



## IsoStock 3 Training

IsoStock is an automated record keeping system for managing radioisotopes. In its simplest setup it will record compounds arriving on site and their disposal. However it has many optional features including requests, authorisations, movements, splits, dilutions, waste management and reporting. It is intended to be used as a tool, and you (as a site) can choose how much detail you wish to record under given circumstances.

This training is to provide you with the knowledge to handle day to day transactions and also supervise a group of users.

The data provided is completely fictitious and has been generated by a random method. As all sites differ in their setup, we have created a simple easy to understand environment based upon colour. Eg we have our Red Department – Research, it uses the Red room, Pink room, etc and has an RPS Richard Redmond.

Note that although some compounds may be in use on your site, there is no connection between this and any data for your site.

For the purpose of training we will all be logged in as Richard Redmond. He is the Department RPS for the Research (red) group.

### **Start-up / Logging In**

When you start-up IsoStock you will initially be presented with the Login screen.

You can select your user name from the list, or by typing any part of it (first, surname, unique ID) and pressing enter.

Login as Richard Redmond by selecting him, or typing RED. In the password box, enter REDMOND.

The password is not case sensitive and will originally be set to your surname.

After logging in, a number of checks will be made and information will be presented as appropriate. By default, an RPS will be shown an overview of holdings, disposals and accumulations on site.

You will also be given a list of tasks that must be completed (if any are due).

### **Requests**

The requests options allow users to request that compounds are ordered and available for use on a specific date.

Select **Requests** from the **Requests** menu

Select **Create a new request** and fill in the fields. Some fields can be selected from lists – these lists would normally show the options available on your site. The following diagram shows a typical request

The screenshot shows a 'New request' dialog box with the following fields and values:

- Department: Research red
- Requested by: REDMOND, Richard
- Project: PROJ1
- Protocol / licence: P1
- Date requested: 24/11/2003, Time: 13:04
- Catalogue code: SAMPLE, 10MBQ
- Supplier: Amersham Pharmacia
- Compound: Sample training compound
- Isotope: 32P - Phosphorus 32
- Date required: 17/12/2003, Time: 12:00
- Reference date: / /, Time: 12:00
- Cost: 0.00
- Activity: 10.0000 MBq
- Quantity: 500.0000 µl
- Concentration: 0.0200 MBq/µl
- Spec act: 0.0000
- Notes: (empty text area)

Buttons at the bottom: OK, Cancel

Most of the fields are self explanatory.

The catalogue code can be used to select a commonly used compound, and will default (if set) supplier, compound, isotope and amounts.

References date/time are not required as they are unlikely to be known at this stage

Confirming the request will add it to the list on the main screen.

Click **Exit This Screen** to close the **Requests** window

### Authorisation

This option allows an RPS (or other supervising user) to authorise users requests

Selecting **Authorisation** from the **Requests** menu shows a list of requests awaiting authorisation for the department.

Highlight the request to be authorised (that we entered previously) and click on **Authorise this request**

Enter an authorisation number. This could be a project number, or purchase order number etc. (eg AUTH1)

On confirmation the request turns green to show that it is authorised.

If a user subsequently edits the authorised request, it will be resubmitted for authorisation

### Receive

The **Receive** option allows the user to indicate that compounds have arrived on site. This could be a compound that was requested, something from another organisation, or a compound transferred from another site or IsoStock user.

Select **Receive from request** from the **Receive** menu

Select the compound that has arrived (ie. the authorised request that we entered)

The initial details of the compound received are taken from this request. These can be adjusted where the delivery differs from our original request. At this stage we will also have to confirm the reference date (the date on which the activity is correct), the date received, who received the compound, and where it is to be kept. The following diagram shows a typical compound being received.

Reference	03/0111	Catalogue code	SAMPLE
Department	Research red	Supplier	Amersham Pharmacia
Owner	REDMOND, Richard	Compound	Sample training compound
Project	PROJ1	Isotope	32P - Phosphorus 32
Protocol / licence	P1	Cost	0.00
Reference date	28/11/2003	Time	12:00
Activity	10.0000	MBq	12.1163
Quantity	500.0000	µl	500.0000
Concentration	0.0200	MBq/µl	0.0242
Spec act	0.0000		0.0000
Date received	24/11/2003	Time	13:09
Received by	REDMOND, Richard	Stored in	Red room
Batch number	B123		Store 1
Lot number	L456		
Expires	23/11/2004		

On confirmation our compound is automatically allocated a unique reference code. In this case 03/0111

## Compound details

The **compound details** screen is where most of the day to day transactions are recorded against the compounds. This could be usage, disposals, synthesis, movements, etc.

