

Baxter

Abacus

ORDER ENTRY & CALCULATION SOFTWARE

ABACUS Software

Optimize Your Order Entry and Calculation Process





Order information you can trust

Abacus calculation software helps simplify the ordering, calculation and labeling process for compounded and premix products. It was designed to be flexible to help meet your institution's needs and safety standards.

The **Abacus** Software is an adjunct to pharmacy practice. It in no way replaces the professional judgement of a pharmacist.

1 Verify Patient Information

Abacus software give clinicians, pharmacists and technicians access to verify and edit patient information from the order screen.

2 Order Recommendations

Where applicable, recommended parameters for the ordering paradigm being utilized may be listed here.

3 Order Values

Changing the unit of measure for a selected ingredient prompts **Abacus** Software to calculate the new value for that ingredient.

4 Order Information

Summary of the order, administration, energy, ion and previous order information.

5 Administration Instructions

The prescribed date and time for administration are printed clearly on the label of each numbered bag, along with the nutritional summary and formula.

6 Order Summary Button

Access to real time order data breakdown of ions and macro nutrients in amount per bag, per day, per L, and per Kg at the click of a button.

Abacus Software Features

FLEXIBLE

- ✓ Ability to create multiple order templates to facilitate multiple referral sources
- ✓ Addition of Premix parenteral nutrition to Formulary
- ✓ Creation of Premix order templates
- ✓ Customized templates support your prescribing practices
- ✓ Therapeutic and pharmacy practice rules of your facility are applied to your software by your **Abacus** Software administrator

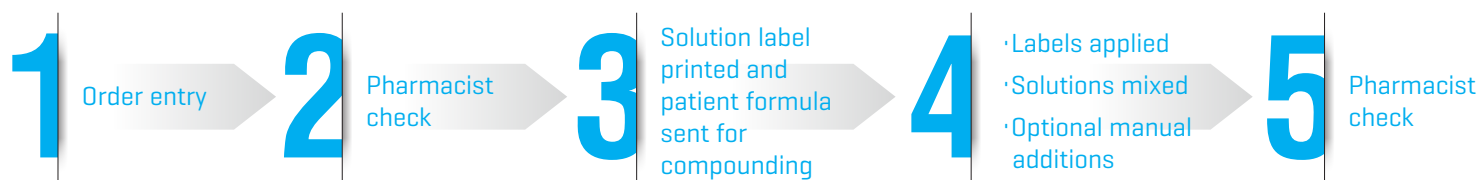
PRECISE

- ✓ Ability to manage your facility's Cysteine protocol
- ✓ Calcium phosphate solubility assessment
- ✓ Calculation of overfill and unused volume for Premix orders
- ✓ Establish warning limits per patient type
- ✓ Only users with appropriate permissions can approve an order
- ✓ Ability to configure system and facility specific warning limits for each ingredient

EFFICIENT

- ✓ Auto archive performed by **Abacus** Software daily
- ✓ Automatically calculates ion and salt-based ingredient volumes needed
- ✓ Comparison of original patient order with subsequent orders to indicate variances
- ✓ Labels contain unique barcodes, prescription numbers, serial numbers and order information
- ✓ Reporting tools to support pharmacy tracking and decision making

ABACUS SOFTWARE WORKFLOW: Five steps from order entry through labeling and distribution.



Calculates Infusion Rate for Premix Nutrition

Abacus Software supports the ordering of premixed solutions for parenteral nutrition. Users simply select a premix template, enter the volume and choose a formula. **Abacus** Software automatically calculates the infusion rate and duration.

Additives are calculated
and documented within
the software

A pharmacist should confirm each template's
formula output against current, verified
calculations in order to assure its consistency
with current nutritional models for your facility.

