

# BOSMAC – 04/21/04

## Introduction

[Please read before calling for help]

The Boston CPD office has developed two “Macro” files to assist you in analyzing your IDIS reports (.rpt files). The **first** file, **BOSMAC.XLS**, is an EXCEL file with six “Macros” that are designed to convert six IDIS *text file* Reports (downloaded from IDIS) to *data files* that can then be analyzed with EXCEL filters, pivot tables and other tools. The **second** Macro is a **WORD** file that allows you to select any available IDIS report (.rpt file) to format as a Word document (.doc file). The .doc file is automatically saved with a unique name. The Word Macro is supplied to assist you in examining individual activities and printing in a readable format. and in (Please see last page for further explanation).

Note that the MACROS do not download the IDIS reports. Downloads from IDIS must be done prior to use of MACROS.

Trying to analyze the downloaded IDIS text reports for a medium to large city without use of these MACROS is very labor-intensive and inefficient. For example, a typical PR03 report can vary from 280 to 2,800 pages and is not in a user-friendly format for a grantee or CPD rep looking for answers to questions such as:

1. (PR03)-How many Projects are not complete and are more than one year old?
2. (PR03)-How many and what are the open IDIS projects by year?
3. (PRXX)-What are the Admin/Planning activities.
4. (PR03)-Which projects have an LMA National Objective?
5. (PR03)-What are the job creation activities and how many jobs were created?
6. (PR03)-How many current year activities do not show accomplishment data?
7. (PR03)-What are the Public Service activities for the current year?
8. (PR07)-What are the drawdowns for a particular Fund, Period, or Activity?

To answer these kinds of questions using the text reports as initially downloaded from IDIS would require searching each page and marking the records that meet the search criteria. With the equivalent EXCEL database of the same report, (made possible with the MACROS), a user can simply apply a filter that immediately displays the data of interest.

The Macros can be executed (once the IDIS Report has been downloaded to either the “C:” or “G:” drive) through a simple “point and click” system. *After the IDIS Report has been downloaded* the user simply selects the desired report icon button with a mouse click and within a few seconds the output data file is displayed in EXCEL along with a Macro “message box” displaying the unique EXCEL file name that will be used to save the database along with any errors detected by the Macro. That is, if the MACRO correctly and completely imports the IDIS file, the MACRO will report “No Errors”. Note that this error detection is available for the PR03, PR07 and PR08 reports but not for the PR02 and PR06 or PR22 reports. The output remains on the screen as a “filtered” database with subtotals for all columns with numeric or financial data and is ready for use.

## General Operating Notes

**First**, a note about downloading reports. The instructions for downloading can be found at: [http://www.hud.gov/offices/cpd/systems/idis/library/refmanual/ref\\_man\\_12.pdf](http://www.hud.gov/offices/cpd/systems/idis/library/refmanual/ref_man_12.pdf)

It is important to understand that **every** like-report downloaded from IDIS is given the **identical name – regardless of grantee name etc.** For example, the complete name of **all** downloaded PR03 type reports is *sumactvt.rpt* ; **all** downloaded PR08 type reports are named *grtsum.rpt*, and so on. *They are distinguished in no other way.* This means that once a particular report, say, for example, the PR03 for city X, is downloaded, downloading another PR03 report - for another city or for that matter the SAME city – will **replace** the first PR03 for city X. That is, the second download of the *same type* report will always replace the first no matter what the time difference in the downloads.

### FILE TYPES

DOWNLOADED IDIS FILE	BOSMAC CONVERTED FILE	WORD CONVERTED FILE
. rpt (IDIS file)	. xls (EXCEL file)	. doc (WORD file)

You may however download - at any one time - any number (limited only by the number of reports appearing on a *single* screen) of *different type* reports, e.g., PR03, PR02, PR06, etc. without one replacing or affecting another because they each have a unique name. [Again, you may only select for downloading as many reports as appear on a single IDIS screen. In other words, you cannot, for example, select two (2) reports for downloading - one from one IDIS screen and another from a different IDIS screen. But you can select up to 10 reports for downloading from the same IDIS screen.]

