

GSCCCA Guidelines
to Assist County Real Estate Indexing Computer Systems
Achieve Compliance with the
Consolidated Georgia REAL ESTATE Indexes Project

April 10, 2008

For any questions or comments please contact:

Phil Kobierowski 404/ 894-2552. e-mail: phil.kobierowski@gsccca.org

Table Of Contents

INTRODUCTION	3
CONVENTIONS AND DEFINITIONS	4
RECENT CHANGES	5
TASK 1: FORMAT AND LAYOUT FOR PRINTED INDEXES	6
TASK 2: INDEXING DATA-ENTRY CAPABILITIES	8
TASK 3: DATA FILE CREATION	10
TASK 4: DATA FILE TRANSMISSION	18
TASK 5: GOOD-THROUGH DATE ADVANCEMENT	19
TASK 6: RESTRICTIONS ON REVEALING INDEX DATA	20
TASK 7: DATA PROTECTION	21
TASK 8: IMAGING	22
APPENDICES	23
Appendix A - Data Dictionary	23
Appendix B - Printed Index Layout	29
Appendix C - Georgia Counties and County Codes	33
Appendix D - Deed Instrument Types	34
Appendix E - Checksum Calculation and Example	35
Appendix F - Acceptance Code Calculation	37
Appendix G - Historical Deed Re-Indexing Project Guidelines	38

INTRODUCTION

A major feature of the Consolidated Georgia Real Estate Indexes System is the electronic transmission of the County deed index records to the Central Collection System of the Georgia Superior Court Clerks' Cooperative Authority (GSCCCA). The daily flow of information from all 159 Georgia Counties occurs using the GSCCCA Statewide Courthouse Network. The process of electronic data transmission must be standardized and carefully controlled, to ensure the validation of the data in the system. The purpose of this document is to present the technical system and data requirements for local county Real Estate Instrument indexing systems. This document compliments the GSCCCA indexing standards documents that describe the values, such as names, get entered by indexers into the data fields described here.

In general, the process will involve the following steps:

- Deed records are indexed normally on a daily basis.
- Designated personnel in each county will produce a data file (specifications described herein) once (or more times) a day.
- The standardized index files and images will be electronically transmitted to the GSCCCA Central Collection System.
- Received files will be validated (validation rules are described later in this paper) for conformance with requirements.
- Files passing the validation check will be added to the Statewide Index and Acceptance notifications will be e-mailed to the originating county.
- Files not passing the validation check will generate error notices e-mailed to the originating county for corrections and re-transmission.

The GSCCCA will assist vendors and Clerks of Superior Court with the process of becoming compliant with the requirements. Vendors and counties with in-house indexing software are required to complete a certification process to verify compliance with the requirements stated herein. Lists of vendors with Certified systems is distributed by the GSCCCA.

The complete system requirements are described in detail in the following sections. All local system and counties must follow the requirements herein with the exception of any that have been approved and included in the "County Indexing Systems Guidelines Exceptions".

Conventions and Definitions

This document provides the technical requirements that local (county) indexing systems must adhere to in order to achieve compatibility with the Consolidated Georgia Real Estate Indexes Project. Every Clerk of Superior Court is required to use a Real Estate Indexing Computer System that has demonstrated and maintains compliance with the Georgia Superior Court Clerks' Cooperative Authority (GSCCCA) requirements specified herein. This document is intended to be used by technical, information services personnel.

Upon achieving compliance with all tasks defined herein, it is expected that the vendor or organization responsible for an indexing system may apply for certification in the Real Estate Indexing System Certification Program sponsored by the GSCCCA. Information about the certification program is available from the GSCCCA.

The term 'Clerk' or 'Clerk of Superior Court' as used in this document refers to Clerks of Superior Court in the State of Georgia and their designated deputies, personnel, agents or vendors who may be performing services on their behalf for the production and maintenance of real estate indexes.

The term 'local indexing system' as used in this document refers to automated computing systems used by Clerks to produce and maintain Grantor and Grantee Real Estate Indexes.

'Indexed Party Name' refers to the grantor in a Grantor Index, the grantee in a Grantee Index. 'Reverse Party Name' refers to the party opposite the Indexed party: the grantee in a Grantor Index, the grantor in a Grantee Index.

The document refers to specific pieces of data in italics in a "table.field" format. Such pieces of data such as *Instruments.Book* are defined in Appendix A under the table name "Instruments," and the field name "Book."

Please address any questions or comments to the address provided on the front cover.

Recent Changes

Summary of Relevant Changes in 4/10/2008 from 2003 Version

1. Added Indexer Identification Lines in Task 3 and Historical Guidelines Section. This feature is expected to first be used in the 1990-1991 Historical Re-Indexing Project.
2. The list of Instrument Types in Appendix D has been replaced with a reference to the official list in the GSCCCA Indexing Standards.
3. This document now includes requirement for imaging capability, which has been in practice for several years.

Summary of Relevant Changes in the 2003 Version from the 6/24/1999 Version.

1. Included capability for transmitting data for Automated Cross Referencing. [Task 3, 1, Appendix A]
2. Included text to describe the "AP" column and require it to be calculated by index printing software and not input by indexers. [Task 1]
3. Added a non-critical warning if a book/page is already in the System. [Task 3]
4. Stated that Counties can only use GSCCCA certified system. [Introduction]
5. Section field is to be labeled to indexers as "County Section/GMD" and not just "Section" so indexers are not to be confused with a subdivision section. [Task 2]
6. An interface is to be available to indexers for modifying records and shall be pre-populated with the latest data from a C/A record so that earlier corrections are not inadvertently lost or over-written by later changes. [Task 2]
7. Added note indicating that the final characters of the Description field of C/A (Correction/Addition) records may be truncated to add the 'added' date and maintain the field size limit. [Task 3]
8. Fixed typo in printed index sorting order (Section, District, then Land lot). [Task 1]
9. Clarified Allowable characters for Description field in the Data-Dictionary.
10. Added non-critical warnings when Book or Page field contains leading zeros, imbedded spaces, or invalid use of dashes. [Task 3]
11. Stated that Validation rule 23 does not apply to Correction/Additions. [Task 3]
12. Stated Validation rule 3 applies to Correction/Addition lines. [Task 3]
13. Added note indicating Correction/Addition lines to be used for all changed records and that simply indexing a new record is not sufficient. [Task 3]
14. Added requirement that prompt for 'good-through date' needs caption explaining relationship of good-through date to Filed Date and not the current date. [Task 5]
15. Added note indicating that if the last file of a year is rejected for any reason except for having an invalid filename, that filename/file must be transmitted in the new year until accepted. [Task 3]
16. Added note that Correction/Addition records are printed in indexes as if they were a separate instrument, not part of the original instrument. [Task 1]
17. Added note that filed date and filed time, when used for sorting are to be sorted chronologically. [Task 1]
18. Added note indicating Correction/Addition to be included in (at least) the timeframe the correction is made. [Task 1 or 3]
19. Added note indicating duplex printed indexes that are top-bound should have their odd-pages printed upside-down from even pages to index is properly readable. [Task 1]
20. Fixed various typos in the document and also fixed errors in sorting order of the printed index samples.
21. Added note indicating certain fields may be pre-populated with data during indexing, assuming indexer has capability to verify accuracy and change values. [Task 2]
22. Added requirement and format for including time along with date for Correction/Addition records to follow O.C.G.A. 50-18-70. [Task 3]
23. The procedure of assigning Instrument IDs at the time transmit files are creation is no long the 'recommended method' but is now listed as an optional method, along with the procedure of assigning Instrument ID at the time of clerk acceptance of an instrument for filing. [Task 3]

Task 1: Format and Layout for Printed Indexes

General Information Any County Indexing system that generates or prints a hard copy Real Estate Grantor index and/or Grantee index must print the index to be in compliance with the specifications identified herein. All printed real estate grantor and grantee indexes in the State of Georgia must conform to this specification. Any index printed in time intervals (for example, monthly) shall include the Correction/Addition records (see Task 3) that were merged within its time interval. Correction/Addition data/records may also optionally appear in other time intervals. Correction/Addition records will appear in printed indexes as a separate entry and not as data merged into the record with the invalid data.

Page Layout The layout and complete appearance must match that of the samples provided in Appendix B. This includes layout, page headers & footers, content, types (fields) of data displayed, grid lines, column order and size, Indexes shall be printed with a Courier, fixed-pitched font. Indexes shall be laser printed in simplex (one side of the page) or duplex (see 'Duplex Printing Considerations' below) format and in landscape profile on 8½ by 11 inch paper.

Indexing systems shall provide Clerks of Superior Court with the ability to print indexes in one of two formats: bound on the top of the page, or bound on the left. A sample of each format is provided in Appendix B. Top bound indexes shall have a quarter-inch left and right margin, and a 1¼-inch margin at the top (for binding), and a half-inch margin on the bottom. Index data for this format shall be printed in 8-point font size and page headers shall be 10-point font size. Left bound indexes shall have a .2 (2/10)-inch top and bottom margin, and a one-inch margin on the left (for binding), a quarter-inch margin on the right. Index data shall be printed in 7-point font size and page headers shall be 9-point font size for this format.

The printed page headers, the column headers, indexed party name, *Instruments.Book* and *Instruments.Page* fields shall be in bold-face type and thus appear more noticeable than other data on the page.

Pagination Indexes will be printed in alphabetical sections - a new page and sheet after the names that begin with numerals and for each new first letter of indexed party name. When index data for an instrument spans more than one page the last printed line below the indexed party name shall contain the indented words "CONTINUED ON NEXT PAGE", the first line of the next page shall repeat the indexed party name, and on the line below such name shall be the indented words "CONTINUED FROM PREVIOUS PAGE".

