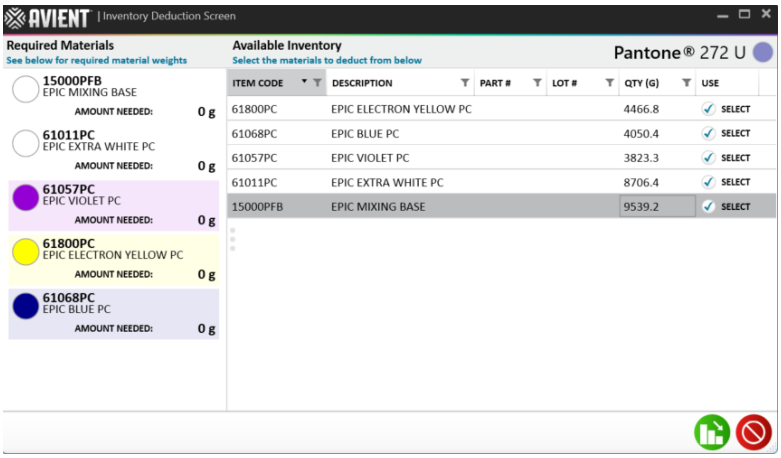
3. Upon clicking Deduct Inventory, the below screen will appear. The left panel will display the amount of each ingredient needed for the mix. The items on the right will list corresponding available inventory for each ingredient needed. Check for adequate inventory before blending.



4. To begin deducting the required amount for each ingredient, check the Select check boxes under the Use column in the table.
5. Notice the amount needed for each selected ingredient updates after checking the Select box for each corresponding ink.



6. Continue to select check boxes for each ingredient in the formula.



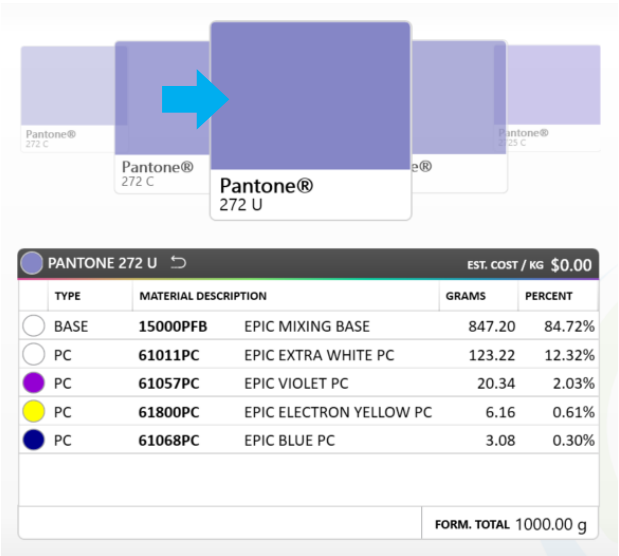
7. After all ingredients have been selected, click the Deduct Inventory button to deduct each required ingredient from current inventory.

CALCULATE INK COST

There are three modes to calculate ink costs within the Blending Interface:

A. Actual: calculates the cost based upon actual ink deposit.
B. Theoretical: calculates the cost based upon theoretical ink deposit of screen mesh and image size.
C. Specify Amount: calculates the cost based upon a specified amount of ink.

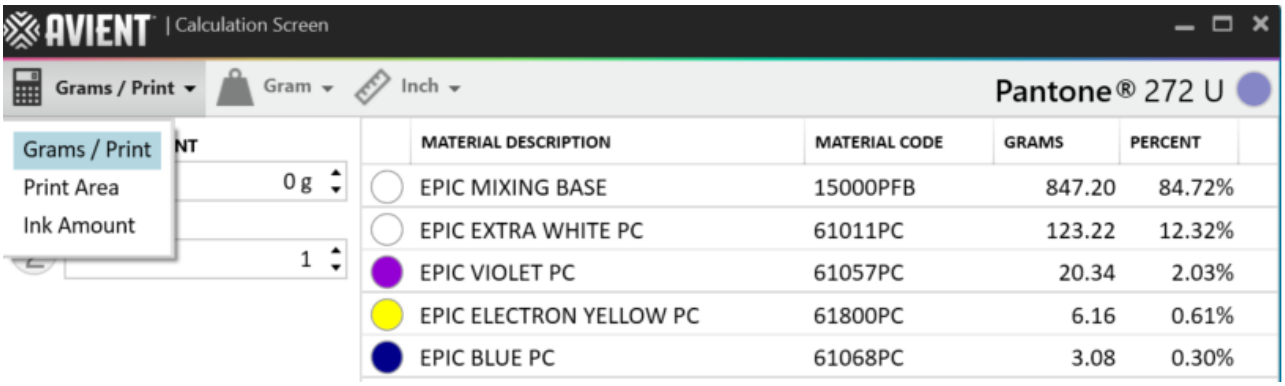
1. Select the target formula from the Formula Selector.



NOTE: Prices are used for example purposes.

2. Click the Calculate button on the Blending Screen navigation.

3. Choose a mode from the navigation drop down menu:
   a. Grams/Print: calculates actual ink deposit
   b. Print Area: calculates theoretical ink deposit of screen mesh and image size
   c. Specify Amount: calculates specified amount of ink



Calculating Ink Cost: Grams Per Print

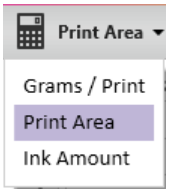
Grams per print estimation is referenced by the actual cost estimation. This calculation is based upon the weight of the ink on the garment multiplied by the number of units/prints.

1. Determine the weight of a print.
   a. Cut two pieces of cloth of equal size
   b. Weigh and record the unprinted pieces
   c. Print the image on the second piece of cloth and weigh before curing ink
   d. The difference between the two pieces of cloth represents the actual ink on the garment*
   *Note: this does not include ink for the ink well or flood stroke
2. Select the Grams/Print mode from the drop-down menu.
3. Complete details on the left panel, including the weight in grams per print, as well as the number of prints.
4. The ingredient table displays the amount of each ingredient needed to fill the batch requirement.
5. Click the Finish button to redirect back to the Blending Screen with new formula, updated base total, and material weights.

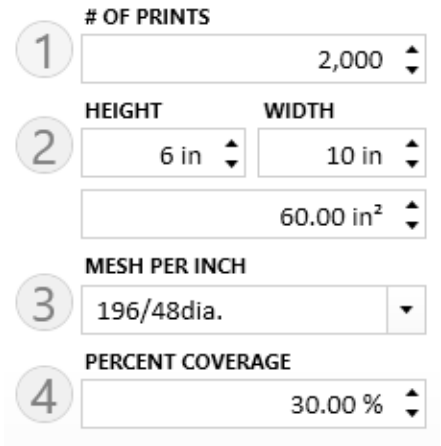
Calculating Ink Cost: Print Area

Print area estimation is referenced by the theoretical ink deposit of screen mesh and image size.

