

# FCC AUCTIONS Auction Tracking Tool User Manual

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## DISCLAIMER

The Federal Communications Commission (the "Commission") will make available, at a bidder's request, an Auction Tracking Tool software package (which includes both software and software documentation) for auction tracking purposes.

The Commission makes no warranty whatsoever with respect to the Auction Tracking Tool software package. In no event shall the Commission, or any of its officers, employees or agents, be liable for any damages whatsoever (including, but not limited to, loss of business profits, business interruption, loss of business information, or any other loss) arising out of or relating to the existence, furnishing, functioning or use of the Auction Tracking Tool software package that is available to bidders in connection with this auction. Moreover, no obligation or liability will arise out of the Commission's technical, programming or other advice or service provided in connection with the Auction Tracking Tool software package.

# **1** General Information

The FCC developed the Auction Tracking Tool to allow users to track the FCC's Spectrum Auctions. Auction participants and other interested parties can use the Auction Tracking Tool to analyze the FCC's Spectrum Auctions as they progress. By sorting, filtering, and developing your own queries, you can track the activity of a particular bidder or market. You can also view summary data to track the progress of the auction in general.

## 1.1 Hardware and Software Requirements

You need at a minimum the following hardware and software:

- CPU: Intel® Pentium. A Pentium 166 or higher is strongly recommended.
- RAM: 16 MB, but 32 MB or more is recommended.
- Hard Disk: 40-50 MB available disk space.
- The application requires only 2-3 MB, but the auction database can grow quite large.
- Microsoft® Windows<sup>™</sup> 95<sup>™</sup>, 98<sup>™</sup>, 2000<sup>™</sup>, ME<sup>™</sup>, NT<sup>™</sup>

## **1.2 Installing the Auction Tracking Tool**

The software for the Auction Tracking Tool is available as a self-extracting file that you download from the FCC's Auctions web site (*http://wireless.fcc.gov/auctions/*). Do the following:

- 1. On the Auctions page, select the auction you want and click the *Tracking Tool* link.
- 2. When the Auction Tracking Tools page appears, read the instructions under Microsoft Access-based Tracking Tool, then find the auction you want in the Access-based Tools and click the *Tracking Tool* link.
- 3. When the File Download window appears, click the OK button.
- 4. When the Save As window appears, point the *Save in* field to the directory where you want to download the Auction Tracking Tool file. (For example, you could use *C:\Temp.*) Then click the Save button.
- 5. When the download operation has been completed, use Windows Explorer to display the contents of the download directory you specified. In this directory, locate the Auction Tracking Tool's file (fccatt331.exe), and double-click it to start the installation.

The installation program puts an *FCC Auction Tracking Tool* entry on the Programs option of your Windows *Start* menu. It also places an icon labeled *FCC Auction Tracking Tool* v3.3.1 on

your desktop. To start the Auction Tracking Tool, you can either click the menu entry or double-click the icon.

## **1.3** Phone Numbers

For technical assistance with accessing the Bidding System, contact the FCC Technical Support Hotline at (202) 414-1250 (V) or (202) 414-1255 (TTY). The FCC Technical Support Hotline is generally available Monday through Friday from 8 a.m. to 6 p.m. ET. *All calls to the FCC Technical Support Hotline are recorded*.

The FCC Auctions Legal Branch may be contacted at (202) 418-0660. For general auction information, contact the FCC Bidder Line at the telephone number provided in the registration mailing.

# 2 Getting Started

To work with the round results of an auction in the FCC Auction Tracking Tool, you must first download the zipped files containing the round results data to a folder on your computer's hard drive. Once you have downloaded those files, you can import them to create a *master database* for use by the Auction Tracking Tool.

*Important:* Note that the downloaded imported round results files are in zipped format—and that is how the Auction Tracking Tool expects to receive them. Thus, be sure your computer's unzip program (e.g., WinZip) is *not* configured to unzip downloaded files automatically. (Some previous versions did not include this feature.)

## 2.1 Downloading ATT-formatted Round Results Files

The FCC provides auction round results in a variety formats, including Microsoft Access database (MDB) files, for use in the Auction Tracking Tool. To download round results files, point your browser to the FCC Auctions web page, at *https://auctions.fcc.gov/*. When the Auctions Systems page appears, click the Auction Archives link. This page provides links that let you navigate to the round results you want, and download that data to a directory of your choice.

*Important:* You must download round results files from all rounds you want to use with the Auction Tracking Tool. That is, to use the data from rounds 1 through 4, you must download the round results files from all four rounds, starting with Round 1. Since rounds of data build on preceding rounds, it is important to download data for the rounds in order.

To download round results files, do the following:

- 1. Click the name of the auction you want.
- 2. On the Index page, click the *Results* link.
- 3. On the Results page, click the *mdb* link.

The Results/mdb page provides a link for the *zipped* mdb files associated with each round in the auction. Each file has a name of the form *aa\_xxx*.zip, where *aa* is the auction number and *xxx* is the round number.

4. To download the results for a particular round, click its link and follow the instructions.

5. Repeat step 4 for each additional round you want to download.

*Do not* unzip the files you have downloaded. The Auction Tracking Tool will unzip them automatically as it puts them into a database.

# 2.2 Creating and Opening Auction Databases

When you start the Auction Tracking Tool, you must specify the auction data that you want to work with. The Auction Tracking Tool does not operate on the round results data that you downloaded; instead, it operates on a *master database* into which the round results data for an auction have been imported. Thus, when you start the Auction Tracking Tool, you must either create a new database or open (activate) an existing database.

Appropriately, when you start the Auction Tracking Tool, it displays a dialog titled *Open an Existing Auction or Create a New One?* (The Auction Tracking Tool always refers to "auctions" when it really means "auction databases.") The available options are:

• Create a New Auction (described on page 4) lets you import the round results from Round 1 of an auction so that ATT can create a master database for that auction.