Duplex Printing Considerations For indexes printed in duplex format; *i.e.*, printed on the front and back of physical pages (the preferred but not required format), odd numbered pages shall have the same margins as specified above. For even numbered pages, there shall be a gutter margin that reverses the left and right margins for left bound indexes and reverses top and bottom margins for top bound indexes. Page breaks specified herein (such as between the 'A's and 'B's of the first character of names) shall require printing to resume on the front side of the next physical page, not the back of a current page. For top bound indexes, pages with odd page numbers shall be printed 'upside-down' of even-numbered pages so that both pages can be read once bound.

Sorting All Indexed party names shall be sorted and printed on the indexes. Instrument data within an Index shall be sorted in ascending order by the following fields (fields described in Appendix A): Indexed party name (either *Grantors.Name* or *Grantees.Name* as appropriate), then *Instruments.Filed_Date*, then *Instruments.Filed_Time*, then *Instruments.Book*, then *Instruments.Page*. Within an instrument, Reverse party name(s) shall be sorted the same way as Indexed party names, and multiple property records shall be sorted by the following fields in order of precedence: *Properties.Section*, *Properties.District*, *Properties.LandLot*, then if available, *Properties.Subdivision*, *Properties.Unit*, *Subdivision.Lot*, *Subdivision.Block*, *Properties.Subdivision_Comment*.

'Alpha' and 'Alpha/Numeric' fields (such as names) shall be sorted on a character-by-character basis where a shorter piece of data precedes a longer name beginning with the same character or characters. Sorting order of characters shall be based on ascending numerical ASCII codes order: a space, followed by acceptable symbols (sorted by ASCII codes) as determined by the *Deed Indexing Standards of the State of Georgia*, followed by Arabic numerals 0 - 9, followed by English characters A - Z in ascending order of the English alphabet. For the *Grantors.Name* and *Grantees.Name* fields: commas (,) although printed in indexes, shall be ignored for the purposes of sorting. However, in the event that two names differ by only a comma, the name without the comma shall appear first in the sort. Numeric fields shall be sorted in ascending numeric order. Date and Time fields shall be sorted in ascending chronological order. (Field types are stated under the heading "Data Types" in Appendix A).

Index Data Any data that is identified herein as being indented shall be indented three character spaces and begin on the fourth character space. Data within each index column shall be the specified field lengths in Appendix A - Data Dictionary, except that *Grantors.Name*, *Grantees.Name* fields shall be printed 35 characters across and word wrapped with second and subsequent lines indented. Data for the *Instruments.Type* field shall be centered in its appropriate column in the index.

The AP column shall be blank if there are no other Index Party names, and shall have an "O" if there are more Index Party names for the instrument. (This determination is to be performed automatically by the indexing system, not entered by the indexer.)

All data printed under the "Remarks / Description" column shall be 29 characters and word-wrapped. It shall contain the Subdivision fields, *Instruments.Description* fields, and cross-reference fields as specified below:

Subdivision Fields The data for the five subdivision fields shall be concatenated and printed under the "Remarks / Description" column of the index (before the *Instruments.Description* field) in the format specified herein. The field order shall be *Properties.Subdivision*, *Properties.Unit*, *Properties.Block*, *Properties.Lot* and *Properties.Subdivision_Comment*. The *Properties.Unit* field shall be preceded by the header "U"; *Properties.Block* shall be preceded by the header "BLK" then a space; *Properties.Lot* shall be preceded by the header "L". The headers letters shall only appear if their respective fields contain data. The *Properties.Subdivision_Comment* field is always to be printed on its own line. This concatenated information shall, if requiring more than one line to print, be word wrapped and second and subsequent lines shall be indented 3 spaces. The wrapping of this data onto second and subsequent lines shall 'push down' other index data (Land lot, District, Section) accordingly (but not party names or wrapped portions thereof) so as to keep data lined-up correctly in the index.

General Description Field After data from the five subdivision fields shall be data from the *Instruments.Description* field. It shall begin on a line immediately after the subdivision fields of data or immediately after the last Land Lot, District, Section/GMD line(s) of data – whichever is further down. It shall be word wrapped, but shall not have any of its data indented.

Cross Reference Fields Appended after the *Instruments.Description* field will be the cross reference data fields described in Task 2 & 3. If the *X-Ref.Index* field is Deed, Lien or Plat, the format will be: "{Index} BK {key1} PG {key2} {Note}". If the *X-Ref.Index* field is UCC, the format will be: "{Index} FN {key1} {Note}". Extra leading or trailing spaces in field data will be trimmed-off. Repeat for all cross references for the instrument. Each cross reference shall begin on its own line; the first of which shall be immediately after the *Instruments.Description* field data or immediately after the last Land Lot, District, Section/GMD line(s) of data – whichever is further down. Examples: "DEED BK 13 PG 42" and "PLAT BK 10-2 PG 13" and "UCC FN 0021999002356". Wrapped portions will be indented three spaces, though this is expected to be needed only when there is data in the *X-Ref.Note* field.

Task 2: Indexing Data-Entry Capabilities

Indexing systems must allow data-entry personnel to enter relevant data into all fields of data that can be imported and merged into the Authority's Central Collection System. Clerks, at their discretion, may have the option to use or not use certain fields but indexing systems must provide Clerks with the ability to enter data for all fields. Data-Entry capabilities for each field must be in accordance with the detailed field information provided in Appendix A, Data Dictionary.

Indexing systems may 'pre-populate' certain fields or take various short-cuts to assist the indexer with entering data as long as indexer has the capability to verify and overwrite the information. Features that assist and encourage the most complete, efficient, and accurate indexing are encouraged.

Fields include:

For each Instrument there shall be one and only one: *Instruments.Filed_Date*, *Instruments.Filed_Time*, *Instruments.Type* (only from the approved list provided in Appendix D), *Instruments.Book*, *Instruments.Page*. Clerks may optionally enter one *Instruments.Description*.

For each instrument there shall be between one and an unlimited number: *Grantees.Name*, *Grantors.Name*. Indexing systems must track if there are more than one of these 'name' fields entered per instrument and indicate so on indexes described in Task 1. (This is to be done by indexing system, the indexer shall not be provided a method to enter this data.)

For each Instrument there shall be between zero and an unlimited number of *Properties.Land_Lot*, *Properties.District*, *Properties.Section*. The field *Properties.Section* may also be used to enter a General Militia District (GMD), or Headright (HR), as appropriate for the county. To prevent the indexer from confusing this field with a 'subdivision section', indexing systems must include the word "County" before any label or caption for the field that includes the word "Section". This field may also be labeled/captioned with a derivation of 'GMD' or 'Headright' as appropriate for the county; for example: "County Section / GMD".

For each instrument there shall be between zero and an unlimited number of *Properties.Subdivision*, *Properties.Unit*, *Properties.Block*, *Properties.Lot*, and *Properties.Subdivision_Comment* as defined in Appendix A. Each unique combination of these fields shall correspond to any applicable *Properties.Land_Lot*, *Properties.District*, *Properties.Section* fields described above. Use of the *Properties.Unit*, *Properties.Block*, *Properties.Lot*, and *Properties.Subdivision_Comment* require data to be entered in the *Properties.Subdivision* field. However, data does not have to be present in all the fields; for example, certain parcels of land such as acreage may be described with only *Properties.Subdivision* and *Subdivision_Comment* fields.

For each Instrument, Indexers shall be provided with the ability to index between zero and an unlimited number of Cross-references. (See Task 3 and Appendix A) This includes *X-Ref.Index*, (value is to coincide with the index data file transmitted to the GSCCCA of the cross referenced document), *X-Ref.Key1* (commonly used to index the 'book' number of the referenced instrument or filenumber for UCC's or unique control number for Transfer Tax forms), *X-REF.Key2* (commonly used to index the 'page', or blank for UCC's), *X-Ref.Note* (so indexer may optionally add a note describing the nature or reason for the cross-reference if it is not obvious by the nature of the instrument types. This is expected to be used rarely). Interfaces may automatically prompt and encourage the indexing of cross references especially when indexing an instrument type known to have cross references (indexing a CANC may prompt indexer to cross reference a SD; indexing a WD may prompt for a PLAT cross ref, a deed may prompt for Transfer tax form data, etc).

All interfaces for correcting previously indexed data (Correction/Addition Lines as defined in Task 3,) shall present the indexer with fields of data pre-populated with the latest version/correction of data for the instrument. Fields are not to be pre-populated with original (obsolete) data that has already been corrected by another correction. This is to prevent losing (overwriting) corrective data for an instrument in the event an instrument is corrected more than once.

Indexing systems shall automatically insert the date and time required of the *Instruments.Description* field as specified for Correction/Addition Lines in Task 3, and display such locally.

Indexing Systems shall also be able to implement IndexerID and AgencyID fields described below in Task 3, though it is acceptable for users of the indexing system to not implement those features.

Task 3: Data File Creation

Indexing systems shall create files of real estate index data, herein referred to as ASCII data files and described below. The ASCII data files shall be electronic computer files composed in the American National Standards Institute ANSI X3.4-1986 standard; Information Systems Coded Character Set, 7-Bit American Standard Code for Information Interchange (ASCII).

Filename

The filename of each merged ASCII data file will be unique, twelve characters in length, and in "8 dot 3" format in compliance with ISO 9660. The filename for each file shall be established as follows:

- 1) The first character is a letter from A-Z representing the century: 'A' representing the years 1600 to 1699, 'B' representing 1700 to 1799, 'C' representing 1800 to 1899, 'D' representing 1900 to 1999, 'E' representing 2000 to 2099, etc.
- 2) The next two characters shall be the last 2 digits of the year.
- 3) The next five characters consist of the digits 0 through 9 and represent a sequential number (for each county) starting at 00001 at the beginning of each year and be incremented for subsequent files.
- 4) A period (ASCII code 46).
- 5) The final three characters consist of the digits 0 through 9 and represent the county of filing as indicated in the attached Appendix C, "Georgia Counties and County Codes."

For example, the twenty-fifth file sent from Cobb County transmitted and merged in 1997 would be transmitted in the file named: D9700025.033. The filename information described above is based upon the year the file is transmitted and must follow the rules specified in the section entitled "Data Validation" in this Task.

