# Abnormal Activity Monitoring

A CU\*BASE® Due Diligence Tool for Monitoring High Risk Activity among Your Membership

Currently being updated. Refer to online help for the most recent information on CU\*BASE Abnormal Activity Monitoring.

#### INTRODUCTION

In response to growing trends of both elder abuse and online banking fraud, the FFIEC and CFPB are now urging credit unions to keep a closer eye on abnormal and high risk activity among members.

The Abnormal Activity Monitoring tool is one answer to this recommendation. This new tool helps your staff do their due diligence when it comes to fraud and monitoring special situations by automatically sifting through member transactions to find those that are abnormal or high risk according to the parameters set by your credit union. Read more to find out how to start using this powerful new tool.

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# CONFIGURING MEMBER GROUP ABNORMAL ACTIVITY SETTINGS

#### **BEFORE YOU BEGIN**

Before you can begin your due diligence and monitoring abnormal activity for a specific group of members (member group), you'll first need to:

- Decide which types of members (Member Designations) you'd like to watch more closely (business owners vs. individuals, etc.)
- Decide which types of transactions (Origins) you'd like to monitor for your member group (ATM, credit, etc.); it's recommended to set up the same Origin groups for each member group that you create. The Origin Codes that follow are ones that you'd most likely want to monitor for abnormal activity:

Origin Code	Description	Notes	
01	Teller Processing	Activity posted in your lobby by tellers	
02	Share Draft from Bank Process	This includes all checks posted to member accounts via daily share draft processing, including member checks processed via It's Me 247 Bill Pay (Fiserv) and via It's Me 247 Bill Pay (Payveris)	
03	Loan Department Processing  Monitored primarily to watch for signs of "layering" – a member making higher-tha normal payments on a LOC for the purpo- later wire transferring large sums out of the account		
09	Wire transfers	Includes wire transfers.	
11	ACH Network Processing	ACH activity, including debits for online bill payments that are processed via <b>It's Me 247</b> Bill Pay (Fiserv)	
13	ATM Network Processing	These Origin codes are generally monitored	
16	Debit Card Processing	together since ATM and debit card transactions are so similar.	
20	Bill Pay Processing	Includes bill payment activity for It's Me 247 Bill Pay (iPay) ONLY	
22	Credit Card Processing	Activity for CU*BASE online credit cards only	
96	Audio Response Processing	Includes both CU*Talk Audio Response and It's Me 247 Online Banking transaction activity	

• Define the ranges (number of transactions and dollar amount) of a month's worth of transaction activity that you would consider normal, abnormal, and high risk for the group (see Page 11).

When considering transaction numbers for a normal range, keep in mind that the Combined Transaction Amount fields count all debits and credits together. For example, a credit of \$100 and a debit of \$100 will equal two transactions and \$200 of money moved.

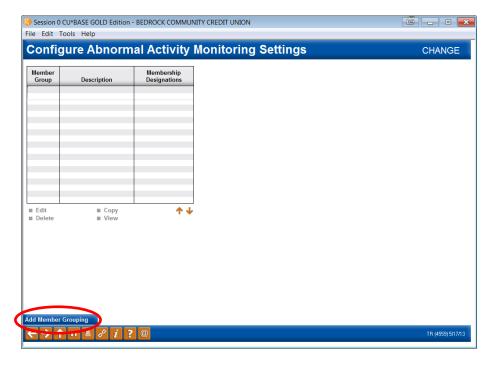
Also keep in mind that different membership types will have different amounts. For example, organizational accounts might typically deposit significantly more checks than individual members do, the norms for organizations must be set up differently.

• Regularly use the Abnormal Activity Monitoring inquiry tool to monitor each member group you've configured. See Page 14.

#### **SETTING UP MEMBER GROUPS**

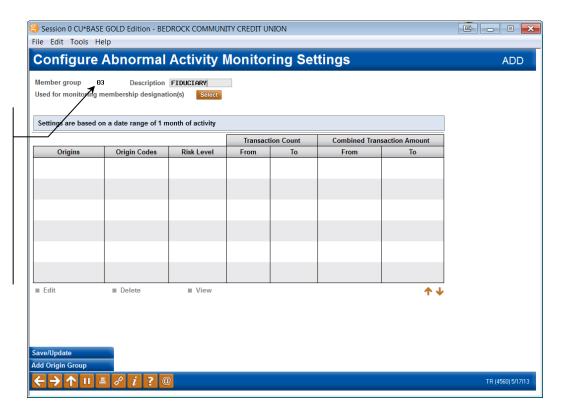
To set up member groups, follow the directions below.

- 1. Access Tool #101 Abnormal Activity Monitoring Config.
- 2. Select Add Mbr Grouping (F6).



3. In the *Description* field, enter the name you'd like to give this group.

For example, if you'd like to monitor memberships that have a fiduciary obligation such as members who are managing an account for someone who is elderly, disabled, or a minor, then you might enter a description of "Fiduciary."



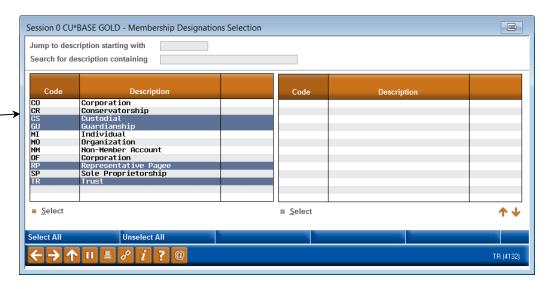
This number is automatically assigned by CU\*BASE and represents the number of member groups set up for your credit union. Using the "Fiduciary" example, the "Fiduciary" group is the first group to be set up by this credit union. If a member group is deleted, CU\*BASE will reuse the old number, and the next member group created will be assigned that old number.

