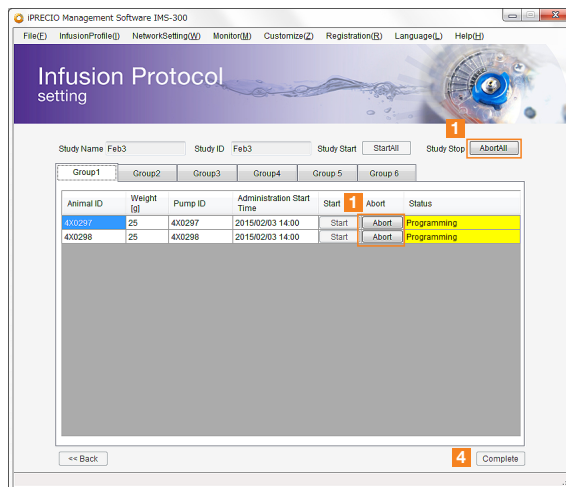


Re-Programming: After aborting current infusion protocol and saving data

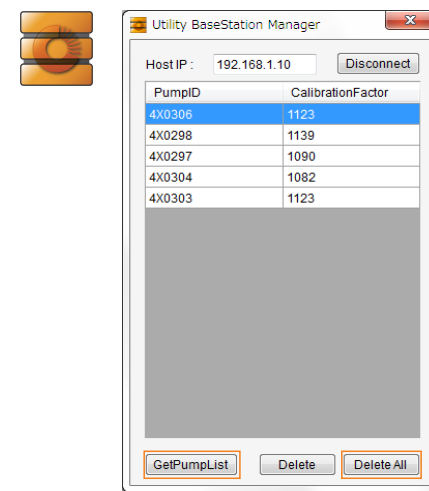
1. Save and Exit from the Previous Study



- 1 Click **Abort** or **Abort All**.
- 2 Wait until all shown as finished or aborted.
- 3 Wait will **Study Window** displayed, click on **OK** to save data.
- 4 Click on **Complete** and close the iPRECIO Application Software

Note that if pump Group Infusion protocol did not finish as programmed, **Comm. Avail** will also define when pump is available for re-programming.
For example, if **No Communication** was selected in aborted protocol, then pump(s) will only be available after group infusion protocol complete. It will be impossible to re-program the pumps until then.

3. Option of Erasing the Pump Data



User's Manual
Pg.48

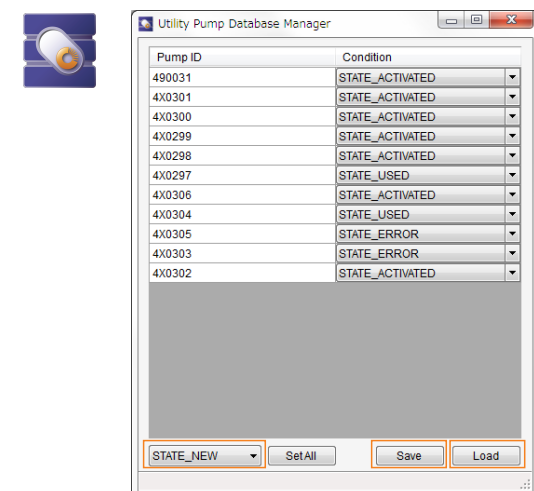
Utility Pump BaseStation
Manager

It is not necessary to erase the pump data in the UCD-300 to re-program the pumps. If erased, it will mean the pumps will need to be re-detected to be programmed/used.

- 1 Erasing the Pump Data in UCD-300:
Open **"Utility Pump BaseStation Manager"** and select/click **Connect** and **Get Pump List**.
Click **Delete All** and wait until process completed.
Then close the program.

If pump data not erased, communication with the pump will be carried out at the KVO step and/or Infusion Protocol Setting.