Header Data

The beginning of each ASCII data file will contain header information used to define the source of the data and to assure it has been properly transmitted to the Authority's Central Collection System. This information shall consist of the following items and in the order listed:

1. Checksum hexadecimal code. This is to be calculated by adding the sum of all the ASCII codes for every character in the file (including all delimiters, carriage returns, linefeeds, character count field described below, etc.) except for the seven hexadecimal digits that will compose the code itself; then inserting this sum as a hexadecimal value into the formula: $\text{checksum} = (\text{characters ASCII codes sum in hex}) \text{ AND } (\text{FFFFFFF})$. The checksum shall contain necessary leading zeroes as to always be 7 hexadecimal digits in length. Any letters in the hexadecimal code will be in capitals. (File samples presented later in this section and in Appendix E provide example results of this calculation.)
2. The appropriate County Code from Appendix C. This value shall occupy three character spaces, contain leading zeros, and correlate with the filename.
3. The date to which the county's good-through date should be advanced upon successful merger of the records in the file into the System. This date represents the latest complete day's indexing data submitted. The date may be the same as a previous file if not all the complete day's indexing data is included in the file. This value shall occupy ten character spaces and be coded in the format mm/dd/yyyy where mm = zero padded

month, dd = zero padded day, yyyy = four character year. This date is not to be thought of as the date the file is transmitted; it is instead the date such that no future instruments can be expected to be indexed or transmitted that have an *Instruments.Filed_date* value equal to or before this good-through date.

4. The file character count in decimal (base 10, not hexadecimal nor binary) format for the entire file. This number shall be eight characters in length with leading zeros. If the filesize requires greater than eight characters, subtract multiples of 100,000,000 until the number can fit within eight characters (is less than or equal to 99999999). The character count is to include all ASCII codes in the files, including line feeds and carriage returns.

The items 2 - 4 above, shall each be preceded and followed by (and only by) double quotes (" , ASCII code 34) and separated by commas (, , ASCII code 44). The checksum will appear as the first seven characters of the first line and shall not be surrounded by quotes, but followed by a comma.

Immediately following this header shall be a carriage return (ASCII code 13) and linefeed (ASCII code 10). Files that do not have deed data to transmit, but are being transmitted just to satisfy the daily transmission requirement shall only contain the header and the end-of-file (EOF) indicator (described in future paragraph) without any other data after it.

Lines of Data

Immediately following the header information, the file will contain quote-comma separated (delimited) fields. Data shall be grouped into lines, which is defined herein as the data between consecutive combinations of a carriage return (ASCII code 13) and linefeed (ASCII code 10) codes. A line shall be a group of ASCII data terminated by ASCII codes 13 and 10). Data contained in each line shall be organized into fields described below and all such fields shall be preceded and followed by (and only by) double quotes (" , ASCII code 34) and separated by commas (, , ASCII code 44).

All lines of data pertaining to the same instrument shall be grouped together, not separated by a line pertaining to a different instrument. There shall be the following types of lines:

1. Instrument Lines: There shall be one and only one Instrument Line per filed instrument. This shall be the first line of data for an instrument and contain information about the instrument.
2. Property Lines: Zero, one, or more Property lines shall follow the Instrument Line. There shall be one Property Line for each combination of property Fields indexed for the instrument.
3. Grantee Lines: One or more Grantee Lines shall follow any existing Property Lines or the Instrument Line if no Property Lines exist for the instrument. There shall be one Grantee Line for every grantee indexed for the instrument.
4. Grantor Lines: One or more Grantor Lines shall follow the Grantee Line(s) for each instrument. There shall be one Grantor Line for every grantor indexed for the instrument.
5. Correction/Addition Lines: There shall be one or more Correction/Addition Line for each instrument that was previously submitted and successfully merged into the Authority's Central Collection System, but contained incorrect data and requires correction. Note: all instruments containing incorrect data must be corrected through the use of Correction/Addition lines; it is improper to simply create a new Instrument / InstrumentID.
6. Cross Reference Lines: zero, one, or more shall follow the Grantor lines for an instrument.
7. Indexer Identification Lines: unless specified differently by the GSCCCA, zero, one, or more Indexer Identification Lines shall follow the above lines for an instrument.

Fields

The data for each Field shall be placed within the appropriate line and be preceded and followed by a double quotation mark (" , ASCII code 34) with a comma (, ASCII code 44) separating Fields within a line. An empty Field shall retain double quotes as a placeholder. All Fields mentioned below shall be in accordance with Appendix A, Data Dictionary or as otherwise dictated in this document. Data fields shall be trimmed to eliminate trailing spaces.

Each line shall begin with an Instrument ID Field specified as a 13-numeric digit field. The first three digits of such shall be the County Code from Appendix C. The next four digits shall be the year and correspond to the year of the *Instruments.Filed_Date* field of the instrument. The remaining 6 digits shall be an incremental counter reset to 000001 for the first instrument filed in a new year. This counter shall be incremented by one for each successive instrument. This field is stored, and used for linking purposes, in the *Instruments.InstrumentID*, *Grantor/Grantee.InstrumentID*, and *Properties.InstrumentsID* fields identified in Appendix A. This Field uniquely identifies each group of lines of data for a single indexed instrument. This Instrument ID is to be used to track specific data in the ASCII data file from a specific instrument back to the county (or data-entry agent). The Instrument ID is to be generated automatically using a method that does not result in the skipping of large amounts of numbers. For example, the Instrument ID may be sequentially assigned to an instrument at the time the instrument is deemed to be accepted for filing by the Clerk, or it may be generated when the ASCII file to be transmitted is generated.

The Instrument Line shall always contain eight Fields of data. The first shall be the Instrument ID. The second Field shall be a constant Field always containing only the character "I" (used to identify it as the Instrument Line). The remaining Fields, in the order given, shall be: *Instruments.Filed_Date*, *Instruments.Filed_Time*, *Instruments.Type*, *Instruments.Book*, *Instruments.Page*, and *Instruments.Description*.

Any applicable Property Line(s) shall follow the Instrument Line. These Lines shall contain the InstrumentID Field, followed by a constant Field always containing only the character "P" (to identify it as the Property Line). Proceeding shall be *Properties.Land_Lot*, *Properties.District*, *Properties.Section*, *Properties.Subdivision*, *Properties.Unit*, *Properties.Block*, *Properties.Lot*, and *Properties.Subdivision_Comment*. Additional Property Lines shall be created for each applicable combination of these fields. Therefore, if the Index data for an instrument spans two land lots and both land lots are in the same district and section, then two Property Lines shall be created, one for each land lot with the *Properties.District* and *Properties.Section* fields identical in each line. Property Lines are not required for all instruments.

After the Instrument Line and any applicable Property Line(s) shall be one or more Grantee Lines. Every Grantee Line will begin with the Instrument ID Field, followed by a constant Field always containing only the character "E" (to identify it as a Grantee Line and discern it from a Grantor Line) followed by data for the *Grantees.Name* Field. A separate Grantee Line shall be created for every Grantee indexed for an instrument.

Following the Grantee Line(s) shall be one or more Grantor Lines. Every Grantor Line will begin with the Instrument ID Field, followed by a constant field always containing the constant character "O" (to identify it as a Grantor Line) followed by data for the *Grantors.Name* Field. A separate Grantor Line shall be created for every Grantor to be indexed for an instrument.

Following the Grantor Line(s) shall be zero, one or more Cross Reference Lines. Every Cross Reference Line will begin with the Instrument ID Field, followed by a constant field always containing the constant character "X" (to identify it as a Cross Reference Line) followed by the *X-Ref.Index*, *X-Ref.Key1*, *X-Ref.Key2*, and *X-Ref.Note* Fields. See Appendix A for field descriptions.

Following the above lines shall be zero, one or more Indexer Identification Lines. Every Indexer Identification Line will begin with the Instrument ID Field, followed by a constant field always containing the constant

character "Z" (to identify it as an Indexer Identification Line) followed by the AgencyID field, followed by the IndexerID field. The AgencyID and IndexerID field values are provided to indexers and indexing agencies by the GSCCCA. Unless specified differently by the GSCCCA, there shall be one separate Indexer Identification ("Z") Line used to identify each individual who has been responsible for the creation or verification of the index data for the particular instrument and has previously been assigned an IndexerID value from the GSCCCA. These Lines should only be used when directed and allowed by the GSCCCA, and only contain AgencyID and IndexerID values specifically provided to an agency and indexer from the GSCCCA. (The IndexerID is expected to correlate to whatever indexer certification the GSCCCA wishes to use to identify individual indexers.)