- 4. Click the *Select* button next to the *Used for monitoring membership designation(s)* field.
- 5. Under the Description heading, click the membership types (Membership Designation Codes) you'd like to monitor. To select more than one code, simply hold the Control key and click your other selections.

The groups should be set up to include membership designations that have similar patterns of activity. For example, you wouldn't want to put in one member group organizational and individual accounts, because the transaction numbers for organizational accounts will typically be much higher than those for individual accounts.

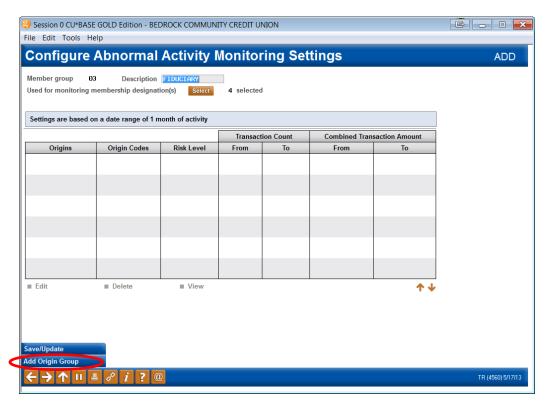
In order to be as efficient as possible when monitoring members, it's best to avoid including the same Membership Designation Code in more than one group, because that would cause you to monitor the same member more than once.

As an example, if you'd like to monitor fiduciary accounts, then you may want to select all those types of accounts for which account holders have a fiduciary responsibility. (Note: The Membership Designation Codes shown to the right are just examples. Your credit union will need to configure your codes.)

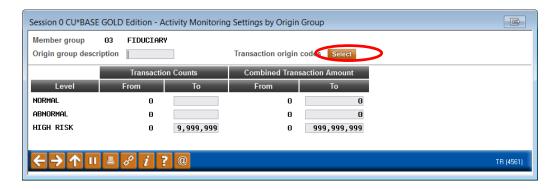


- 6. Use Select.
- 7. Select *Add Origin Group* (F6) in order to select the Origin (transaction type) you'd like to monitor for your new group.

For more information on Origin groups, see Page 3.

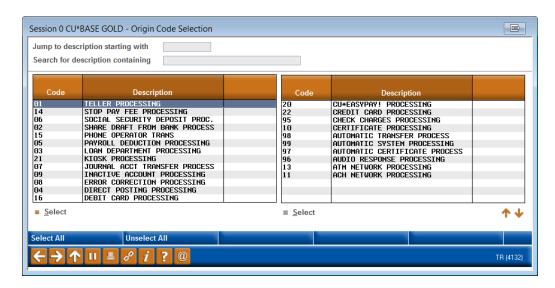


8. Use the Select button next to the Transaction Origin codes field.

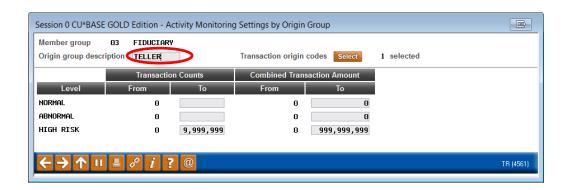


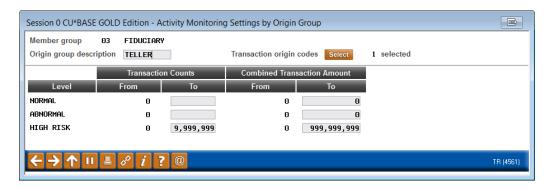
9. Select the Origin (transaction type) you'd like to monitor.

It's recommended that you set up the same Origin groups for each member group that you create. See Page 3 for a list of recommended Origin groups to monitor.



- 10. Use Select.
- 11. In the *Origin group description* field, enter a description for your Origin group. This can be the same as the Origin Code itself, or whatever label helps you remember the category of transactions being monitored (like "Lobby" for your teller-line activity).

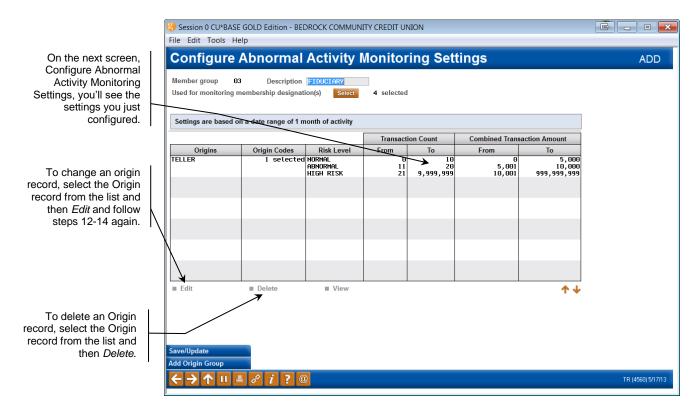




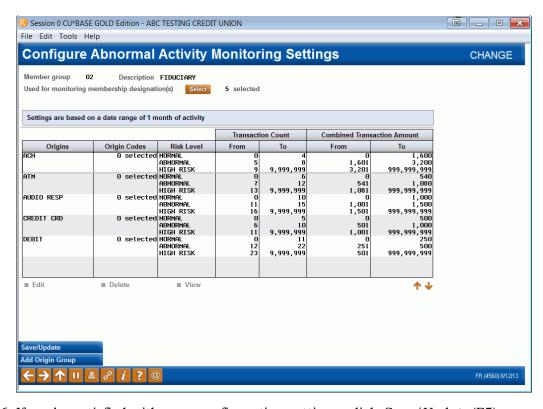
12. In the *To* fields under the *Transaction Counts* heading, enter the highest number of transactions that your credit union considers to be normal, abnormal, and high-risk.