The round results file for Round 1 must have been already downloaded into a directory on your computer.

- **Open an Existing Auction**, the default option (described on page 5), lets you open a previously-created master database for an auction.
- **Batch Import a New Auction** (described on page 6) lets you create a master database for an auction and simultaneously import the results from all available rounds files of an auction.

These round results files must have been already downloaded into a directory on your computer.

## 2.2.1 Create a New Auction

To create a new database containing round results data you have downloaded, you first create the database using Round 1 data, then you import data from additional rounds into your new database. To create the database using Round 1 data, do the following:

1. Select the Create a New Auction option on the *Open an Existing Auction or Create a New One?* dialog and click the Continue button.

2. When a dialog appears asking whether you have downloaded the first round results, click Yes.

An *Open* window appears with *C:\My Documents* as the default folder.

- 3. If you downloaded the auction round results files into some other folder, change the *Look in* field to point to that folder.
- 4. Click the file for Round 1. (It will have a name of the general form *aa*\_001.zip, where *aa* represents the auction number.)
- 5. Click the Open button.
- 6. Clicking Open produces a dialog asking if you want to delete the round results file you just imported. In general, you should probably click No, so that you have a backup in case you need to do this operation again.
- 7. The Auction Tracking Tool displays a blank worksheet. To load the All Bids table for Round 1 into the worksheet, click the New button or choose the New option from the File menu.

# Importing Additional Rounds Into the Database

If you have downloaded round results from one or more additional rounds, you can easily import them into the master database that you have opened:

- You can click the Import Next Round button (down-arrow) on the tool bar or the Auto Import option on the Tools menu to import data for the next round, provided you have downloaded that data into the same directory as data from the previous round. (The system defaults to the last directory from which a file was imported.)
- You can also choose the Import option on the File menu to import -- or *re-import* -- data for a specified round. Activating Import produces an Open window that lists the available round (.zip) files. To import a file, click the file to highlight it, then click the Open button. You will then be prompted to delete the file you just imported. Click Yes to delete the file or No to keep it. You might want to keep the file if you intend to do a batch import later.

# 2.2.2 Open An Existing Auction

If you select the Open an Existing Auction option on the *Open an Existing Auction or Create a New One?* dialog and click the Continue button, an *Open* window appears with *C:\Program* 

*Files*\*FCC Auction Tracking Tool* as the default folder. This folder will contain the available master databases. Each database file has a name of the general form Auction*aa*.mdb, where *aa* represents the auction number.

Click the database file you want to open and then click the Open button. This causes the Auction Tracking Tool to display a worksheet and load all the round data in the database into it. When the loading operation has been completed, the worksheet displays the All Bids table for whichever round you last worked with (Round 1, initially).

To download and import results for additional rounds, see *Importing Additional Rounds Into the Database* on page 5.

## 2.2.3 Batch Import a New Auction

You can easily create a new database containing all of the round results data you have downloaded, provided *all* downloaded files are in the same directory and the file containing Round 1 data is included . Do the following:

- 1. Select the Batch Import a New Auction option on the *Open an Existing Auction or Create a New One?* dialog and click the Continue button.
- 2. When a dialog appears asking whether all downloaded round results are in the same directory, click Yes.

An *Open* window appears with *C*: *My Documents* as the default folder.

- 3. If you downloaded the auction round results files into some other folder, change the *Look in* field to point to that folder.
- 4. Click the file for Round 1. (It will have a name of the general form *aa*\_001.zip, where *aa* signifies the auction number.)
- 5. Click the Open button.
- 6. When the import operation has been completed, a Finished Batch Import dialog appears. Click OK on the dialog.
- 7. The Auction Tracking Tool displays a blank worksheet. To load the imported auction data into the worksheet, click the New button or choose the New option from the File menu.

# 2.3 Viewing the Data

Opening a master database using any of these options produces the Auction Tracking Tool's

main screen, which displays a worksheet that contains data for the auction you specified. The worksheet is in a sub-window, and that sub-window is displayed in maximized form initially. The main window has a menu bar and a tool bar that you can use to perform operations on the worksheet.

Initially, the worksheet displays a table titled *All Bids*. However, you can choose from a variety of other tables, as described under <u>*Predefined Data Tables*</u> on page 8.

# **3** Predefined Data Tables

Within the Auction Tracking Tool, some tables display data for a specific round, while others display statistics for the entire auction. These tables are defined in the following sections.

Besides viewing the predefined tables, you can also use the Auction Tracking Tool to build customized tables, as described in *Building Your Own Tables* on page 37.

## 3.1 Round Data Tables

The following tables display data for a specific round. To obtain one of these tables, click its name in the *Table* pull-down menu at the top of the screen, then click the number of the round you want in the *Round* pull-down menu.

- All Bids (described on page 8) describes all bids on all licenses for the round.
- **Bidders** (page 10) describes the bidding activity of each bidder.
- **Bidders Raising Own High Bid** (page 12) describes each bidder who raised their own standing high bid.
- **Bidders Who Reduced** (page 14) describes each bidder who reduced eligibility in this round.
- Markets (page 14) describes the high bid activity for each license.

## 3.1.1 All Bids

This table describes all bids on all licenses for the round.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number.	