Example of ASCII data file representing data for only one security deed instrument with two grantors involving property on two land lots in a platted subdivision for a fictitious county:

```
000????, "999", "03/01/2002", "00000???"
"9992002000132", "I", "02/08/2002", "02:06PM", "SD", " 230", " 11", "7 ACRES"
"9992002000132", "P", "1324", "17", " 2", "GREEN ACRES", " 21", " 1", "", "1010 APPLE LANE"
"9992002000132", "P", "1325", "17", " 2", "GREEN ACRES", " 21", " 1", "", "1010 APPLE LANE"
"9992002000132", "E", "GEORGIA TRUST BANK"
"9992002000132", "O", "BURDELLE, GEORGE P"
"9992002000132", "O", "BURDELLE, JACKIE P"
"9992002000132", "X", "DEED", " 230", " 9", ""
[EOF]
```

The first field for any Correction/Addition Lines shall contain an Instrument ID Field that is exactly the same as the Instrument ID of instrument data that has been previously transmitted and accepted into the Authority's Central Collection System. Addition/Correction lines cannot be used to reference instruments that have been rejected by the Authority's system. The second field for such lines shall be an "A" (to distinguish it as an addition Line.) This is followed by the same fields as the Instrument Line after the "I" and contains valid data for all fields including fields that contained correct data. To conform with O.C.G.A. 50-18-70, the *Instruments.Description* field for Correction/Addition lines must begin with the text "ADDED mm/dd/yyyy hh:mmA/PM" where mm is the zero padded month, dd the zero padded day, and yyyy the four-digit year, 'hh:mmA/PM' the zero padded hour and minute, that this addition is to appear in the index. (The last few indexed characters of the field may be truncated by the indexing system if necessary to make the field within the required length.) This line is to be followed by ALL the corrected index information for the instrument including repetition of all information that was initially correct, all property lines, and all grantor and grantee lines, and cross reference lines. Therefore, if the name 'Burdelle' in the above example was incorrectly spelled and should have been indexed as 'Burdell,' a future data file might contain the following:

```
0005D96, "999", "03/10/2002", "00000491"
"9992002000132", "A", "02/08/2002", "02:06PM", "SD", " 230", " 11", "ADDED 03/08/2002 09:50AM 7 ACRES"
"9992002000132", "P", "1324", "17", " 2", "GREEN ACRES", " 21", " 1", "", "1010 APPLE LANE"
"9992002000132", "P", "1325", "17", " 2", "GREEN ACRES", " 21", " 1", "", "1010 APPLE LANE"
"9992002000132", "E", "GEORGIA TRUST BANK"
"9992002000132", "O", "BURDELL, GEORGE P"
"9992002000132", "O", "BURDELL, JACKIE P"
"9992002000132", "X", "DEED", " 230", " 9", ""
[EOF]
```

All data from both the initial merged instrument (that contained the incorrect data) and all data from the Correction/Addition Lines will appear in any index revealed to the public.

In a later file, the corresponding cancellation for this security deed may be indexed and cross-reference the security deed. If the indexing of the cancellation was performed by two indexers who were respectively assigned IndexerID values from the GSCCCA of 11111 and 22222, and the indexing was performed by an agency assigned an AgencyID from GSCCCA of "ABCD", then a future data file may contain the following:

```
"9992003000452", "I", "05/02/2003", "12:10PM", "CANC", " 468", " 88", "7 ACRES"
"9992003000452", "E", "BURDELL, GEORGE P"
"9992003000452", "E", "BURDELL, JACKIE P"
```

```
"9992003000452","O","GEORGIA TRUST BANK"  
"9992003000452","X","DEED"," 230"," 11",""  
"9992003000452","Z","ABCD","11111"  
"9992003000452","Z","ABCD","22222"
```

End of File

After all instrument data, there shall be an additional line containing only an end-of-file indicator used to assure that the file was transmitted properly and received in whole. This indicator shall be the following five characters: [EOF], or ASCII codes 91, 69, 79, 70, 93. No quotes or commas are to be included on this line. These should be the last five characters of any ASCII data file.

Data Validation

Two levels of validation testing will be performed by the Authority's Central Collection System on the ASCII data files: critical validation testing and non-critical validation testing. Each validation level shall have its own validation rules for the data. If any ASCII data file violates any of the critical validation rules the ENTIRE FILE WILL BE REJECTED and none of its data shall be merged into the Statewide Consolidated Real Estate Indexes. Local systems shall provide for compliant ASCII files. Occurrence of any such critical violation shall result in "Notification of Rejection" transmitted (e-mail or fax) from the Authority to the county of origin. Such notices shall identify the file, the nature of errors, and provide corresponding Instrument ID numbers. The entire data file must be re-transmitted once the data has been corrected at the county level. When a file passes all critical validation testing, the data is 'Accepted' and a "Notification of Acceptance" is transmitted to the county from the Central Collection System. Any such Notification of Acceptance shall provide an "Acceptance Code" to be used by local indexing systems as specified in Task 6.

The numeric incremental portion of a filename, and year if applicable, must be incremented for proceeding files upon every acceptance (successful merger) of a file. When the year portion of a filename has been incremented, the numerical incremental portion must be reset to 00001.

If a county transmits an ASCII data file (with a correct filename) that is rejected by the System, all future transmissions from the respective county are to maintain the initial filename and are expected to contain revised data from the initially rejected file until an acceptance occurs. (Additional data in such re-transmissions is allowed.) However, if the rejected file was the last transmitted file in a calendar year then the proceeding transmit(s) (in January) must maintain the same filename as the rejected file until acceptance and not 'roll-over' to reflect a filename of the new calendar year. This is to ensure that all data is accounted for at the start of new years. It is anticipated that the first file(s) of a new calendar year may contain data for instruments filed in a previous year.

It is recommended that local county systems maintain a 'buffer' to store data of the ASCII files in the event that a data file is rejected by the Authority's Central System. This would allow flexibility in designing features to easily allow indexers to recall, review, and correct the data contained in the rejected file.

Any ASCII data file that satisfies all the critical validation rules, but does not satisfy all the non-critical validation rules shall be merged into the Consolidated Georgia Real Estate Indexes and result in a 'Notification of Acceptance' identifying the non-critical violations. The purpose for non-critical validation is to accept data, but allow the Clerk to be aware of questionable data that may be correct or may require future transmittal of additional data at the Clerk's discretion.

Indexing Systems shall have the ability to determine that all characters for each field within an ASCII data file contain only characters from the field's respective allowable character set. Such character sets will be determined and published by the Authority and may be adjusted from time to time.

Critical Validation Rules

County Indexing Systems shall ensure that any ASCII data file created does not violate the critical validation rules. The critical validation rules are subject to change with approval by the Authority and currently consist of the following:

1. Each field in every line must be accounted for, with empty strings ("") representing a field with no data.
2. Each instrument must always have data (can not be blank) on the appropriate line and in the appropriate range and format for all fields except for the *Instruments.Description*, *Properties.Section*, *Properties.District*, *Properties.Land_Lot*, *Properties.Subdivision*, *Properties.Unit*, *Properties.Block*, *Properties.Lot*, and *Properties.Subdivision_Comment*, *X-Ref.Note*. Field lengths and formats are specified in Appendix A. An exception to this rule is the *Instruments.Description* field for correction/addition lines, which must contain data as described herein. Another exception is that *X-Ref.Key2* may be blank if the *X-ref.Index* field is "UCC" or "TTAX".
3. For each instrument line or Correction/Addition line there must be one or more grantor line(s) and one or more grantee line(s), containing appropriate data representing a complete name for the *Grantors.Name* and *Grantees.Name* fields for the corresponding Instrument ID.
4. The Instrument ID for any data NOT associated with a Correction/Addition Line, must be unique from any other Instrument ID previously accepted and merged into the System or elsewhere in the same ASCII data file.
5. All data must be in the appropriate range, format, and within size limitations as specified by Appendix A, Data Dictionary or elsewhere defined in this document.
6. The file character count and checksum codes shall be calculated correctly for the ASCII data file and appropriately placed in the header information of the ASCII data file.
7. The County Code in the header information and contained in the Instrument ID field of all lines shall match the County Code within the filename and correctly represent the county of origin of the file. See Appendix C for proper County Codes.
8. *Instruments.Type* field shall be from the approved list (see Appendix D), which may be amended from time to time by the Authority.
9. All fields representing dates must represent a legitimate calendar date. (For example, there is no February 31st.)
10. All header or field dates shall not represent a calendar date chronologically later than the date the file is transmitted.
11. Any Correction/Addition records must use an Instrument ID that has already been transmitted and accepted by the Central Collection System. (An Instrument Line and an Addition/Correction Line with the same Instrument ID cannot be in the same file.)
12. All data lines within an ASCII data file referring to the same Instrument ID shall be continuously together in the ASCII data file. Within each Instrument ID group of data the order of the lines of data shall be: Instrument line, followed by any Property lines, followed by Grantee line(s), followed by Grantor line(s), followed by any Cross Reference lines.

13. All characters shall not violate any defined set of allowable characters for their respective fields (see Appendix A).
14. The portion of the filename representing a unique incremental identifier must represent a one-unit increment of the previous, most recent ASCII data file that has been successfully accepted into the Central Collection System from the respective county. For example, if D9900024.033 is accepted then the next transmit filename must be D9900025.033 (must be E0000001.033 if transmitted after 12:00:01 am on 1/1/2000). Then if D9900025.025 is rejected, the filename of the next transmission must again be D9900025.025 (even if the transmit occurs after 12:00:01 am on 1/1/2000). The increment must be set to 1 at the beginning of a calendar year and after the acceptance of any file that was rejected (for any reason except invalid filename) at the end of the previous calendar year.
15. All header fields must be present and valid.
16. No data in the *Grantors.Name* field or *Grantees.Name* field shall:
 - commence with a space
 - commence with an "&"
 - commence with a ",",
 - contain consecutive spaces
 - contain more than one comma
 - contain any character not within the character set specified in the *Deed Indexing Standards for the State of Georgia* as published by the GSCCCA
 - contain any character immediately following a comma other than a space or a double quote indicating the end of the field
 - contain a comma that is immediately preceded by a space
17. The record order must be based on numerical order of the *Instruments.InstrumentID* field throughout the file.
18. There must be no data in the *Properties.Unit*, *Properties.Block*, *Properties.Lot* and *Properties.Subdivision_Comment* field unless there is data in the *Properties.Subdivision* field.
19. No characters shall exist beyond the end of file indicator ([EOF]) except, if unavoidable, for carriage control and linefeed characters (ASCII codes 13 and 10)
20. Any Property Line must contain valid data in at least one of the fields after the Property Line ("P") designation.
21. The 'Added Date' and time must be present at the beginning of the *Instruments.Description* of Correction/Addition records and shall not represent an earlier calendar date than the *Instruments.Filed_date* of that instrument.
22. The *Instruments.Filed_Date* for Non-Correction/Addition data must not represent a date before the year 1999. Pre-1999 data is to be delivered under separate procedures.
23. The year portion of the *Instruments.InstrumentID* field for Non-Correction/Addition lines must represent the same year as represented by the *Instruments.Filed_Date* field.
24. All Indexer Identification Lines must contain IndexerID and AgencyID values previously established by the GSCCCA and provided to applicable indexers and indexing agencies. Additionally, if the GSCCCA has required the use of these Lines for particular indexing agencies then there must be at least one for each instrument.

