Business Analyzer

AnalysisCalc.dnax
Extension ID: 2efc3178-cc94-4d73-acd8-1726422bfdd7

Overview:
The Analysis Calculator is designed for use as a sales tool for the Business Officer to demonstrate the advantages of banking at their Financial Institution and provide the client with scenarios for the Total Service Charges or Earnings Credits their analysis checking account may incur if the account is opened and maintained at the Financial Institution.

By entering counts of service items and balances, the Officer is able to model "what if" costs for the relationship by showing the client how adjustments to number of services provided and balances maintained will affect their overall banking needs costs.

Key Benefits:
The Analysis Calculator application provides the Financial Institution's Business Operations team with the ability to:

- Provide the User with a straightforward single-screen modeling calculator for walking through relationship services needed and potential costs/savings for prospective businesses.
- Utilize the Financial Institution's own products, current settings, and rate schedules.
- Allow the User to model service items and cost overrides without having to change any product settings.
- Has service line item waiver and override capabilities for each service item offered.
- Services modeled are taken from the product (so there are no conflicts between what the Financial Institution is prepared to offer/support and non-supported services).
- Display of service line item effect and contribution to the account's total required available balance.
- Ability to demonstrate how changes for each item or charge affects the required balance requirements instead of from all service items being lumped together.
- Functionality to account for non-standard analysis cycles (i.e. 90 days versus 30 days) for seasonal businesses.

Processing:
The Analysis Calculator application is designed for Financial Institutions to easily provide estimated calculations of the fees and charges associated with maintaining an analysis checking account at the Financial Institution.

The Calculator pulls product information directly from the products specified in the variables section, so the Officer is able to use the most current rates and per-item schedules available. If there is a multi-tiered rate schedule associated with an analysis item, the Calculator will initially display the first tier only, as it is expected with higher volumes the Officer will most likely utilize an override to help with pricing.

Note: The Calcul0ator excludes specific analysis transactions/calculation variables, which are mainly balance-based, such as Negative Average Collected Balance Adjustment, etc. This is because during new analysis client modelling, the Financial Institution will not have historical account information so the calculator is intended as a "what if" modeller, and doesn't look at scenarios where say 27 of 30 days in the cycle the balance will be

positive, 3 days negative, etc., as the prospective client will most likely not know those values. Below is a complete list of all the excluded analysis transactions:

Code	Description
NABA	Negative Average Balance Adjustment
PABA	Positive Average Balance Adjustment
TABA	Total Aggregate Balance Adjustment
UALB	Average Ledger Balance
URBA	Required Available Balance
VAAB	Actual Available Balance
VAAN	Average Negative Collected Balance
VAAP	Average Negative Collected Balance Service Charge
VAFA	Average Float Amount
VAPB	Average Positive Collected Balance
VLR	Less Legal Reserve at
WNAB	Net Available Balance
XERN	Earnings Credit
YPLP	Profit (Loss) for Period
YPXX	Account Analysis Service Charge Credit
ZBRO	Additional Balance Required To Offset Cost
ZSCA	Service Charge Assessed

Following institution level setup (see variables section), the Officer will be able to begin using the Calculator immediately by accessing the new Analysis Calculator screen from the standard Calculators menu.

When the screen is first accessed, the Officer will enter the name of the prospective Account Owner. The Officer will then select the product they will model in the calculator. Once the Officer selects a Product Name, the Analysis Item Table will display all the Analysis Items associated with the selected Product. The Officer will enter the approximate Average Collected Balance that the prospective client will maintain in their account. For the Earnings Credit Rate field, the default Earnings Credit Rate for the Financial Institution will prefill as the default value, and the User may enter a preferred rate based on the relationship with the prospective Account Owner. Based on these values, when the Officer tabs off of the Average Collected Balance field or the Earnings Credit Rate field the Less Reserve Rate Requirements, Investable Balance and Earning Credit fields will dynamically populate based on the system calculations.

The Officer will review with the prospective client which Analysis Items they will utilize and how many of the items are projected to be used in a cycle period. Based on estimated usage of service items, the Officer will enter the Service Count for each item. After the Service Count is entered for a row, the Service Charge field will update based on the Service Count and Cost Per Item. Based on the relationship the Officer has with the client and/or in an effort to provide a better cost, they may elect to give a preferred rate for a Service Item. This preferred rate can be entered in the Override Rate field of the Service Item. If this Override Rate is entered, it will be used in the calculator of the Service Charge instead of the standard product rate. Additionally, the Officer may elect to waive a Service Item entirely by selecting the Item Waiver checkbox. This negates the Service Item from being used in the Balance Required calculation.