Item	Description	Comments
License Name	A unique license name comprising the market name (the relevant major or minor grouping) and the frequency block, separated by a hyphen, as in BEA001-A.	The name may incorporate service-specific license codes, such as LSBEA001-A.
Market	Minor grouping name, such as BEA001.	In combination with the frequency block, this identifies the license bid upon.
Block	Frequency block.	In combination with the relevant grouping, this identifies the license bid upon.
Submarket	Indicates the portion of a partitioned or disaggregated market that is being auctioned.	
Bidder	Full company name of the bidder.	
Increments of Bid	Number of bid increments (or Bid Mults) used for this bid.	
Gross Bid Amount	Gross amount of the bid, before any bidding credits are applied.	
Net Bid Amount	Net amount of the bid, after any bidding credits are applied.	
Date	Date when the bid was submitted.	

## Predefined Data Tables

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Item	Description	Comments
Random No	A random number generated during round results that is used to determine the high bidder in the case of tie high bids.	

# 3.1.2 Bidders

This table describes the bidding activity of each bidder.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number	
Bidder	Full company name of the bidder.	
FCC Acct	Bidder's FCC-assigned account number.	
Bidding Credit	Bidding credit percentage, or discount, for the bidder, based on their Form 175 filing.	
Initial Eligibility	Bidder's initial maximum eligibility, in bidding units.	The initial amount of bidding units on which a bidder may bid, and is based on the bidder's upfront payment amount. It is the same as the initial maximum eligibility in the Bid Submission module.

Item	Description	Comments
Current Eligibility	Bidder's current maximum eligibility, in bidding units.	The current amount of bidding units on which a bidder may bid, including standing high bids, in any round. It is the same as the maximum eligibility in the Bid Submission module.
Change in Eligibility	Number of bidding units by which the bidder's eligibility has changed from either their original eligibility amount (as in the case of Round 1) or their current eligibility amount from a previous round as a result of a reduction.	
Waiver Type	Type of waiver used, if any: <i>P</i> (proactive), <i>A</i> (automatic), or <i>B</i> (reduced eligibility and used a waiver within a round).	
New Bids	Count of all bids placed this round by this particular	
Gross Bids	Sum of the gross amounts of all bids placed in this round by this particular bidder.	
Net Bids	Sum of the net amount of all bids placed this round.	
Total High Bids	Count of all high bids currently held.	This may include standing high bids from earlier rounds.

Item	Description	Comments
Gross High Bids	Sum of the gross amount of all high bids held at this point in the auction.	This may include standing high bids from earlier rounds.
Net High Bids	Sum of the net bid amount of all high bids held at this point in the auction.	This may include standing high bids from earlier rounds.
Current Activity	Bidding units associated with standing high bids.	
Additional Activity Required	Amount of activity, in bidding units, required for a bidder to maintain its current eligibility, assuming no change to their activity from standing high bids.	The difference between a bidder's current activity and required activity amount.
Unused Elig	Amount of eligibility a bidder had left at the end of the round.	The difference between a bidder's activity at the end of the round and their current maximum eligibility amount.
Waivers Remaining	Number of usable waivers remaining.	
Withdrawals Remaining	Number of withdrawals remaining.	

# 3.1.3 Bidders Raising Own High Bid

This table describes each bidder who raised their own standing high bid.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number.	

Item	Description	Comments
License Name	A unique license name comprising the market name (the relevant major or minor grouping) and the frequency block, separated by a hyphen, as in BEA001-A.	The name usually incorporates service-specific license codes, such as LSBEA001-A.
Major Grouping	A larger grouping of licenses, such as an Economic Area Group (e.g., EA001).	Minor groupings are contained within major groupings, forming a hierarchical relationship.
Minor Grouping	The smallest geographic license size (e.g., BEA001).	
Block	Frequency block.	In combination with the relevant grouping, this identifies the license being auctioned.
Sub-Market	Indicates the portion of a partitioned or disaggregated market that is being auctioned.	
Bidder	Full company name of the bidder.	
Increments of Bid	Number of bid increments (or Bid Mults) used for this bid.	
Gross Bid Amount	Gross amount of the bid, before any bidding credits are applied.	
Net Bid Amount	Net amount of the bid, after any bidding credits are applied.	
Date	Date when the original high	

#### Predefined Data Tables

Item	Description	Comments
	bid was raised and submitted.	

# 3.1.4 Bidders Who Reduced

This table describes each bidder who reduced eligibility in this round.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number.	
Bidder Who Reduced	Full company name of the bidder.	
Reduction Amt	Number of bidding units by which a bidder reduced its eligibility.	
Current Eligibility	Bidder's current eligibility, in bidding units.	This is the same as the Maximum Eligibility field on the Bid Submission screen.

## 3.1.5 Markets

This table describes the high bid activity for each license.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number.	

Item	Description	Comments
License Name	A unique license name comprising the market name (the relevant major or minor grouping) and the frequency block, separated by a hyphen, as in BEA001-A.	The name may incorporate service-specific license codes, such as LSBEA001-A.
Major Grouping	A larger grouping of licenses, such as an Economic Area Group.	Minor groupings are contained within major groupings, forming a hierarchical relationship.
Minor Grouping	The smallest geographic license size.	
Block	Frequency block.	In combination with the relevant grouping, this identifies the license being auctioned.
Sub-Market	Indicates the portion of a partitioned or disaggregated market that is being auctioned.	
License Size (MHz)	Size of the license, in MHz.	
Market Name	Description of the market.	
BUs	The bidding units required to place a bid on this license.	
Population	Population for this market area, as defined in the Public Notice.	
Number of Bids	Number of bids placed on this license in this round.	

Item	Description	Comments
High Bidder	Full company name of the current high bid holder.	When a bid on a license is withdrawn, <i>FCC</i> is used as a place holder.
Round of High Bid	Round in which the current high bid was placed (not necessarily the current round).	When a bid on a license is withdrawn, Round of High Bid will retain the round number of the high bid that was withdrawn.
Increments of Bid	Number of bid increments (or Bid Mults) used for this high bid.	
Gross	Gross amount of the high bid, before any bidding credits are applied.	
Bidding Credit	Bidding credit percentage, or discount, of the bidder placing the high bid, based on the Form 175 filing selection and eligibility.	
Net	Net amount of the current high bid, after any bidding credits are applied.	
Date	Date when the current high bid was submitted.	
Min Acceptable Bid	The current minimum accepted bid for the next round, in dollars.	