Non-Critical Validation Rules

Non-critical violations result in ‘warnings’ and may occur when data has correct values. Non-Critical violations include:

1. For data related to the same Instrument Line or Addition/Correction Line, there shall not be two or more identical *Grantors.Name* Fields; and conversely, there shall not be two or more identical *Grantees.Name* Fields.
2. The *Instruments.InstrumentID* field must be continuous and all values must be sequentially accounted for. No values of the sequentially increment portion of the *InstrumentID* field can be skipped within a file or across two continuous accepted files (except for Correction/Addition lines).
3. The *Instruments.Filed_Date* field must not represent the same day, or a chronologically previous day, from the established county good-through date as defined by the previously merged ASCII data file (except for Correction/Addition Lines). However, every instrument must convey the accurate filed date even if this rule is violated in doing so.
4. The good-through date, as specified in the file header, must not represent a calendar date chronologically earlier than the established county good-through date as defined by the previously merged ASCII data file. (Every file must convey the accurate county good-through date even if this rule is violated in doing so.)
5. For non-Correction/Addition Lines, an Instrument with the same *Instruments.Book* and *Instruments.Page* values can not already exist in the system. (Although this rule may be violated for proper indexing practices, a non-critical warning will still be created.)
6. *Instruments.Book* and *Instruments.Page* fields shall not contain leading zeros, imbedded spaces, or dash unless separating two numbers or two letters. (Data received that violates this will be altered for inclusion into the central collection system / statewide index. Acceptance notification will indicate what the value has been changed to.)

Task 4: Data File Transmission

Indexing systems must electronically transmit ASCII data files to the GSCCCA via FTP.

Indexing systems shall provide Clerks of Superior Court with an easily executable process to transmit the ASCII data files, or perform the task automatically, if appropriate.

Files must be validated and accepted by the GSCCCA system in the appropriate order – if a file is not accepted by the GSCCCA system, no other file may be transmitted (for the respective county) until the rejected file is re-transmitted and a notification returned from the GSCCCA system indicating it has been accepted.

Files transmitted to the GSCCCA are to be transmitted to the IP address provided by the GSCCCA. The required 'UserID' and 'password' for this IP address can be obtained through the GSCCCA. The indexing machine performing the transmission, along with any applicable hub and router at the courthouse, must have and use the appropriate IP addresses for each county as determined in conjunction with the GSCCCA. Counties and vendors need to obtain these addresses for their specific county(s) and they can be provided through the Authority.

Task 5: Good-Through Date Advancement

Indexing systems shall allow Clerks of Superior Court Personnel to establish, maintain, and advance a “good through” date associated with the data entered into their systems. The specification of how this “good through” date is to be included in the ASCII data file transmitted to the Authority’s Central Collection System as described in Task 3.

This date is NOT to be automatically calculated by the indexing system nor automatically set as the date of transmit. Only Clerk Personnel are aware of when all the instruments for a particular date have been indexed. Therefore, a human interface must be provided to determine and maintain the “good-through” date. Due to the legal significance of this date, the system interface shall make the following text visible to the indexer/operator: “This date has important legal significance. All instruments filed on or before the date entered must be completely indexed.”

For example, if a file transmitted to the Authority contains a “good-through” date of March 3, 1999 then it is understood that the Clerk has indicated to the system that all instruments filed on March 3rd and before have been indexed before the file is transmitted. As such, if the file is accepted and merged then no proceeding file transmission can be expected to contain instruments with a *Instruments.Filed_date* field value of March 3, 1999 or any day prior (with the exception of Correction/Addition records). If a later file transmission contains an instrument with a filed date value of March 2 the system shall generate a non-critical error (see Task 3, Validation) but the record will be accepted as it is recognized that there may be situations where the Clerk may not have been aware of the existence of an instrument when establishing the “good-through” date.

Task 6: Restrictions on Revealing Index Data

Indexing Systems must prevent the public display or printing of any data in a real estate index that has been transmitted in an ASCII data file until after the county has received a Notification of Acceptance from the Authority instructing the county to release the data to the public. Upon such receipt, the County Indexing System and county shall be responsible for assuring that all the data in the accepted file, exactly as transmitted, becomes part of their permanent real estate index. If the transmitted file fails validation testing by the Central Collection System, the county will be notified by the Central Collection system of such and all index data within the file shall be restricted from entering the county index or displayed to the public in any way. The notification shall describe the cause of the validation failure and provide the *Instruments.InstrumentID* field values of the ASCII data file relating to the data requiring adjustment. In such a case, the data shall be made available by the indexing system for Clerk personnel to alter as necessary. A subsequent file is to then be re-transmitted. Any such re-transmission can only be performed after confirmation of a failed validation. All notifications regarding ASCII file data validation shall be made from the Central Collection system in the form of e-mail and/or fax.

All Notifications of Acceptance sent to the Clerk of Superior Court from the Central Collection System shall contain an "Acceptance Code" specific to the file transmitted. Local indexing systems shall require that Clerk personnel manually enter the correct Acceptance Code from the Acceptance Notification into their system before the indexing system identifies data as being suitable for output intended to be accessible to the public. The purpose of this is to ensure that only data that has passed the critical validation from the Central Collection System will be released to the public. Local indexing systems must compare the value entered by the Clerk to the correct value of the Acceptance Code as determined by the calculations described in Appendix F. Local indexing systems are not to reveal the calculated Acceptance Code to the users of the system (Clerk) at any time but shall calculate the value only for the purpose of validating the code entered by the Clerk. Comparison of calculated and Clerk-entered code shall be (upper vs. lower) case in-sensitive.

The requirements in this task apply to index data provided to the public via printed index, search terminals, electronic distribution, or any other formats. Data from each ASCII data file transmitted should be kept in a data queue to allow the Clerk's office personnel to repair data errors for rejected data that was not merged/validated into the Authority's Central Collection System. Data that has been successfully merged but contains inaccuracies or non-critical errors can only be 'corrected' through the appending of 'correction/addition' records (as specified in Task 3). Such records are to be transmitted, as specified, in future ASCII data files and displayed as specified in any official real estate index along with the original record containing the flawed data that was initially accepted and merged by the Central Collection System.

Task 7: Data Protection

Real estate index data in any Clerk of Superior Court Clerk's office must remain synchronized and consistent in all manners with data transmitted, accepted, and merged in the Authority's Central Collection System at all times. As a result, for any data that has been accepted and merged at the Authority's Central Collection System, all indexing systems shall assure that no altering, insertion, deletion, or any other change to the data can be performed (by the indexing system, Clerk or anyone else) without proper transmittal of such changes to the Central Collection System using only the defined specifications and procedures herein.

Task 8: Imaging

Local Indexing systems must be able to create and transmit to the GSCCCA corresponding image files for the index data. The image files must conform to the file format and specifications specified by the GSCCCA. Local indexing systems must also be able to transmit the image files to the GSCCCA per the specifications provided by the GSCCCA.

Appendices

Appendix A - Data Dictionary

DATA DICTIONARY - DATA AND FIELD LENGTH

FIELD NAME	FIELD LENGTH	DATA TYPE	ALLOWABLE VALUES	FORMAT
Instruments Line				
Book	5 characters	Alpha/Numeric	Letters (A-Z), numbers (0-9) accepted. A dash (-) allowed if it is within the field (preceded and proceeded by a letters only, or numbers only).	Leading Space Filled, Right Justified, All caps
County_Code	3 digits numeric	Numeric	See Appendix C	Leading zeros
Description	Up to 255 characters	Alpha/Numeric	All capital letters, numbers, period, comma, space, dash must be allowed to be indexed. Optionally, local systems may allow any/all additional ASCII character codes 32-126 except for: 60, 62, 34, and 97-122.	All Caps
Filed_Date	10 digits - numeric and "/"	Date	01/01/1700-12/30/9999	mm/dd/yyyy
Filed_Time	7 alpha/numeric	Time	Legitimate time	hh:mmAM(or PM), i.e., 12:05PM
InstrumentID	13 digits	Numeric	Per Specification in Task 3	Numeric
Page	4 characters	Alpha/numeric	Letters (A-Z), numbers (0-9) accepted. A dash (-) allowed if it is within the field (preceded and proceeded by letters only, or by numbers only).	Leading Space filled, Right Justified, All Caps
Type	Up to 4 characters	Alpha	Per coded list in Appendix D	All Caps

FIELD NAME	FIELD LENGTH	DATA TYPE	ALLOWABLE VALUES	FORMAT
Grantor and Grantee Lines				
InstrumentID	13 digits	Numeric	Per Specification in Task 3.	Numeric
Name	Up to 70 characters	Alpha/numeric	<i>See Real and Personal Property Indexing Standards for the State of Georgia as published by the GSCCCA</i>	All caps. See Note 1 below.
Property Lines				
Block	3 characters, or empty	Alpha/numeric	All letters and numbers accepted	Leading Space Filled, Right Justified, All Caps
District	2 digits, or empty	Numeric	01-99	Numeric with leading zeros
InstrumentID	13 digits	Numeric	Per specification in Task 3.	Numeric
Land_Lot	4 digits, or empty	Numeric	0001-9999	Numeric, with leading zeros
Lot	5 characters, or empty	Alpha/numeric	All letters and numbers accepted	Leading Space Filled, Right Justified, All Caps
Section	4 characters, or empty	Alpha/numeric	All letters and numbers accepted. This field may represent a GMD or Headright.	Leading Space Filled, Right Justified, All Caps
Subdivision	Up to 24 characters	Alpha/numeric	All letters and numbers accepted	All Caps
Subdivision_Comment	Up to 24 characters	Alpha/numeric	All letters and numbers accepted	All Caps
Unit	5 characters, or empty	Alpha/numeric	All letters and numbers accepted	Leading Space Filled, Right Justified, All Caps

Note 1: The contents of the *Grantor.Name* and *Grantee.Name* fields are specified in the *Deed Indexing Standards for the State of Georgia* published by the GSCCCA; which states that human names are to be entered as: surname, comma, space, given name(s) followed by any prefix and suffix. Company names shall not contain a comma. For example "SMITH, BILL SR" and "BILL SMITH INC".