We can locate our newly acquired compound by typing 03/0111 into the search box (on the left hand side of the screen, underneath the menu options) and pressing enter.

The screen will display the details as entered before, such as the department, supplier, location etc. Two set of figures are displayed – the original which is what was received (and probably written on the container), and the current which is the total remaining in stock with decay correction applied. If you have just received the compound this is likely to be higher than the original activity.

It is worth noting at this stage that IsoStock always applies decay correction to activities. If there is a date given (ie for a transaction) the decay will be for that date, otherwise it will use the current date and time. Decay is corrected to the minute on all isotopes (even with the 5370 years half life of Carbon 14).

The bottom half of the screen shows the transaction list. As the compound is used, disposed etc these transactions will appear in this list in a similar way to using a Compound "card".

### Recording use of a compound

Select **Use this compound** from the side menu

There are two different types of use that can be recorded. The first is to use the whole of a sample. This simply marks the compound as being "in use" rather than "in stock" and can only be done when none of the compound has previously been taken.

The second, and more common, type of use is to use part of the compound creating a new sub sample with it's own reference code.

Compound use can either be entered as a quantity, activity or percentage taken. If you enter an activity (eg 5MBq) IsoStock will calculate the quantity required to give that activity taking decay into account. Likewise entering a quantity will calculate the decay corrected activity being used. For ease we will enter a quantity of 150ul.

<input type="radio"/> Use all this compound with existing reference code			
Date	24/11/2003	Time	13:24
For	REDMOND, Richard		
<input checked="" type="radio"/> Use part of this compound with a new reference code for the sub-sample			
Date	24/11/2003	Time	13:24
For department	Research red	Quantity	150.0000 µl
For user	REDMOND, Richard	Activity	3.6331 MBq
Protocol / licence	P1	Percentage	30.0000 %
Project	PRQJ1	Rad Conc	0.0242 MBq/µl
Location	Red room	Spec Act	0.0000
	Store 1	New ref	
		Lab-book no	
		Expires	23/11/2004

On confirmation, our new sub sample is automatically allocated a unique reference code. In this case 03/0111A. The **Compound Details** screen will now display the new sub sample. You may notice that where the original showed a supplier, batch number etc, the sub sample shows the relationship with the parent compound.

## Disposing of a compound

Select **Dispose of this compound** from the side menu. Often a compound will be disposed of by several methods simultaneously, ie. part liquid to the drain, some solid etc. so you can enter up to 5 different disposals against the same compound.

The disposal route can be selected from any available method on your site. This could be drain, fume hoods or a number of different types of waste container. As in the "use" option, you can make your entry by quantity, decay corrected activity or percentage.

For this example we will dispose of 20% to the drain and 1 MBq to a new **Solid Waste Bag**.

Disposal route	Waste reference	µl	MBq	%
1 Drain		30.0000	0.7262	20.0000
2 Solid waste bag	New	41.3092	1.0000	27.5395
3 Select a disposal route		0.0000	0.0000	0.0000
4 Select a disposal route		0.0000	0.0000	0.0000
5 Select a disposal route		0.0000	0.0000	0.0000
Total		71.3092	1.7262	47.5395
From		150.0000	3.6312	100.0000

On confirmation any new waste containers will be allocated unique reference codes. In this case our solid waste bag will be 172/32P/SW.

The **Compound Details** screen will display our 2 new transactions and the "current" amounts will have reduced.

## How transactions are displayed

The **Compound Details** displays two levels of transactions. Transactions made against the displayed compound, and also transactions made against the sub samples – displayed in grey. You can see this if we display our original compound 03/0111 by clicking **Find parent compound** on the side menu.

## Entering compounds without orders or requests

You can enter a new compound into the system (without any prior record) by selecting **Enter a new compound** on the **compound details** screen. For example, this may be a compound sent from another site.

The entry can also be made by selecting **Receive without order** on the **Receive** menu.