Item	Description	Comments
Bid Increment	Dollar value of bid increment for the next round.	This is the same bid increment value that is displayed on the Bid Submission screen for that license.
	lowing items describe the previou y are set to the entries describing	
Prev High Bidder	Full company name of the previous high bid holder.	When a bid on a license is withdrawn, the bidder who withdrew will be assigned as Previous High Bidder.
Round of Prev High Bid	Round in which the previous high bid was placed.	When a bid on a license is withdrawn, Round of Prev High Bid will retain the round number of the high bid that was withdrawn.
Prev Gross	Gross amount of the previous high bid, before any bidding credits are applied.	
Prev Bidding Credit	Bidding credit percentage, or discount, of the bidder placing the previous high bid, based on the Form 175 filing selection.	
Prev Net	Net amount of the previous high bid, after any bidding credits are applied.	

#### Predefined Data Tables

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Item	Description	Comments
Selected	The number of bidders selecting this market on the FCC Form 175 application, including bidders who selected <i>all</i> markets.	
All Selected	The number of bidders selecting <i>all</i> markets on the FCC Form 175 application.	

## **3.2** Auction Statistics Tables

The following tables display statistics for every round in an auction. To obtain one of these tables, click its name in the *Table* pull-down menu at the top of the screen. Note that there is no Round selection for these tables; they apply to all rounds of an auction.

- **Increment Statistics** (described on page 18) describes the number of bid mults applied for all bids in a given round.
- **Round Statistics** (page 19) provides aggregate statistics describing bidding activity during each round.
- Waiver Statistics (page 21) describes bidders who used waivers during each round.
- Withdrawal Statistics (page 22) contains information about each withdrawal of a high bid throughout the auction.

## 3.2.1 Increment Statistics

This table describes the number of bid mults applied for all bids in the round.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number.	

## Predefined Data Tables

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Item	Description	Comments
1 9	Each column contains the count of this round's bids placed using this number of bid mults.	

# 3.2.2 Round Statistics

This table provides aggregate statistics describing bidding activity during each round.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number.	
Round Date	Date when the round occurred.	
Stage	Stage number of the current round.	
New Bids	Number of new bids in the given round.	
Total High Bids	Number of new high bids in the given round.	
Pctg of BUs for All Bids	Percentage of all available bidding units (the sum of bidding units for all licenses) used for new bids in the given round.	
Pctg of BUs for High Bids	Percentage of all available bidding units (the sum of bidding units for all licenses) used for new high bids in the given round.	
Gross Bids	Total of gross bids for the	

Item	Description	Comments
	given round.	
Net Bids	Total of net bids for the given round.	
Dollar Change in Net Bids	Change in net dollars from the previous round.	
Pctg Change in Net Bids	Percentage change in net dollars from previous round.	
Eligible Bidders	Current number of eligible bidders.	
Bidders at Risk	Number of bidders at risk of having their eligibility reduced or using an activity waiver, because their current activity is less than the amount of activity required to maintain eligibility.	
Number Reduced	Number of bidders who reduced their eligibility.	
BUs Reduced	Total number of bidding units reduced by those bidders who reduced in the given round.	
Eligibility Ratio	Ratio of total bidding units held by all bidders to the total. bidding units for all licenses in the auction.	
Pctg of Covered BUs	Percentage of total bidding units that currently have a high bidder other than the	
Waivers	Number of waivers (automatic, proactive, or both	

Item	Description	Comments
	waivers) used in the given round.	
Withdrawals	Number of withdrawals in the given round.	
FCC Held Licenses	Number of licenses owned by the FCC.	A license is held by the FCC until a bidder places a bid on it. It can later revert to the FCC if a bid is withdrawn. The FCC acts as a place holder until a new bid has been placed.
Pctg of Covered Pops	Percentage of the population associated with licenses covered by high bids other than FCC-held licenses.	
Pctg of the Covered Pops with Bidding Credit	Percentage of the population associated with licenses covered by high bids that is held by bidders with a bidding credit.	

**Round Summary:** Note that you can also obtain information about the current round, or any other round you choose, by selecting the Summary option from the View menu. For details about this function, see <u>Obtaining a Round Summary</u> on page 34.

## 3.2.3 Waiver Statistics

This table describes bidders who used waivers during each round.

Item	Description	Comments
Auction ID	Auction number.	
Round	Round number.	

#### Predefined Data Tables

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Item	Description	Comments
Bidder	Full company name of the bidder.	
Waiver Type	Type of waiver used by the bidder: P (proactive), A (automatic), or B (reduced eligibility and used a waiver within a round).	
Remaining Waivers	Number of usable waivers remaining for the bidder.	

## 3.2.4 Withdrawal Statistics

This table contains information about each withdrawal of a high bid. Most of the information is not updated after the original entry, but the current high bidder information is updated each round when a new high bidder is determined.

Item	Description	Comments
Auction Id	Auction number.	
Withdrawal Number	An arbitrary number assigned to each withdrawal. Note that because these numbers are numbered in arbitrary fashion, the withdrawals may not be numbered sequentially.	
Bidder	Full company name of the withdrawing bidder.	