The Transaction Counts For information on figuring out your ranges, see Page 11. fields count all transactions across all sub-accounts. Session CU\*BASE GOLD Edition - Activity Monitoring Settings by Origin Group FIDUCIARY Origin group description TELLER Transaction origin codes Select 1 selected If you have found that 0 to 10 Teller transactions Combined Transaction Amount per month is normal for your members who hold NORMAL 10 5,000 fiduciary accounts, then ABNORMAL 10,000 20 you'd enter 10 in the To HIGH RISK 0 9,999,999 999,999,999 field under the **Transaction Counts** heading. The From fields will update accordingly once 13. In the To fields under the Combined Transaction Amount heading, enter you use Enter to save the highest dollar amount of transactions that your credit union considers your changes. to be normal, abnormal, and high-risk for the type of membership(s) and transaction(s) you're planning to monitor.

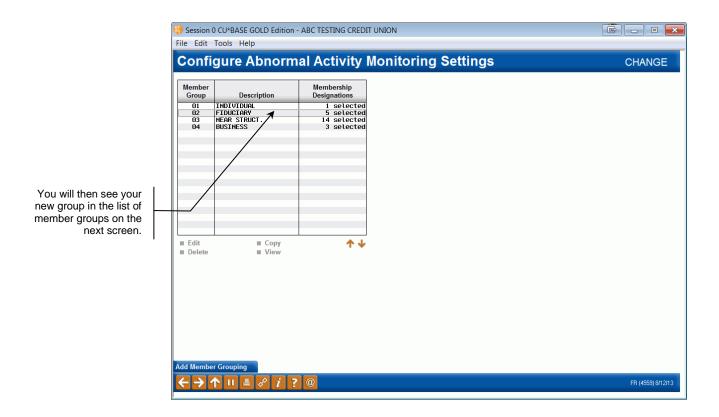
14. Use Enter to save your changes.



15. Add the rest of your Origin groups by again selecting *Add Origin Group* (F6).



16. If you're satisfied with your configuration settings, click Save/Update (F5).



# DETERMINING ACCURATE TRANSACTION RANGES FOR MEMBER GROUP ANALYSIS

For assistance in figuring out your transaction ranges for what your credit union considers "normal," "abnormal," and "high-risk," activity patterns, use the option below.

When considering transaction numbers for a normal range, keep in mind that the Combined Transaction Amount fields count all debits and credits together. For example, a credit of \$100 and a debit of \$100 will equal two transactions and \$200 of money moved.

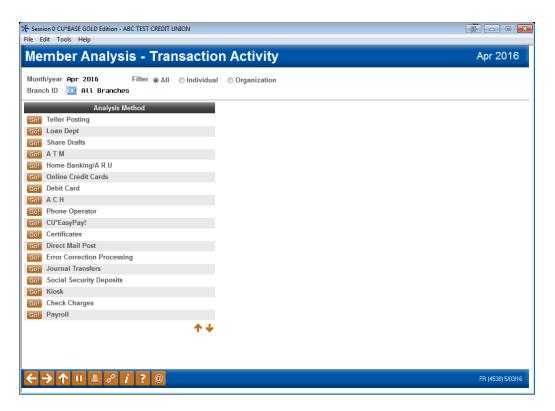
Also keep in mind that different membership types will have different amounts. For example, organizational accounts might typically deposit significantly more checks than individual members do, the norms for organizations must be set up differently.

Figuring out your ranges may require multiple adjustments after you begin using the monitoring tool since, as you learn more about how many "hits" you get, you may need to either narrow down the list some more or expand it to catch a broader range of activity.

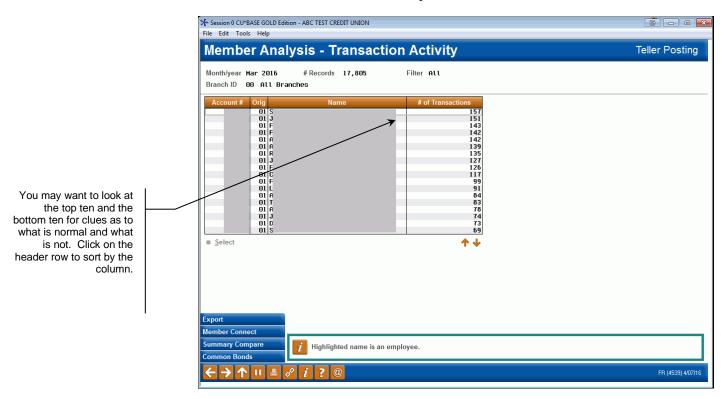
#### **SAMPLING/COMPARISON DASHBOARD**

The most useful tool you'll find in helping you figure out transaction ranges is the Transaction Activity Summary Compare sampling dashboard.