- **All Versions of BOSMAC dated 8/11/03 and later will use one of the directories listed below as the source/destination of all input IDIS Reports and BOSMAC output files.**

### SEARCH RULES TABLE

	IDIS REPORTS DIRECTORY	BOSMAC USER
(1)	C:\IDISDATA\IDISDATA <b>or</b> G:\IDISDATA\IDISDATA	For HUD Staff with Windows XP
(2)	C:\IDISDATA	For all HUD Grantees and HUD Staff <b>not</b> XP

**NOTE FOR HUD STAFF:** You should place the new XP batch download files on your **C:** drive into a directory called **C:\IDISDATA**. You must then create a subordinate directory called **C:\IDISDATA\IDISDATA** into which the batch file will download the IDIS report (.rpt file). For those users who prefer to use the **G:** drive the batch files should be place in a directory called **G:\IDISDATA**, and **G:\IDISDATA\IDISDATA** for the download directory. **You must create either C:\IDISDATA\IDISDATA or the G:\IDISDATA\IDISDATA. Do not create both!**

**Second**, once BOSMAC has converted a downloaded report, that output (the text-converted-to-data file) is given a **unique name** and is **immune from further IDIS downloads**. That output file can then be opened *without* BOSMAC using only EXCEL. The file can be moved to any directory and opened with EXCEL for analysis. BOSMAC is no longer needed to analyze the

report – unless you want to use the automatic filters (Control-M), which are only available through BOSMAC. (To use “Control-M” (automatic filters) you must *recreate* the output file with BOSMAC and use BOSMAC to use the Control M feature.)

Ideally, each downloaded IDIS Report should be converted by BOSMAC *and* the WORD macro. That way the downloaded file will be available on your desktop - as *two* converted files– one data file for EXCEL and the other a text doc. file for WORD - for analysis.

## OPERATION OF BOSMAC

The downloaded IDIS report is read and converted to a tab-delimited text file that is input directly into EXCEL, tested for accuracy then formatted and renamed with a unique EXCEL file name based on the City name, report year and date of report. The main points to keep in mind:

- Even though the input (IDIS) /output (EXCEL) files will be in the IDIS reports directory, **BOSMAC** may be placed in and run from *any* drive or directory.<sup>1</sup>
- The EXCEL Macro was created using Microsoft EXCEL 2000. We no longer support EXCEL 95. The WORD Macro will not execute with WORD95 but is OK with Word 97/2000.
- EXCEL must have “Macros enabled.” Click “enable macros”. If this does not work go to the EXCEL Menu, select “Tools-Macro-Security-Security and set Level=Medium”. EXCEL must then be restarted. This need be done only on the initial use of BOSMAC.
- The Macros require the input files to be the *unedited* IDIS report text file you originally downloaded. *If the original IDIS download file is altered in any way, e.g., renamed or edited, the Macro will not execute properly. That is, BOSMAC will only work on the unaltered downloaded file.*
- The file name for the output EXCEL file consists of the report date, the report period, and the City name contained in the IDIS report header. For example, a PR02 for Boston, MA taken on 3/18/03 for the period “All years” will be given the name “**Boston, MA.PR02.ALL.3-18-03.**” Note that if you take a second PR02 report on the same day and run the Macro, the Macro will replace the first file.

<b>DOWNLOADED IDIS FILE</b>	sumactvt. rpt ( <b>IDIS</b> file)
<b>BOSMAC CONVERTED FILE</b>	Boston, MA.PR02.ALL.3-18-03. xls ( <b>EXCEL</b> file)
<b>WORD CONVERTED FILE</b>	Boston, MA.PR02.ALL.3-18-03. doc ( <b>WORD</b> file)

- BOSMAC is dependent on the format of the downloaded individual IDIS reports. If the report data fields are altered or moved by Headquarters, BOSMAC will give unspecified/unreliable results. We will attempt to modify BOSMAC to deal with any such changes brought to our attention.

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<sup>1</sup> If you experience any difficulty try placing BOSMAC in the same directory as your downloaded .rpt file.

## **IDIS REPORTS CONVERTED BY BOSMAC**

### **IDIS Report/Macro PR02 –“LIST OF ACTIVITIES BY PROGRAM YEAR AND PROJECT”**

The PR02 MACRO produces a good financial database with every activity identified as CDBG, HOME, ESG or HOPWA. Some activities may have two or more funding sources. Each database record also has fields for project ID, project name, Activity#, Activity name, Funding source, Status and amounts funded and drawn.

When downloaded from IDIS the PR02 report is automatically placed in your IDIS Reports directory, (see SEARCH RULES TABLE above) as a file named “actvty.rpt.” The report is titled “List of Activities by Program Year and Project.” It contains all CDBG, HOME, ESG and HOPWA activities for the years you select. The PR02 MACRO formats the text file to display the Project ID and Name for all activities subordinate to that project. In addition, the PR02 MACRO copies the applicable Project ID to each activity line for activities that have multiple funding sources. (The original IDIS text file shows neither a project ID nor an activity number for multiple source funded activities.) .