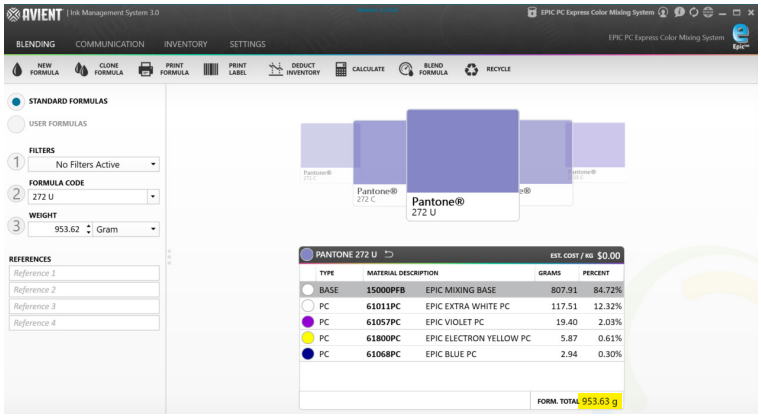
1. Select the Print Area mode from the drop-down menu.



2. Complete details on the left panel, including number of prints, height, width, mesh per inch, and coverage.



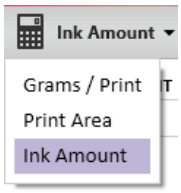
3. The ingredient table displays the amount of each ingredient needed to fill the batch requirement.
4. Click the Finish button to redirect back to the Blending Screen with new formula, updated base total, and material weights.



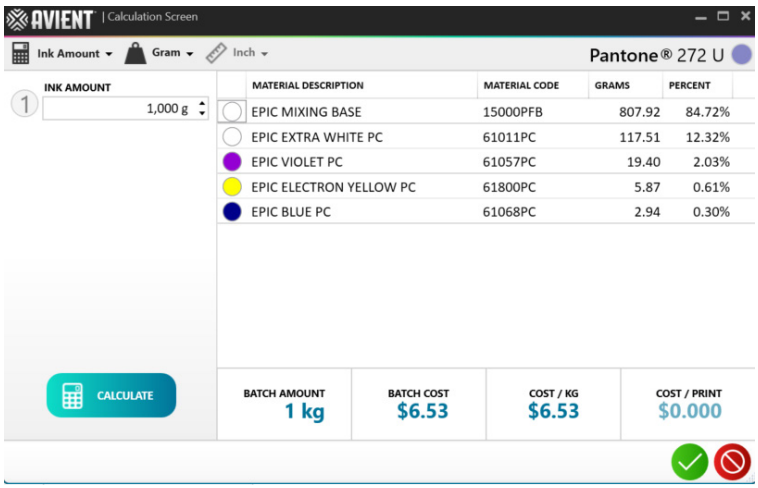
Calculating Ink Cost: Ink Amount

Ink amount estimation is referenced by the calculated cost based upon a specified amount of ink.

1. Select the Ink Amount mode from the drop-down menu.



2. Enter the target amount of ink in Ink Amount field on the left panel.
3. The Batch Amount, Batch Cost, Cost per KG, and Cost per Print will update based upon the Ink Amount target.

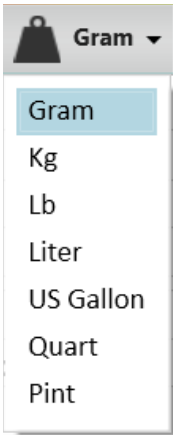


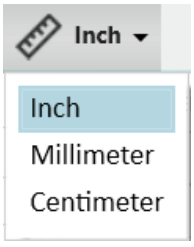
4. Click the button to redirect back to the Blending Screen with new formula, updated base total, and material weights.

Change Units of Measurement

Several units of measurement are available to calculate cost.

1. Click either the weight or measuring tape icon to change the unit of measurement.



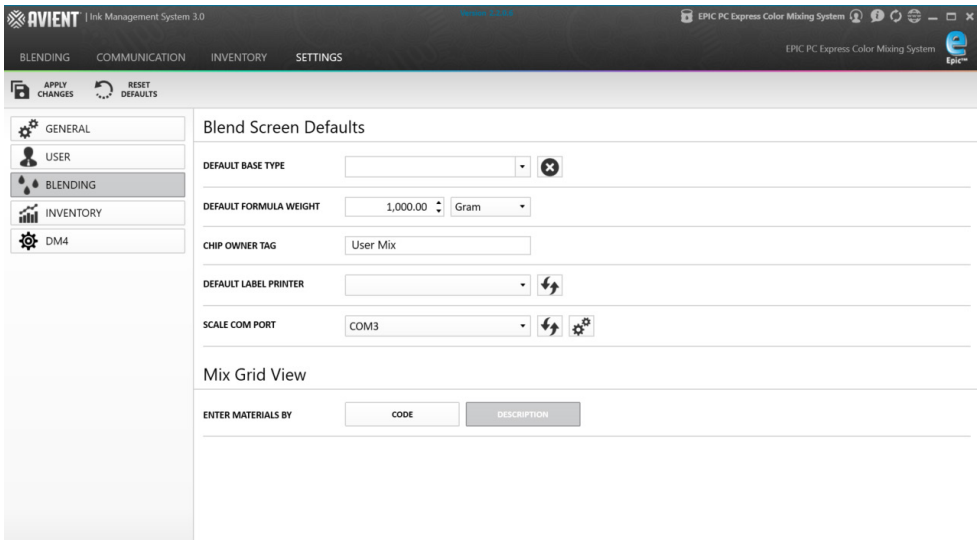


2. Select desired unit to update all cost estimates.

BLEND SCALE/DM4

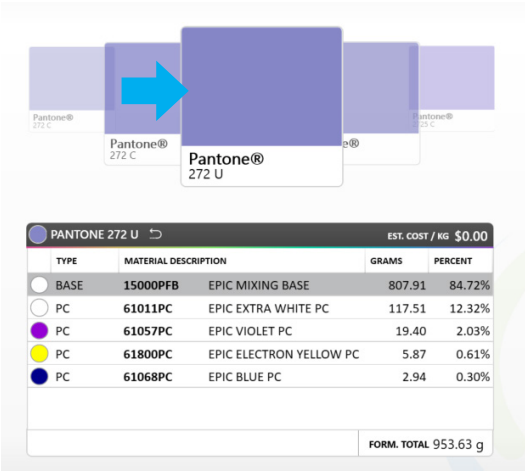
This command will send formulas to either a Blending Scale or the DispenseMaster4 (DM4). Follow the instructions below to blend using the Blend Scale/DM4 feature.

1. Go to Settings tab.
2. Ensure the Blend Scale and DM4 COM ports are configured correctly. Check this by clicking the Settings tab on the main navigation screen and then clicking the Blending tab.



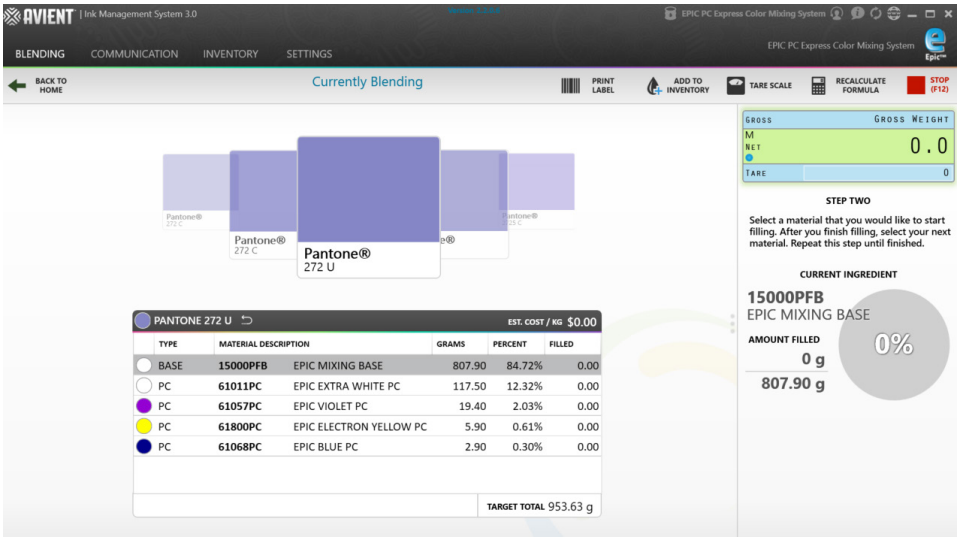
3. If COM/DM4 ports do not appear, click the Refresh icon beside the respective drop-down menus. Check the equipment to ensure it is connected properly. Click “apply changes.”