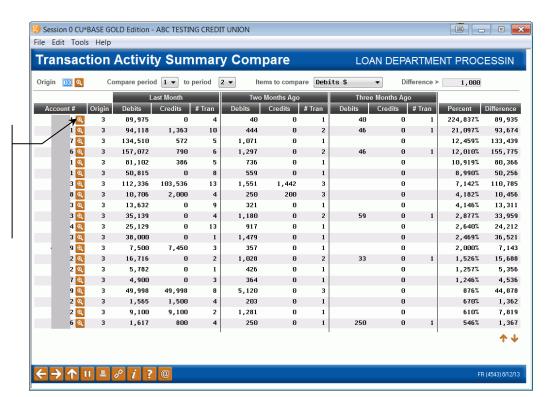
1. To access this dashboard, access **Tool #775** Sample Transactions by Delivery Channel.



2. Then click **Go!** next to an analysis method.



- 3. Click Summary Compare (F9).
- 4. You will then be brought to the Transaction Activity Summary Compare dashboard shown below.

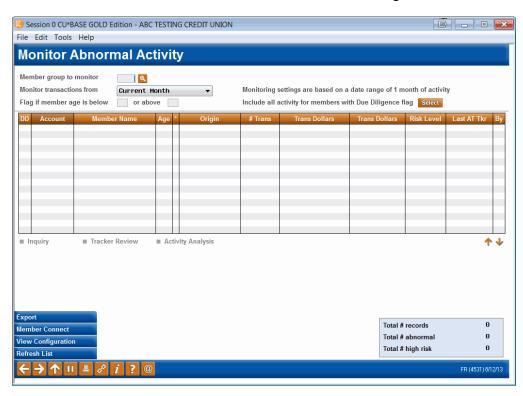


By clicking the lookup button next to an individual member's account number, you will be brought to the Current Month Activity Compare dashboard. See Page 31 for more information about this dashboard.

### **MONITORING ACTIVITY**

Need to perform your required due diligence on certain membership types such as large-volume or corporate accounts? Looking for high-risk behavior patterns among your membership? Do so quickly and easily using the Abnormal Activity Monitoring dashboard, which is explained below.

1. Go to Tool #537 Monitor Abnormal Transaction Activity.



2. Click the lookup button next to the *Member group to monitor* field.

#### **Monitoring Options**

- View Members with Certain Due Diligence Flag (See Page 18.)
- Flag Members in a Certain Age Range (See Page 20.)
- Export List of Members to Member Connect or Query (See Page 21.)
- Go to Inquiry Screen of a Specific Member on List (See Page 23.)
- Review Tracker Conversations of a Specific Member on List (See Page 23.)
- View Transaction Information for a Specific Member on List (See Page 25.)
- Print or View List in Report Format (See Page 26.)
- View Configuration Settings (See Page 28.)

3. Select the member group whose activity you'd like to monitor.

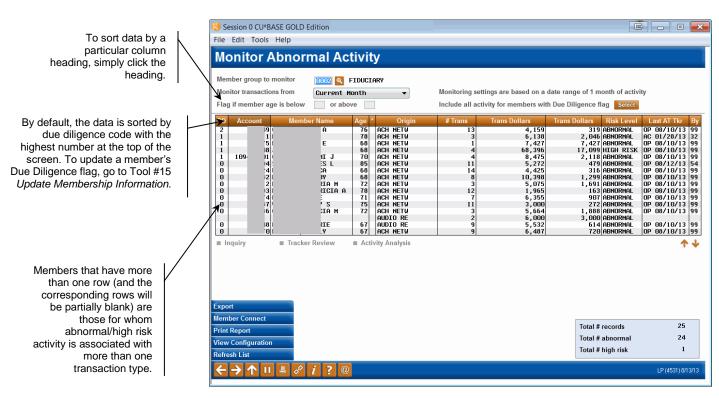


- 4. Click Select.
- 5. On this next screen, Monitor Abnormal Activity, you are now able to view transaction information (total transactions, total dollar amounts, and average dollar amounts) for the transaction(s) and membership type(s) configured for this member group.

For example, if you selected to monitor activity for the Fiduciary member group, then you will see on this next screen (shown below) all activity considered abnormal and high risk for this particular member group, which consists of Custodial, Guardianship, Representative Payee, and Trust membership types.

Keep in mind that you will only see the transaction types (Origins) that were configured for this member group, which are teller, share draft, loan, ACH, ATM/debit, EasyPay, credit card, and audio response transactions.

Member activity will appear on the dashboard as "abnormal" or "high risk" based on the member's transaction count and/or total transaction dollars. If a member's activity under any particular Origin group happens to fall within two different risk level ranges (i.e., the transaction count shows it as "abnormal" but the \$ amount makes it fall into the "high risk" range), the higher of the two levels will be shown.



#### **Field Descriptions**

Field Name	Description
Member group to monitor	Allows you to select a group (one only) to monitor
Monitor transaction from	Allows you to select the current month or up to three months prior for monitoring activity
Flag if member age is below/or above	Allows you to flag members of certain ages – helps in detecting elder abuse to see if someone is tampering with their finances
Include all activity for members with Due Diligence flag	Allows you to view all activity for only those members in your membership group with the Due Diligence Code you specify  For further details and an example of how this option works, see Page 18.
DD	Shows the member's Due Diligence flag status
Account	Show's the member's account number
Member Name	Shows the member's name
Age	Shows the member's age
*	Shows up next to the ages within the range you entered if you entered an age range in the Flag if member age is below/or above field
Origin	Shows the transaction type (Origin) being monitored for this member group, based on your configuration (see Page 3)

