



# TOBIN TDRBM II Data Distribution Format

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## ABSTRACT

The TOBIN TDRBM II Data Distribution format, as available from Tobin International, Ltd. (TOBIN), provides a enhanced graphical representation of TOBIN Survey information. This document describes the data format of the magnetic tape supplied by Tobin International, Ltd. This information is intended for a technical audience, i.e. a system analyst or experienced programmer.

### ABSTRACT \*

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## 1. Distribution Media

TOBIN TDRBM II data sets are available on various types of magnetic media and CD-ROM for mainframe, workstation, and PC DOS systems. Refer to product literature for details.

## 2. Data Contents

### 2. Data Contents

TDRBM II data sets are available for all TOBIN survey. The following describes the data layer represented in the TDRBM II format.

#### Spatial Data

Jeffersonian	
	Township
	Section
	County Line (if present)
	State Line (if present)
Texas	



	State Line (if present)
	County Line (if present)
	Block
	Abstract
Offshore	
	Area
	Block

Annotation

Jeffersonian	
	State (if present)
	County (if present)
	Township
	Section
Texas	
	State (if present)
	County (if present)
	Block
	Grantee
	Section
	Abstract
Offshore	
	Area
	Block

The TDRBM II format contains limited 1:2400 culture data, primarily hydrography, in the Gulf Coast States, and 1:100000 culture for the entire US,

### 3. Data Representation

TOBIN TDRBM II records are made up entirely of printable ASCII characters.

Numeric fields will be filled with leading zeroes if necessary.

Text fields will be blank-filled and right justified.

Lat-Lon coordinate pairs representing locations on the surface of the earth will be 15-character numeric fields of the form "YYyyyyyXXXxxxxx", where XXX.xxxxx is the longitude west, and YY.yyyyy the latitude north. So, for example, the point 88.44411 west longitude and 33.55500 north latitude would be represented "335550008844411". X-Y coordinate pairs representing locations on the surface of the earth will be either 18-character numeric fields of the form "XXXXXXXXXYYYYYYYYY", where XXXXXXXXX is the northing and YYYYYYYYYY the easting for text positioning, or 20-character numeric fields of the form "XXXXXXXXXXYYYYYYYYY", where XXXXXXXXX is the northing and YYYYYYYYYY the easting for line segments.

Dates will be 6-character numeric fields of the form "YYMMDD", where YY is the year, MM is the month ("01" is January, "12" is December, etc.), and DD is the day of the month from "01" to "31".

### 4. Record Formats

Each record in the TOBIN TDRBM II begins with a 1- character numeric field. In Column 1 is the Record Type. Each entity described in the TOBIN TDRBM II consists of a sequential group of records. The entire group begins with one record of Record Type 0.

#### 4.1 Record Types



The Record Type field can take values "0", "2", and "3", and specifies what kind of information is contained in the record, and the format of the information. The valid Record Types are as follows.

**Record Type 0**

Each entity in the TOBIN TDRBM II consists of one record of Record Type 0, followed possibly by one or more other records of other Record Types. All records of Record Type 0 have similar formats, which differ slightly depending on the Data Type of the record. All these formats are described in detail in the sections following.

**Record Type 2 Annotation Record.**

All records of Record Type 2 have the same format, which is described in detail in the sections following.

**Record Type 3 Latitude-Longitude Coordinate Record.**

Each Record of Record Type 3 holds the end points on one line which make up the entity. All records of Record Type 3 have the same format, which is described in detail in the sections following.

**4.2 Header Records (Record Type 0)**

Each entity in the TOBIN TDRBM II consists of one record of Record Type 0, followed by zero or more Annotation Records (Record Type 2), and a sufficient number of Coordinate Records (Record Type 3) to specify the boundary of the entity.

Each record of Record Type 0 has the following format.

Col 1 Data Type. Always "0", indicating that this record contains Header Data.

Col 2-3 Logical Level.

The Logical Level describes the type of data in this entity. The following table defines the values.

Code	Meaning
01	Dictionary Entry (text data only)
02	Section/Abstract
03	Township or Block
04	County
05	State
06	Process Outline
07	Municipality (may be a single point)
08	River
09	Stream
10	Island
11	Lake
12	Old Riverbed
13	Ocean Area
14	Federal Highway
15	State Highway
16	Other Travelways
17	Pipeline
18	Railroad
19	Monumented Section Corner
20	Benchmark
21	Monument
22	Federal Reservation
23	State Reservation
24	Transmission Line
25	Wells
26	Unsurveyed Area



27	Leases
28	Shot Points
29	Tracts
30	Sub-Divisions
31	District
32-39	Reserved for TOBIN future use
40	Other Water
41	Other Boundary
42	Building
43	Contour
44	Other Utility
45-49	Reserved for TOBIN future use
50	Production Unit
51-59	Reserved for TOBIN future use
60-98	Customer Assignable
99	Unsurveyed Culture Boundary

Col 4 Name Format Type.

The name format varies depending on the survey system. The following describes the various formats.

Name	Format Type
0	Sub-division/Section/Township/Range
1	Abstract/Tract/Block
2	Section/Township/Range Feature
3	Abstract/Tract/Block Feature
4	State/County Feature
5	System Wide Feature
6	Block/Township-League/Labor

Col 5-32 Variable name format data.

Format 0 is generally used with the Jeffersonian Survey System and sub division of a section..

Col 5-6 API State Code.

Col 7-9 API County Code.

Col 10 Unused.

Col 11-13 Township Number.

(Half townships are represented by adding 200 to the actual township number i.e. 213 -> 13.5).

Col 14 Township Direction (N/S)

Col 15-17 Range Number.