After the Officer fills out the Service Item information, they will select the Calculate button. When the Calculate button is selected, the Balance Required field will display the Average Collected Balance needed to accommodate the Service Items charges estimated to be assessed. The totals section at the bottom of the screen will update based on the calculations and changes made within the above table providing the Officer with a completed Total Charge/Earnings amount.

Application Messages:
The following application messages are triggered:

Analysis Calculator Screen:

- If the User attempts to close the screen the user will be prompted with the following message: "Are you sure you want to clear all entries? (Yes or No Buttons)"

Analysis Calculator

Analysis Calculator

Account Owner	Bob's Fish Supplies		Account Officer	Joe Banker	
Product Name »	Commercial Checking Act			Average Collected Balance »	100,000.00
Earnings Credit Rate »	1.00000	Less Reserve Rate Requirements: 10,000.00	Investable Balance 90,000.00	Earnings Credit	73.97

Analysis Items

Analysis Item	Analysis Item Count	Cost Per Item	Override Rate	Service Charges	Item Waiver	Balance Required
Account Maintenance ...	1	15.00		15.00	☐	18,250.00
Automated Domestic ...	2	12.00				9.00
Automated Intn'l Wire D...		15.00				
Check Order		20.00				
NSF Svc Chg		32.00				
Positive Pay Flat Fee	3	5.00	2.00	6.00	☐	7,300.00
Positive Pay Mismatch ...		10.00			☐	
Stop Payment Svc Chg		25.00			☐	
Sweep Maintenance S...		15.00			☐	
UCF Svc Chg		10.00			☐	

⚠ Are you sure you want to clear all entries? [Yes] [No]

[Calculate] [Print Preview]

Analysis Totals

Total Services Provided	Total Service Charges	Total Service Charges Waived	Total Balance Required	Investable Balance	Total Charge/Earnings
3	21.00	24.00	25,550.00	90,000.00	52.97

- If the user enters a <null> value in the Average Collected Balance field and selects the Calculate button, a message should appear: "Average Collected Balance cannot

be null."

- If the user enters a zero value in the Average Collected Balance field and tabs off of the field or selects the calculate button, a message should appear: "Average Collected Balance must be greater than 0."

Analysis Calculator

Analysis Calculator

Account Owner	Bob's Fishing		Account Officer	Joe Banker	
Product Name »	Commercial Checking Act			Average Collected Balance »	0.00
Earnings Credit Rate »	1.00000	Less Reserve Rate Requirements	1,000.00	Investable Balance	9,000.00	Earnings Credit	7.40

Analysis Items

Analysis Item	Analysis Item Count	Cost Per Item	Override Rate	Service Charges	Item Waiver	Balance Required
Account Maintenance ...	1	15.00		15.00	☑	0.00
Automated Domestic ...	2	12.00	10.00		☐	
Automated Intn'l Wire D...		15.00				
Check Order	3	20.00				
NSF Svc Chg		32.00				
Positive Pay Flat Fee		5.00			☐	
Positive Pay Mismatch ...		10.00			☐	
Stop Payment Svc Chg		25.00			☐	
Sweep Maintenance S...		15.00			☐	
UCF Svc Chg	1	10.00		10.00	☐	12,166.67

❌ Average Collected Balance must be greater than 0.

OK

Calculate   Print Preview

Analysis Totals

Total Services Provided	Total Service Charges	Total Service Charges Waived	Total Balance Required	Investable Balance	Total Charge/Earnings
4	90.00	15.00	109,500.00	9,000.00	(82.60)

- If the user attempts to select a Product but the application does not find any active rate/tier of the analysis items or does not find analysis items of the selected product, a message should appear: "Analysis items were not found for this product".

- If the user enters a null value in the Earnings Credit Rate field and tabs off field a message should appear: "Earnings Credit Rate cannot be null".

Variables:

Variable	Code	Description	Data Type	Default

Variable	Code	Description	Data Type	Default
Minor Product Codes to Include	MPCI	User will enter any Minor Product Codes, separated values by comma, they want to include. If a null value is entered no products will be displayed. Note: Only Checking Products are eligible to be included.	STR	<null>
Reserve Rate	RSRT	The rate the Financial Institution uses to determine the portion of the account balance required to offset the reserved requirement.	RATE	10.00000
Earnings Credit Rate	ECRT	The rate used by the Financial Institution to determine the Earnings Credit amount on the Analysis Calculator screen.	RATE	1.00000
Interest Base	ITBS	Designation between using 365 or 366 (leap year) days for calculating interest.	NUM	365
Default Days in Month	DDIM	Number of days in month (cycle) when calculation is being performed	NUM	30
Disclosure Statement	ACDS	Financial Institution will enter their disclosure statement that will display on the bottom of the printed report.	STR	<null>