Field	Field Length	Data Type	Allowable Values	Format
Cross Reference (aka Cross Index) Lines (Records in this table will create cross references to instruments previously indexed and may refer to instruments sent in Deed, Lien, Plat files or to UCCs.)				
Index	4 characters.	Alpha/numeric	Must be "DEED", "LIEN", "or "PLAT" if the record being cross referenced came to the Authority in a Deed, Lien, or Plat file. Must be ." UCC" if the document being cross- referenced is a UCC. Must be "TTAX" if used to reference a transfer tax (PT-61) form.	Leading space filled.
InstrumentID	13 digits	Numeric	Per specification in Task 3.	
Key 1	<p>If <i>X-Ref.Index</i> = "DEED" then same as <i>Instruments.Book</i> field.</p> <p>If <i>X-Ref.Index</i> = "LIEN" then same as Book field in the Lien Guidelines.</p> <p>If <i>X-Ref.Index</i> = "PLAT" then same as Book field in Plats Guidelines.</p> <p>If <i>X-Ref.Index</i> = " UCC" then 13 numeric chars, with leading zeroes. It represents the UCC filenumber of the UCC being cross-referenced.</p> <p>If <i>X-Ref.Index</i> = "TTAX" then 13 numeric digits representing the unique control code from a transfer tax form. The code represents the county code, year, and a sequential number. For example, if the transfer tax form has the control number "PT-61 060-2003-000001" on it then this value for this field needs to be "0602003000001".</p>			
Key 2	<p>If <i>X-Ref.Index</i> = "DEED" then same as <i>Instruments.Page</i> field.</p> <p>If <i>X-Ref.Index</i> = "LIEN" then same as Page field in the Lien Guidelines.</p> <p>If <i>X-Ref.Index</i> = "PLAT" then same as Page field in Plats Guidelines.</p> <p>If <i>X-Ref.Index</i> = " UCC" then this field shall be empty.</p> <p>If <i>X-Ref.Index</i> = " TTAX" then this field shall be empty.</p>			
Note	Up to 25 characters	Alpha/numeric	Same as <i>Instruments.Description</i>	All Caps

Field	Field Length	Data Type	Allowable Values	Format
Indexer Identification Lines				
AgencyID	4 characters; provided by GSCCCA to agencies that perform indexing.	Alphanumeric	Values specified by GSCCCA to indexing agencies	Leading space filled
IndexerID	5 characters; provided by GSCCCA to indexers that perform indexing.	Numeric	Values specified by GSCCCA to indexers	Leading zero filled
InstrumentID			Per specification in Task 3	

Appendix B - Printed Index Layout

(The following samples contain made-up data and are not meant to reflect proper indexing practices)

Peachtree County

Grantor Index

Valid 01/01/1995 Through 01/27/1997

GRANTOR	A P	GRANTEE(S)	DATE FILED	TIME	TYPE	BOOK	PAGE	GMD SEC	LD	LL	Remarks / Description (not warranted)
LANGFORD, SYLVIA	O	SUN FINANCE SUN MORTGAGE CO	08/19/1995	03:19PM	SD	1118	234	122	56	0122	FOXMOOR ESTATES U2 L3
LANGFORD, SYLVIA M	O	SOUTHEASTERN DEVELOPMENT	09/02/1995	08:00AM	SD	1324	14		19	0065	FOXMOOR ESTATES U2 L2
LANGFORD, SYLVIA M		LANGFORD, THOMAS C PHILLIPS, ALICE SIMPSON PHILLIPS, ANTHONY PHILLIPS, BENNY PHILLIPS, CAREY PETER	09/03/1995	09:45AM	QC	91324	6		06	1122	1.46 AC DEED BK 1400 PG 50
LANGFORD SYSTEMS INC		GE CAPITAL CREDIT CORP	02/04/1995	09:10AM	SD	1006	331		05	0043	PINES INDUSTRIAL PARK L17
LANGFORD SYSTEMS INC		JOHN D SMITH CONSTRUCTION CO	02/15/1995	08:00AM	SD	1012	27		05	0043	PINES INDUSTRIAL PARK L17
LANGFORD, THOMAS L	O	MEANS, LARRY C	10/18/1995	04:48PM	WD	1427	131	365			14.67 AC
LANGFORD, THOMAS L		JENRETTE DEVELOPMENT INC	10/23/1995	08:30AM	WD	1431	1	365 42			TWO TRACTS, 34.56 AC GMD 365; 4.25 AC
LANGFORD THOMAS TEMPLETON INDUSTRIES CORP		NATIONSBANK	01/01/1996	03:34PM	SD	1712	78		04 04	0034 0122	
LANGFORD, TOM		CREST CONSTRUCTION CO	04/19/1995	09:40AM	ML	1168	227		02	0034	SIMMONS MILL U1 BLK C L17
LANGFORD, TOM		LANGFORD, BETTY LANGFORD, ERNEST LANGFORD, HAROLD C	11/12/1995	08:00AM	QC	1401	167		04	0017	2.34 AC
LANGFORD, TOMMY	O	SIMMONS, PHYLLIS SIMMONS, RAYMOND	03/18/1995	10:12AM	WD	1088	39		05	0067	HIGHTOWER GLEN U1 BLK B L23
LANGFORD, TOMMY	O	BACHART, ANN BACHART, EDWARD	05/01/1995	08:30AM	WD	1180	112		05	0067	HIGHTOWER GLEN U1 BLK A L44 3642 HIGTOWER TRAIL
LANGLEY FINANCIAL SERVICES		AARON, JAMES AARON, WILMA	02/28/1995	11:12AM	CANC	1015	88				
LANGLEY FINANCIAL SERVICES		ZIMMERMAN, CELESTE ZIMMERMAN, WILLIAM	08/19/1995	08:00AM	CANC	1318	331		05	0003	BRIARGATE U1 L7 DEED BK 834 PG 255
LANGLEY, PHILLIP REED	O	ANDERSON MORTGAGE	04/17/1995	08:00AM	SD	1168	10	15			PEACH HILLS
LANGLEY, PHILLIP REED	O	BROWN, CYNTHIA BROWN, ROBERT	05/29/1995	04:55PM	WD	1192	267	15			12.5 AC
LANGSTON, ROBERT W		ANDERSON, WILLIAM CARNES, A J CARNES ANDERSON LP CARNES, CLEVE	01/09/1995	02:12PM	WD	998	329		02	0005	SHADY ACRES 14 ACRES PLAT BK 14 PG 12B
LANGSTON, VIVIAN	O	KOHLERSTEIN NATURAL RESOURCE DEVELOPMENT	09/19/1995	02:43PM	GOMD	1341	142		02	0016	OIL 16.546 ACRES
LANGSTON, WILLIAM E		LANGSTON, EDNA	01/08/1995	01:48PM	QCD	1160	8		04	0019	FOREST HILLS BLK A L26
LANNER, BEATRICE		LANNER, BEATRICE	03/04/1995	08:30AM	AFF	1042	348				
LANNER CONTAINER SYSTEMS INC		BANK OF AMERICA	05/22/1995	9:05AM	NOT	1188	17				UCC 2

GRANTOR	A P	GRANTEE(S)	DATE FILED	TIME	TYPE	BOOK	PAGE	GMD SEC	LD	LL	Remarks / Description (not warranted)
LANGFORD, SYLVIA	O	SUN FINANCE SUN MORTGAGE CO SUN TRUST BANK	08/19/1995	03:19PM	SD	1118	234	122	56	0122	FOXMOOR ESTATES U2 L3
LANGFORD, SYLVIA M	O	SOUTHEASTERN DEVELOPMENT	09/02/1995	08:00AM	SD	1324	14		19	0065	FOXMOOR ESTATES U2 L2
LANGFORD, SYLVIA M		LANGFORD, THOMAS C PHILLIPS, ALICE SIMPSON PHILLIPS, ANTHONY PHILLIPS, BENNY PHILLIPS, CAREY PETER	09/03/1995	09:45AM	QC	91324	6		06	1122	1.46 AC
LANGFORD SYSTEMS INC		GE CAPITAL CREDIT CORP	02/04/1995	09:10AM	SD	1006	331		05	0043	PINES INDUSTRIAL PARK L17
LANGFORD SYSTEMS INC		JOHN D SMITH CONSTRUCTION CO	02/15/1995	08:00AM	SD	1012	27		05	0043	PINES INDUSTRIAL PARK L17
LANGFORD, THOMAS L	O	MEANS, LARRY C	10/18/1995	04:48PM	WD	1427	131	365			14.67 AC PLAT BK 20 PG 17
LANGFORD, THOMAS L		JENRETTE DEVELOPMENT INC	10/23/1995	08:30AM	WD	1431	1	365 142			TWO TRACTS, 34.5 AC GMD 365; 4.25 AC GMD 142
LANGFORD THOMAS TEMPLETON INDUSTRIES CORP		NATIONSBANK	01/01/1996	03:34PM	SD	1712	78		04 04 04	0034 0122 0161	
LANGFORD, TOM		CREST CONSTRUCTION CO	04/19/1995	09:40AM	ML	1168	227		02	0034	SIMMONS MILL U1 BLK C L17
LANGFORD, TOM		LANGFORD, BETTY LANGFORD, ERNEST LANGFORD, HAROLD C	11/12/1995	08:00AM	QC	1401	167		04	0017	2.34 AC
LANGFORD, TOMMY	O	SIMMONS, PHYLLIS SIMMONS, RAYMOND	03/18/1995	10:12AM	WD	1088	39		05	0067	HIGHTOWER GLEN U1 BLK B L23
LANGFORD, TOMMY	O	BACHART, ANN BACHART, EDWARD	05/01/1995	08:30AM	WD	1180	112		05	0067	HIGHTOWER GLEN U1 BLK A L44 3642 HIGHTOWER TRAIL
LANGLEY FINANCIAL SERVICES		AARON, JAMES AARON, WILMA	02/28/1995	11:12AM	CANC	1015	88		02	0044	DEED BK 1300 PG 162 DEED BK 1296 PG 34 ORIG FILED IN ERROR DEED BK 1296 PG 35
LANGLEY FINANCIAL SERVICES		ZIMMERMAN, CELESTE ZIMMERMAN, WILLIAM	08/19/1995	08:00AM	CANC	1318	331		05	0003	BRIARGATE U1 L7 LIEN BK 834 PG 255
LANGLEY, PHILLIP REED	O	ANDERSON MORTGAGE	04/17/1995	08:00AM	SD	1168	10	15			22.0 AC