Field Name	Description
# Trans	Shows the total number of transactions the member made in the time period selected in the <i>Monitor transactions from</i> drop-down menu
Trans Dollars	Shows the total amount of all transactions the member made in the time period selected in the <i>Monitor transactions from</i> drop-down menu
Avg Trans Amount	Shows the average dollar amount of all transactions made in the time period selected in the Monitor transactions from drop-down menu
Risk Level	Shows the member's risk level according to the ranges that define what is considered normal, abnormal, and high risk activity
Last AT Tkr	Shows the Memo Type and date of the last Audit Tracker (AT) conversation note recorded for that member
Ву	Shows the Employee ID of the employee who entered the last Tracker for that member
Inquiry	Brings you to the Inquiry screen of the member you selected from the list (see Page 23)
Tracker Review	Brings you to the Tracker Review screen so you can view or enter new Tracker notes for that member
Activity Analysis	Brings you to a summary screen where you can view daily averages and monthly totals for transactions the member conducted over the current and past three months (see Page 30)
Total # records	Shows the total number of members on your list
	Keep in mind that if you select other Due Diligence codes, it will include those records in the total amount, so the <i>Total # records</i> field will not always equal the sum of the <i>Total # abnormal</i> and <i>Total # high risk</i> fields.)
	This field represents the number of records, not the number of members, a record being one Origin Code group where the summarized transaction count and/or \$ amount fell within a monitored range.
Total # abnormal	Shows the number of members whose transaction ranges are abnormal (either by total count or total dollar amount) according to the ranges configured
Total # high risk	Shows the number of members whose transaction ranges are high risk (either by total count or total dollar amount) according to the ranges configured

#### **Buttons**

Command Key	Description
Export (F9)	Allows you to generate a list (database file) of just those members listed on your dashboard so that you may use the list in conjunction with Member Connect for marketing purposes or Query for research purposes (see Page 21)

Command Key	Description
Member Connect (F10)	Brings you to the Member Connect entry screen so that you can enter your file name and communicate with the members listed in that file, if you've already generated a list/database file of the members listed on your dashboard (see Page 22)
Print Report (F14)	Allows you to print or view in your spool file a report showing all members listed on your Abnormal Activity dashboard (Note: The printed report automatically sorts by Due Diligence Code, the highest code being first. It will not display any sort settings you choose. It will, however, display the age-flag filter.)
View Configuration (F15)	Brings you to a screen where you can select a member group and view the configuration settings (what's considered normal, abnormal, and high risk) for that particular group
Refresh List (Enter)	Same as pressing Enter on your keyboard – good for if you select to flag an age range, after which you must press Enter or this Refresh List button in order to see an asterisk next to the ages in your range

#### **MONITORING OPTIONS**

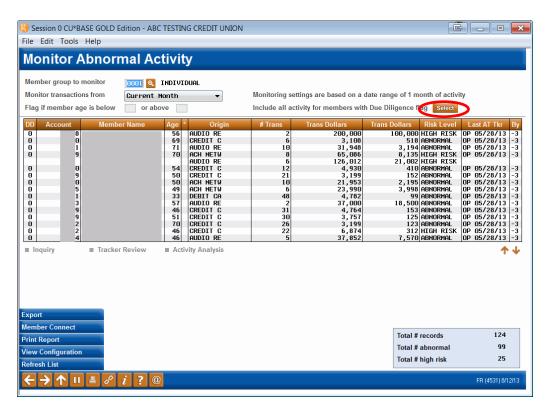
When monitoring abnormal activity among members, you have many options in terms of how to view and what to do with the information on the Abnormal Activity dashboard. These options are explained below.

#### **View Members with Certain Due Diligence Flag**

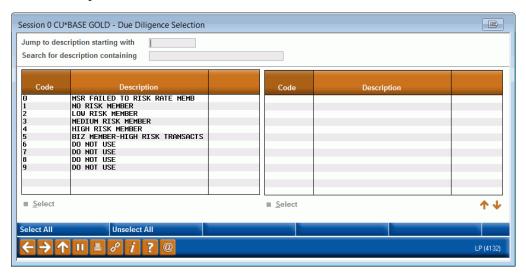
You can use this tool to monitor activity for memberships you've marked for special attention using the configurable Due Diligence flag. Because these members warrant special attention, you can use this feature to choose which ones to view, and the system will display just those members within the member group with the due diligence flag you select. Additionally, it will show all transaction activity for those members, even if the counts/dollar amount of transactions fell within your configured "normal" range.

To use this tool, follow the instructions below.

1. Click the Select button next to the field *Include all activity for members with Due Diligence flag.* 

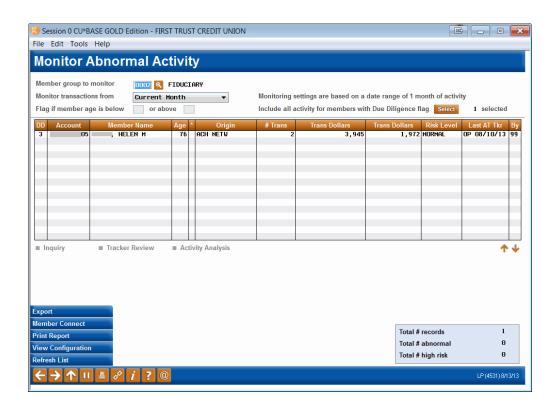


2. From the list of Due Diligence codes, click the code (risk level) you'd like included in your list of members.



Due Diligence Codes are configured by your credit union via **Tool #247 Configure Due Diligence Codes**.