Variables

Selection Criteria

Calculation Type   [Analysis Calculator Settings ▼]   ☐ Show History

System Variables

Type Description	Variable	Value
Analysis Calculator Settings	Default Days in Month	30
	Disclosure Statement	This is a test message, this proposed printout is only valid for 1...
	Earnings Credit Rate	1.00000
	Interest Base	365
	Minor Product Codes ...	COMM,KWTS
	Reserve Rate	10.00000

☐ Auto Hide   Edit

Reports

A new online batch application (AnalysisCalc – Analysis Calculator) is used to print the information that has been entered and calculated on the Analysis Calculator screen.

The report will be displayed in the View Report windows as a PDF file which will pop up when the User clicks the Print Preview button and the online report finishes processing.

The report will include a user-configurable Disclosure Statement at the bottom of the report.

Below is an example of the report:

Field Listing:

Field Name	Field Name
Header Information	
Account Owner	Name of the prospective Account Owner.
Account Officer	Name of the Account Officer.
Product Name	The product the User choose to use for the calculations.
Average Collected Balance	The value entered will be used in calculations for this screen.
Earnings Credit Rate	Earnings Credit Rate used in the calculation.
Less Reserve Rate Requirements	The Required amount the institution must keep in

Field Name	Field Name
	reserves.
Investable Balance	The Investable Balance will equal Average Collected Balance – (Average Collected Balance * Reserve Rate (from Analysis Calculator Calculation Variable))
Earnings Credit	The Earnings Credit will equal Investable Balance * Earnings Credit Rate(from Analysis Calculator Calculation Variable) * (Default Days in Month/Interest Base
Body Information	
Analysis Item	Item that correlates with the chosen product type.
Analysis Item Count	The count of User has entered for the number of Analysis Items being used for the calculations.
Cost Per Item	The cost per analysis item will be the value entered for either the Flat Fee set through Product Maintenance, or the lowest tiered value entered in Product Maintenance.
Override Rate	This field may be filled in by the User. If this field has a null value, it will not affect the calculations. If the field is filled out, the amount entered will take the place of the Cost Per Item field in the calculations and provide an override rate for the service item.
Service Charges	The calculated charge based on the Analysis Item Count multiplied by the Cost per Item.
Item Waiver	Allows the User to choose if the item cost will be waived. If selected, the Analysis Item will not be used in any calculation and will be included in the Total Service Charges Waived field.
Balance Required	Displays the balance amount required for the selected service to be set to net out (cover service charge cost). When the calculate button is selected, this is calculated by taking the amount of the Service Charge/Default Days in Month * Interest Base * Earnings Credit Rate * 100) where the values are taken from the Analysis Calculator Calculation Variables. Example: $15.00 Service Charge / 30 days * 365 interest base * 1.00000 Earnings Credit Rate * 100 = $18,250.00 Balance Required to support the Service Charge.
Report Totals	
Total Services Provided	The number of Analysis Items used in the calculation.
Total Service Charges	The amount of service charges used in the calculator, not including the Analysis Items that have been waived.
Total Service Charges Waived	The total of all charges that have the Item Waiver checked for the given row.
Total Balance Required	Sum of the Balance Required column.
Investable Balance	Investable Balance = Average Collected Balance – (Average Collected Balance * Reserve Rate (from Analysis Calculator Calculation Variable))
Total Charge/Earnings	Earnings Credit – Total Service Charges

Field Name	Field Name
Disclosure Statement	Disclosure Statement the User has entered in the Calculation Variable will display on the bottom of the report.

Screens:

Navigation:

Services > Relationships Module > Calculators > Analysis Calculator

Screen Appearance:

Analysis Calculator screen (Default Screen)

Analysis Calculator screen (Populated with data)

Analysis Calculator

Account Owner	Bob's Market		Account Officer	Joe Banker	
Product Name »	Commercial Checking Act			Average Collected Balance »	10,000.00
Earnings Credit Rate »	1.00000	Less Reserve Rate Requirements 1,000.00	Investable Balance 9,000.00	Earnings Credit	7.40