When entering compounds it is always advisable to use units that best describe the compound or the way it is used. Eg. If the compound is to be used in equal vials it can be entered this way – 10 vials at 5 MBq per vial. Likewise, you should use the maximum scope available – 0.1MBq is better entered as 100KBq etc.

The following diagram shows a typical new compound.

Reference date	Time	On delivery	Notes
26/11/2003	12:00	10.1532	
10.0000 MBq		5.0000	
5.0000 mg		2.0306	
2.0000 MBq/mg		0.0000	
0.0000			

On confirmation, the compound is automatically allocated a unique reference code. In this case 03/0112.

### Using a Standard Disposal and existing containers

You can speed the entry of disposals by using the **Standard Disposal** option. Selecting **Dispose of this compound** displays the disposal window as used earlier. On the top right of this window there is a **Standard Disposal** button. Clicking this button and selecting from the list will automatically fill in the disposal routes and quantities.

For this example we will use "10% Drain / 90% Solid". You will still need to select the container being used for the solid waste. In this case we can select 97/35S/SW.

**Dispose of compound 03/0112**

Dispose of compound 03/0112      Date: 24/11/2003    Time: 13:59    Standard disposal  
 Dispose of sub-sample      Disposed by: REDMOND, Richard

Disposal route	Waste reference		mg	MBq	%	
1 Drain		Det	0.5000	1.0153	10.0000	All
2 Solid waste bag	97/35S/SW	Det	4.5000	9.1378	90.0000	All
3 Select a disposal route		Det	0.0000	0.0000	0.0000	All
4 Select a disposal route		Det	0.0000	0.0000	0.0000	All
5 Select a disposal route		Det	0.0000	0.0000	0.0000	All
Total			5.0000	10.1531	100.0000	
From			5.0000	10.1531	100.0000	

Notes:

OK    Cancel

## Waste containers – sealing and requesting collection

The **Department Waste** option on the **Waste** menu allows you to manage the waste containers used by your department.

The screen shows a list of all the containers along with when they were created, what they contain etc. Highlighting any container will show the details and it's contents at the bottom of the screen. You can see this by highlighting either of our bags that we used earlier.

We can select containers by scrolling down the list, or you can use the **Search For** box on the left hand side of the screen. Moving the cursor to the top of the list and then entering 172/32P/SW into the search box will demonstrate this.

We can mark the container as sealed by selecting **Seal this waste** from the menu on the left. On confirmation the container will be displayed in green. This will stop any more disposals to this container (unless the disposal date is before the seal date).

We can request that the container is collected by selecting **Request Collection** from the menu on the left. You must indicate where the container is to be collected from, for this example Red Collection. On confirmation the container will be displayed in grey and the location will change to reflect the collection area. If you skip the Seal option, the container will automatically be sealed with the same date and user as the collection request.

## Dilute / synthesise

When a sub sample is taken to create a new compound we can use the **dilute / synthesise** option. This is very similar to **Use** but allows the user to change the compound name and the concentration / units.

From the **Compound Details** screen locate our original compound (03/0111) by selecting it from the **Search**, and then select **Dilute / synthesise** from the menu on the left.

The following diagram shows an example dilution of our compound.

**Dilute / synthesise compound 03/0111**

Date	24/11/2003	Time	15:06	Quantity	50.0000 µl	350.0000 remaining
For department	Research red	Activity	1.2069 MBq	8.4480		
For user	REDMOND, Richard	Percentage	10.0000 %	70.0000	All	
Protocol / licence	P1	New quantity	5.0000 vial			
Project	PROJ1	New activity	1.2069 MBq			
	<input checked="" type="checkbox"/> Consider this as "in-use"	New conc.	0.2413 MBq/vial			
Location	Red room	New spec. act.	0.0000			
	Store 1	New Cat. Code	SAMPLE			
		New compound	Diluted Sample training compound			
		Material added	Water			
		New ref				
		Lab-book no	LB123			
		Expires	23/11/2004			
<input type="button" value="OK"/> <input type="button" value="OK + Repeat"/> <input type="button" value="Cancel"/>						

On confirmation the sub sample is automatically allocated a reference code. In this case 03/0111B.

There is a second confirmation option "OK + Repeat" which allows the user to confirm the sub sample and automatically start creating a second (and third etc) with the same details. This can be repeated as many times as necessary.

