

Survey Department of Sri Lanka.

**Topographic Database
Specifications
and
Data Dictionary**

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Database Specifications

Introduction.

A Map is a representation of geographic features and places and their spatial relationships to one another, to a scale on a paper or other physical media. A map usually, provides a large amount spatial of information, in a relatively small space. However, there is still a great deal of information about geographic features, that could not be practically shown on a map, due to lack of pace.

It takes a significant amount of time for retrieval of information from a map, partly due to the time taken for retrieve a map itself from where it is stored, and to retrieve information itself.

With the advent of computer and information technology, and it's impact on Automated or Digital Mapping, it has become possible to store a vast amount of map information in a much less physical storage space, with the ability for faster retrieval of information as well.

However, there is further great deal of information, related to geographic features, that cannot be handled even in the automated mapping as they are in the form of attribute information to the map features.

With the development of Data Base Management Systems, it has become possible to manage these attribute information that cannot be physically placed on a map.

The Geographic Information System (GIS) is a combination of Digital Mapping and Database Management System. This has the ability to link, spatial information to attribute information, and to retrieve & analyze spatially related information including the attribute information and related geographic features.

This specification and the data dictionary is aimed at documenting the ways in which the geographic data and attribute information is organised in the GIS dada base designed and compiled by the Survey Department of Sri Lanka.

In principle, there is no single correct procedure for database design. The major factors that influence a GIS database design, are the data requirements of the applications that will be developed, availability and the format of existing topographic data, update and maintenance procedures, size of the data base, hardware configuration, data model of the software used, number and organizational structure of users, cost involved and management support.

The Map Sheet dimensions and Neat line Dimensions and Position.

1:50,000 Map sheet.

The map dimensions are 0.8m west-east and 0.5 m south-north representing the ground dimensions of 40,000m X 25000 m area. (1000 sq. km).

The neat lines for all sheets form the positions of grid index map for 1: 50,000 sheets. For eg. Sheet number 76 is positioned at 200,000 N, 150,000 E (SW corner) and 240,000 N, 175,000 E (NE corner).

1:10,000 Map sheet

The map dimensions are 0.8m west-east and 0.5 m south-north representing the ground dimensions of 8000 m X 5000 m. (40 sq. km)

The neat lines for all sheets form the positions of grid index map for 1: 10,000 sheets. For eg. Sheet number 76/14 is positioned at 160,000 N, 224,000 E (SW corner) and 165,000 N, 232,000 E (NE corner).

Grid lines.

The grid lines are the linear features that defines the individual map sheet limits & internal grids, and are placed in a separate coverage called GRID. These lines are also used to close polygons at the sheet limit.

Sheet/Tile Numbering.

Each Map sheet or tile or workspace is numbered as shown below.

1:50,000 sheets	01 to 92 to represent 92 map sheets, of 1:50,000 scale.
1:10,000 sheets	0101 to 9225 to represent 1/1 to 92/25 sheets. There are 25 such sheets to cover one 50,000 sheet area. Since some sheets may not contain any data, one would find some sheet numbers do not exist in the database. It is estimated that there are 1834 sheets of this nature.
1:2,000 sheets	010101 to 922525 to represent 1/1/1 to 92/25/25 sheets. There are 25 such sheets to cover one 10,000 sheet area. Since some sheets may not contain any data, one would find some sheet numbers do not exist in the database.
1:1,000 sheets	010101A to 922525D to represent 1/1/1/A to 92/25/25/D sheets. There are 4 such sheets to cover one 2,000 sheet area. Since some sheets may not contain any data, one would find some sheet numbers do not exist in the database.

Features.

All features in the database are listed below under the Data Dictionary, indicating the feature name, code, definition, and rules of compilation wherever necessary.

Attributes.

There are a number of different user attributes attached to features in the database listed in the features.

Layers.

A layer is a logical collection of geographic features with common characteristics. There are nine (09) layers plus a NEAT layer available for the data base.

