

**AUCTION 102 ASSIGNMENT PHASE BIDDER DATA FILE FORMATS**

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## 1. Introduction

This document provides the data file specifications for the bidding-related upload and download files that will be available to bidders during the assignment phase of Auction 102. Each file specification includes the format of the file and definitions of the data elements in the files including a name, description, data type, examples and notes. Data type definitions and notation rules are explained in an appendix attached to this document.

In addition to the data file specifications, a sample data file for each file is available on the Auction 102 website ([www.fcc.gov/auction/102](http://www.fcc.gov/auction/102)) in the Education section. The sample data shows the downloads and upload of a bidder with a small business bidding credit. We emphasize that the scenarios and bidding examples provided are not meant to reflect any predictions or assumptions by the Commission regarding bidding activity, the number of rounds, or the outcome of Auction 102.

## 2. Bidder Download Files

This section provides the specifications of the download files available to bidders during the assignment phase of the auction. All files are available at all times during the assignment phase.

### 2.1. My Bids and Options

**File name:** my\_bids\_and\_options.csv

The My Bids and Options file provides information about each of the bidding options available to the bidder for each category and assignment phase market that it can bid in based on its winnings in the clock phase, and includes the round number associated with each assignment phase market. It also includes options that have been pre-assigned to the bidder in advance of the assignment rounds because only one bidding option is available to each of the winners for a category in an assignment phase market. Similarly, it includes any options that will be automatically assigned to the bidder during the assignment rounds because only one option is available to that bidder for the category in the assignment phase market. The Auction System will not allow a bidder to submit a bid on pre-assigned or automatically assigned options. For a bidding option that the bidder is permitted to bid on, bid-related data — including the submitted bid amount, the name of the authorized bidder that submitted the bids, and the date and time that the bid was submitted — appears in this file after the bidder has submitted the bids.

#### File Structure:

- CSV file (first row contains header).
- One record for each bidding option for the bidder.

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number	String	102
bidder	Bidder name	String	Company XYZ “ABC, Inc.”
frn	The bidder’s FCC Registration Number (FRN) which uniquely identifies a bidder	Alpha-numeric {10}	0003645843

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<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
round	Round number	Integer	12  <i>This will be 0 for any pre-assigned bidding options.</i>
region	The REAG number of the PEA(s), if the PEA(s) are not Top 40, and “Top 40” otherwise	String [Top 40  REAG 1  REAG 2  REAG 3  REAG 4  REAG 5  REAG 6]	REAG 2  Top 40
market_number	The PEA (Partial Economic Area) ID(s) in the assignment phase market that is associated with the bidding option	String	PEA001  PEA077;PEA138  <i>Multiple PEAs are separated with semi-colons.</i>
market_name	The PEA name(s) associated with the bidding option	String	“New York, NY”  “Portland, ME;Burlington, VT”  <i>Multiple PEAs are separated with semi-colons.</i>
category	License category	String [L U U / UI]	“L”, “U”, “U / UI”  <i>If the bidder has winnings in Category UI, the category will be shown as “U / UI”</i>
winnings	The total number of blocks that the bidder has won in this category in these markets	Integer	3  <i>Number covers all blocks won in all PEAs in a grouping of PEAs.</i>  <i>Category U and UI winnings are grouped together.</i>
option	The specific blocks in the bidding option	String	CDE
clock_phase_payment	The clock phase payment for the option, summed across licenses in the bidding option.	Integer	2960000  <i>Category U and UI winnings are grouped together.</i>

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<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
assignment_round_bid	The bid amount submitted for the bidding option	Integer	182000  <i>NULL for all bidding options that the bidder cannot bid on. Otherwise, 0 by default or the bid amount submitted by the bidder.</i>
entered_by	Name of authorized bidder who placed the bid. If a telephonic bid assistant submits the bid on behalf of the authorized bidder, it also includes the name of the telephonic bid assistant in parentheses.	String	Karen Smith  Karen Smith (Juliet Brown)  <i>NULL if the bidder has not submitted a bid for the bidding option.</i>
entered_time	The date and time that the bid was submitted.	String  YYYY-MM-DD HH:MM:SS	2015-04-12 15:21:47  <i>All time stamps are in Eastern Time.</i>  <i>NULL if the bidder has not submitted a bid for the bidding option.</i>

**2.2. My Results**

**File name:** my\_results.csv

The My Results file provides the assignment results for the bidder, listing each bidding option that was won by the bidder (its “winning assignment”) and its assignment phase payment, if any. It also includes the winning assignments that were pre-assigned to the bidder in advance of the first assignment round. Therefore, before the first assignment round, this file contains just these pre-assignments (if any).