### Transferring compounds off-site

The **Transfer off-site** option on the **Compound Details** screen allows the user to transfer a (or part of a) compound to another site or organisation. The option has the added feature of being able to partly automate this process if the receiving site is using IsoStock.

For this example we will transfer 1 vial of our compound 03/0111B to "Another Company". The following diagram shows a sample transfer.



Date	24/11/2003	Time	15:12
Transferred by	REDMOND, Richard		
Transferred to	Shipment (EU not UK)		
Consignment no			
Company name	Another company		
Address			
Contact	John Smith		
Reference	ABC123		
Quantity	1.0000	vial	5.0000
Activity	0.2413	MBq	1.2067
Percentage	20.0000	%	100.0000
			All

On confirmation, our transfer is automatically allocated a unique consignment number (in this case CON00023) and our stock is reduced appropriately. The details of the transfer are also placed on the clipboard in text form and encrypted form to send to the recipient. If they are using IsoStock they can use this encrypted data to automatically enter the compound into their system. You can see this by loading Notepad and pasting from the clipboard.

### Receiving a compound from the clipboard

This option can be used for receiving a compound transferred from another site or IsoStock user. When the IsoStock information has been emailed you can copy this on to the clipboard and paste it straight into IsoStock.

As we have some information on the clipboard from our transfer we can see this by selecting **Receive from clipboard** from the **Receive** menu. Notice that the supplier and batch numbers reflect the original information

### Editing data - freezing

All of the information entered into IsoStock can be edited. IsoStock uses an audit trail which records the changes made, who made them and when, and also requires the user to give a reason for editing data. Most editing can be done by simply highlighting the transaction and selecting Edit this transaction from the side menu.

However, there are times when you cannot edit due to further transactions. For instance, if you change an original concentration it would affect the data that has been subsequently entered. In this case we have to use the **Freeze** function.

This will put a temporary hold on the transactions so that the original data can be changed. The user then reconfirms each of the transactions.

Find our 03/0111A compound. Select **View/Edit this compound** from the side menu. Clicking **Edit** will give you a warning to say that you cannot edit (as per above). **OK** the warning and **Cancel** the edit.

Highlight the first of the two transactions and select **Freeze this transaction** from the side menu. Notice that the transaction turns red. It is still recorded against the compound, but it is being partially ignored for entry validation. Repeat for the second transaction.

Now select **View/Edit this compound** from the side menu and click **Edit**. You are now able to make changes. Change the quantity from 150ul to 200ul and click OK. The **Audit Trail** screen will be displayed highlighting the changes that you made. Type in a reason for the change or select one of the default options from the list and click OK.

We now need to reconfirm each of the frozen transactions. Highlight the first one and select **Edit this transaction**. You will see that the data has been recalculated based upon the data (percent) that we originally entered. Click **OK**. Repeat for the second transaction where again the data will recalculate.

### **Audit Trail**

Whenever changes have been made to a compound (or waste etc) you will see a new option on the side menu called **Show audits and edits**. Selecting this option will display the details of all changes made to the displayed data.

You will see that 3 sets of changes have been made. The first are to the main compound, and the others to the 2 transactions (marked No 1 and No 2). Highlighting any of the edits will detail the actual changes on the bottom part of the screen

### **Warnings when approaching / exceeding limits**

One of the advantages of a real-time record keeping system is the ability to check against limits and notify users and their RPSs when there are problems.

To highlight this we'll enter another new compound by selecting **Enter a new compound** from the side menu on the **Compound details** screen. 500MBq of Iodine 125 will push us over the department limit and close to the site limit.

**Details of compound received**

Reference:  Catalogue code: BIG  
 Department: Research red Supplier: Amersham Pharmacia  
 Owner: REDMOND, Richard Compound: Big Iodine sample  
 Project: PRDJ3 Isotope: 125I - Iodine 125  
 Protocol / licence: P1 Cost: 0.00

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Reference date: 24/11/2003 Time: 12:00 On delivery: Notes:  
 Activity: 500.0000 MBq 499.0586  
 Quantity: 500.0000 µl 500.0000  
 Concentration: 1.0000 MBq/µl 0.9981  
 Spec act: 0.0000 0.0000

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Date received: 24/11/2003 Time: 15:53 Stored in: Red room  
 Received by: REDMOND, Richard Store 1  
 Batch number:   
 Lot number:   
 Expires: 23/11/2004

OK Cancel

On confirmation our new compound will be given reference 03/0113. Notice that we are given two warnings. Firstly that the compound approaches the site holding limit, and also that we have exceeded our departmental limit.