- 3. Click Select.
- 4. Your list will then show only those members in the Fiduciary group who have a Due Diligence code of 4, and it will show all activity for these members, not just their abnormal and high risk activity.



#### Flag Members in a Certain Age Range

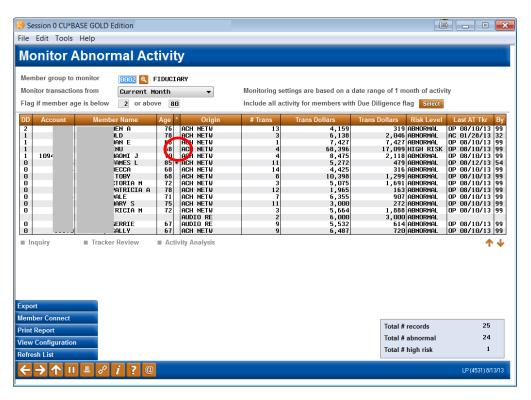
This age-flagging tool was developed to help you keep a special eye on members based on their age, such as minors or your older members.

1. To flag (put an asterisk next to) members in a certain age range, enter the age range in the field *Flag if member age is below/or above*.

Since there are certain age ranges more at risk than others, it's recommended to always flag those age ranges in all your member groups that you monitor.

2. Use Enter. Members in the age range you selected will have an asterisk next to their age.

TIP: Click the column heading to change the sort order so that the flagged members appear at the top of the list.



#### **Export List of Members to Member Connect or Query**

This option is the perfect marketing tool in that once you have identified a group of members that exhibit a certain pattern of behavior, you can communicate with that group about something they are likely to be interested in, based on their behavior patterns.

For example, you could promote your direct-deposit service to members who are depositing a lot of checks via the lobby.

To use this option, follow the instructions below.

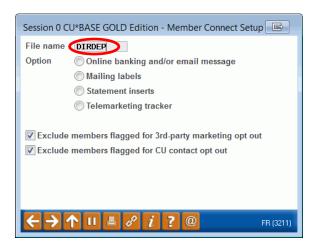
- 1. If you'd like to export the list of members to Member Connect or Query, click *Export* (F9).
- 2. Select the location to which you'd like to export the list: Member Connect or Query.



- 3. Use Enter.
- 4. Enter a name for the list in the File name field.

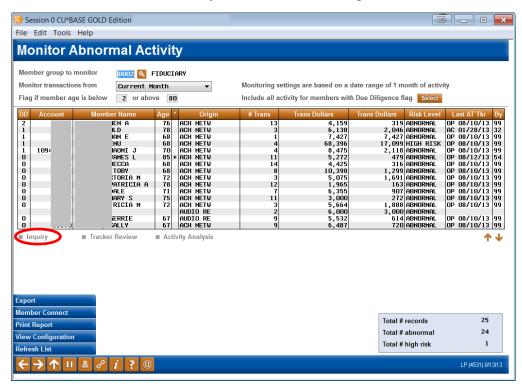
Session 0 CU\*BASE GOLD Edition - EXPORT WINDOW File name DIRDEP 👔 File will be stored in your credit union's QUERYxx library (where xx is your 2-character CUID). No spaces or special characters are allowed when entering the file name.

- 5. Use Enter.
- 6. If you had clicked Export (F9) to export your list to Member Connect and you had entered a name for your list, then you can click Member Connect (F10) and enter the list name to communicate with just this group of members.



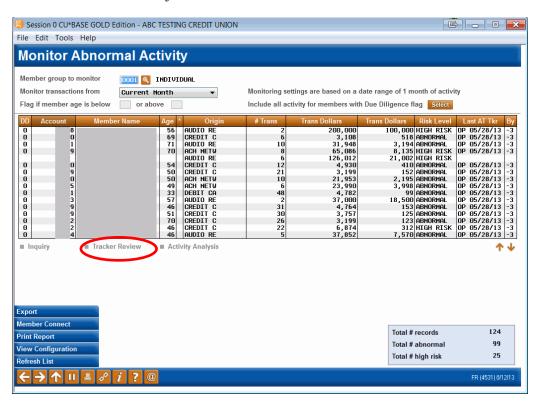
#### Go to Inquiry Screen of a Specific Member on List

This feature, accessible by clicking Inquiry, allows you to look at a member's actual transaction history, view other miscellaneous details about the member, etc. This is a very valuable feature, because it allows you to ascertain whether or not the activity you're seeing is actually typical for the member. Just because a member falls outside the configured norms doesn't mean that the member's activity isn't normal for that particular member.



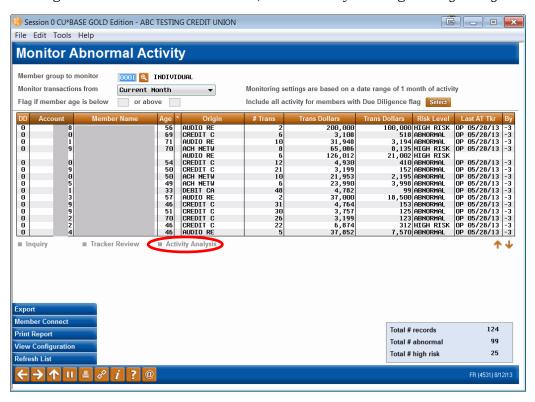
#### **Review Tracker Conversations of a Specific Member on List**

By clicking *Tracker Review*, you can create or review Tracker conversations for one of the members on your list.