**File Structure:**

- CSV file (first row contains header).
- One record per winning assignment.

<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
auction_id	The FCC auction number	String	102
bidder	Bidder name	String	Company XYZ  “ABC, Inc.”
frn	The bidder’s FCC Registration Number (FRN) which uniquely identifies a bidder.	Alpha-numeric {10}	0003645843

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<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
round	Round number	Integer	12  <i>This will be 0 for any pre-assigned bidding options.</i>
region	The REAG number of the PEA(s), if the PEA(s) are not Top 40, and “Top 40” otherwise	String [Top 40  REAG 1  REAG 2  REAG 3  REAG 4  REAG 5  REAG 6]	REAG 2  Top 40
market_number	The PEA (Partial Economic Area) ID(s)	String	PEA001  PEA077;PEA138  <i>Multiple PEAs are separated with semi-colons.</i>
market_name	The PEA name(s)	String	“New York, NY”  “Portland, ME;Burlington, VT”  <i>Multiple PEAs are separated with semi-colons.</i>
category	License category	String [L U U / UI]	“L”, ”U”, ”U / UI”  <i>If the bidder has winnings in Category UI, the category will be shown as “U / UI”</i>
winnings	The total number of blocks that the bidder has won in this category in these markets	Integer	3  <i>Number covers all blocks won in all PEAs in a grouping of PEAs.</i>  <i>Category U and UI winnings are grouped together.</i>
option_assigned	The specific blocks in the assigned bidding option	String	CDE
clock_phase_payment	The clock phase payment for the option, summed across licenses in the bidding option.	Integer	2960000  <i>Category U and UI winnings are grouped together.</i>

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<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
assignment_round_bid	The bid amount submitted for the bidding option	Integer	182000  <i>0 for all pre-assigned and automatically assigned bidding options or the bid amount submitted by the bidder.</i>
assignment_payment	The assignment phase payment for the winning assignment	Integer	156000  <i>0 for pre-assigned and automatically assigned PEAs or if no additional assignment payment is necessary.</i>
gross_payment	The gross payment amount for the winning assignment is the sum of the clock phase payment and the assignment phase payment.	Integer	3116000  <i>Does not take bidding credits and caps into account</i>

**2.3. My Cumulative Results**

**File name:** my\_cumulative\_results.csv

The My Cumulative Results file contains the cumulative payment amounts for the bidder after each round. The file contains one record for every assignment round. After each round is posted, one additional row will be added to the file. This file therefore provides a running estimate of the final auction payment based on the information known at the time of that assignment round. For bidders with a bidding credit, this file includes additional information about discounts and bidding credit caps known at that point in time.

**File Structure:**

- CSV file (first row contains header).
- One row providing the payment status as of the completion of an assignment round is added when the results of that round are posted.
- For bidders with no bidding credit, the file contains five columns; for bidders with a rural bidding credit, the file contains eight columns; for bidders with a small business bidding credit, the file contains nine columns. The additional columns provide information about the discounts associated with the credits.

<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
auction_id	The FCC auction number	String	102
bidder	Bidder name	String	Company XYZ  "ABC, Inc."