Item	Description	Comments
License Name	A unique license name comprising the market name (the relevant major or minor grouping) and the frequency block, separated by a hyphen, as in BEA001-A.	The name may incorporate service-specific license codes, such as LSBEA001-A.
Market	Major or minor grouping name, such as BEA001.	In combination with the frequency block, this identifies the license being
Block	Frequency block.	In combination with the relevant grouping, this identifies the license being withdrawn.
Submarket	Indicates the portion of a partitioned or disaggregated market that is being auctioned.	
BUs	The bidding units required to place a bid on this license.	
Population	Population for this market area, as defined in the Public Notice.	
Round	Round number of the withdrawal.	
Gross	Gross amount of the bid being withdrawn, before any bidding credits are applied.	
Net	Net amount of the bid being withdrawn, after any bidding credits are applied.	
Date	Date when the withdrawal was	

Item	Description	Comments
	submitted.	
Min Bid	Minimum accepted bid, in dollars, immediately following the withdrawal.	This value is not updated following the withdrawal round.
New High Bidder	Current high bidder on this license, if any.	If a new bid has not been placed since the withdrawal, FCC appears here. This value is updated following the withdrawal round in all subsequent rounds.
New High Bid Round	Round number of the new high bid, if any.	This value is updated following the withdrawal round in all subsequent rounds. If the license is held by the FCC, the value is $\theta$ (zero).
Gross High Bid	Gross amount of the new high bid, before any bidding credits are applied.	This value is updated following the withdrawal round in all subsequent rounds. If the license is held by the FCC, the value is $\theta$ (zero).
Net High Bid	Net amount of the new high bid, after any bidding credits are applied.	This value is updated following the withdrawal round in all subsequent rounds. If the license is held by the FCC, the value is $\theta$ (zero).

## **3.3** Operating on Column Data

The Auction Tracking Tool can also calculate the sum or average of items in a numeric column, and count the number of items in a column. For details, refer to <u>Summing, Averaging, and</u> <u>Counting Column Data</u> on page 29.

## 3.4 Viewing Multiple Tables Simultaneously

As you know, you can switch from one table to another by using the *Table* drop-down menu. Similarly, you can view data from a different round by selecting the round from the *Round* dropdown menu. However, sometimes you may want to have two or more different tables available for viewing. Similarly, you might want to view data from two or more rounds.

To obtain an additional table for viewing, click the New button on the tool bar or choose the New option from the File menu. Now, in addition to the active table, the Auction Tracking Tool displays the All Bids table for the active round. If you want some table other than All Bids, you can choose it from the *Table* drop-down menu. Similarly, you can choose a different round from the *Round* drop-down menu.

Working With Tables

# 4 Working With Tables

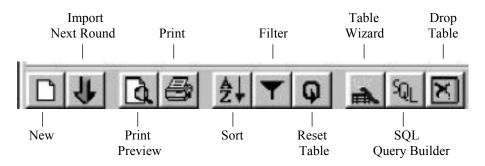
You can perform a variety of operations on Auction Tracking Tool tables. This section tells how to perform the following operations on either the predefined tables or tables you have created:

- Print tables
- Sum or average the items in a data column, or count the number of items in a column
- Filter table data
- Sort table data
- Export table data to a text file
- Create Excel pivot tables

You can perform most of these operations either clicking a button on the *tool bar* or selecting an option from the *menu bar* at the top of the window. Thus, an overview of tool bar and menu bar functions may be useful.

# 4.1 Tool Bar and Menu Bar Operations

The tool bar at the top of the Auction Tracking Tool window provides a variety of functional buttons.



The operations these buttons provide are also available from options in the pull-down menus on the menu bar at the top of the window. The buttons and menu options allow you to perform the operations summarized in the following table.

		Tool Bar	Menu Bar	
Function	Description	Button	Option	Refer to
Populate	Populate a blank worksheet	New	<i>New</i> on the	Create a New
new	with data when creating a		File menu	Auction on page 4
worksheet	new auction.			or Batch Import a
				New Auction on
				page 6
Import	Import data for a round	Import Next	Import or	Open An Existing
round data	into the tables.	Round	<i>Auto Import</i> on the File	Auction on page 4
			menu	
Print	Obtain a print preview for	Print	Print	Print Preview on
preview	the active table and,	Preview	Preview on	page 29
	optionally, print the table.		the File	
			menu	
Print	Print the active table.	Print	Print on the	Print on page 28
			File menu	
Print setup	Change the print	(None)	Print Setup	Print Setup on page
	orientation and specify		on the File	29
	page margins.		menu	
Round	Display a summary of	(None)	Summary on	Obtaining a Round
summary	information about a round.		the View	Summary on page
			menu	34
Sort table	Sort the table data to	Sort	Sort Table	Sorting Table Data
data	specify the order in which		on the Tools	on page 31
	it should be displayed.		menu	
Filter table	Filter the table data to	Filter	Filter Table	Filtering Table
data	specify criteria that selects		on the Tools	Data on page 30
	the rows to be displayed.		menu	
Reset table	Discard your filter and sort	Reset Table	Reset Table	Resetting a Table
	criteria, to return the table		on the Tools	on page 30
	to its original form.		menu	

Working With Tables

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Function	Description	Tool Bar Button	Menu Bar Option	Refer to
Create table	Create a table based on the	Table	Table	Using the Table
from	contents of an existing	Wizard	Wizard on	Wizard on page 37
existing	table.		the Tools	
table			menu	
Create table	Use an SQL query to create	SQL Query	SQL Query	Using the SQL
from	a table based on any of the	Builder	<i>Builder</i> on	<i>Query Builder</i> on
database	data items in the database.		the Tools	page 38
			menu	
Delete user	Delete a table that was	Drop Table	Drop Table	Deleting User-
table	created using the Table		on the Tools	Defined Tables on
	Wizard or SQL Query		menu	page 39
~	Builder.	~~ `		~ ~ .
Create	Create an Excel table	(None)	Pivot Table	Creating Excel
Excel table	containing the activity for a		<i>Wizard</i> on	Pivot Tables on
	specified range of auction		the Tools	page 32
	rounds.		menu	
Export table	Export the contents of the	(None)	<i>Export</i> on	Exporting Table
to text file	active table to a tab-		the File	Data To a Text File
	delimited text file.		menu	on page 32

# 4.2 **Printing Tables**

The Auction Tracking Tool lets you print the active table directly or obtain a print preview and then print from the preview window. The table prints in Landscape mode automatically, but you can switch to Portrait mode or specify page margins, if desired, by changing the Print Setup parameters.