We'll highlight some more limits by entering a large disposal. Select **Dispose of this compound** from the side menu and dispose of 30ul by Drain.

**Dispose of compound 03/0113**

Dispose of compound 03/0113 Date: 26/11/2003 Time: 16:07 Standard disposal  
 Dispose of sub-sample Disposed by: REDMOND, Richard

Disposal route	Waste reference	µl	MBq	%	
1 Drain		30.0000	29.2497	6.0000	All
2 Select a disposal route		0.0000	0.0000	0.0000	All
3 Select a disposal route		0.0000	0.0000	0.0000	All
4 Select a disposal route		0.0000	0.0000	0.0000	All
5 Select a disposal route		0.0000	0.0000	0.0000	All
Total		30.0000	29.2497	6.0000	
From		500.0000	487.4956	100.0000	

Notes:

OK Cancel

When we click **OK** we will get a warning that the disposal exceeds our departmental limit.

This shows how the warnings are presented to the user who is making the entry. Meanwhile, they are also being logged as messages for the department RPS and site RPO. These will be seen when the RPS/RPO next logs into IsoStock.

Log out of IsoStock by selecting **Log Off** from the **Exit** menu. Log back in as Richard Redmond, password Redmond.

This time when the site overview is shown we only have a few entries, and these are coloured. This is to highlight the problems that have been found. If there are no problems the report shows all data. We can also override this by un-ticking the **Only show problems** showing all the data with the problems embedded and coloured.

After confirming this screen we are shown some warning messages. These are the actual times/users who made the entries which approached/exceeded the limits. Tick the off when you have read them / dealt with the issues.

### Quick checks

The **Checks** menu gives us a quick overview of the holding, disposal etc in comparison to the limits set at any given time. This may be useful if you needed to do a particularly large disposal, or were acquiring a large amount of activity. All the screens have a calendar that allows you to select the date that you want calculated.

Selecting **Holding : Limits** from the **Checks** menu shows the Holding limits and compares them with the actual situation on site. Notice the two issues that we caused earlier.

Selecting **Disposal : Limits** from the **Checks** menu shows the total amount disposed and compares it with the limits. Notice that the daily totals for 32P and 35S to drain include the disposals made earlier, and also the warning on the Iodine to drain total.

There are similar checks for Accumulation, Acquisitions and Sealed sources

### Tasks / to do list

When we originally logged in we were given a set of tasks to complete. We can return to the tasks at any time by selecting **Tasks / to do list** from the **Checks** menu. The tasks are listed along with the date they were due. Once completed just tick the box on the left hand side.

### Reporting

IsoStock provides a number of predefined reports, many with parameters and options for selecting the data to be displayed and the order to display it. Where there are arrows in the column headers the data can be sorted by clicking on the header.

All the reports can be previewed, printed or saved in PDF format.

**Available compounds** lets us search the site (or other sites) for specific compounds. Enter a compound name or catalogue code and the amount required. For example enter SAMPLE and 1MBq. All the matching compounds are displayed.

Try entering UTP. All the compounds with UTP anywhere in the compound name are displayed. You can search different sites by selecting them from the On Site pull down

**User stock check** allows us to find all the compounds that belong to a particular user. Just select the user from the list. For example, if you select Redmond you will see our compounds from earlier.

**Physical stock check** allows us to check the compounds that should be found in a particular location. For example select Red room – store 1. We can see the compounds that have been used earlier. By clicking the Check Stock button we are able to actual mark the compounds as checked. Tick the 03/0111 compound and then click on Mark stocks as checked. Notice that it goes grey. This will add a Stock check transaction to the compound which can be seen on the Compound Details screen.

The **Overview** report gives us a summary of all the limits that are in force on site, and compares it with the actual situation at a given time. Select Research Red from the Show pull down. Select December from the date pull down – notice the red warnings that we caused.

The **Holding area/activity summary** report gives us a breakdown of the activity in stock and in use in each given area. Select department to show this as totals for each department, or location to break it down into locations.

The **Accumulation area/activity summary** report shows us how much waste is being held in each area and summarises by waste type.

