

## Data Aggregators

Tim Brooks, Stu Gray, and Jim Dennison are conducting this survey on behalf of the STB Committee of the Council for Research Excellence. The purpose is to determine how various hardware, software, and content services vendors are using Set-Top Boxes to capture tuning data and what capabilities exist for processing, reporting, and utilizing the information.

Because of the breadth of companies involved in the collection and use of STB data, we have categorized them into groups that have similar functions, and then designed questionnaires that address those functions. Your company has been sent this Data Aggregator questionnaire since we believe you are receiving raw STB data from some source and have systems to edit, process, and aggregate it into reportable measures of tuning based on multiple STBs. If you are involved in additional aspects of STB data, then you may receive an additional questionnaire.

If you are not involved in this aspect of STB data, then please contact us so we can get you the appropriate questionnaire.

Thank you for taking the time to complete the questionnaire. Your specific responses will be kept confidential by us, and will only be reported in combination with responses from other companies participating in the study.

The Council for Research Excellence wants you to know that neither the CRE members, nor the STB Committee members, nor The Nielsen Company employees or contractors, will have access to the responses to this questionnaire. Access to the completed questionnaires will be given only to three consultants to the Council (Gray, Brooks, and Dennison) for the sole purpose of analyzing the responses and reporting the responses to the Council in an aggregated form. The consultants will destroy the questionnaires within three months of delivering the report.

Please answer the questions as completely as you can.  
For questions you cannot answer at this time, please check one of the two columns along the right-hand side.

If possible, please complete this questionnaire by

July 1, 2009

Return the completed questionnaire to any one of the following:

Tim Brooks Media/Marketing Research ████████████████████ ████████████████████ ████████████████████ tbroo@aol.com	Stu Gray Stu Gray Research ████████████████████ ████████████████████ ████████████████████ stugrayresearch@aol.com	Jim Dennison CableMeasures ████████████████████ ████████████████████ ████████████████████ jdennison@cablemeasures.com
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If you have any questions, feel free to contact Tim, Stu or Jim.

Set-top Box Study Questionnaire for

Data Aggregators

Num.	Please answer the following questions as completely as you can, without giving proprietary or confidential information. For questions you prefer not to answer, please check one of the two columns to the right to tell us whether we should follow-up for a response at a later time.	Receive	Process		Answer Later	Decline to Answer
1.	Which of the following types of STB activity do you receive as raw data and process into reports? (check the appropriate column for each)					
1a.	Channel Changes					
1b.	VOD					
1c.	DVR playback (where feature is built into the STB)					
1d.	DVR playback with program titles					
1e.	Fast Forward					
1f.	Pause					
1g.	Rewind (Backward Play)					
1h.	Games					
1i.	Short codes (codes entered with the remote control, functioning similar to cell phone CSC codes)					
1j.	Polling (Voting)					
1k.	Muting					
1l.	Guide usage					
1m.	PIP (Picture In Picture) data of any type					
	If yes, what about these specific activities?					
1n.	Channel for PIP					
1o.	Channel for Main Picture					
1p.	Channel for Audio in use					
1q.	If there are other PIP events not listed above, please describe them:  >>					
1r.	If the STB is tuned to a mosaic channel where three or more channels are viewable on one screen, are you able to determine which channel has active audio?	Yes	No			
1s.	Please list any STB activities you receive and process that are not covered in items 1a - 1r, above:  >>					

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		Receive	Process		
<b>2.</b>	Please indicate whether you receive and process data for the following external devices, if connected to the STB:				
2a.	DVR				
2b.	DVD player				
2c.	VCR				
2d.	Game console				
2e.	Internet Video STB (Netflix, Roku, SlingCatcher, Apple TV, Vudu, others)				
2f.	Any other devices not listed?  >>				

	For the following questions, check the box for either <u>Yes</u> or <u>No</u> , or enter the answer in the space provided	Yes	No		
<b>3.</b>	How often is raw data updated and uploaded?  >>				
3a.	Can frequency of update/upload be changed?				
3b.	If not, why not?  >>				
<b>4.</b>	What is the shortest duration tuning entry that you report (e.g., 1 sec, 5 sec, 30 sec)? _____				
4a..	Can this threshold be changed in the reporting system?				
4b..	If not, can the threshold be changed by reprocessing of the data?				
<b>5.</b>	Do you maintain your own database of program line-ups?				
5a.	<u>If Yes</u> , from what source:  >>				
5b.	<u>If No</u> , do you rely on the program codes supplied in the raw data records?				