GRANTOR	A P	GRANTEE (S)	DATE FILED	TIME	TYPE	BOOK	PAGE	GMD SEC	LD	LL	Remarks / Description (not warranted)
PRINT LAYOUT -WIDTH- 8 POINT COURIER -35-	1	-35-	-10-	-7-	-4-	-5-	-4-	-4-	-2	-4-	-29-
LANGFORD ANDERSON PATE & ALDRIGE CORP PROFIT SHARING PLAN & SAVING TRU	O	SUN FINANCE SUN MORTGAGE CO OF JACKSONVILLE SUN TRUST BANK	08/19/1995	03:19PM	AGRE	12345	1234	1234	12	1234	MULTIPLE ACREAGE TRACTS; 12.4 ACRES; 2.45 ACRES; 4.56 ACRES; 3.61 ACRES; INDIAN SPRINGS ROAD; TRIERNEY ROAD; 1826 BLOCK OF INDIAN SPRINGS ROAD DEED BK 1200 PG 177
LANGFORD, SYLVIA M	O	SOUTHEASTERN DEVELOPMENT	09/02/1995	08:00AM	SD	1324	14		04 04 04 04 04	0065 0065 0065 0065 0065	FOXMOOR ESTATES U2 BLK B L02 FOXMOOR ESTATES U2 BLK B L24 FOXMOOR ESTATES U3 BLK A L07 FOXMOOR ESTATES U3 BLK B L17 FOXMOOR ESTATES U3 BLK C L02
LANGFORD, SYLVIA M	O	SOUTHEASTERN DEVELOPMENT	09/02/1995	08:00AM	AGRE	1324	26		04 04 04 04 04	0065 0065 0065 0065 0065	FOXMOOR ESTATES U2 BLK B L02 SUB PROP COMMENT XXXXXXX 2122 FOX HOLLOW DR FOXMOOR ESTATES U3 BLK A L07 1007 FOX CREEK AVE FOXMOOR ESTATES U3 BLK B L17 1202 FOXMOOR DRIVE FOXMOOR ESTATES U3 BLK C L02 1416 FOX HILL CT
LANGFORD, SYLVIA M	O	SOUTHEASTERN DEVELOPMENT	09/02/1995	08:00AM	SD	1324	54		04 04 04 04 04 04	0065 0068 0068 0068 0068 0078	FOXMOOR ESTATES U2 BLK B L02 FOXMOOR ESTATES U2 BLK A L24 FOXMOOR ESTATES U2 BLK A L27 FOXMOOR ESTATES U3 BLK B L17 FOXMOOR ESTATES U3 BLK C L02
LANGFORD, SYLVIA M	O	AVERY DESIGN SYSTEMS CORP	09/09/1995	08:00AM	WD	1336	3		04 04	0065 0065	FOXMOOR ESTATES LANDING U2 BLK B L02 FOXMOOR ESTATES LANDING U2 BLK B L24 SUB PROP COMMENT XXXXXXX
LANGFORD, SYLVIA M	O	SOUTHEASTERN DEVELOPMENT	09/22/1995	08:00AM	AGRE	1412	94		04 04 01 02	0065 0065 0114 0178	FOXMOOR ESTATES U2 BLK B L02 FOXMOOR ESTATES U2 BLK B L24 KINGSGATE U2 BLK A L22 WOODS AT SETTING CREEK BLK C L40
LANGFORD, SYLVIA M		LANGFORD, THOMAS C PHILLIPS, ALICE SIMPSON PHILLIPS, ANTHONY PHILLIPS, BENNY PHILLIPS, CAREY PETER	09/29/1995	09:45AM	QC	91324	6		06 06	0984 0985	51.46 AC THIS IS A GENERAL DESCRIPTION WHICH MAY CONSUME AS MUCH AS 255 CHARACTERS OF DESCRIPTION WITH NO INDENTION DOES WORD WRAP

Appendix C - Georgia Counties and County Codes

Code	County	Code	County	Code	County	Code	County
001	Appling	041	Dade	081	Jefferson	121	Richmond
002	Atkinson	042	Dawson	082	Jenkins	122	Rockdale
003	Bacon	043	Decatur	083	Johnson	123	Schley
004	Baker	044	Dekalb	084	Jones	124	Screven
005	Baldwin	045	Dodge	085	Lamar	125	Seminole
006	Banks	046	Dooly	086	Lanier	126	Spalding
007	Barrow	047	Dougherty	087	Laurens	127	Stephens
008	Bartow	048	Douglas	088	Lee	128	Stewart
009	Ben Hill	049	Early	089	Liberty	129	Sumter
010	Berrien	050	Echols	090	Lincoln	130	Talbot
011	Bibb	051	Effingham	091	Long	131	Taliaferro
012	Bleckley	052	Elbert	092	Lowndes	132	Tattnall
013	Brantley	053	Emanuel	093	Lumpkin	133	Taylor
014	Brooks	054	Evans	094	Macon	134	Telfair
015	Bryan	055	Fannin	095	Madison	135	Terrell
016	Bulloch	056	Fayette	096	Marion	136	Thomas
017	Burke	057	Floyd	097	McDuffie	137	Tift
018	Butts	058	Forsyth	098	McIntosh	138	Toombs
019	Calhoun	059	Franklin	099	Meriweather	139	Towns
020	Camden	060	Fulton	100	Miller	140	Truetlen
021	Candler	061	Gilmer	101	Mitchell	141	Troup
022	Carroll	062	Glascok	102	Monroe	142	Turner
023	Catoosa	063	Glynn	103	Montgomery	143	Twiggs
024	Charlton	064	Gordon	104	Morgan	144	Union
025	Chatham	065	Grady	105	Murray	145	Upson
026	Chattahoochee	066	Greene	106	Muscogee	146	Walker
027	Chattooga	067	Gwinnett	107	Newton	147	Walton
028	Cherokee	068	Habersham	108	Oconee	148	Ware
029	Clarke	069	Hall	109	Oglethorpe	149	Warren
030	Clay	070	Hancock	110	Paulding	150	Washington
031	Clayton	071	Haralson	111	Peach	151	Wayne
032	Clinch	072	Harris	112	Pickens	152	Webster
033	Cobb	073	Hart	113	Pierce	153	Wheeler
034	Coffee	074	Heard	114	Pike	154	White
035	Colquitt	075	Henry	115	Polk	155	Whitfield
036	Columbia	076	Houston	116	Pulaski	156	Wilcox
037	Cook	077	Irwin	117	Putnam	157	Wilkes
038	Coweta	078	Jackson	118	Quitman	158	Wilkinson
039	Crawford	079	Jasper	119	Rabun	159	Worth
040	Crisp	080	Jeff Davis	120	Randolph		

Appendix D - Deed Instrument Types

The Instrument Types required to be supported by Indexing Systems shall be the most current list of four character Instrument Type codes listed in the GSCCCA *“Indexing Standards for Real and Personal Property Records for the State of Georgia”* as distributed by the GSCCCA.

Appendix E - Checksum Calculation and Example

12/12/1997

The following relates to the checksum code that is to consist of the first set of characters of the ASCII Data File of Real Estate Index information to be transmitted from county indexing systems to the Authority's Central Collection System.

This information is provided to assist real estate indexing systems programmers. Please provide your comments and questions to Phil Kobierowski, Georgia Tech EDI, (404) 894-2552, phil@edi.gatech.edu

The checksum is calculated by adding the sum of all the ASCII codes for every character in the file (including all delimiters, carriage returns, linefeeds, character count field described below, etc.) except for the 7 hexadecimal digits that will compose the code itself; then inserting this sum as a hexadecimal value into the formula: checksum = (characters ASCII codes sum in hex) AND (FFFFFFF). The checksum shall contain necessary leading zeroes as to always be 7 hexadecimal digits in length. Any letters in the hexadecimal code will be in capitals. (File samples presented later in this section provide an example result of this calculation.)

Source Code Example

The following Visual Basic function is an example of how to calculate the Checksum code for an ASCII Data file:

```
' Calculates and returns a checksum code for a file
' by Phil Kobierowski 12/12/97
' Georgia Tech EDI, (404) 894-2552. phil@edi.gatech.edu
Function pfmChecksumCalculate(vFileName) As String

Dim vChar As String      ' stores a single character read from the text file
Dim vSum As Long         ' running sum of the ascii codes used in the checksum
Dim vCharCount As Long  ' count of the ascii characters in the file
Dim vChecksum As String ' variable for the hex checksum code

On Error GoTo errorhandler ' trapping for your own error handler
vCharCount = 0: vSum = 0    ' initialize variables
Open vFileName For Binary As #1 ' open the file passed into the function
vChar = Input(1, #1)      ' read a character from the file
Do While Not EOF(1)       ' then check for end-of-file and loop through characters
    vCharCount = vCharCount + 1 ' increment the character counter
    If vCharCount > 7 Then      ' exclude the first 7 characters - the checksum itself
        vSum = vSum + Asc(vChar) ' add the ascii code to the running sum
        vSum = vSum And &HFFFFFFF ' prevent overflow
    End If
    vChar = Input(1, #1)      ' read next character and loop again until end-of-file
Loop
Close #1
vChecksum = Hex$(vSum) ' convert to hexadecimal string
vChecksum = Right$("0000000" & vChecksum, 7) ' add leading zeros to get 7 characters
pfmChecksumCalculate = vChecksum ' return the value in hex form
Exit Function

errorhandler:
' insert your error handler here
MsgBox Err.Description
End Function
```

Calculation Examples

Here are checksum calculation results from sample files from the Guidelines to Assist County Indexing Systems document. You can cut and paste this text and use it to compare your own results. Make sure you account for all linefeed/CR codes throughout the file.