CAUTION: Federal law prohibits the transfer of this drug to any person other than whom it was prescribed

Home Infusion Company
Facility Address - City, ST Rx Phone
Patient ID: 234567
DOE, JANE Bag: 08
Location: NICU/3 Dosing Wgt.: 32 Kg
Physician: Order SN: 100143
Ordered Volume: 1,800 mL Compounded Volume: 1,850 mL

AA Adult 15%	60 gram
Dextrose	270 gram
Lipid - Olive	50 gram

-- Pharmacy Additives --

Sodium Chloride	31 mEq/L	Magnesium Sulfate	7.8 mEq/L
Sodium Phosphate	15 mEq/L	Calcium Gluconate	5.2 mEq/L
Potassium Chloride	15 mEq/L	Multitrac-4 Ped	1 mL
Potassium Acetate	36 mEq/L		

--- To Be Added By Patient Prior to Administration ---

Multivitamin Adult	10 mL (10mL)
Ranitidine	25 mg (1mL)

** Approximate Electrolyte Totals **

Sodium	91.8 mEq	Phosphate	27 mEq
Potassium	91.8 mEq	Acetate	115.6 mEq
Calcium	9.36 mEq	Chloride	82.8 mEq
Magnesium	14.04 mEq	Aluminum	0 mEq

Non-Prot KCal 1,018 Kcal Carbohydrate 918.0 Kcal (72.97 %) 90.18 %
Total KCal 1,258 Kcal Lipid 100 Kcal (7.95 %) 9.82 %

Flow Rate: 1,800 mL at 75 mL/hr for 24 hours
Final Solution Osmolarity: 1,280 mOsm/L (Solution contains 50 mL Overfill)

***** CENTRAL LINE ONLY *****

Prepared By: _____ Date: _____ Checked By: _____
STORE REFRIGERATED - Do Not Use After: 09/23/2019
1550A91-100143X

Printed Label includes all
ingredients;
premix components + additives



Configuration Options

A WINDOWS based application, **Abacus** Software is available in three versions that operate on or off a facility network and send orders from single or multiple computers directly to automated compounders.

ABACUS CE SOFTWARE

Calculation Edition Single Workstation

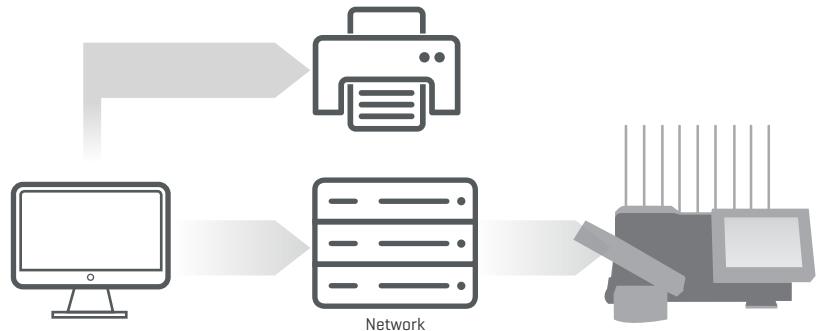
Stand-alone Software version that calculates the patient formula and prints a label, to support manual additions to a solution bag without interfacing with automated compounders. Software includes warning limit capability, drag-and-drop Ca/PO_4 curve utility and other features to address individual facility protocols.



ABACUS SE SOFTWARE

Single-Workstation Edition

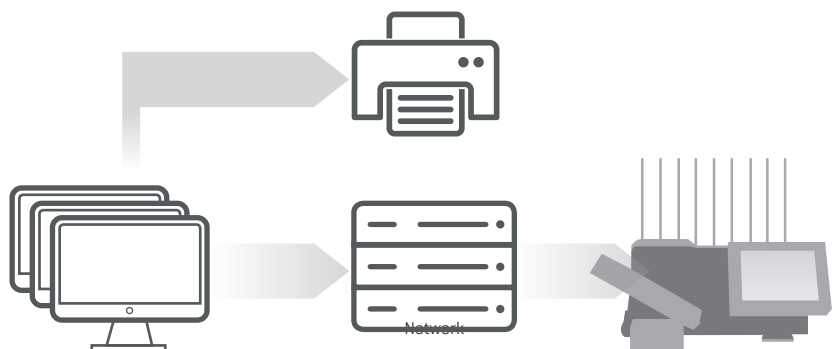
This version offers the same features as CE, but also generates a patient file to drive **Exactamix** Automated Compounders. This version is typically set up in a peer-to-peer network configuration, but can be loaded onto the facility network.