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		Yes	No		
5c.	<i>In either case</i> , is the program line-up information updated for pre-emptions and overruns?				
5d.	Is the program line-up information adjusted for different time zones, where necessary?				
6.	Can you identify tuning to commercial content?				
6a.	Can you determine commercial content to the second?				
7.	Can you differentiate national commercial content from local?				
8.	Do you maintain your own database of channel line-ups?				
8a.	<u>If Yes</u> , from what source: >>				
8b.	<u>If No</u> , do you rely on the channel line-up codes supplied in the raw data records?				
8c.	<u>Whatever your source</u> , how long does it typically take for channel line-up changes to be reflected in the tuning data? >>				
8d.	<u>Whatever your source</u> , can you determine the STBs able to receive a channel, so that tuning can be reported on a coverage area basis? These are often referred to as coverage area ratings.				
9.	What is the smallest geographic level for which you are able to aggregate and report tuning data? (e.g. system, county, ZIP code, block group, ad zone, etc.) >>				
10.	Are non-residential subscribers' STB data combined with STB data for residential subscribers'?				
10a.	If yes, are data for non-residential subscribers' STBs identified in such a way that users of your data can differentiate it from residential subscribers' data?				

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		Yes	No		
11.	Does seasonal occupation of households impact the percentage of STBs and Households providing usable data in certain markets?				
11a.	If <u>Yes</u> , are seasonal households identified in the STB data?				
11b.	If <u>Yes</u> , is the number of seasonal households reported?				
12.	Are you able to identify tuning data by location of device within the Household? (e.g. kitchen, family room, etc.)				
13.	Do you report characteristics of STB <b>households</b> (e.g., size of household, age of householder, presence of children, etc.)?				
13a.	If so, how do you obtain these characteristics: >>				
13b.	If not, do you plan in the future to report it?				
14.	Do you report demographics of <b>each resident</b> of STB households (e.g., age, sex, education, etc.)?				
14a.	If so, how do you obtain these characteristics: >>				
14b.	If not, do you plan in the future to report it?				
15.	Do you report demographics of <b>viewers</b> of individual programs using methods such as a survey, panel, fusion, or modeling?				
15a.	If so, please list the method(s): >>				
15b.	If not, do you plan in the future to use one of these methods to collect and report demographics?				
16.	What % of STBs that <b>are enabled to</b> report data actually <b>do</b> report data each day, on average? >>				

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		Yes	No		
17.	What criteria are used to determine data usability from individual STBs?  >>				
17a.	Who determines that data is usable? We do _____ Other: _____ (check) (enter entity name)				
18.	How frequently are these criteria applied (e.g., daily, weekly, monthly)?  >>				
19.	Please attach a description of your data edit rules on separate sheet(s), or provide a link to a web page, indicating whether each edit is applied to the data before or after processing. Please include the following specific issues, in addition to others that are relevant to your system:  Missing data STB on/set off Dwell time (the consecutive seconds tuned to a channels or event) Logic checks (consistency of data for each STB) Time Zone Adjustment (when combining data from subscribers in multiple time zones)				
19a.	Is there a website? (Please provide URL below)  >>				
19b.	Is a description attached?				
20.	How do you know when an STB has malfunctioned, or stopped sending data, resulting in loss of data?  >>				

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		Yes	No		
21.	How do you determine whether lack of tuning data reflects no tuning or is due to an STB malfunction?  >>				
21a.	What are the types of malfunctions that can cause an STB to stop sending data, even though tuning is taking place?  >>				
21b.	Are records kept of STB malfunctions?				
21c.	How often are they updated?  >>				
22.	Do you report statistics on STB malfunctions in your reporting and analytical system?				
23.	In your reporting and analytical systems, do you weight the raw data?				
23a.	If so, by what variables?  >>				
24.	Do you project the data to a larger population or universe?				
24a.	If yes, how frequently are Universe Estimates updated?  >>				
25.	If you report ratings, what Universe Estimates do you use?  >>				

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26.	Use this space to tell us any additional information about your STB measurement application or data aggregation process that you think we should know:  >>		

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If we have questions about any of the answers provided, who should we contact?

\_\_\_\_\_ phone \_\_\_\_\_

\_\_\_\_\_ @ \_\_\_\_\_  
email