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<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies a bidder	Alpha-numeric {10}	0003645843
rounds_completed	Round number of the last posted assignment round covered by the data, or 0 for data relating to pre-assignments	Integer	12
gross_payment	The gross payment (without any bidding credit discounts applied) for clock phase and all assignment rounds up to and including the completed round	Integer	1100000000
discount_uncapped_all_markets	The discount to the gross amount for all markets without taking into account the small market cap (if applicable) or the overall cap	Integer	165000000  <i>This field is not included if the bidder is not eligible for a bidding credit.</i>
net_payment	The net payment (i.e. the gross amount minus the capped discount)	Integer	1075000000  <i>This field is not included if the bidder is not eligible for a bidding credit.</i>
discount_uncapped_small_markets	The discount to the gross amount for small markets without taking into account the small market cap	Integer	22100000  <i>This field is only included if the bidder is eligible for the small business bidding credit.</i>
discount_capped_all_markets	The discount to the gross amount for all markets taking into account the small market cap (if applicable) and the overall cap	Integer	25000000  <i>This field is not included if the bidder is not eligible for a bidding credit.</i>

**3. Bidder Upload File**

Bidders are permitted to upload bids at any time during the assignment phase for current and future rounds. This can be done by downloading the “My Bids and Options” download and using it as a template for an upload file by entering the desired bid amounts in the “assignment\_round\_bid” field, and uploading the revised file. A bid amount is required for all current and future bidding options that the bidder can bid on (those in which the bidder has more than one bidding option in the round) but a value of 0 is permissible as indicated as the default in the “My Bids and Options” download.

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A bidder may also create its own bid upload file. Bidders that choose to create their own bid upload files must ensure that the file contains a header row, and a single row for every bidding option for the current and future rounds in which the bidder can place bids. Further requirements about a bid upload file are provided below.

**File Requirements:**

- The upload file must be in the CSV format. A particular file name is not required.
- The following fields are required and must have the exact field names as column headings in the first row. All other fields will be ignored.
  - Round number (column header “round”)
  - Market number(s) (column header “market\_number”)
  - Bidding option (column header “option”)
  - Bid amount (column header "assignment\_round\_bid")
- A bid amount for each bidding option in which the bidder can place bids is required, but a value of 0 is permissible.
- Bidding options in which the bidder cannot place bids (because it has only one option) or bidding options from past rounds are not required and if included will be ignored.
- A bid upload file will be rejected in its entirety if any of the following conditions occur:
  - It does not match the format described;
  - An option for a current or future round for which bidder can bid is not included in the file;
  - The combination of round, market\_number, and option is not consistent with the bidding options available to the bidder;
  - There is a duplicate combination of round, market\_number, and option in the file;
  - The price entered for the assignment\_round\_bid is invalid (because it is not a whole number between 0 and 1 billion); or
  - The upload includes revised bids for a round that has just closed and the results of that round have not yet been posted.

<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
round	Round number	Integer	12
market_number	The PEA (Partial Economic Area) ID(s) in the assignment phase market that is associated with the bidding option	String	PEA001  PEA077;PEA138  <i>Multiple PEAs are separated with semi-colons.</i>
option	The specific blocks in the bidding option	String	CDE



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<b>Field</b>	<b>Description</b>	<b>Data Type</b>	<b>Examples/Notes</b>
assignment_round_bid	The bid amount submitted for the bidding option	Integer	182000  <i>NULL for all bidding options that the bidder cannot bid on. Otherwise, 0 by default or the bid amount submitted by the bidder.</i>

#### 4. Appendix: Data Type Definitions

The following is a guide to interpreting data types defined in this document. This guide is based on standard expressions used in XML.

##### Valid Data Types used in this Document

**Character:** A character is a single standard ASCII character. The following list has examples of valid ASCII characters:

- a
- D
- 3
- %

**String:** A string contains one or more characters and can contain whitespace. The following list has examples of valid strings:

- PEA001
- 005
- 588.3-593.3 MHz + 628.3-633.3 MHz
- Huntsville-Decatur-Florence, AL

Note that strings containing a comma that are included in a CSV formatted file need to include quotation marks around them. In the above example, “Huntsville-Decatur-Florence, AL” would be the correct format for the string in a CSV file.

**Numeric:** Numeric is a generic data type that covers a number of different underlying data types. As a result, anything defined as numeric could be any of the following:

- Decimal
- Integer
- Long

**Decimal:** The Decimal data type is used to specify a number that may optionally contain a fractional portion. The decimal numbers in the bidding system are made with 2 decimal places.