The **Transactions** report provides details of all transactions made in a given period. There are pull downs for showing a department, user, isotope or any combination. Try selecting Research and then Sulphur 35. Notice our 03/0112

The **Incomplete records check** report allows us to highlight when records have not been entered against “old” compounds. This can be done using the Expiry dates or just by a simple age. The report gives details of when the compound was received, who owns it, when and who made the last transaction. This should help highlight when either records have not been entered, or compounds are being held that should really be disposed of. There are selections for what to display. Of course it is possible that records are missing because of a long term study.

The **Tasks completed** report shows a list of all tasks that are to be completed by specific users. These are set by the supervisor and IsoStock prompts the users as they are required. There are options for display specific tasks, users and also to display the tasks that will be required to be completed in the future.

The **Audits and edits** report shows all the occasions when changes have been made to data. Although the changes are always viewable from the original compound/waste etc. this allows you to see an overview of what has been done during a period or by a particular user. This is also the only way of seeing data that has been deleted (as the original is no longer there), and can be used just to show deleted data by ticking the Only show deleted data box.

The **Limits exceeded** report shows all the occasions when the limits have been approached or exceeded. You can list both site and/or department limits, and select whether approaches are displayed or just exceeds. Try selecting Site and department and ticking the Show approaches box to display all the issues caused earlier.

The **Stock summary** report gives us a total activity for each isotope during a given period. This is the maximum that was being held at any given time. If you select a whole year, the summary will be divided into months.

The **Disposal summary** report gives us a total activity disposed for each isotope by the selected route during a given period. Selecting Via sewage water will show the disposals that we made earlier

The **Detailed disposal** report shows us all the disposals allocated to a particular disposal limit. Where the Disposal : limits check gives a summary for each limit, this report shows the actual transactions. Try selecting department Research Red and Sewage water 32P+33P

### Searching for Compounds

On the **Compound Details** screen there are a number of options for finding compounds. Start by selecting **Show a list of compounds** from the side menu.

The two selection boxes allow you to select firstly by age, and secondly by area/user/name.

Try selecting **Owned by my department** from the second box. You will see that this shows all the compounds owned by Research Ref.

Try clicking on the column headings that have an arrow to change the order.

Try selecting **Compound name or code** from the second box, and entering UTP. You will see that this shows all the compounds with UTP in the name or catalogue code.

You can print this list in the order shown by selecting **Print this** from the side menu.

Try selecting **In Location** from the second box and selecting **Red room, store 1**. This will show all compounds in the location, including those we have worked on this morning. Untick the **Include sub samples** box and you will see that only the original stocks are shown. Tick it again to show all compounds.

From the first selection box, choose **Totally disposed of**. This will display all the compounds that have been totally disposed of that were in the Red room, store 1. Try double clicking the 03/0004 compound to display it's details.

You will see all the transactions made against it, including all the transactions made against the sub samples displayed in grey. Untick the **Show transactions for sub-samples in grey**, and only the top level transactions will be displayed.

### Personal Settings

The **Personal Settings** option on the **Setup** menu allows you to set some of the defaults to use when displaying lists. These are stored per user and are used whenever you log in to IsoStock. There are options for what to display in each area of the system as well as what order to list it in. There are also options for your preferred units.

## Combining compounds

The Combine function allows the user to take two (or more) compounds containing the same isotope and combine them to create a new compound.

On the **Compound Details** screen find our compound 03/0111A and select **Combine Compounds** from the side menu. Our compound will be displayed in red awaiting further information about how much is being used. Highlight it and select **Edit quantities**. Enter 15ul

Click on **Add another compound** to add the second compound (and third etc). For example add 1 vial of compound 03/0111B.

We can then enter the details of the new compound. The following diagram shows an example of a combine.

Ref	Owner	Compound name	Activity
03/0111A	REDMOND, Richard	Sample training compound	0.3555 MBq
03/0111B	REDMOND, Richard	Diluted Sample training compound	0.2370 MBq

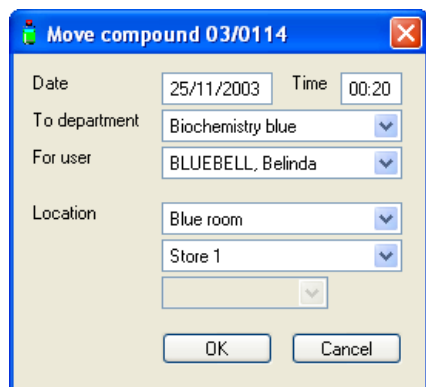
On confirmation our new compound is automatically allocated a reference code. In this case 03/0114

Selecting **Find Parent** from the side menu will now give 2 options, one for each of the parent compounds.