#### **View Transaction Information for a Specific Member on List**

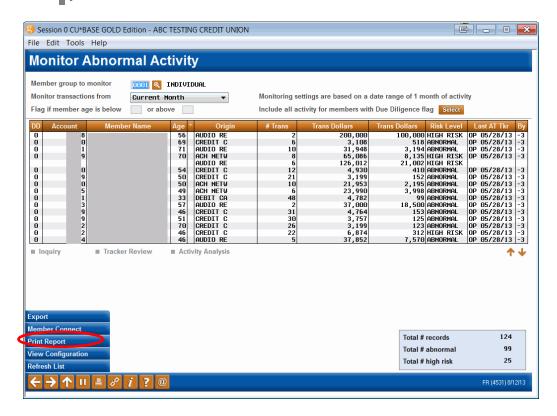
See Page 30 for details on this feature, accessible by clicking Activity Analysis.



#### **Print or View List in Report Format**

1. By using Print Report (F14), you can print or view the list in report format.

The printed report automatically sorts by Due Diligence Code, the highest code being first. It will not display any sort settings you choose. It will, however, display the age-flag filter.



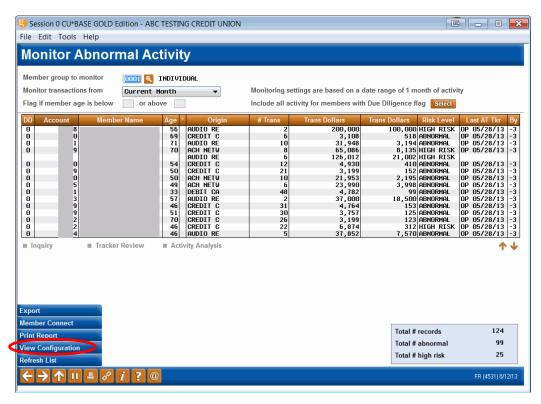
2. Select your printer and click Continue.

Your report will then display like the one below.

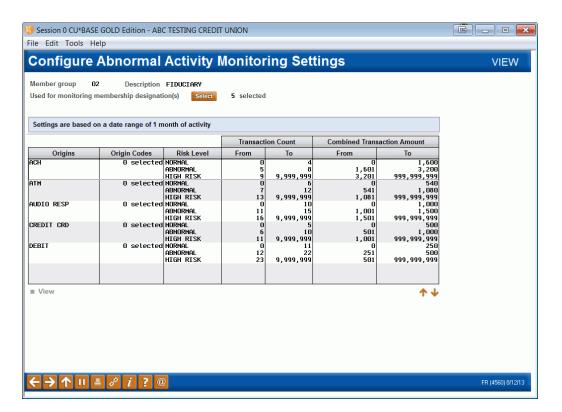
7/17/12 9:51:13 RUN ON 7/17/12			*BASE CREDIT UNION ACTIVITY MONITORING CURRENT MONTH	REPORT	I	MTAAI U	PAGE ISER SABRINAP	1
MEMBER GROUP: 1 FIDUCIARY								
DD ACCOUNT MEMBER NAME	AGE *	ORIGIN	# OF TRANS	TRANS \$	AVG TRANS \$	RISK LEVEL	LAST AT TKR	BY
4 1234 MEMBER, DARR	70	ACH NETW	7	2940	420	HIGH RISK	OP 07/12/12	00
4 12345 MEMBER, JOSEPH D	27	ATM NETW	17	716	42	HIGH RISK	OP 07/12/12	00
4 12345 MEMBER, KATHRYN	16	ATM NETW	6	482	80	ABNORMAL	OP 07/12/12	00
0 12345 MEMBER, N T	87	TELLER P ACH NETW CREDIT C	7 3 8	392208 30884 409	56029 10294 51	HIGH RISK HIGH RISK ABNORMAL	OP 07/12/12	00
0 12345 MEMBER, DENNIS C	59	DEBIT CA AUDIO RE	51 18	577 1542	11 85		OP 07/12/12	00
0 12345 MEMBER, IN	24	TELLER P	1	7390	7390	ABNORMAL	OP 07/12/12	0.0
0 12345 MEMBER, NORMAN	67	ACH NETW	24	1608	67	HIGH RISK	OP 07/12/12	00
0 12345 MEMBER, YVETTE M	44	AUDIO RE	6	1655	275	ABNORMAL	OP 07/12/12	0.0
0 12345 MEMBER, HARLEY D	17	ATM NETW DEBIT CA	6 6	454 104	75 17	ABNORMAL ABNORMAL	OP 07/12/12	00
0 12345 MEMBER, ABL	5	DEBIT CA	9	297	33	ABNORMAL	OP 07/12/12	00
***END OF REPORT***								

#### **VIEW CONFIGURATION SETTINGS**

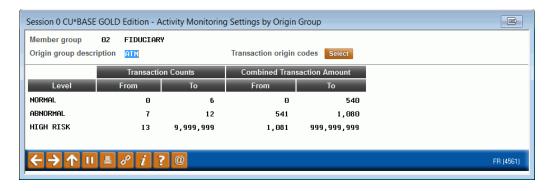
1. By clicking *View Configuration* (F15) you can view the configuration settings for the member group listed.



- 2. Click the member group whose configuration settings you'd like to view.
- 3. Click View.
- 4. Click the Origin type whose configuration settings you'd like to view.