The following are examples of valid decimals:

- 123.45
- -0.15
- .67
- 0.30

The following are examples of invalid decimals:

- 123.4.5
- 5+6
- 1.4545E6
- 5,121.00

**Integer:** The integer data type is used to specify a numeric value without a fractional component.

- It's assumed that any integers defined in this document are unsigned and never include a (+) plus or (-) minus sign. Any signed integers containing a + or – are considered invalid.
- If the integer is of defined length then curly brackets should be used. E.g., {3} indicates the integer should be exactly 3 numbers long.

The following are examples of valid integers:

- 009
- 9
- 2147483647

The following are examples of invalid integers:

- -009
- +009

### Null

Regardless of the data type, under certain conditions a field may be *null*, which means there is no data for that field (i.e., the field is blank).

### Restricting values for a data type

Restrictions are used to define acceptable values for any given data type. The following lexicon is used when defining data types:

- Square brackets define the *pattern*.
  - e.g., [A-L] means only the uppercase letters A through L are allowed.
  - e.g., [U|D] means only the uppercase letters U or D are allowed.
  - e.g., [0-9] means only the numbers 0 through 9 are allowed
- Curly brackets define the *length* including whitespace.
  - e.g., {3} means the value has to be exactly 3 characters long.
  - e.g., {1,3} means the value has to be a minimum of 1 character and a maximum of 3 characters.
  - e.g., {0,50} means the value has to be a minimum of 0 characters and a maximum of 50 characters.

### Example 1:

The Data Type is defined as follows:

**Integer**  
**{3}**

The curly brackets mean only a 3-digit integer is allowed.

Valid Values for example 1:

- 009
- 056
- 102

Invalid Values for example 1:

- 09

- 3502
- 1
- +12
- -35

**Example 2:**

The Data Type is defined as follows:

**String**  
**[A-L]{1}**

The square brackets mean only the uppercase letters A through L are allowed and the curly brackets mean it must be exactly 1 character long.

Valid values for example 2:

- B
- L

Invalid values for example 2:

- a
- M
- 6

**Example 3:**

The Data Type is defined as follows:

**String**  
**[0-9]{3}**

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be 3 characters long.

Valid values for example 3:

- 001
- 023
- 358

Invalid values for example 3:

- 2
- 01
- 2026

**Example 4:**

The Data Type is defined as follows:

**String**  
**[0-9]{1,2}**

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be a minimum of 1 character long and a maximum of 2 characters long.

Valid values for example 4:

- 4

- 04
- 41

Invalid values for example 4:

- 123
- Blank or null value

**Example 5:**

The Data Type is defined as follows:

**String**  
**[US|CA|MX]{2}**

The square brackets mean the pattern must be either US, CA or MX. The curly brackets mean it must be exactly 2 characters long.

Valid values for example 5:

- US
- CA

Invalid values for example 5:

- C
- USA

**Example 6:**

The Data Type is defined as follows:

**String**  
**([PEA][0-9] [0-9] [0-9]){6}**

The square brackets inside the round brackets mean the pattern must be a concatenation of the text “PEA” followed by three single numbers, with each number ranging from 0 through 9. The curly brackets mean it must be exactly 6 characters long.

Valid values for example 6:

- PEA002
- PEA356

Invalid values for example 6:

- PEA0001
- PEA-005
- PEA-05
- PEA-0512
- PEA-2

**Example 7:**

The Data Type is defined as follows:

**String**  
**{0,50}**

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The absence of square brackets means there are no restrictions to the characters in this string. The curly brackets mean it must be a minimum of 0 characters long (i.e., can be blank/null) and a maximum of 50 characters long.

Valid values for example 7:

- 588.3-593.3 MHz + 628.3-633.3 MHz
- Albuquerque-Santa Fe, NM

Invalid values for example 7:

- Greenville-Spartanburg, SC-Asheville, NC-Anderson, SC
- This is an invalid string which is longer than 50 characters including spaces.