2. Change pump Condition/ Status



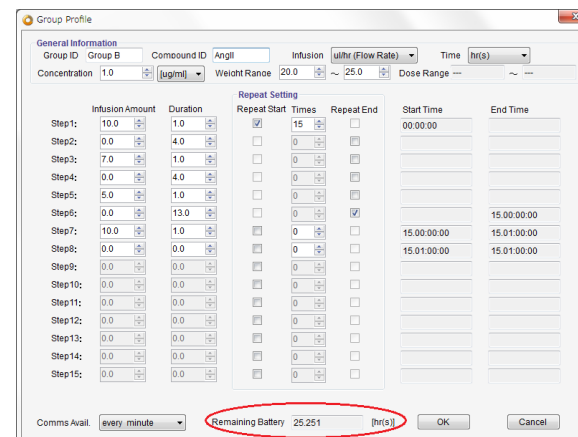
User's Manual
Pg.47

Utility Pump Database
Manager

- 1 Open **"Utility Pump Database Manager"** and select **Load**, to check the pump status.
Chose **State Activated** from the pull down menu and apply only to all pumps you plan to re-use.
Click **Save** and close the window.

Make sure to close the iPRECIO Application before running this application

4. Start IMS-300 iPRECIO Application to start a new study by re-programming pumps



Start a new study

You will have to manually calculate remaining battery life for this new study.

When intending to reprogram pumps, recommended to estimate battery life of both studies in one <Group ID/Profile> if possible.

Make sure that the battery is shorter than in the group profile window. Remaining battery life here is calculated as new.

Support Materials of iPRECIO®



You can request for our support materials of your interest from

<http://www.iprecio.com/support/>

Compatibility test

Compatible solvents/vehicles for iPRECIO®

Frequently Asked Questions <FAQ>

-This FAQ incorporates the most frequent question and answers for iPRECIO® pumps.

Technical / Surgical Note

Bibliography

-New publications

Videos



<http://www.iprecio.com/video/smp300/>

Micro infusion pump

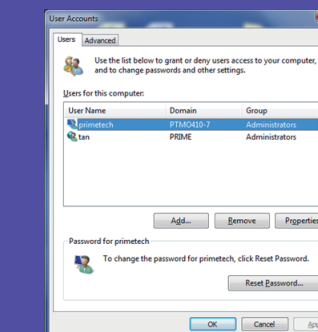
iPRECIO®



Workflow

for programming infusion protocol

SMP/IMS-300 Model



PC settings:

- ▶ Please TURN OFF the screen saver.
- ▶ Go to control panel and change the Power option as "Never Sleep Mode".
- ▶ Please set the user account as "Administrators" (see picture left).

Windows Update:

Change settings to download updates but let me choose whether to install them.



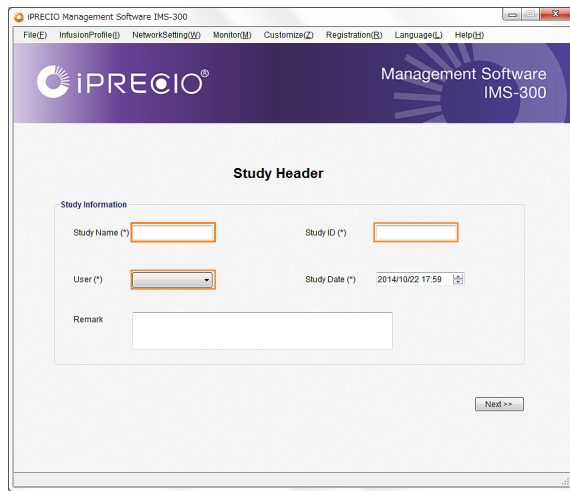
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1 Study Header : Start a New Study

This guide does not replace reviewing the iPRECIO® User Manual thoroughly. It assumes prior knowledge of iPRECIO® use. Some minor steps may have been omitted due to space constraints. If in doubt, refer to the manual.

User's Manual Pg.24



Study Information:

Required Fields:

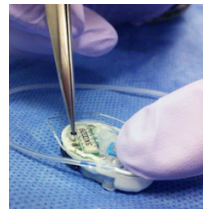
- Study Name: Example February 7th
- Study ID: February 7th
- Select the User: John Smith (Select your name)

Register at least one operator and customize fields with animals, strains, etc., prior to starting a new study. Refer to manual as required.