5. You will then be able to view the configuration settings for the member group you had selected.

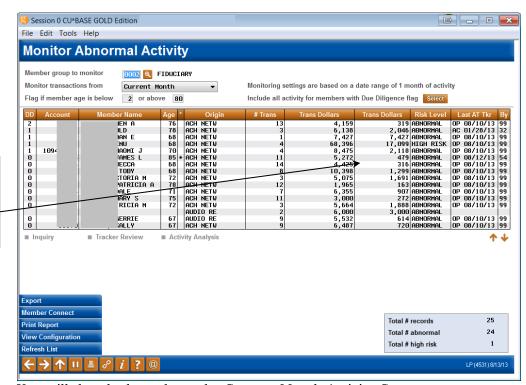


## **USING THE ACTIVITY ANALYSIS**

### **DASHBOARD**

The Activity Analysis Dashboard is a very valuable feature, because it allows you to ascertain whether or not the activity you're seeing is actually typical for the member. Just because a member falls outside the configured norms doesn't mean that the member's activity isn't normal for that particular member.

- 1. To access this dashboard, use **Tool #537 Monitor Abnormal Transaction Activity**.
- 2. Select your member group by clicking the lookup button next to the field, *Member group to monitor*, then by clicking the member group and then Select.
- 3. Select the name of the member for whom you'd like to view a summary and *Activity Analysis*.



Since the fourth line item represents transactions with a high risk level, you may want to view a summary of this member's transaction activity.

4. You will then be brought to the Current Month Activity Compare screen.

This screen can also be accessed via **Tool #775 Sample Transactions by Delivery Channel** or via the "Transaction Activity" button in Inquiry, Phone Op, or the Verify Member screen

5. On the Current Month Activity Compare screen, you will then be able to view a summary of the transaction activity for the member you selected and the cost of those transactions to your credit union. Keep in mind that

the transaction activity you will be able to view will be for all transaction types (Origins) you had configured when setting up your group.

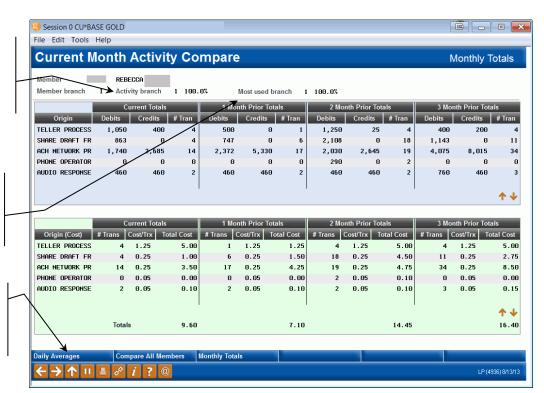
This screen is helpful in seeing the big picture of a member's activity in order to determine if that activity is truly "abnormal" for the member. For example, if the member's activity falls into the abnormal range, but you find in this screen that the member, for the past four months, has consistently conducted about that same number of transactions, then you may decide that, for this particular member, the activity is perfectly normal.

Keep in mind that since some members conduct most of their transactions at the beginning or end of the month, you may not get a clear picture of what is "normal" for the member by just viewing the first column, Current Totals. It's therefore wise to also analyze the other columns as well.

The Activity branch field displays the number of the branch where the member conducts the most transactions and the percentage of total transactions conducted at that branch.

The Most used branch field displays the number of the branch the member visits the most and the percentage of total transactions conducted at that branch.

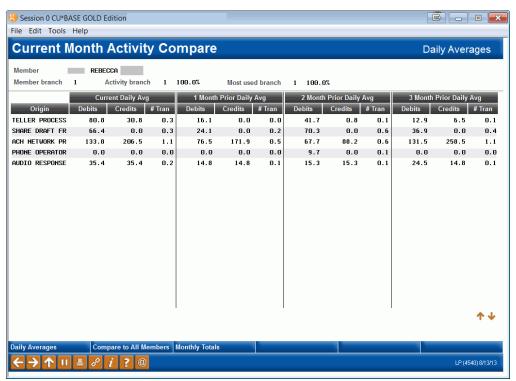
The default view shows you the current month's totals as well as totals for the prior three months, but you can also see Daily Averages by clicking Daily Averages (F4).



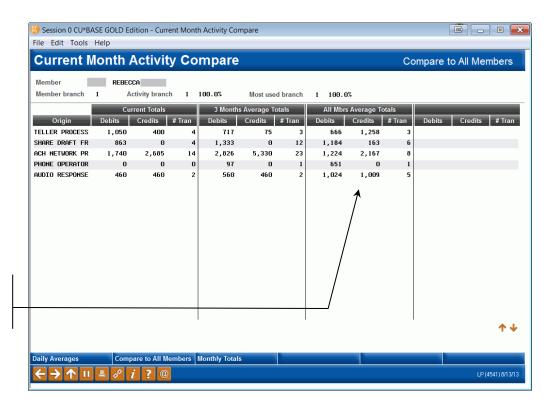
The top of this screen shows the activity for the selected member. The bottom shows the costs associated with those transaction types (Origins) that you configured via **Tool #246** *Configure Delivery Channels/Costs*.

To understand the difference between the "activity" and "most used" branch, take a look at the following example. If the member conducts ten transactions every Friday at branch 1, but conducts 1 transaction every day at branch 2, then branch 1 would be the "activity branch" and branch 2 would be the "most used branch."

6. To analyze how many transactions are "typical" on a daily basis, use *Daily Averages* (F4).



7. To compare the member's three-month average totals to the three-month average totals of all members, click *Compare All Mbrs* (F5).



The last column shows how the member's activity compares to that of all members for threemonth average totals.