The integrity of the PR02 output data file can be tested by comparing “filtered” data with Program Year Totals and Grantee Summary Totals included in the original actvty.rpt text file.

### **IDIS Report/ MACRO PR03 – “CDBG ACTIVITY SUMMARY REPORT (GPR)”**

The PR03 Macro extracts all fields from the PR03 IDIS report except for the *extended* narrative. The extracted fields include Project ID/Name, Activity#/Name, Address, Description, Status, Eligibility citation, IDIS Matrix Code, national objective, budget data, income categories, racial data, and Accomplishment Narrative. Since the racial data fields are numerous, those columns are hidden to allow for more efficient viewing of all other data. ***To view all hidden fields, highlight entire spreadsheet and select from menu - “Format-Columns-Unhide.”***

When downloaded from IDIS the PR03 report is automatically placed in your IDIS Reports directory (see SEARCH RULES TABLE above) as a file named “sumactvt.rpt.” The IDIS report title is “CDBG Activity Summary Report (GPR).” The report contains CDBG information describing all IDIS activities that were open in a selected annual reporting period. This is a comprehensive CDBG-only report that has detailed information for each project/activity. The IDIS text report (from the WORD macro) presents the data for each activity in an excellent format for reading but not for data analysis of the entire report.

The original IDIS report also has a summary total of all activity budget fields on the last page of the report. These totals are copied to the end of the database as a reference for the user. The Macro verifies that these report totals are equal to the totals calculated in the database. (Please see redlined box in screen print below.) If they are not equal, an error will be reported in the message box displayed at the end of the Macro. A screen print example is shown below:

Ye	P	Ac	Estimate	Funded	Unliq_Ob	DrawnThru	DrwnIn
2001	29	9519	4,293.00	4,293.00	1,573.00	264.00	264.00
2001	29	9539	524.10	524.10	0.00	524.10	524.10
2001	29	9547	558.90	558.90	559.00	0.00	0.00
2001	29	9568	5,047.85	5,047.85	0.00	5,047.85	5,047.85
2001	29	9570	111.62	111.62	0.00	0.00	0.00
2001	29	9578	45,000.00	45,000.00	33,630.00	7,932.23	7,932.23
2001	29	9579	1,500.00	1,500.00	1,500.00	0.00	0.00
2001	29	9582	3,534.86	3,534.86	0.00	3,534.86	3,534.86
2001	29	9632	225.00	225.00	0.00	0.00	0.00
2001	29	9633	121.78	121.78	0.00	0.00	0.00
2001	29	9694	126,487.18	126,487.18	0.00	0.00	0.00
2001	29	9695	249,353.08	204,717.08	0.00	0.00	0.00
2001	31	8579	459,443.82	395,682.74	0.00	234,187.02	234,187.02
2847			350,612,824.16	335,747,508.05	1,379,243.27	319,061,719.85	27,967,029.75
IDIS Report Total			350,612,824.16	335,747,508.05	1,379,243.27	319,061,719.85	27,967,029.75
Macro Totals			350,612,824.16	335,747,508.05	1,379,243.27	319,061,719.85	27,967,029.75
Difference			0.00	0.00	0.00	0.00	0.00
			0.00	0.00	0.00	0.00	0.00
			0.00	0.00	0.00	0.00	0.00
			0.00	0.00	0.00	0.00	0.00

Filter drop down arrow

Error test still done but this table no longer displayed.

### IDIS Report/MACRO PR06 – “Summary of Consolidated Plan Projects for Report Year xxxx Report”

This report is downloaded from IDIS to your IDIS Reports directory (see SEARCH RULES TABLE above) as file “cpperfm.rpt. The report title is “Summary of Consolidated Plan Projects for Report Year xxxx Report.” This report gives project level financial information only. Individual activities are not listed. The report supplies the following information for each project:

- Project ID, project name, program, project estimate, committed, amount drawn thru program year, amount drawn in program year and amount available to draw and project description.

This is a good project level summary report. In order to transform this report to a database, the Macro inserts the PID and project name into each funding source line that is a part of the project. The project description narrative is not included as a field in the database.

## **IDIS Report/MACRO PR07 – “Drawdown Report by Voucher Number.”**

This report is downloaded from IDIS to your IDIS Reports directory (see SEARCH RULES TABLE above) drive as file “ddvouchr.rpt. The report title is “Drawdown Report by Voucher Number.” This report gives activity level detailed drawdown financial information only.

This is an excellent activity level detailed financial report. All fields in the report are copied over to the database.