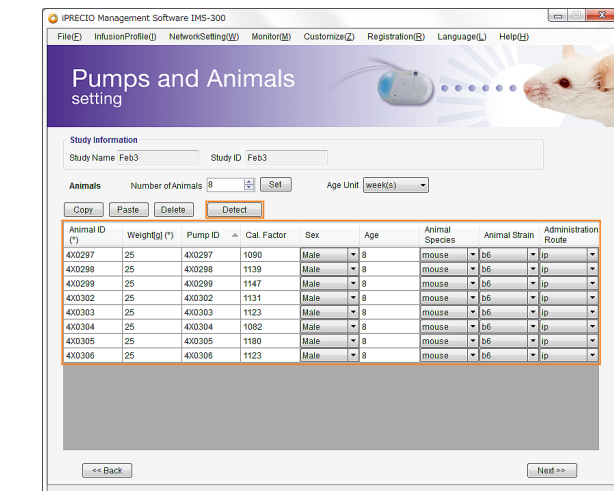
After completing all the fields, **Next>>**

2 Pumps and Animals setting : Animal Setting, Pump Assignment (Pump Activation/ Detection)

User's Manual Pg.24-27



Pumps can only be detected and programmed after being turned on.
After filling the pumps to the catheter distal ends, activate pumps, by pushing down the black button with a blunt pointed tool like a pair of forceps.
*Firmly hold pump down with finger(s) and press down firmly to Power ON.
*Take care not to damage silicon coating.
*Make sure to "Activate" all pumps.
*Detect pumps before inputting the animal info.
*Once pumps detected, assign to animal ID.



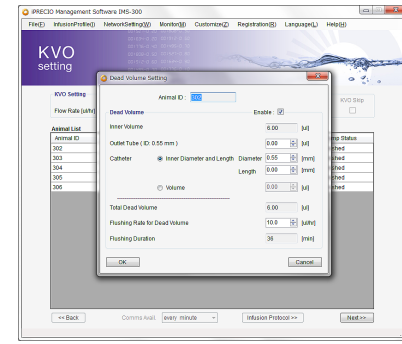
Required Fields:

- Number of Animals: 8
- Detect: Click "Detect" button assign pump
- Animal ID: 4X0302
- Weight: 25 g
- Age: 8 weeks
- Sex: Male
- Species: Mouse
- Strain: B6
- Administration Route: i.p.

Use copy and paste as required to fill fields like weight, age, After completing all the fields, **Next>>**. If **<<Back** to previous menu, pumps will need to be detected again.

3 KVO setting and Dead Volume Setting

User's Manual Pg.28-30/ Pg.34-37



Make sure to check "Enable" box in Dead Volume Setting.

Required Fields:

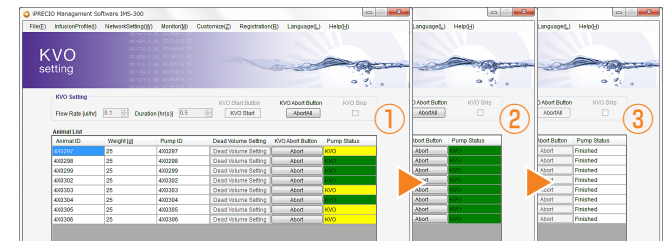
- KVO Flow Rate: 1 uL/hr(s)
- KVO Duration: 72 hrs
- Dead Volume Settings: Diameter 0.55mm, Length 25mm (Fill in the catheter diameter and length)
- Flushing-rate for Dead Volume: 10 uL/hr

Flushing Duration is automatically calculated

After completing all the fields, **Start KVO**

To confirm when KVO starts correctly, check the information and the color of the Pump Status Column.
No color Standby
Red Color Application software is ready to send the schedule to UCD-300.
Yellow color UCD-300 has been received the schedule from application software.
Green color Pumps have received KVO schedule and programming completed. KVO will start within 1-2 min.