ABACUS ME

Multi-Workstation Edition

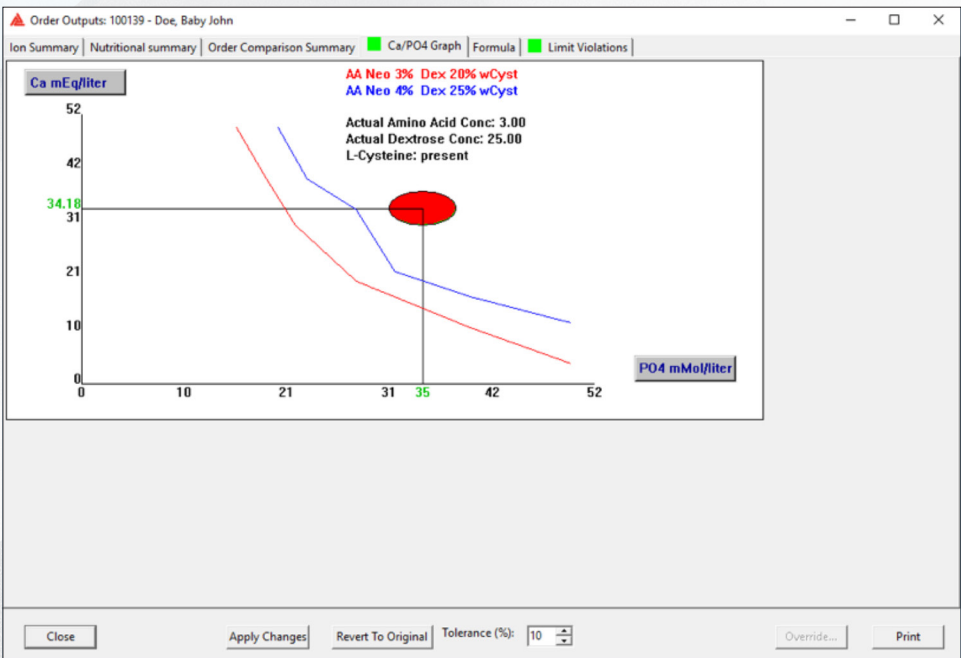
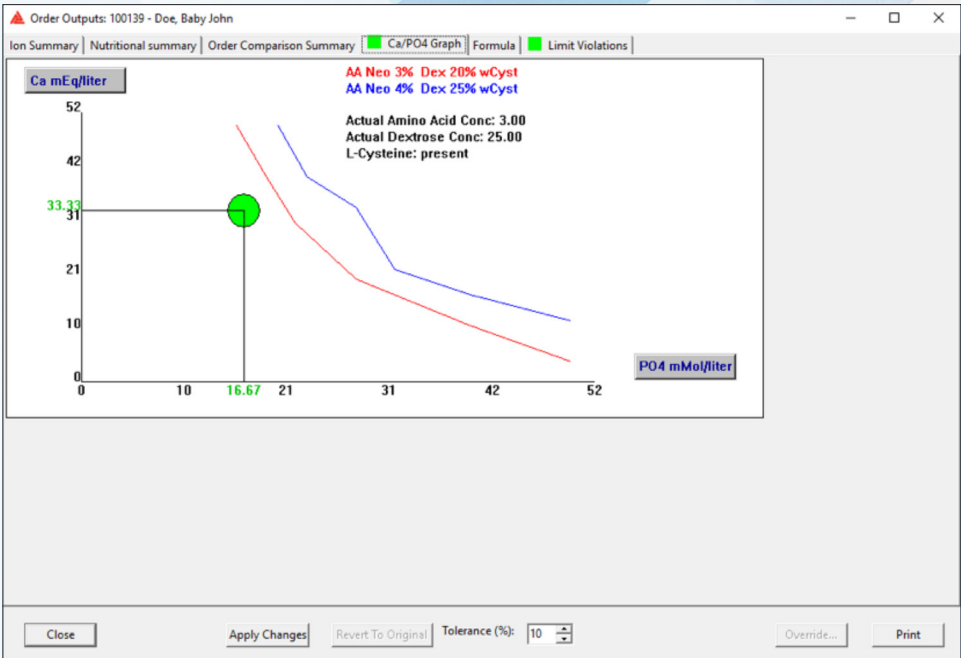
This version offers the same features as SE, but is configured on the facility network and allows order entry from multiple workstations simultaneously.



MONITOR CALCIUM PHOSPHATE SOLUBILITY

Calcium phosphate solubility curves provide guidance to assess formulation compatibility. Alert indicators change color based on calcium and phosphate concentrations within or exceeding acceptable parameters. The template defines the action required when certain Ca/PO_4 conditions occur during order entry.