4. After ensuring proper connectivity, navigate back to the Blending screen and select the target color from the Formula Selector to begin blending.



5.

5. The blending panel will then slide out and the interface will resemble the image below.

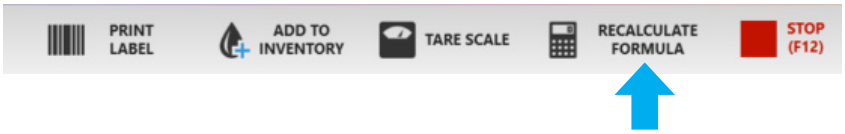


6. Place an empty bucket on the scale to tare weight and click the Start button on the right side of the screen to begin the blending process.
7. Choose an ingredient from the table on the left to begin weighing the formula. Information about the material will display on the right panel. This includes the current ingredient code, amount of ingredient needed and the amount of ingredient filled. The Total Amount Filled displays the collective weight of all ingredients in the blend.

TIP: Start with the heaviest component first, the mixing base. If overweight, remove ink from the top of the mixture.

8. Begin to add ingredients to the bucket. The grey circle will begin to fill as ingredients are added into the bucket, and the Total Amount Filled will begin to calculate the weight of ingredients added.
9. When the grey sphere displays 100%, select the next ingredient and repeat the process until the target total of all ingredients has been added.
10. Optional: to add blending ingredients to Inventory, click the Add to Inventory button at the bottom of the left-side panel. A dialog box will appear with fields to describe the mix before it is recorded into inventory.
11. When all ingredients have been added into the formulation, click the Finish Blend button at the bottom of the interface. IMS3.0 will redirect to the Blending Screen.

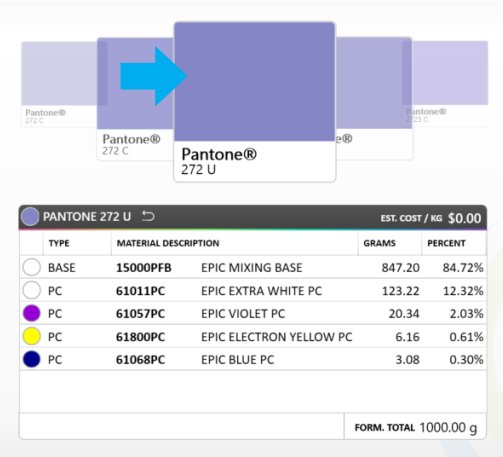
TIP: If a component exceeds target weight, click the Recalculate button to change base total and compensate for overpour.



RECYCLE A FORMULA

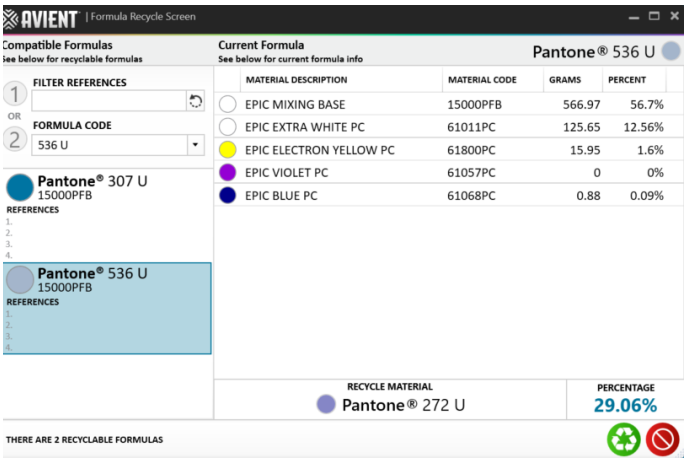
IMS 3.0 provides guidance to recycle all formulas.

1. Select the target recycle formula from the Formula Selector.

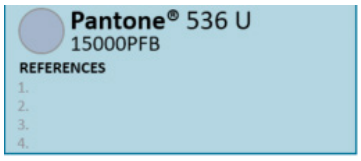


2. Click the Recycle button on the Blending Screen navigation.

3. A complete list of compatible formulas is on the left and recyclable materials appear are on the right. The percentage of the formula to be recycled appears in the bottom right window.



4. Select the formula to recycle.



5. Click the recycle icon at the bottom of the window to redirect back to the Blending Screen with New Formulas toggled. The new formula will appear with the recycled component as an ingredient.

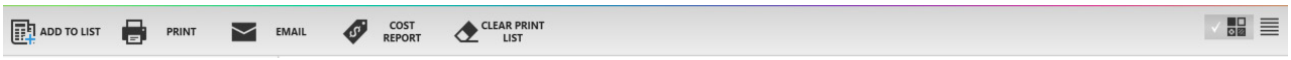
6. Optional: edit, delete or add items to the material table.

COMMUNICATION INTERFACE

Sharing is easy with the IMS3.0 software. Export to Microsoft Excel, print or email formulas. This section will cover each function available within the Communication Interface, beginning with new formula creation.

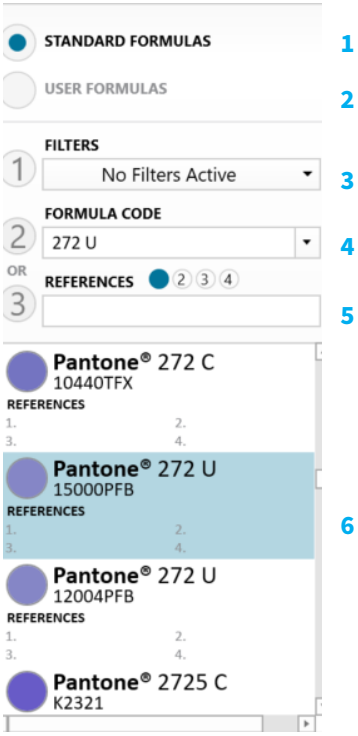
COMMUNICATION INTERFACE NAVIGATION

The navigation panel is the first element in the user interface. This navigation bar remains throughout the software.



1. Add formula to list
2. Print formula list
3. Email formula list
4. Create a costing report containing all formulas filtered in the current mode or selected in the Tile/List View
5. Clear all formulas from list

COMMUNICATION INTERFACE OPTIONS

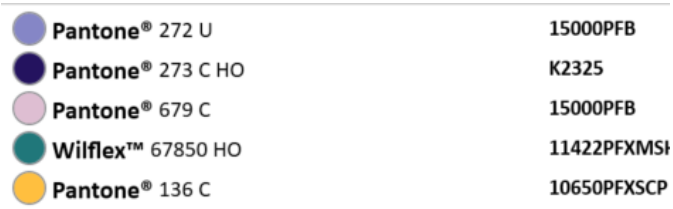


Legend

1. View Standard Formulas
2. View User Formulas
3. Select Filter for displaying formulas
4. Current selected formulas
5. View formulas with specific references
6. List of available formulas

FORMULA LIST

The Formula List displays all of the formulas selected for export, email, print or backup.