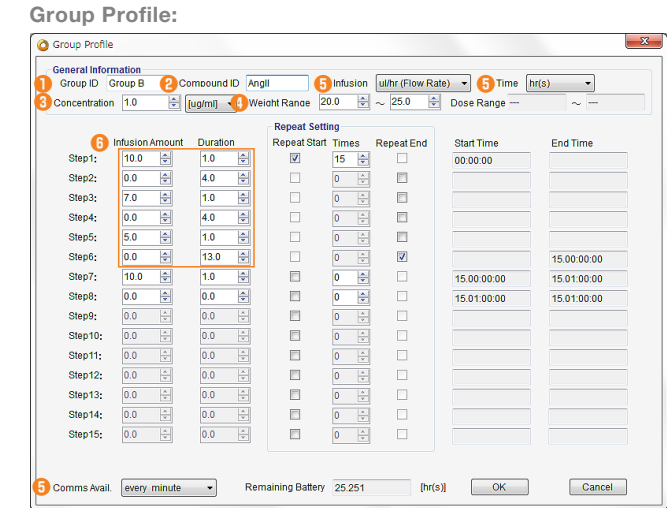
Same process and color coding for Administrating (and Flushing)



- KVO programming started with some pumps started and some in process
- All pumps KVO step programmed
- KVO step Finished/Completed and ready for programming

4 Infusion Protocol setting

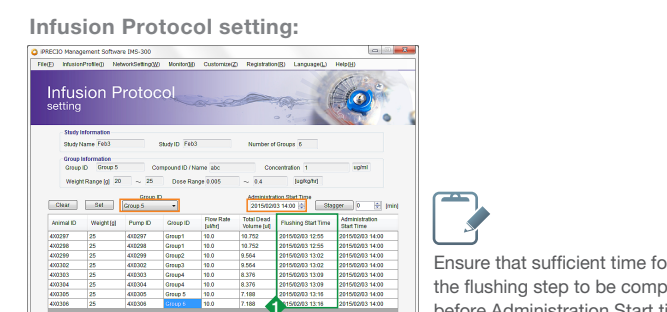
User's Manual Pg.31-33/ Pg.38-44



Required Fields:

- Group ID: Group B
- Compound ID: Ang II
- Concentration: 1.0 ug/ml
- Weight Range: 20.0 - 25.0g

- Select unit for Infusion, Time Units and Comms Avail.
- Program required steps with infusion amount, Duration, No. of Repeats, Repeat Start and End as required
- Repeat Start Checkbox Step1, Repeat Stop Checkbox Step6, Times 15



Ensure that sufficient time for the flushing step to be completed before Administration Start time

Required Fields:

- Administration Start Time: 2015/02/05 14:00
- Set/Assign Group ID to each animals: Group 1

Set/Assign Group ID/Group Profile: Infusion Profile and Administration Start Time.
Based on Flushing rate and Duration from **Dead Volume Setting**, Flushing Start Time is Calculated
Make sure that there is sufficient time for pumps to be programmed and that the **Flushing Start Time** calculated is not in the past.

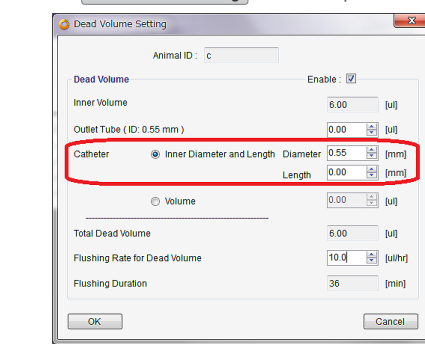
Once all pumps have been assigned a Group ID and Starts time, select/click **Next>>**

5 Combines KVO setting, Dead Volume Flushing and Duration with Infusion Protocol Setting

User's Manual Pg.36-37

KVO within Administration Step in Infusion Profile/Group ID (completely pre-programmed)