## Move compound

The **move compound** options can be used to move the compound in it's entirety to a new user, department or location.

We can move our newly combined compound to Biochemistry by finding it and then selecting **Move Compound** from the side menu. The following diagrams show a sample transaction.



The screenshot shows a dialog box titled "Move compound 03/0114". It contains the following fields and options:

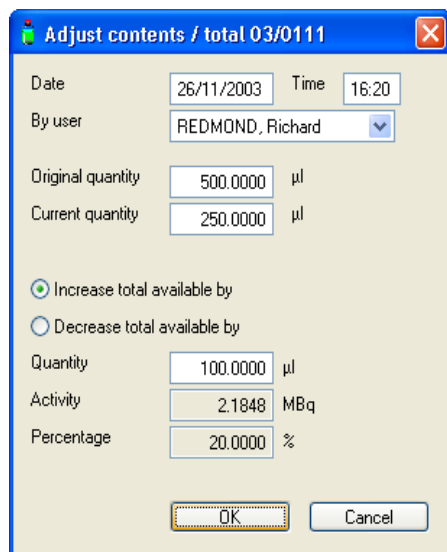
- Date: 25/11/2003
- Time: 00:20
- To department: Biochemistry blue (dropdown)
- For user: BLUEBELL, Belinda (dropdown)
- Location: Blue room (dropdown)
- Store 1: Store 1 (dropdown)
- Buttons: OK, Cancel

On confirmation the transaction will be added along with an automatic transaction to show the original location / owner. The base information will be updated to show the new owner.

### Adjusting contents

Compounds are often supplied in a slightly greater quantity than ordered. Obviously this can cause problems with the record keeping where the system says there is nothing left when in reality some remains. Although this problem could be overcome by editing the original quantities, the best way to deal with it is to use the **Adjust contents** option.

For example, our original 03/0111 was supplied as 500ul. Now we have discovered that we have 100ul more than expected. We would select **Adjust contents** from the side menu. Click **Increase total** and enter 100ul. The following diagram shows a sample transaction.



The screenshot shows a dialog box titled "Adjust contents / total 03/0111". It contains the following fields and options:

- Date: 26/11/2003
- Time: 16:20
- By user: REDMOND, Richard (dropdown)
- Original quantity: 500.0000  $\mu$ l
- Current quantity: 250.0000  $\mu$ l
- Radio buttons:  Increase total available by,  Decrease total available by
- Quantity: 100.0000  $\mu$ l
- Activity: 2.1848 MBq
- Percentage: 20.0000 %
- Buttons: OK, Cancel

On confirmation a transaction is added to the compound, however on this occasion it is a negative amount. This is to ensure that the total of all the transactions add up to the original received.



## Requesting from / dispensing to other departments

There will be occasions when you would like to have some of a compound owned by another department. Depending on security access it is unlikely that you will be able to dispense outside of your own department. The **Request against compound** option allows you to place a request for a compound belonging to another department and subsequently they can dispense directly against it. This differs to the Move options as the department remains the owner of the compound and a new sub-sample is created with a unique reference code for the receiving department.

The diagram below shows a request against our compound 03/0111

				of remaining
Date	26/11/2003	Time	16:24	
For department	Research red	Quantity	50.0000 µl	350.0000
For user	SCARLETT, Sarah	Activity	1.0923 MBq	7.6458
Protocol / licence	P1	Percentage	10.0000 %	70.0000
Project	PROJ4	Rad Conc	0.0218 MBq/µl	All
Location	Red room	Spec Act	0.0000	
	Store 2			

On confirmation, although a transaction has been added, notice that the quantity does not affect the totals

To dispense the request, highlight it and select **Dispense this request** from the side menu. Notice that the information is taken from the request.

## Other waste handling options

There are other options on the **Department Waste** screen in addition to sealing waste and requesting collection.