File 1 Example

```
-----
0004323,"999","07/22/1997","00000358"
"9991997000132","I","02/08/1997","02:06PM","SD"," 230"," 11","X SUB LOT 1"
"9991997000132","P","1324","17"," 2","","","","",""
"9991997000132","P","1325","17"," 2","","","","",""
"9991997000132","E","GEORGIA TRUST BANK"
"9991997000132","O","BURDELLE, GEORGE P"
"9991997000132","O","BURDELLE, JACKIE P"
[EOF]
```

File 1 Results:

Characters (vCharCount) =358, Ascii sum in decimal (vSum)= 17187,

Checksum in hex (vChecksum)= 0004323

File 2 Example

```
-----
0004628,"999","09/08/1997","00000373"
"9991997000132","A","02/08/1997","02:06PM","SD"," 230"," 11","ADDED 02/17/1997 X SUB LOT 1"
"9991997000132","P","1324","17"," 2","","","","",""
"9991997000132","P","1325","17"," 2","","","","",""
"9991997000132","E","GEORGIA TRUST BANK"
"9991997000132","O","BURDELL, GEORGE P"
"9991997000132","O","BURDELL, JACKIE P"
[EOF]
```

File 2 Results:

Characters (vCharCount) =373, Ascii sum in decimal (vSum)= 17960,

Checksum in hex: 0004628

Appendix F - Acceptance Code Calculation

Notifications of Acceptance returned from the Central Collection System to the counties shall include an Acceptance Code. Local indexing system shall use the code per the instructions specified in Task 6.

The Acceptance Code shall be the hexadecimal value produced by a bit-wise 'exclusive or' operation (Xor) between the incremental numerical portion of the filename (the last five characters before decimal) and the checksum value as specified in the transmitted ASCII data file.

Examples are provided below.

Filename: D9900000 Checksum: A Acceptance code (0 XOR 10): A
 Filename: D9900010 Checksum: 3F2 Acceptance code (10 XOR 1010): 3F8
 Filename: D9900020 Checksum: 7DA Acceptance code (20 XOR 2010): 7CE
 Filename: D9900030 Checksum: BC2 Acceptance code (30 XOR 3010): BDC
 Filename: D9900040 Checksum: FAA Acceptance code (40 XOR 4010): F82
 Filename: D9900050 Checksum: 1392 Acceptance code (50 XOR 5010): 13A0
 Filename: D9900060 Checksum: 177A Acceptance code (60 XOR 6010): 1746
 Filename: D9900070 Checksum: 1B62 Acceptance code (70 XOR 7010): 1B24
 Filename: D9900080 Checksum: 1F4A Acceptance code (80 XOR 8010): 1F1A
 Filename: D9900090 Checksum: 2332 Acceptance code (90 XOR 9010): 2368
 Filename: D9900100 Checksum: 271A Acceptance code (100 XOR 10010): 277E
 Filename: D9900110 Checksum: 2B02 Acceptance code (110 XOR 11010): 2B6C
 Filename: D9900120 Checksum: 2EEA Acceptance code (120 XOR 12010): 2E92
 Filename: D9900130 Checksum: 32D2 Acceptance code (130 XOR 13010): 3250
 Filename: D9900140 Checksum: 36BA Acceptance code (140 XOR 14010): 3636
 Filename: D9900150 Checksum: 3AA2 Acceptance code (150 XOR 15010): 3A34
 Filename: D9900160 Checksum: 3E8A Acceptance code (160 XOR 16010): 3E2A
 Filename: D9900170 Checksum: 4272 Acceptance code (170 XOR 17010): 42D8
 Filename: D9900180 Checksum: 465A Acceptance code (180 XOR 18010): 46EE
 Filename: D9900190 Checksum: 4A42 Acceptance code (190 XOR 19010): 4AFC
 Filename: D9900200 Checksum: 4E2A Acceptance code (200 XOR 20010): 4EE2
 Filename: D9900210 Checksum: 5212 Acceptance code (210 XOR 21010): 52C0
 Filename: D9900220 Checksum: 55FA Acceptance code (220 XOR 22010): 5526
 Filename: D9900230 Checksum: 59E2 Acceptance code (230 XOR 23010): 5904
 Filename: D9900240 Checksum: 5DCA Acceptance code (240 XOR 24010): 5D3A
 Filename: D9900250 Checksum: 61B2 Acceptance code (250 XOR 25010): 6148
 Filename: D9999999 Checksum: FFFFFFFF Acceptance code (99999 XOR 268435455): FFE7960

Appendix G - Historical Deed Re-Indexing Project Guidelines

(Updated 4//2008. Phil Kobierowski, GSCCCA.)

This Appendix applies to ASCII index data files for the Re-Indexing of Historical Real Estate Index data between 1/1/90 - 12/31/991, and earlier if specified by the GSCCCA, for the Consolidated Georgia Real Estate Indexes System. (Comments and questions may be directed to Phil Kobierowski, phil@edi.gatech.edu, 404-894-2552). Historical Deed Re-Indexing Data Guidelines shall follow the rest of this "Guidelines" document, with the following exceptions:

1. **Set-up.** Historical deed index data shall be transmitted only by vendors certified to perform historical indexing, via ftp to the Authority's historical ftp site. Certified vendors are to contact the Authority technical support to: receive a username and password, to provide one (and only one) IP address of the machine that they will transmit from, and provide an e-mail address to receive validation notifications. (The same IP and e-mail address chosen by the vendor may be used by the same vendor for multiple counties.)
2. **Transmission.** Files shall be transmitted via the Authority's Statewide Courthouse Network which is also used for the transmission of current, day-to-day index data. If a vendor does not have adequate access to this network they must contact the Authority's Information System Manager. (There will be no daily transmission requirement or associated "Failed to Transmit" notifications for historical data file transmissions as may be produced for current/daily deed data).
3. **Filenames.** Filenames for data files shall be composed of: "H" (to identify the file as containing historical data), followed by a 2 digit value representing the year of filing (e.g. 90, 91), followed by a 5 character incremental counter beginning at 00001 and incremented by 1 for each subsequent accepted and merged file until the entire historical year of data has been transmitted. Afterwards the filename shall have a period (.) then a 3 character county code (001-159). For example: H0000017.035.
4. **File Data.** Data will be transmitted in reverse chronological order: starting from instruments with latest applicable 'Filed Date' of the segment of the Historical Project (e.g. "12/31/91") and proceeding chronologically backwards. Data with 'Filed Date' field values outside this range of dates shall be rejected. Each file must contain data filed chronologically earlier than the file that preceded it, with the exception of Correction/Addition records and any 'missed' instruments that should have been included in a previous transmit. Violations will result in a non-critical error / warning. Data files shall contain data in amounts or periods as chosen by the vendor such that all files must be smaller than 250kb in size (approximately 800 instruments).
5. **Correction/Addition Records** for historical data may be transmitted to either the historical data ftp site or included in daily files for current, day-to-day data. In either case, every Correction/Addition record must refer to an InstrumentID that has already been accepted into the GSCCCA System. The "Added Date / Time" for such records shall continue to be the actual date the record is expected to be transmitted to the GSCCCA system.
6. **Instrument ID Field.** Within a file, data must be sorted in ascending order of Instrument ID's. Vendors may start the incremental portion of the Instrument ID's for each year's data to begin at either end of a year as long as they are consistent for the entire segment of the Historical Project. For example, an InstrumentID of 1591997000001 may represent the first instrument of a year (filed in January 97) or the last (filed in December 97).
7. **Printed Index.** The official printed index for the 6-year historical period shall remain the original index that has been displayed and maintained at the Clerk's office. Vendors performing historical re-indexing shall be able to provide compliant printed indexes based on the re-indexed historical records delivered to the Authority.
8. **Indexing Standards.** All historical data should be indexed in conformance with the *Indexing Standards for Real and Personal Property Records for the State of Georgia* as may be updated from time to time. Data must be re-indexed from the actual instrument, not converted from existing index data in an automated process. All instruments filed in the official Deed books must be indexed; instrument types not matching the set of allowable instrument types may be indexed as "MISC" and all parties are to be indexed as grantors and grantees.
9. **Indexer Identification.** Each historical instrument must include one or more Indexer Identification Lines as specified in Task 3 of the *Guidelines* Document. A Line shall be required for each applicable Indexer involved with the creation or validation of the index data of the instrument. Historical instrument records without an Indexer Identification line, or with lines that do not contain valid values, are subject to critical Validation Errors as specified in Task 3.
10. **Good-From Date.** The space allocated in deed files for a "Good-through" date shall instead be used as a "Good-From" date for historical index data. This "Good-From" date represents completeness such as: if the file is accepted and merged in the GSCCCA system then all known instruments with 'Filed Date' between the historical period start date and the "Good-From" date have been merged into the system. The "Good-From" of accepted files shall be displayed to the users searching the System to indicate a date range with legal responsibility in which all instruments have been indexed and included for a particular county.

11. File Processing Times. The GSCCCA expects to validate historical data files as they arrive and promptly return notices of acceptance or rejection. Under certain circumstances the GSCCCA may decide to validate historical files after hours, during non-peak system usage times. Under such circumstances notifications may not be returned to the vendor until the next day.

12. Finishing Procedures. After the entire Historical period segment of historical index data for a particular county has been transmitted and merged into the System, the system shall no longer accept files from that county at the historical transmit ftp site. Missed instruments and Correction/Addition records for the three-year historical period are to then be included in the current, day-to-day transmissions of index data.