The **Abacus** Software cannot make an absolute judgment concerning the precipitation of calcium and phosphate from the solution. The professional judgment of a pharmacist is paramount in the final acceptance of any solution for compounding.



Reporting Capabilities

Abacus Software provides both standard reports and the ability to customize reports to a facility's specific requirements.

STANDARD REPORTS

Assigned Warning Limits	The warning limits that have been established and are in use
Cost Summary	Cost of TPNs by date or range, if cost information is included on each formulary ingredient
DB Template	Listing of the templates that have been created in Abacus Software
DB CaPO4 Curve	A listing of Calcium Phosphate curve data in the database
Formulary Detail	Report of formulary ingredient details, attributes, and intrinsic information (with filter)
Order Comparison	Report comparing current and previous orders for patients
Patient Census	Listing of unit, room/bed, patient, medical record and account numbers
Statistics	Statistical data related to number of TPNs ordered and fluid volume required to fulfill ordered number of TPNs (with filter)
System Parameters	Listing of all settings configured
TPN Patient Therapy	Comprehensive listing of patient therapy information (with filter)
User Group Permissions	Comprehensive listing of user groups and permissions
User Login Summary	A list of user logins to the software
Users and Groups	Report of all users according to group (with filter)

ABACUS SOFTWARE SUPPORT

- 24/7 technical support (800) 678-2292
- Software customization services
- Comprehensive implementation support
- On-demand electronic help
- Printable users manual
- DB Template report
- DB Ca/P04 curve report

Drug information and its clinical applications are constantly evolving as research and user experiences are evaluated. Decisions regarding drug therapy must be based on the professional judgment and independent interpretation of the clinician.

Serious harm or death may occur if an adequate review is not completed. The ABACUS Software changes an order to Complete only after an authorized user completely finishes and approves an order. A thorough review of all data on each tab in the order entry process will minimize the risk of medication error.

**For more information, please contact your local Nutrition Specialist
or Baxter's Customer Service at 1-800-229-0001**

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CALCULATION SOFTWARE**

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USMP/MG85/14-0002[1] 12/2019

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One Baxter Parkway
Deerfield, IL 60015
www.baxter.com

Bag Labels Display Contents & Instructions

Upon order completion, the **Abacus** Software generates bag labels with detailed and complete information about the solution. Each custom label includes an order number and summary, administration instructions, and unique serial number and barcode.

NEONATE LABEL

1/7/2020	General Hospital	5:53:14 PM
Acct: 000123		
<u>DOE, BABY JOHN</u>		
Location: NICU/3	Bag: 06	
Physician: Dr. Smith	Dosing Wgt.: 2 Kg	
Ordered Volume: 72 mL	Order S/N: 100156	
	Compounded Volume: 122 mL	

AA Neo 10%	3 gram/100mL
Dextrose	15 %
-- Additives --	- Dose -
L-Cysteine	120 mg/100mL
Sodium	2 mEq/Kg
Potassium	2.5 mEq/Kg
Calcium	1.5 mEq/Kg
Magnesium	0.5 mEq/Kg
Phosphate	1 mEq/Kg
Acetate	2.02 mEq/Kg
Chloride	2.02 mEq/Kg
Pediatric Vitamins	0.2 mL
Multitrac-4 Neo	0.1 mL

Solution intended for use with Piggyback of - Lipid 20% - Soy, 25 mL

** Approximate Electrolyte Totals **			
Sodium	4 mEq	Phosphate	2 mEq
Potassium	5 mEq	Acetate	4.05 mEq
Calcium	3 mEq	Chloride	4.05 mEq
Magnesium	1 mEq	Aluminum	0 mcg/L

Nitrogen	0.33 gm	Protein	8.64 Kcal (9.06 %)	Non Prot
Non-Prot KCal	86.72 Kcal	Carbohydrate	36.72 Kcal (38.51 %)	42.34 %
Total KCal	95.36 Kcal	Lipid	50 Kcal (52.43 %)	57.66 %

Flow Rate: 72 mL at 3 mL/hr for 24 hours

Final Solution Osmolarity: 1,328 mOsm/L

***** CENTRAL LINE ONLY *****

Do Not Use After 24 Hours

Prepared By: _____ Date: _____

Checked By: _____ Date: _____

PAT: 008E1C7-100156

PREMIX LABEL

20-Sep-19	General Hospital	8:59 AM
Facility Address - Phone		
Acct : 123456		
<u>DOE, JOHN</u>		
Location: /	Patient Bag #: 3	Order No: 100140
Order Volume: 1,858.22 mL	Compound Volume: 2,064.69 mL	