As mentioned earlier, we can edit all transactions recorded in IsoStock. This would include a disposal to a waste container. There are two ways of editing the disposal. We could find the compound, then find the disposal, highlight it, click **Edit transaction** and make our changes.

Alternatively, you can highlight the waste container and select **Edit / view contents**. This will display a list of all the disposals made into the container. Highlight the disposal that you wish to edit and click **Edit waste**.

The **View graph** option allows you to graph the decay of the highlighted container. This can be done over a month, year or 10 years.

The **Edit waste details** options allows you to change some of the base information about a container. This is useful if the container was created during a compound disposal and the date was entered incorrectly – a disposal cannot be made to a bag before the date it was created. The creation date could be adjusted using this option.

There are two print options from the waste screen. The first prints the current list of waste in the selected order, the second will print the details of the highlighted container.

Although containers can be created “on the fly” using the **Dispose** option on the **Compound Details** screen, we can pre-create them using the **Create waste container** option. The following diagram shows a sample container.

The screenshot shows a 'Waste detail' dialog box with the following fields and values:

- Type: Scintillation bin
- Created by: REDMOND, Richard
- Date: 26/11/2003
- Time: 16:46
- Reference: (empty)
- This bag contains further hazards
- Notes: (empty)
- Contains:  multiple isotopes, 14C - Carbon 14
- Can be used: by department
- Kept in: Research red
- Kept in: Pink room

On confirmation the container is automatically allocated a unique reference code. In the case 173/14C/SB.

## Sealed sources

As well as our open sources, IsoStock can also record the details of all sealed sources. This is done using the **Sealed Sources** option on the **Compounds** menu.

Sources can be added by selecting **Add a new source** from the side menu. The following diagram shows an example of a source.

On confirmation our new source is automatically allocated a reference code. In this case S-0001

We can move sealed sources by selecting **Move this source** from the side menu. The following diagram shows an example transaction.

On confirmation our movement is added as a transaction against the source.

When entering our source we were able to specify how often the source needs leak testing and also how often the location should be checked. IsoStock will indicate that something needs to be done by highlighting the source in red. We can then record the details.

We can record that a leak test has been carried out by selecting **Perform leak test** from the side menu. We can record that the location has been checked by selecting **Check source location** from the side menu. Both will add new transactions to the source, shown at the bottom of the screen

## Standard Request

Standard requests can be used when a compound is ordered regularly, and especially when it is ordered by the same department/user. The details can be recorded as a standard request and then recalled when entering new requests to save typing and selecting information.

To save a new standard request we select **Standard Request** from the **Requests** menu and then select **Create new request** from the side menu. The following diagram shows an example.

Department	Research red	Catalogue code	STAND
Requested by	REDMOND, Richard	Supplier	Amersham Pharmacia
Project		Compound	Standard 14C Compound
Protocol / licence	P1	Isotope	14C - Carbon 14
		Cost	0.00
Activity	10.0000	MBq	
Quantity	10.0000	mg	
Concentration	1.0000	MBq/mg	
Spec act	0.0000		

If we return to the **Requests** screen we can use this as the starting point when create a new request by selecting **Create from Standard Request** from the side menu. Notice that the details are automatically filled in for us.

We can also create a **Standard Request** from a request that we have entered by selecting **Make this a standard request**.

## Locations

All compounds have to be allocated to a location. Although the base locations (which may be rooms or labs) are maintained by the Supervisor, you are able to add stores (fridges, freezers, cupboards) to your locations. This can be done by selecting **Locations** from the **Setup** menu.

Note that the locations and stores are a very important requirement of the software, and are the basis of structuring data, so it is important that care is taken when making alterations.

## Default Compounds

IsoStock can help users who use common compounds enter data by defaulting some of the information for them. This is done using the **Compounds** option on the **Setup** menu.

The key information here is the catalogue code, and is used to find the compound, supplier, isotope and other information. Find our sample compound that we originally used in the request and see the data that is recorded by selecting **Edit this compound** from the side menu.

You can enter as many compounds as necessary in this list, but bear in mind that the more compounds it contains, the less usable the pull down compound selection (on requests/receive etc.) becomes.

### **Passwords**

A passwords is required when logging into IsoStock. If you wish to change your password you can do so by selecting **Change Password** from the **Setup** menu. You will have to enter your current password, along with the new password required. Passwords are not case sensitive. If you forget your password the supervisor can allocate you a new one.