## 4.2.1 Print

To print the active table directly, either click the Print button on the tool bar or choose the *Print* option from the File menu.

**Page Breaks.** If a table is wider or longer than a single page, a vertical or horizontal dashed line indicates the page break. You can set your own page break by right-clicking the row or column where you want to break the page and then clicking the menu item for the action you want.

## 4.2.2 Print Preview

To obtain a print preview of the active table, either click the Print Preview button on the tool bar or choose the *Print Preview* option from the File menu. A Print Preview window appears, showing the first page of the table. You have several options:

- To enlarge the table, click anywhere in it; to return the table to its original size, click on the enlarged version.
- You can click the arrow buttons to move forward or backward through a multi-page table.
- You can click the Print button to print the table.

Note that clicking Print causes the entire table to be printed, not just the page you are viewing. There is no option at this point to specify a print range.

## 4.2.3 Print Setup

By default, tables are printed in Landscape mode with no margins. However, you can switch to Portrait mode or specify page margins by choosing *Print Setup* from the File menu. Make your changes on the Print Options window that appears, then click the OK button.

## 4.3 Summing, Averaging, and Counting Column Data

The Auction Tracking Tool can calculate the sum or average of items in a numeric column. It can also count the number of items in a column. (This works on column data only, not on raw data.) To do any of these operations:

- 1. Select the column items you want to operate on.
  - To select an entire column, click its label.
  - To select consecutive items, put your mouse pointer on the first (uppermost) item, press the left mouse button, and drag the mouse pointer to the last item you want.
  - To select non-consecutive items, press the Ctrl key and hold it down while you click the items you want.

Note that all the items you select must be in the same column.

2. Move your mouse pointer to the field at the bottom right-hand corner of the worksheet (i.e., the field to the right of the current date) and click the **right** mouse button.

3. On the pop-up menu, click *Sum*, *Average*, or *Count*. The result of the operation appears in that same field.

# 4.4 Filtering Table Data

You can click the Filter button (funnel icon) on the tool bar or choose the Filter Table option on the Tools menu to specify criteria that selects the rows to be displayed. Activating the Filter function makes a Table Actions window appear, with its Filter tab active. The Filter feature lets you create a logical statement that includes up to four separate criteria, using the following terms:

- *Column* provides a pull-down menu from which you select the table data item.
- *Operator* provides a pull-down menu from which you select the logical operator. The = (equal to) operator is the default.
- *Filter* provides a pull-down menu from which you select the value to which the filter applies.
- *And/Or* lets you apply additional criteria.

When you finish entering filter criteria, you can either click the OK button (to perform the filter operation and close the window) or click the Sort tab (to specify sort criteria to be applied to the table data). You can even perform another filter operation to obtain a smaller subset of the data you filtered previously.

*Note:* Once you have applied a filter to a table, the Auction Tracking Tool applies the same filter criteria to the next round you select from the *Round* pull-down menu. The system will continue to apply your filter criteria until you select another table or reset the table.

# 4.4.1 Resetting a Table

To discard your filter criteria and return the table to its original form, either click the Reset Table button on the tool bar or choose the Reset Table option from the Tools menu. Activating the Reset Table function also deletes any sort criteria you have specified for this table.

# 4.5 Sorting Table Data

You can click the Sort button (marked with AZ and a down-arrow) on the tool bar or choose the Sort Table option on the Tools menu to specify the order in which the table data should be

displayed. Activating the Sort function makes a Table Actions window appear, with its Sort tab active. Note the following:

- The Source Data column lists the data items used to display entries for the active table.
- *Columns* lists the items that you have selected to sort the entries. The items are shown in order of precedence, with the primary sort key at the top. Each sort item also has an Ascending box. When this box is checked, the associated column is sorted in ascending order.

When you finish working with the sort data, you can either click the OK button (to perform the sort operation and close the window) or click the Filter tab (to specify filter criteria to be applied to the table data).

*Note:* Once you have sorted a table, the Auction Tracking Tool applies the same sorting criteria to the next round you select from the *Round* pull-down menu. The system will continue to apply your sorting criteria until you select another table or reset the table.

## 4.5.1 Specifying Sort Items

To specify a particular item for sorting, you can either double-click its name in the Source Data column or "drag and drop" the item from the Source Data list to the columns list.

*Important:* In either case, you must specify the sort items in the order they are to be applied. That is, specify the primary sort key, then the secondary sort key, and so on.

To drag and drop an item:

- 1. Click the item in the Source Data column to select it.
- 2. Put your mouse pointer on the highlighted label, then press the left mouse button and hold it down.
- 3. With the left mouse button held down, move your mouse pointer to the Columns list entry that should follow (i.e., come after) your new item, then release the mouse button.

The new item is added to the end of the Columns list; its Ascending box is checked automatically.

4. To sort a Columns item in descending order, click it to remove the check mark from the Ascending box. To set it back to ascending order, click it again.

You can also remove an item from the Columns list just as you added it: by either doubleclicking it or dragging and dropping it back onto the Source Data list.