Analysis Items

Analysis Item	Analysis Item Count	Cost Per Item	Override Rate	Service Charges	Item Waiver	Balance Required
Account Maintenance ...	1	15.00		15.00	☑	0.00
Automated Domestic ...		12.00			☐	
Automated Intn'l Wire D...		15.00			☐	
Check Order		20.00			☐	
NSF Svc Chg		32.00			☐	
Positive Pay Flat Fee	2	5.00	2.00	4.00	☐	4,866.67
Positive Pay Mismatch ...		10.00			☐	
Stop Payment Svc Chg		25.00			☐	
Sweep Maintenance S...		15.00			☐	
UCF Svc Chg	1	10.00		10.00	☐	12,166.67

[Calculate] [Print Preview]

Analysis Totals

Total Services Provided	Total Service Charges	Total Service Charges Waived	Total Balance Required	Investable Balance	Total Charge/Earnings
3	14.00	15.00	17,033.33	9,000.00	(6.60)

Field Listing:

Field Name	Field Description
Account Owner	Name of the prospective Account Owner.
Account Officer	User providing calculation to client will populate based on log in credentials of Officer (User who is signed into that workstation).
Product Name	The product the User is choosing to use for the calculations. All Minor Descriptions will dynamically display based on the values entered into Minor Product Codes to Include. When a Product is selected all Analysis Items associated to the Product will display in the Analysis Item Table.
Average Collected Balance	This is a User entered field. The value entered will be used in calculations for this screen, and the value must be greater than 0.
Earnings Credit Rate	This is an editable field, with the default value being the value entered in the Earnings Credit Rate Calculation Variable. The User can edit this value to an override rate based on the relationship with the prospective Account Owner.
Less Reserve Rate Requirements	The Required amount the institution must keep in reserves. Once the User "tabs" off Average Collected Balance field this field will dynamically populate based on the Average Collected Balance entered. Average Collected Balance * Reserve Rate (from Analysis Calculator Calculation Variable)
Investable Balance	Once the User "tabs" off Average Collected Balance field this

	field will dynamically populate based on the following calculation: Investable Balance = Average Collected Balance – (Average Collected Balance * Reserve Rate (from Analysis Calculator Calculation Variable))
Earnings Credit	Once the User "tabs" off Average Collected Balance field or Earnings Credit Rate field, this field will dynamically populate based on the following calculation: Investable Balance * Earnings Credit Rate(from Analysis Calculator Calculation Variable) * (Default Days in Month/Interest Base
Analysis Item	Item that correlates with the chosen product type. The Analysis Items will dynamically change based on the chosen Product Minor.
Analysis Item Count	User will enter the appropriate number of Analysis Items being used for the calculations.
Cost Per Item	The cost per analysis item will be the value entered for either the Flat Fee set through Product Maintenance, or the lowest tiered value entered in Product Maintenance.
Override Rate	This field will be filled in by the User. If this field has a null value, it will not affect the calculations. If the field is filled out, the amount entered will take the place of the Cost Per Item field in the calculations.
Service Charges	The calculated charge based on the Analysis Item Count multiplied by the Cost per Item.
Item Waiver	Allows the User to choose if the item cost will be waived. If selected, the Analysis Item will not be used in any calculation and will be included in the Total Service Charges Waived field.
Balance Required	Displays the balance amount required for the selected service to be waived. When the calculate button is selected. Service Charge (Default Days in Month/Interest Base * Earnings Credit Rate) (Values taken from Analysis Calculator Calculation Variable)
Total Services Provided	The number of Analysis Items used in the calculation.
Total Service Charges	The amount of Service Charges used in the calculator, not including the Analysis Items that have been waived.
Total Service Charges Waived	The total of all charges that have the Item Waiver checked for the given row.
Total Balance Required	Sum of the Balance Required column.
Investable Balance	Investable Balance = Average Collected Balance – (Average Collected Balance * Reserve Rate (from Analysis Calculator Calculation Variable))
Total Charge/Earnings	Earnings Credit – Total Service Charges
Calculate \<button\>	Will calculate the following fields: • Total Services Provided • Total Service Charges • Total Service Charges Waived • Total Balance Required

	• Investable Balance • Total Charge/Earnings • Balance Required (in Analysis Items Table)
Print Preview <button>	When selected, the online report will be executed and display on the screen.
Close <button>	When button is selected the screen will be exited.

Additional Requirements:
- DNA version 4.0 or above

Configuration Checklist:

Item	Test Environment	Production Environment
The new screen would need to be assigned to an Authorization Item and the User would need to have that associated to their authorizations in order to view the screen. The Authitem needed is CALC – Calculator.		
The Calculation Variable values for the Analysis Calculator Settings Calculation Type need to be set up		

Revisions

Date	App Version #	Change
11/2016	1.0.0.0	Application Created