Premix 5/25	1,800 mL
Sodium Chloride	50 mEq
Potassium Chloride	40 mEq
Potassium Phosphate	6 mEq
Magnesium Sulfate	8 mEq
Calcium Gluconate	5 mEq
Multivitamin Adult	10 mL
M.T.E.-5 Conc	1 mL

**** Approximate Concentrations with Additives ****

Protein	4.84 %	Magnesium	4.31 mEq/L
Dextrose	24.22 %	Phosphate	3.23 mEq/L
Sodium	26.91 mEq/L	Acetate	40.68 mEq/L
Potassium	26.26 mEq/L	Chloride	67.81 mEq/L
Calcium	2.69 mEq/L		

Nitrogen	14.87 gm	Protein	360 Kcal	(19.05 %)
Non-Prot KCal	1,530 Kcal	Dextrose	1,530.0 Kcal	(80.95 %)
Total KCal	1,890 Kcal			

Admixture contains: 1,858.22 mL plus 206.47 mL Overfill

Flow Rate: 1,858.22 mL at 77.43 mL/hr for 24 hours

Final Solution Osmolarity: 1,818 mOsm/L

***** CENTRAL LINE ONLY *****

Prepared By: _____

Date: _____

Checked By: _____

Delivery Time: 9/16/19 18:00:00 Do Not Use After: 9/19/19 18:00:00

154CAEB-100140D

HOME INFUSION LABEL

CAUTION: Federal law prohibits the transfer of this drug to any person other than whom it was prescribed

Home Infusion Company

Facility Address - City, ST

Rx Phone

Patient ID: 234567

DOE, JANE

Bag: 08

Location: NICU/3

Dosing Wgt.: 32 Kg

Physician:

Order S/N: 100143

Ordered Volume: 1,800 mL

Compounded Volume: 1,850 mL

AA Adult 15% 60 gram

Dextrose 270 gram

Lipid - Olive 50 gram

-- Pharmacy Additives --

Sodium Chloride 31 mEq/L Magnesium Sulfate 7.8 mEq/L

Sodium Phosphate 15 mEq/L Calcium Gluconate 5.2 mEq/L

Potassium Chloride 15 mEq/L Multitrac-4 Ped 1 mL

Potassium Acetate 36 mEq/L

--- To Be Added By Patient Prior to Administration ---

Multivitamin Adult 10 mL (10mL)

Ranitidine 25 mg (1mL)

** Approximate Electrolyte Totals **

Sodium 91.8 mEq Phosphate 27 mEq

Potassium 91.8 mEq Acetate 115.6 mEq

Calcium 9.36 mEq Chloride 82.8 mEq

Magnesium 14.04 mEq Aluminum 0 mcg/L

Nitrogen 9.48 gm Protein 240 Kcal (19.08 %) Non Prot

Non-Prot KCal 1,018 Kcal Carbohydrate 918.0 Kcal (72.97 %) 90.18 %

Total KCal 1,258 Kcal Lipid 100 Kcal (7.95 %) 9.82 %

Flow Rate: 1,800 mL at 75 mL/hr for 24 hours

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STORE REFRIGERATED - Do Not Use After: 09/23/2019



1550A91-100143X

NON-TPN

Exp: 9/27/2019

TEST - Cardio

CARDIO SOLUTION A 1000 mL

SODIUM BICARBONATE 13 mL

MANNITOL 16.3 mL

MAGNESIUM SULFATE 4 mL

LIDOCAINE 1% 13 mL

POTASSIUM CHLORIDE 13 mL

Total Volume: 1059.3 mL

Administer per Protocol



159E182-100151+

Prepared on: 9/20/2019

Entered By: Administrator

Mixed By: _____

Checked By: _____ R.Ph.

Compounded Sterile Solution

Federal Law Prohibits Dispensing Without Prescription

Prepared By: General Hospital

Address & Phone

For safe and proper use of the devices referenced herein, refer to the appropriate Instructions for Use or Operators Manuals.

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USMP/MG85/14-0002[1]a 01/20

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Deerfield, IL 60015

www.baxter.com