[Note for Nerds: The original IDIS report also has a summary total of all drawdowns on the last page of the report. This total is copied to the end of the database along with the total calculated by the Macro as a reference for the user. The Macro verifies that these report totals are equal to the totals calculated in the database. If they are not equal, an error will be reported in the message box displayed at the end of the Macro. Note that the drawdown total listed at the end of the original IDIS report is not the summation of all records above it. Vouchers with a “Voucher Status” of ‘Revised’ or ‘Cancelled’ are not included in the total.]

## **IDIS Report/MACRO PR08 - “Grantee Summary Activity Report.”**

This report is downloaded from IDIS to your IDIS Reports directory (see SEARCH RULES TABLE above) as file “grtsum.rpt.” This is the “Grantee Summary Activity Report.” The report has key information for all activities for all years but no field to identify the Program as CDBG, HOME or ESG or accomplishment narratives. The report contains the following key information for every activity code:

Project ID, Activity# & name, Activity Status, IDIS Matrix Code,  
Initial funding date, Amount Committed, Amount Drawn and date of  
last drawdown.

The report also has a summary activity total for Amount Committed and Drawn at the end of the report. This total is used by the Macro to compare against the totals of the output database as a data integrity test. Note, however, that there is a bug in the PR08 report that truncates the most significant digit from the Amount Committed and Drawn fields for amounts greater than 99,999,999.99. For example, a PR08 report for Boston gives an amount for Activity #2 of 19,022,360.44. While the PR02 reports show 219,022,360.44 for the same activity. The Macro compensates for this when verifying that the totals at the end of the PR03 IDIS report text file are equal to the database totals.

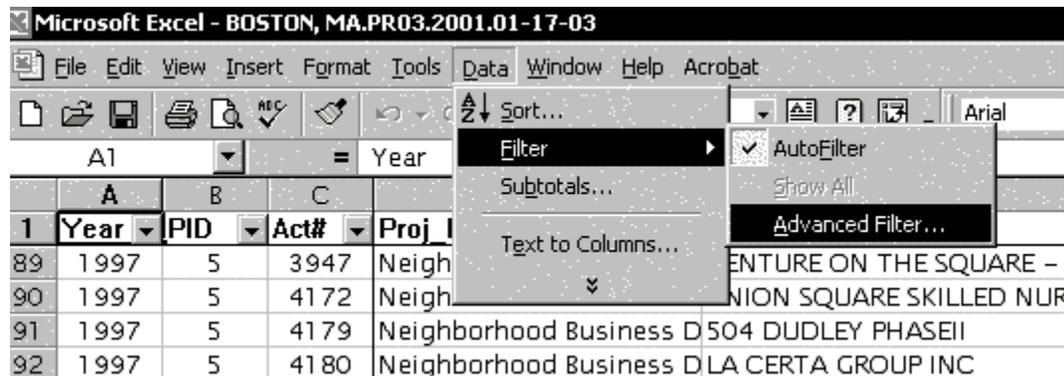
## **IDIS Report/MACRO PR22 - “HOME Activity Report.”**

Convert IDIS report “homeact.rpt.” This is the “Status of HOME Activities Report.” Has all HOME activities for all years. Has HOME Activity#, Address, Count of HOME assisted units, Commit Date, Committed, Drawn, Balance, Status and date of last Status update.