# 4.5.2 Resetting a Table

To discard your sort criteria and return the table to its original form, either click the Reset Table button on the tool bar or choose the Reset Table option from the Tools menu. Activating the Reset Table function also deletes any filter criteria you have specified for this table.

# 4.6 Exporting Table Data To a Text File

You can use the Export option on the File menu to save the contents of the active table to a tabdelimited text file. (Note that this function is not available from the tool bar buttons.)

Choosing Export produces a Save As window that lists the path of the current file in the File name field. It also shows the directory where this file is stored in the *Save in* field. To export the table file, modify these fields, if desired, then click the Save button.

# 4.7 Creating Excel Pivot Tables

The Pivot Table Wizard is an analysis tool that integrates with current versions of Excel to let you create a pivot table containing the activity for a specified range of auction rounds. To use the Pivot Table Wizard, Excel 97 or higher must be installed on your computer.

**Note:** *This option is for advanced Excel users.* FCC Technical Support will assist with the Auction Tracking Tool, but will not answer questions about Excel pivot tables.

To start the Pivot Table Wizard, choose the Pivot Table Wizard option on the Tools menu and then click one of the three options on the submenu. These options do the following:

- **Markets** creates a pivot table containing information on the markets you select for the specified rounds.
- **Rounds** creates a pivot table containing information on all bids placed during the specified rounds.
- **Bidders** creates a pivot table containing information on the bidders you select for the specified rounds.

When the Select Rounds and Bid Type window appears, you must specify the range of rounds to be analyzed. Do the following:

- 1. In the *From* field, type the number of the first round you want to analyze.
- 2. If you want to analyze subsequent rounds, type the number of the last round in the To field.
- 3. Under Type of Bids to Display, click either Gross Bids or Net Bids, as desired.
- 4. Click the OK button.

What happens next depends on which submenu option you chose. If you chose *Rounds*, Excel creates your pivot table.

Otherwise, if you chose *Markets* or *Bidders*, you must specify which markets or bidders should be included in the pivot table. In this case, a Select Analysis Criteria window appears, and shows a list that contains one of two things. If you chose *Markets*, the list shows the markets on which bids were placed during the specified rounds. If you chose *Bidders*, the list shows the names of bidders who placed bids during the specified rounds.

- 5. On the list, select the markets or bidders you want to analyze, as follows:
  - To select an individual entry, click it.
  - To select a group of contiguous entries, click the starting (top) entry, then hold the Shift key down while you click the ending (bottom) entry. All entries between the starting and ending entries are highlighted.

Alternatively, you can place the mouse pointer over the starting entry, press and hold the left mouse button down, and drag the pointer to select all the entries you want.

- To select entries that are not contiguous, press the Ctrl key and hold it down while you click each entry.
- 6. Click the OK button to create your pivot table.

# 5 Obtaining a Round Summary

You can select the *Summary* option from the View menu to obtain information for the currentlyselected round. This produces a window that has the auction number and round number shown at the top. It provides the following information:

Item	Description	Comments
Round Date	Date when this round closed.	
Stage	Stage number of the current round.	
Stage Transition %	The ratio of activity to eligibility.	The FCC uses this value as one factor to determine when to make a stage transition.
Net Bids	Total of net bids for this round.	
Gross Bids	Total of gross bids for this round.	
Change in Net Prev Round	Change in net dollars from the previous round.	
Change in Net Prev Day	Change in net dollars from the last round of the previous day.	
Total Bids	Number of new bids in this round.	
High Bids	Number of new high bids in this round.	

Item	Description	Comments
FCC Held Licenses	Number of licenses owned by the FCC.	A license is held by the FCC until a bidder places a bid on it. It can later revert to the FCC if a bid is withdrawn. The FCC acts as a place holder until a new bid is placed.
Withdrawals	Number of withdrawals in this round.	
Eligibility Ratio	Ratio of the sum of maximum eligibility available for all bidders to the number that would be required to place a bid on all licenses in the auction.	
Pctg of Covered BUs	Percentage of total bidding units that currently have a high bidder other than the	
Bidders at Risk	Number of bidders at risk of having their eligibility reduced or using an activity waiver, because their current activity is less than the amount of activity required to maintain eligibility.	
Eligible Bidders	Current number of eligible bidders.	
Additional Activity Required	A measure of the actual activity in excess of the activity required in the round.	
Waivers	Number of waivers	

#### Obtaining a Round Summary

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Item	Description	Comments
	(automatic, proactive, or both waivers) used in this round.	
Bidders Reduced	Number of bidders who reduced their eligibility.	
Multi-Increment Bids	Number of bids placed in the round with a Bid Mult greater than <i>l</i> (one).	
Bidders Raising Own High Bid	Number of bidders who raised their own standing high bid for the round.	

Initially, the Round Summary screen shows data for the currently-selected round, but you can select data from any other round by choosing it from the Round menu at the bottom of the screen.

You can also print the round summary by clicking the Print button, or close the Round Summary screen by clicking the Close button.

# 6 Building Your Own Tables

The Auction Tracking Tool also lets you create tables of your own design. To create a table based on the contents of a single existing table, you can use the *Table Wizard*. To create a table based on any of the data items in the database (i.e. data from multiple tables and columns), you can use the *SQL Query Builder*.

## 6.1 Using the Table Wizard

Each table you create using Table Wizard must be a subset of an existing table. Thus, begin by activating the table you want to use as your model. Once you have done that, click the Table Wizard button on the tool bar or choose the Table Wizard option on the Tools menu to specify the contents of a table you want to create. Activating the Table Wizard function makes a Table Actions window appear, with its Table Wizard tab active.

The top of the work area has an *Include All Rounds* check box that you use to indicate whether the table should show data for only the current round or for all rounds (the default setting). Checking *Include All Rounds* also has another effect: if you build a table with this box checked, the table will be updated automatically with all new rounds that you import thereafter.