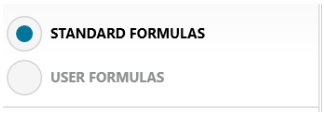
COMMUNICATION INTERFACE FEATURES

Create lists and change list views.

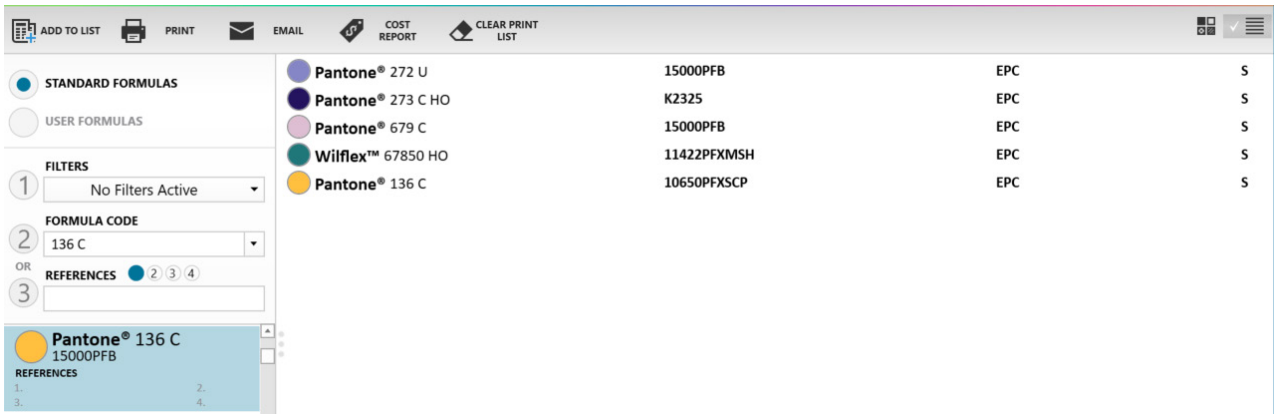
Add Formulas to a Formula List

To add formulas to the Formula List, follow the steps below.

1. Choose to either add a User Formula or Standard Formula to the formula list by toggling the appropriate button.

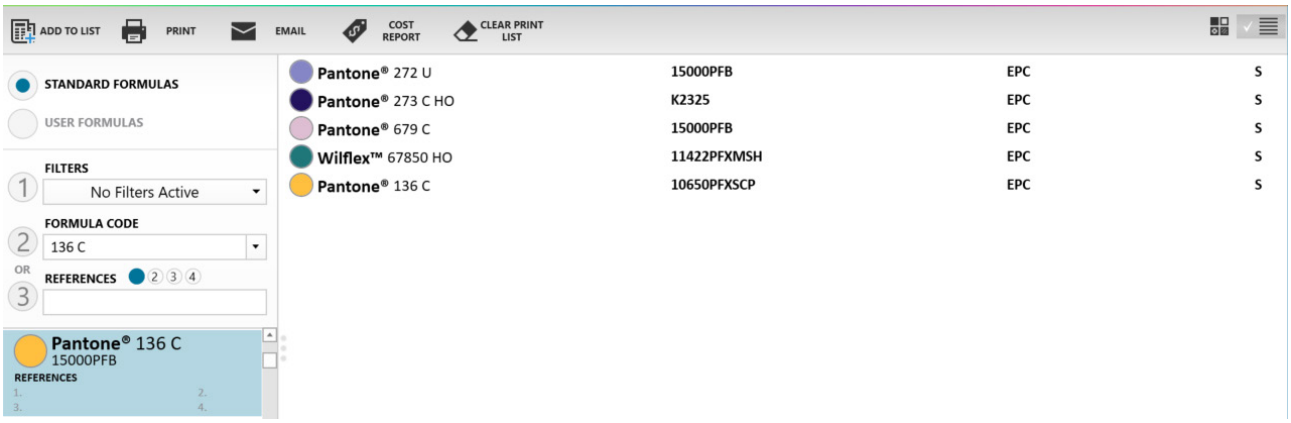


2. Select all formulas to add to the target Formula List.



3. Click “Add to List” button on the Communication Interface navigation.

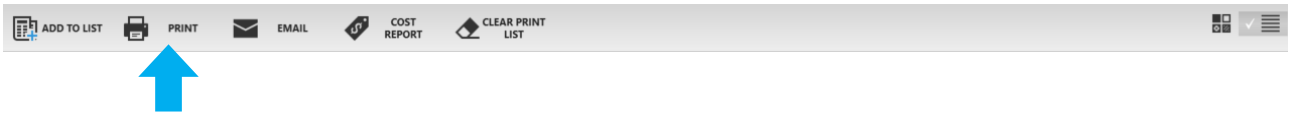
4. The selected formulas will appear in the Formula List.



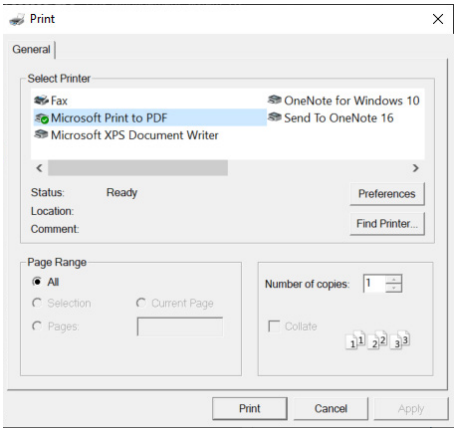
Print the Formula List

To print formulas from the Formula List, follow the steps below.

1. After adding all desired formulas to the Formula List, click the Print button on the Communication Interface navigation.



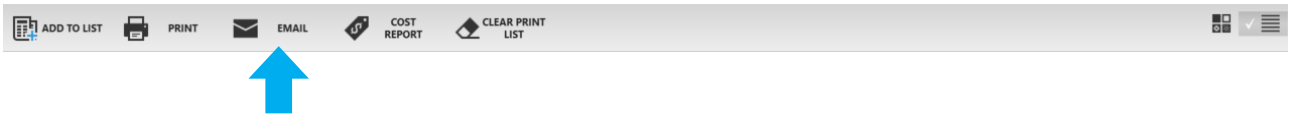
2. After clicking Print, a dialog box will appear to confirm print choice; review the formula list and click OK.
3. Click Print.



Email the Formula List

To email formulas from the Formula List, follow the steps below.

1. Click the Email button on the Communication Interface Navigation.



2. After clicking Email, a dialog box will appear to confirm email choice; review the formula list and click OK.
3. The default email client will open with the selected list included as an attachment.

Generate a Cost Report

Click price tag icon to begin generating a cost report.

CHANGE A FORMULA LIST VIEW

To change how the Formula List is displayed, click the Grid View or List View buttons on the Communication Interface Navigation.

Grid View

The grid view displays a visual summary of the formula list.

List View

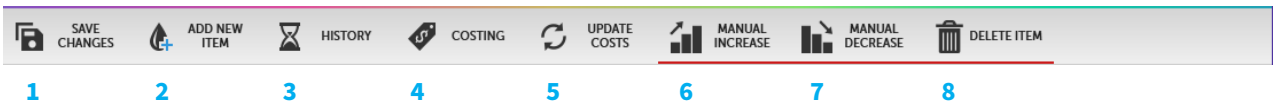
The list view displays formula list as a table summary.