(Half ranges are represented by adding 200 to the actual range number i.e. 246 -> 46.5).

Col 18 Range Direction (E/W)

Col 19-21 Section Number.

Col 22-32 Unused.

Format 1 is generally used with abstract/tract/block data.

Col 5-6 API State Code.

Col 7-9 API County Code.

Col 10 Prefix

Col 11-16 Abstract/Tract/Block Number

Col 17-21 Survey Number as recorded by GLO or Railroad Commission.

Col 22-32 Unused



Format 2 is generally used with the Jeffersonian and Carter Survey System.

Col 5-6 API State Code.

Col 7-9 API County Code.

Col 10 Unused.

Col 11-13 Township Value.

Half townships are represented by adding 200 to the actual township number) May be alpha if Carter.

Col 14 Township Direction (N/S)

Col 15-17 Range Number

(Half ranges are represented by adding 200 to the actual range number)

May be alpha if Carter.

Col 18 Range Direction (E/W)

Col 19-23 Alpha Name of section

Col 24-32 Unused

Format 3 is generally used with abstract data.

Col 5-6 API State Code.

Col 7-9 API County Code.

Col 10 Prefix

Col 11-16 Alpha Abstract Name

Col 18-22 Survey Number as recorded by GLO or Railroad Commission.

Col 24-32 Unused

Format 4 is used for State and County boundaries.

Col 5-6 API State Code.

Col 7-9 API County Code.

Col 10-23 State or County Name.

Col 24-32 Unused.

Format 5

Col 5-23 Alpha Name Abbreviation.

Col 24-32 Unused.

Format 6 is used for Abstract/Block/League data in Texas.

Col 5-6 API State Code.

Col 7-9 API County Code.

Col 10-12 Survey Code List Number.

Col 13-20 Block/League/Township (B/L/T).

If Column 13 is B or L, then Column 14-19 have the block or league name. If Column 13 is T, the Column 14-17 has the block number, column 18-19 have the township number and column 20 has the township direction. Block names and townships are right justified.

Col 21 Section/Labor/Tract (S/L/T) Flag

Col 22-26 Section/Labor/Tract Number

Col 27 Survey/Abstract (S/A) Flag

Col 28-32 Survey/Abstract Number

Col 33-38 Revision Date.

Col 39 Source Code.

This 1-character field defines the source of the data for this entity. The following tables defines these sources.

0	Tobin 1"=2000'
1	Tobin 1"=4000'
2	USGS 7 1/2 Min. Quad
3	USGS 15 Min. Quad
4	Tobin Orthophotography
5	TOBIN 1"=2000'



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Col 40-69 Polygon Range Box.

The range box contains two latitude/longitude coordinate pairs which specify the SW and NE extrema.

Col 70-73 State/Zone Code.

If the State code (2- characters) is in the range 1 to 59, then any X/Y data is in state plane coordinates for the given zone (2-characters). If the State code (2-characters) is 60, then any X/Y data is in UTM coordinates (in feet) for the given zone (2-characters).

Col 74-75 Number of polygon parts.

Col 76-78 TOBIN Meridian Code.

Refer to Appendix C for a listing of the TOBIN Meridian Codes.

Col 79-80 Unused.

#### 4.3 Annotation Records (Record Type 2)

Each record of Record Type 2 has the following format.

Col 1 Record Type.

Always "2", indicating that this record is an Annotation Record.

Col 2-16 Text Location.

A 15-character Latitude, Longitude coordinate pair specifying where the lower left corner of the annotation text is to be located.

Col 17-34 Text Location.

An 18-character XY coordinate pair specifying where the lower left corner of the annotation text is to be located.

Col 35-39 Text Angle.

A 5-character rotation angle in the form XXX.XX. The angle is specified in 100ths of a degree.

Col 40-45 Text size.

A 6-character field which specifies the text size in feet.

Col 46-47 Number of characters.

A 2-character numeric specifying the number of characters in the Text field.

Col 48 Text Font.

A 1-character numeric field, with possible values from "0" to "9", reserved for specification of the text font to be used in annotation.

Col 49-80 Text.

Up to 32 characters of annotation text, right justified within the field.

All characters in the text will be printable ASCII characters.

#### 4.4 Coordinate Records (Record Type 3)

Wherever records of Record Type 3 occur, any number can occur together.

Each record of Record Type 3 has the following format.

Col 1 Record Type.

Always "3", indicating that this record is a Coordinate Record.

Col 2-16

A 15-character latitude/longitude coordinate field which specifies the start point for a line segment.

Col 17-36

A 20-character X/Y coordinate field which specifies the start point for a line segment.

Col 37-51

A 15-character latitude/longitude coordinate field which specifies the ending point for a line segment.

Col 52-71

A 20-character X/Y coordinate field which specifies the ending point for a line segment.

Col 72-73 Line Code.

The following table defines the values for the line codes.

01	Monument
02	Town
03	Benchmark
04	Field Identified Section Corner



05	Reserved for Well Location Symbol
19	County Boundary (Shoreline)
20	Map detail
21	Map Conflict
22	Township
23	Township Conflict
24	County Boundary
25	State Boundary
26	Federal Boundary
40	Pipeline
41	Transmission Line
50	Railroad
51	Federal Highway
52	State Highway
53	Other Travelways
60-99	Customer Assigned

Col 74-79 Line Segment Sequence Number.

The sequence number is used to identify those co-incident arcs, with the same state and county, in TDRBM II format. This allows the elimination of line segment over plotting.

Col 80 End of Polygon flag.

This field is a "9" if this line segment is the last segment in a polygon part. The next line segment should be drawn PEN-UP at the from coordinate.

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