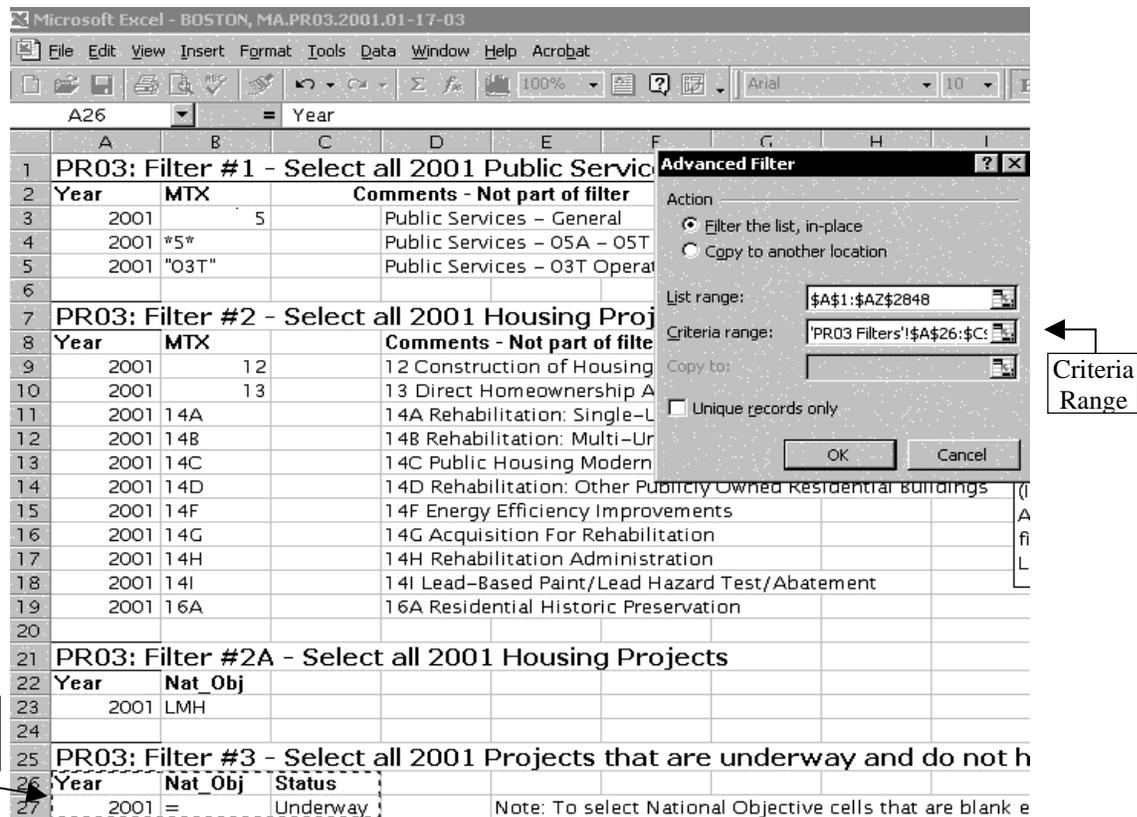
## EXCEL ADVANCED FILTER EXAMPLE

To illustrate the use of advanced filters the Macro for the IDIS PR03 report has a “Filters” Worksheet included with the output database file. [If you read this section very carefully you may be able to construct your own advanced filter –unfortunately this is not an intuitive process.] The filter examples include “Advanced Filters.” An advanced filter is a technique you can use to save the filters you create thru the dropdown selection arrows for several columns or to create a filter than has more than two “OR” conditions on a single column. In addition to the available EXCEL help files, we have included the following instructions on how to use advanced filters.

(1) From the Data menu select “Data-Filter-Advanced Filter” as illustrated below:



(2) The “Advanced Filter” menu shown below will appear:



(3) Left-Click the mouse in the “Criteria Range” box – This is where you must select the criteria that will be used to filter your database. This example assumes that you want to select the PR03 Filter #3.

(4) Left-Click the “PR03 Filters” tab at bottom of Worksheet to select it.

(5) Position the mouse cursor on cell A26 of the PR03 Filters Worksheet. Hold down the left mouse button and select the Cells A26 through C27.

(6) Release the mouse button, click OK button. – EXCEL will execute filter and return you to the database worksheet.

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## WORD MACRO

The second Macro is a WORD file that allows you to select any available IDIS text file report (.rpt file) to format as a WORD document (.doc file). This .doc file is automatically saved with a unique name. [NOTE: WORD must have “Macros enabled.” If you find that BOSMAC does not work the likely cause is that macros have not been enabled. To enable Macros go to WORD menu bar and select “Tools-Macro-Security-Security and set Level=Medium”. WORD must then be restarted. This need be done only on the initial use of BOSMAC.]

The WORD Macro is supplied to assist you in examining individual activities in a readable, printable format in more detail once you have filtered the data with the EXCEL Macro. For example, say you find an activity (say activity #828) in the EXCEL file that raises questions. You want to see more detail about this activity. Run the WORD MACRO to view the formatted version of the IDIS Report. You can then simply do “Control F” on the WORD document to bring up a dialogue box into which you type, 828 space. Hit Enter or Find Next. This will take you directly to the activity #828 with the report narrative for that activity displayed in a readable format.

## MACRO SUPPORT

These tools require some familiarity with EXCEL. Learning to use the filters (drop down arrows) is quite intuitive and you can learn how they work just by “playing” with them.

If you have any problems running BOSMAC *please review the readme file.*

If after reading the readme file you still have a problem with any of these Macros please email a copy of the IDIS report that experienced the error along with a brief explanation of the problem to: Richard\_H.\_Therrien @hud.gov or Bob\_Paquin@hud.gov

We trust you will find this tool to be very useful in analyzing the PR03 and other IDIS Reports – especially for your larger communities. You now have a reason to download these IDIS Reports in preparing for monitoring and analyzing grantee performance.

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