INVENTORY INTERFACE

IMS 3.0 is an inventory management tool, helping printers to estimate costs, view quantities, and add new ink into inventory.

INVENTORY INTERFACE NAVIGATION

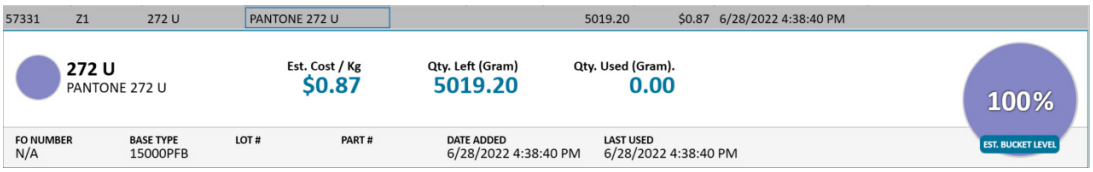
The following features are available in the Inventory Interface:



1. Save changes to the items in inventory
2. Add new formulas or materials to inventory
3. Display recent inventory history
4. Display costing table associated with items in your inventory
5. Update any cost changes made in the costing table
6. Manually increase the quantity of a selected material
7. Manually decrease the quantity of a selected material
8. Delete the selected material

INVENTORY ITEMS

The inventory view displays various information such as formula item, cost per KG, dealer/lot number, quantity left/used, a visual representation of remaining inventory, and the date the item was added and last used.
[Note: if nothing is in inventory, this area will be blank by default]



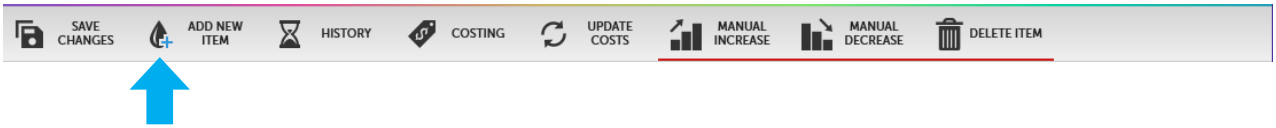
INVENTORY INTERFACE FEATURES

There are multiple methods to manage inventory in IMS 3.0. The following section will outline each method.

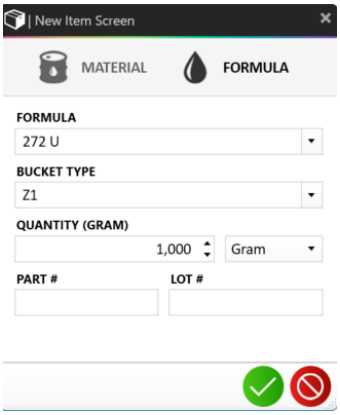
Add an Item

To add an item into inventory, follow the steps below:

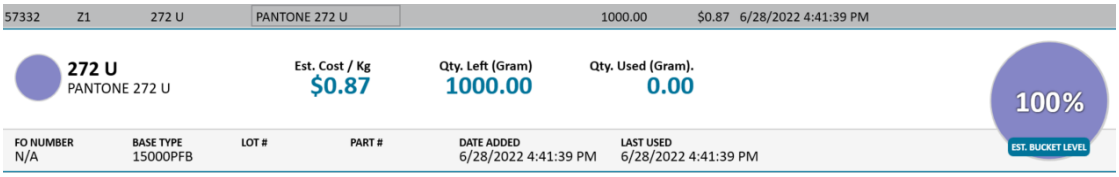
1. Click Add Item on the Inventory Interface Navigation.



2. Select whether the item is a formula or a material, enter bucket type, quantity, and dealer/lot numbers (optional). [Note: the functionality is identical for formulas and materials]



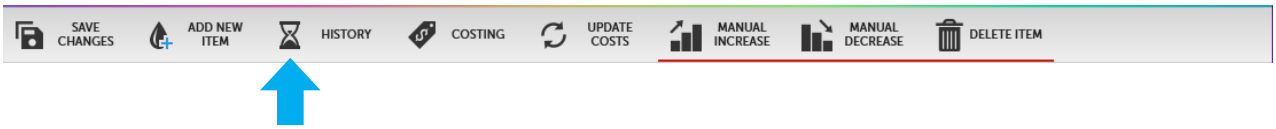
3. Click Item at the bottom of the dialog box to add the item into inventory.
4. The item will refresh in the Inventory section, the dialog box will close, and the following screen will appear and include the new information.



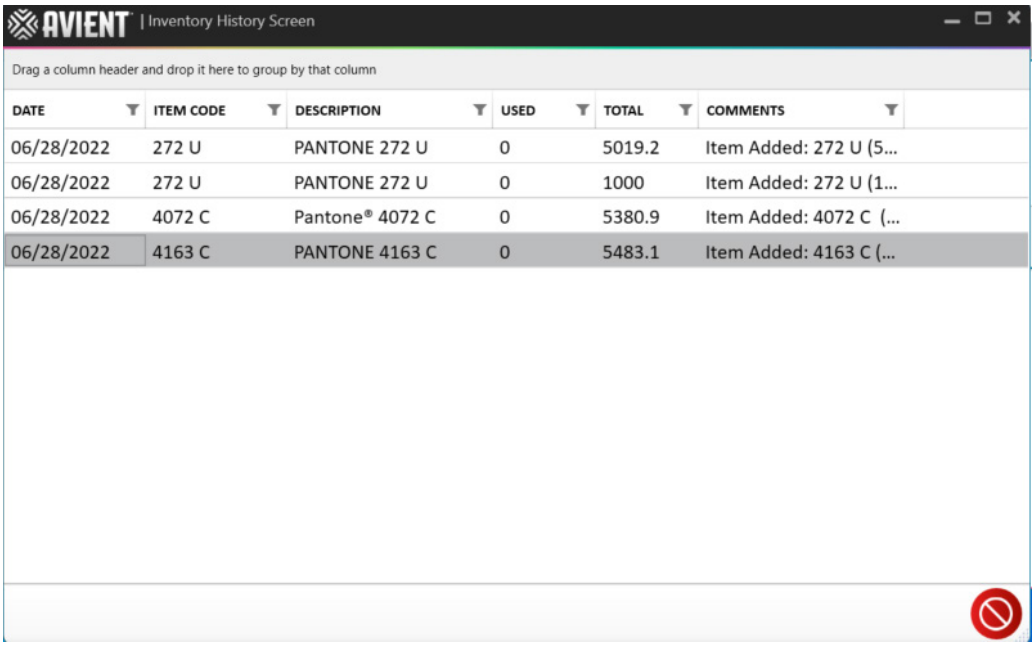
View History

To view the history of items in inventory as well as any changes made to items in inventory, follow the steps below.

1. Click the History button on the Inventory Interface Navigation.



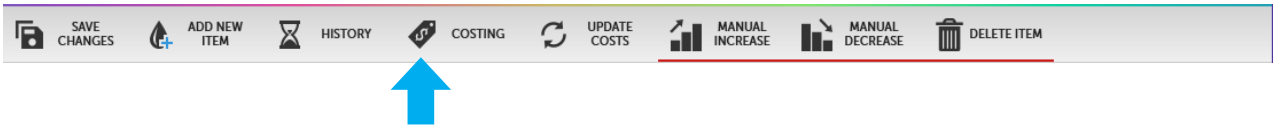
2. The Inventory History Preview window will appear. This contains information such as the date the item was added, item code, description amount of ink used, total amount, as well as any comments related to a specific item.