Dead volume calculations, Flushing -rate for dead volumes required for Flushing Durations to be calculated for each animal/pumps. Use **Dead Volume Setting** window or provided Excel File, DeadVolumeSetting.xls

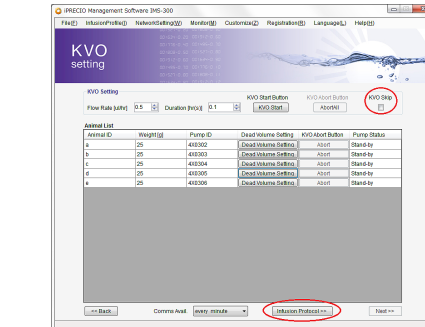


Dead Volume Setting		
Dead Volume		
Inner Volume		6 uL
Outlet Tube (ID:0.55mm)		uL
Catheter	Inner Diameter	0.55 mm
	Length	20 mm
Total Dead Volume 10.752 uL		
Flushing Rate for Dead Volume 10 uL/hr		
Flushing Duration 65 min		

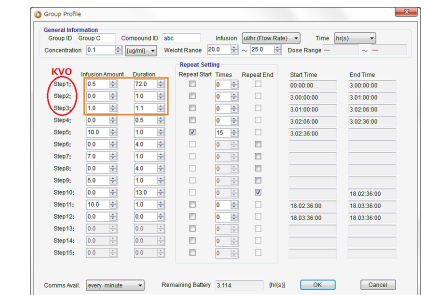
Example from Excel File Provided for the **Dead Volume Setting** calculations

Make calculations as appropriate. If all animals have the same dead volumes and have the same dead volume flushing rate, then only one calculation required. If not, calculate as required.

When using the application to calculate the dead volumes, open **Dead Volume Setting** and input the correct Diameter and Length of catheter. Record the Dead Volumes, Dead volume flushing-rates and Flushing durations. Dead volume flushing-rates and durations required for Group ID/Group Profile programming. They will be used in <Step 3> in Group ID/Infusion Profile



Infusion Protocol option is recommended in this case. If **KVO Skip** checkbox selected , **Infusion Protocol** is greyed out.



Add the KVO into the group profile: step1-3

- Select/Click **Infusion Protocol** to skip KVO and any dead volume calculations in **Dead Volume Setting**.
- Alternatively, Skip **KVO** by checking the **KVO skip** box and click **Next>>**

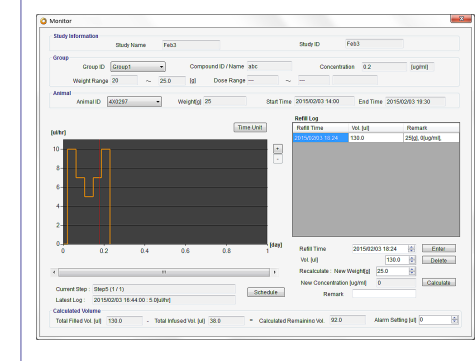
Required Fields:

- Step1: KVO Flow Rate: 0.5 uL/hr, 72 hrs
- Step2: Exchange time: 0 uL/hr, 1 hr
- Step3: Flushing time: 1 uL/hr, 1.1 hrs
- Step4: Drug Administration Infusion Step will start from here.

For example, Infusion Protocol setting from "4. Infusion Protocol Setting" Step 1: 10 uL 1 hour, Step 2: 0uL 4 hours...

- Calculate the dead volume using the application software or excel file which is provided in installation CD. Then input the flushing information into Step3.
- Exchange Time:** A stop is usually programmed so that pumps can be filled accurately and this would give most accurate results.

If Dead Volumes, Flushing-rates and durations are shown in administration step, it will be necessary to uncheck **Enable** in **Dead Volume Setting** for those pumps/animals. Alternatively, use **Infusion Protocol** option.



User's Manual Pg.41

Optional: Use Monitor Screen as needed. **Study information, Group information, and Animal information** is displayed.