*Important:* If you do not include the *Round* field in your new table, imports will produce unexpected results.

There is also a *Target Table Name* field in which you must type the name of your new table. The main part of the work area consists of two columns:

- The *Source Table* column lists the available data items. That is, it lists the names of all data items used in the existing Auction Tracking Tool tables.
- The *Target Table* column lists the data items in the table you are defining.

To define a table, you must move the name of each data item you want from the Source Table to the Target Table. To move a data item to the Target Table, double-click its name in the Source Table. (If you accidentally move the wrong data item to the Target Table, double-click it to move it back to the Source Table.)

**Note:** Whenever you move a data item into the Target Table, it appears at the end of the list. Thus, you must move data items in the left-to-right order you want them to appear in your new table.

Once you have defined a table, you can use the Sort or Filter tab to operate on your custom table just as you operate on the predefined tables. For descriptions of these functions, see Sorting Table Data and Filtering Table Data.

When you finish, click the OK button. Your table now appears as the last option in the main window's *Table* pull-down menu. To view it, choose that option from the menu.

# 6.2 Using the SQL Query Builder

**Note:** *This option is for advanced users only.* FCC Technical Support will provide help using the option, but they are not prepared to instruct users about the principles of SQL, building SQL queries, or troubleshooting Query errors.

To use the SQL Query Builder, you can click the SQL Query Builder button on the tool bar or choose the SQL Query Builder option on the Tools menu. Activating the SQL Query Builder function makes an SQL Query Wizard window appear. This window provides the following data entry fields:

Field	Description	Comments
Query Name	Type a name for this query. The system saves the query by the name you have specified as soon as you have finished typing it in this field.	This is the only required field on the window.
Select	Contains the names of existing data fields that you want to include in your new table, separated by commas.	You must enclose the name in brackets, as in <i>[Auction ID]</i> , and separate each bracketed name with a comma.
Into	The name of your new table.	
From	Contains the names of existing tables, separated by commas, that the system should query to construct the new table.	You must enclose the name in brackets, as in <i>[Round Statistics]</i> .
Where	Contains your SQL query criteria.	You must enclose the name in brackets, as in <i>[Auction ID]</i> .

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Field	Description	Comments
Order By	Contains the names of data fields, separated by commas, by which you want the data sorted.	The default sort is ascending. To get a descending sort, put <b>DESC</b> after the column name.
		You must enclose the name in brackets, as in <i>[Auction ID]</i> .

**Joining Multiple Tables:** If you plan to join multiple tables, the table name is required as an identifier for the column. All columns will be listed as [*table name*]. [*column name*] in the *select, where* and ordered by sections.

When you have completed the fields, click the Run button. Your table now appears as the last option in the main window's *Table* pull-down menu. To view it, choose that option from the menu.

The arrow buttons at the bottom of the SQL Query Wizard window allow you to access existing SQL queries. The outer buttons move you to the first or last query, respectively. The inner buttons move you to the preceding or next query, respectively.

Once you have displayed a query in the window, you can edit any of its fields. You can also delete the query entirely, by clicking the Delete button.

Note: SQL query tables do not get updated when subsequent rounds are imported.

# 6.2.1 Printing Tables

You can print the active table and change the print parameters. See *Printing Tables* on page 28 for details.

# 6.3 Deleting User-Defined Tables

To delete a table you have created, activate it using the *Table* menu, then either click the Drop Table button on the tool bar or choose the Drop Table option from the Tools menu. When the prompt appears, click *Yes*. This will drop the table from the database. If you want tot view the table again, you will have to recreate it.

Note that this option does not allow you to delete the predefined tables.

# 7 Appendix: Auction Tracking Tool Compatibility Table

The following table lists the current versions of the Auction Tracking Tool and shows the FCC auctions with which they can be used. The table also provides a brief summary of the enhancements that were incorporated into each version.

ATT Version(s)	Used in Auction(s)	Enhancements	Comments
2.5	21 – LMS	Major database structure changes and GUI enhancements.	Version 2.5 can handle import of <i>mdb</i> files for Auctions 20 and 21. However, Auction 20 supports unique <i>mdb</i> files.
			Version 3.0 and later of the tool will be unable to import results files from auctions 20 and 21, because these versions expect a <i>zip</i> format.
3.0	22 and 23	Added submarket, Summary page, and zip capability	All versions from Version 3.0 forward are backwards compatible, with the exception of the pivot table feature.
			Version 3.0 of the tool is capable of viewing the auction database that was created with auction 21 results as long as the <i>mdb</i> files are zipped before being imported. However, the pivot tables will not work due to the absence of the submarket field.
3.1	24	• Established default sort	Changes were made to enhance the

Appendix: Auction Tracking Tool Compatibility Table

ATT Version(s)	Used in Auction(s)	Enhancements	Comments
		<ul> <li>for each table</li> <li>Changed a field in the sysWizard table to allow users to save longer queries in the Table Wizard</li> <li>Added Market Name field to pivot tables</li> </ul>	use of the tool. Backward compatible to Auction 22.
3.2.2	26 and 30	<ul> <li>Enable final round to import with no data at auction close</li> <li>Altered to properly handle a situation when a bidder has no waivers</li> </ul>	Changes were made to enhance the use of the tool. Backward compatible to Auction 22.
3.3	34, 35, and 39	<ul> <li>Supply <i>backup.txt</i> files for posting if the round results processing fails to produce the ATT zip files</li> <li>Perform automatic data compression to prevent downgraded performance when dealing with large amounts of data</li> <li>Enable automated import of data into user-defined tables</li> </ul>	Changes were made to enhance the use of the tool. Backward compatible to Auction 22.