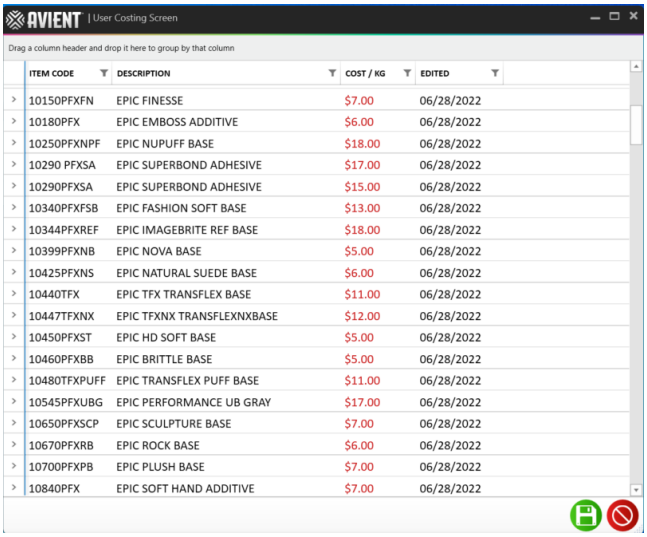
View Costing Tool

To view the costing related to the items in inventory, follow the steps below.

1. Click the Costing button on the Inventory Interface Navigation.



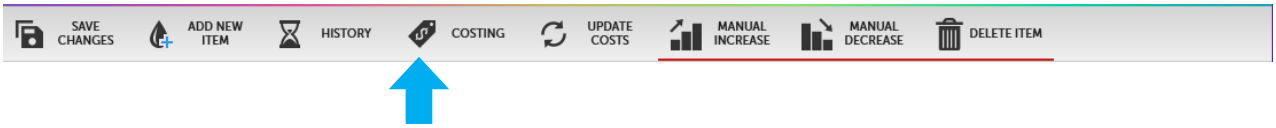
2. The Costing data table will appear. This contains costing data related to the items in your inventory as well as the Item Code, Description, Cost per KG, and the date the item was edited.



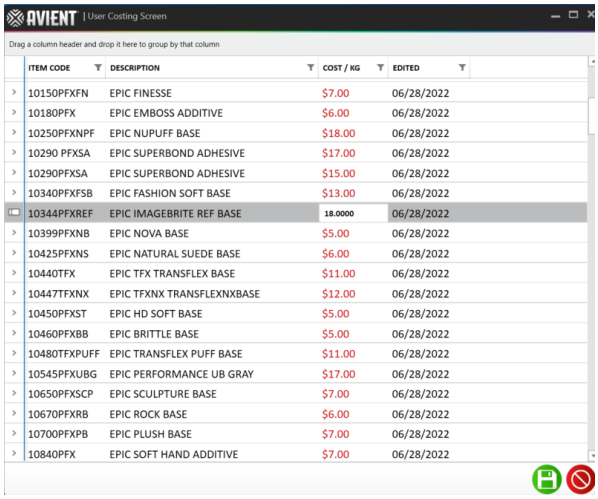
Update Cost

To update the cost of a specific item, follow the steps below.

1. Click the Costing button on the Inventory Interface Navigation.

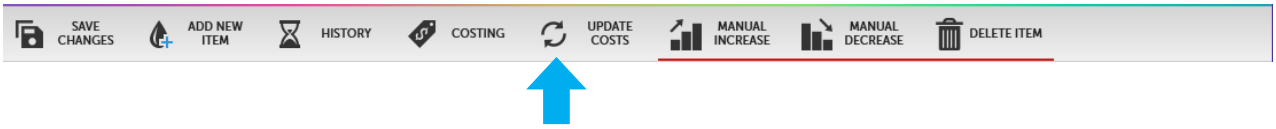


2. The Costing data table will appear. Select the item to update.

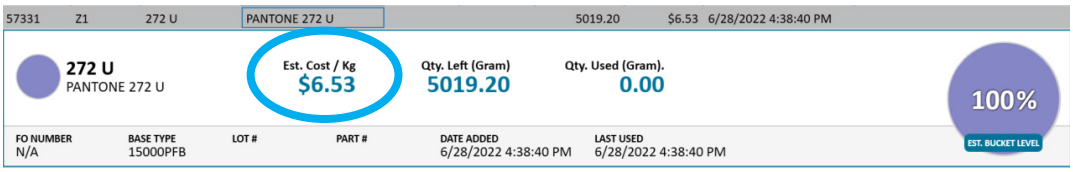


ITEM CODE	DESCRIPTION	COST / KG	EDITED
10150PFXFN	EPIC FINESSE	$7.00	06/28/2022
10180PFX	EPIC EMBOSS ADDITIVE	$6.00	06/28/2022
10250PFXNPF	EPIC NUPUFF BASE	$18.00	06/28/2022
10290 PFXSA	EPIC SUPERBOND ADHESIVE	$17.00	06/28/2022
10290PFXSA	EPIC SUPERBOND ADHESIVE	$15.00	06/28/2022
10340PFXFSB	EPIC FASHION SOFT BASE	$13.00	06/28/2022
10344PFXREF	EPIC IMAGEBRITE REF BASE	18.0000	06/28/2022
10399PFXNB	EPIC NOVA BASE	$5.00	06/28/2022
10425PFXNS	EPIC NATURAL SUEDE BASE	$6.00	06/28/2022
10440TFX	EPIC TFX TRANSFLEX BASE	$11.00	06/28/2022
10447TFXNX	EPIC TFXNX TRANSFLEXNXBASE	$12.00	06/28/2022
10450PFXST	EPIC HD SOFT BASE	$5.00	06/28/2022
10460PFXBB	EPIC BRITTLE BASE	$5.00	06/28/2022
10480TFXPUFF	EPIC TRANSFLEX PUFF BASE	$11.00	06/28/2022
10545PFXUBG	EPIC PERFORMANCE UB GRAY	$17.00	06/28/2022
10650PFXSCP	EPIC SCULPTURE BASE	$7.00	06/28/2022
10670PFXRB	EPIC ROCK BASE	$6.00	06/28/2022
10700PFXPB	EPIC PLUSH BASE	$7.00	06/28/2022
10840PFX	EPIC SOFT HAND ADDITIVE	$7.00	06/28/2022

3. Enter new cost.
4. Press Enter on your keyboard.
5. Click the Save Changes button at the bottom of the window.
6. After saving all changes, close the costing window and click the Update Cost button on the Inventory Interface Navigation.



7. Cost changes are now visible for the line item.

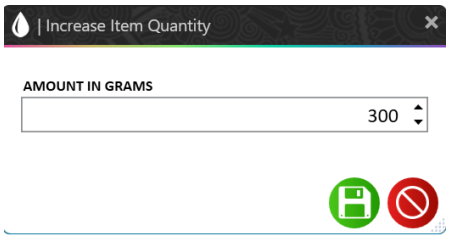


Manual Increase

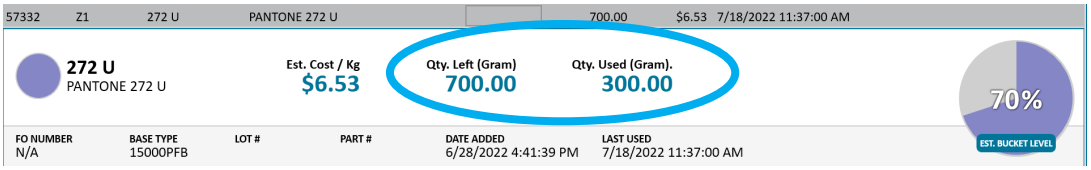
To manually increase the quantity of an item, follow the steps below.

1. Select the desired item from inventory and click the Manual Increase button on the Inventory Interface Navigation.

2. Enter amount to be added to the item in the new dialog box and click OK.



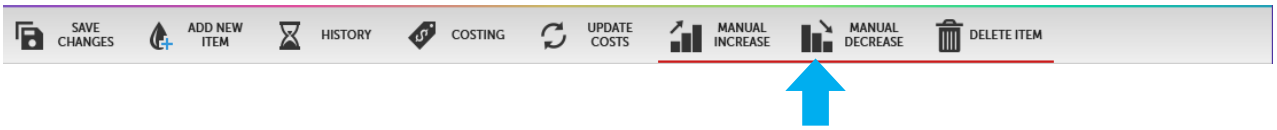
3. The quantity change is now visible for the line item.



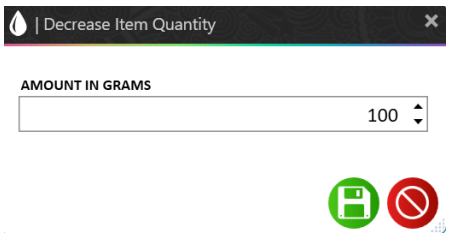
Manual Decrease

To manually decrease the quantity of an item, follow the steps below.

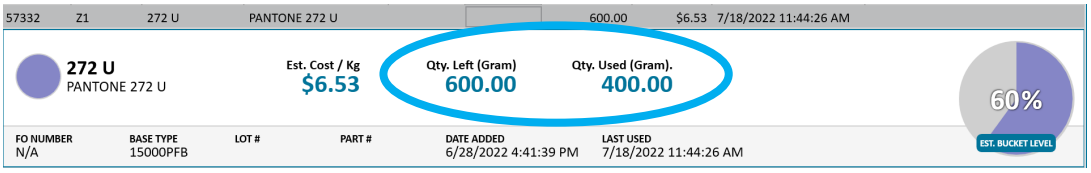
1. Select the desired item from inventory and click the Manual Decrease button on the Inventory Interface Navigation.



2. Enter amount to be subtracted from the item in the new dialog box and click OK.

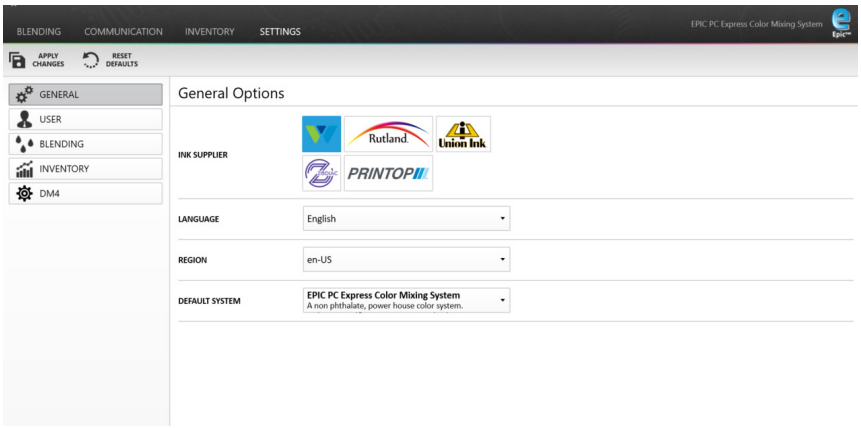


3. The quantity change is now visible for the line item.

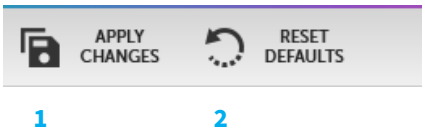


SETTINGS INTERFACE

IMS 3.0 has several different settings, each designed to enhance user experience.

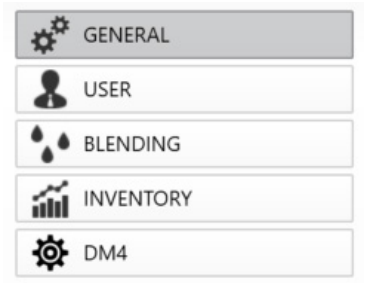


SETTINGS INTERFACE NAVIGATION



1. Click Apply Changes to save any changes made within the Settings Interface.
2. Reset setting to default configuration.

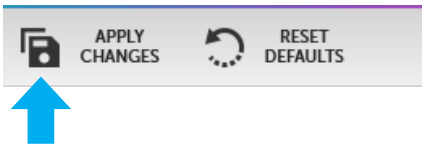
SETTINGS TABS



1. Open General Settings
2. Open User Settings
3. Open Blending Settings
4. Open Inventory Settings
5. Open DM4 Settings

SETTINGS INTERFACE FEATURES

This section outlines configurable settings within IMS 3.0. To save and apply any changes made in this tab, click the Apply Changes button on the Settings Interface Navigation.



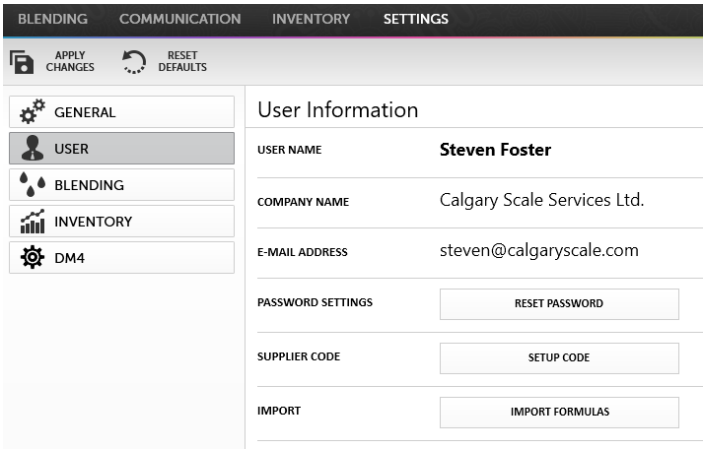
GENERAL SETTINGS

Reset a password, set up a supplier code, import formulas and access new formulas using General Settings. An introductory video opens upon loading the software.

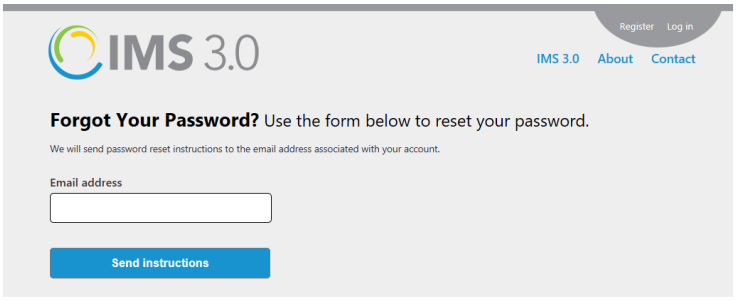
Reset Password

To reset a password, follow the steps below.

1. Click the Reset Password button inside the User Settings Tab.



2. Enter email address when the IMS 3.0 website appears.



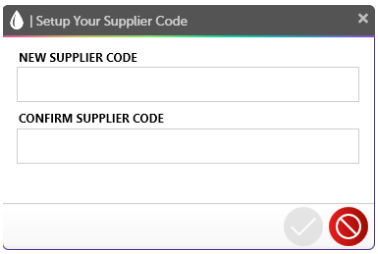
3. Follow instructions to reset password from email.

Set Up Supplier Code

A supplier code is useful to share a database with another login, ideally across multiple print locations under one company or brand.

1. Click the Setup Code button within the User Settings tab.

2. Enter supplier code into the New Supplier Code field in the prompt box.

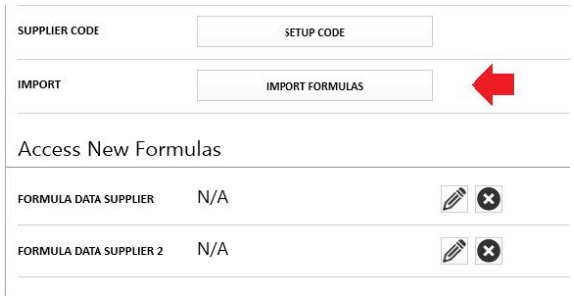


3. Click

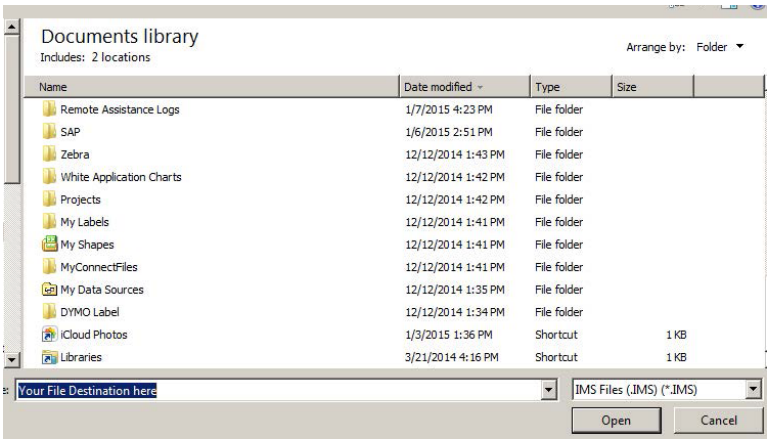
Import Formulas

This function applies to formulas exported from IMS version 7.54 using the default file extension.ims.

1. Click the Import Formulas button within the User Settings Tab.



2. Enter the file path of the target import database.
3. Click OK and formulas will load into the software.

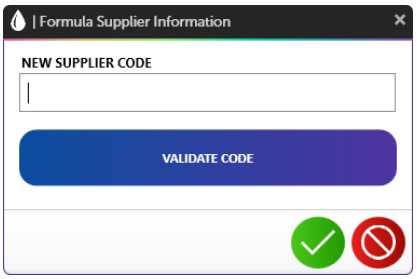


Access New Formulas

Follow the steps below to access formulas from different suppliers.

1. Click the pencil icon underneath Access New Formulas within the User Settings Tab.

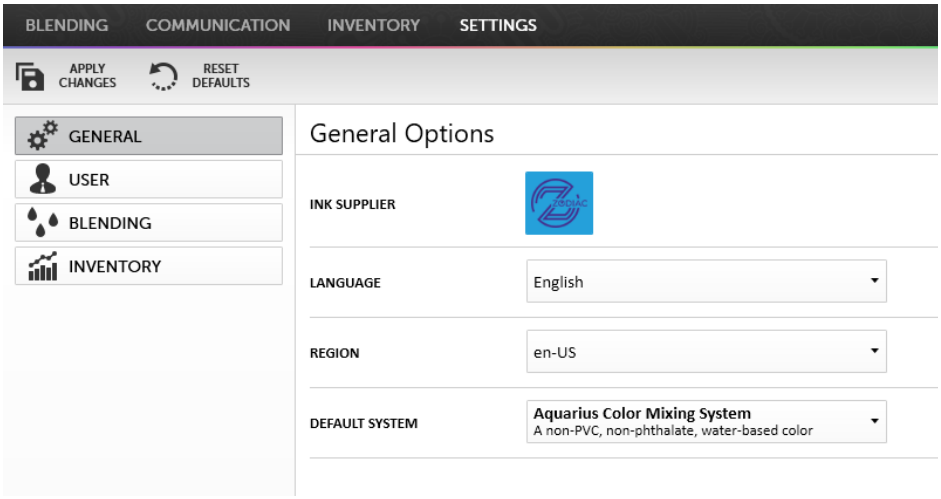
2. Validate the supplier code by re-entering the unique code in the prompt box.



3. Click to access the supplier's formulas.

Blending Settings

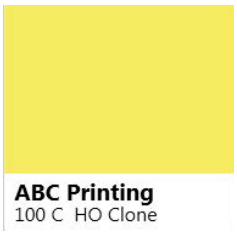
Set default configurations for Default Color System, Default Base Type, Default Formula Weight, Chip Owner Tag, Default Label Printer, Scale COM Ports and DM4 COM ports within the Blending Settings tab.



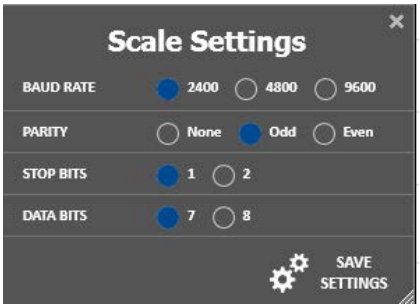
Setting Blending Defaults

Before implementing IMS3.0, set blending defaults to save time. The following defaults provide guidance for use:

1. Default Base Type: used for systems that require base and colorant.
2. Default Formula Weight: used with a standard mix quantity at all times.
3. Chip Owner Tag: the name that appears on a user formula color chip to identify the chip if sharing formulas (the identifier will differ from one user to another when browsing the color chip carousel).

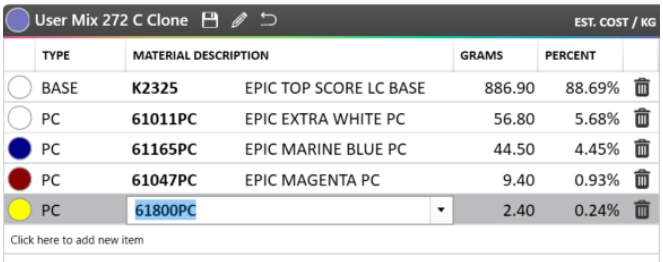


4. Default Label Printer: preferred printer (any Microsoft® Windows printer may be used and configured to print labels or reports).
5. Scale Com Port: used when communicating IMS 3.0 to the Sartorius® PMA 7500 family of scales (default settings shown below).

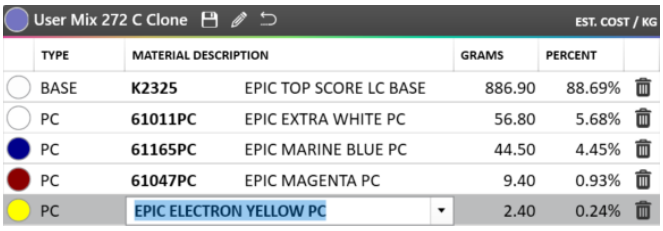


6. Mix Grid View: used when creating a new user formula (when entering formula components within the blending screen, the Mix Grid View accepts materials by Material Code or Material Description).

Mix Grid Set by Material Code



Mix Grid Set by Material Description



7. Click Apply Changes button on the Settings Interface Navigation to save and apply changes.

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