TICs

Four TICs are in each coverage as control points for scale and orientation of digital data. They are numbered as TIC-ID 1 (SW corner), TIC-ID 2 (NW corner), TIC-ID 3 (NE corner), and TIC-ID 4 (SE corner) at four corners of the neat line.

Vector Data Model

The data model used is the ARC/INFO data model. Layers of data are stored in a package called a 'Coverage'. Attributes for features are maintained in INFO data files. Some of these (eg. LENGTH, AREA etc) are generated as a standard to ARC/INFO coverage and some are user identified as specified in the Data Dictionary. The coordinates are in two dimensional, and are stored in double precision.

The feature types of geometric data used are as follows. These features are defined by the coordinate positions of New Conformal Coordinates.

Point	Zero dimensional object formed by a single coordinate pair.
Tic	A graphic element formed by a single coordinate pair. It is used as a reference marker linking a graphic input device with the features in the coverage.
Arc	One dimensional object formed by a sequence of coordinate pairs. Each coordinate pair is referred to as a vertex.
Node	Zero dimensional object formed by a single coordinate pair, and is either the beginning or ending vertex of one or more Arcs.
Polygon	Two dimensional object formed by one or more sequences of one or more interconnected arcs.

Tabular Data Model.

The tabular data model used is the Database Management System of ARC/INFO called INFO. The data types that can be used in INFO are as follows.

B	Binary	Number, stored as a binary integer. It can have an implied decimal point.
C	Character	Fixed length character string up to 4096 bytes (characters)
D	Date	Date field, stored internally as YYYYMMDD
F	Floating	Number stored in Floating point format.
I	Integer	Number(Integer) item up to 16 bytes (digits), with no decimal point.
N	Number	Number with decimal places. Can have up to 16 bytes (digits) including the decimal point.

Coordinate System & Datum.

All coordinates are in meters according to the New conformal coordinate system and is based on the Transverse Mercator Projection with the following parameters.

Transformation Parameters - WGS 84 to Everest Ellipsoid

Shifts X= 0.2933
Y= -766.9499
Z= -87.7131

Rotation X= 0.1957040 seconds
Y= 1.6950677
Z= 3.4730161

Scale Factor 1.0000000393

Projection Parameters - Everest Ellipsoid to Transverse Mercator Projecton

Everest India 1830
False Easting 200000
False Northing 200000

Central Meridian 80 46 18.16700 E
Central Parallel 7 00 1.69750 N
Scale Factor 0.9999238418

The vertical datum is Mean sea level as defined by the Survey Department of Sri Lanka.

Accuracy.

The accuracy of the planimetric data is within +/- 2.5 m of their true positions on the ground for 1:10,000 and +/- 12.5 m of their true positions on the ground for 1:50,000 mapping data.

Similarly the accuracy of the planimetric data is within +/- 25 cm of their true positions on the ground for 1:1,000 and +/- 50 cm of their true positions on the ground for 1:2,000 mapping data

This represents 0.25 mm at the map scale.

Accuracy of height data

The accuracy of the height data is within +/- 1 m of their true elevations on the ground for 1:10,000 and +/- 3 m of their true elevations on the ground for 1:50,000 mapping data.

The above figures represent the maximum allowed error in position. Some data collected and compiled by more precise methods have better accuracy.

Compilation Rules.

The linear features that are equal or longer than 2.5 m, and area features that are larger than $2.5 \times 2.5 \text{ m}^2$ (with the exception of Roads which are compiled as linear features only) will be the compiled in case of 1:10,000 scale of compilation and it will be 12.5 m for linear and $12.5 \times 12.5 \text{ m}^2$ for area features in case of 1:50,000 scale of compilation.

Similarly the linear features that are equal or longer than 25 cm, and area features that are larger than $25 \times 25 \text{ cm}^2$ will be the compiled in case of 1:1,000 scale of compilation and it will be 50 cm for linear and $50 \times 50 \text{ cm}^2$ for area features in case of 1:2,000 scale of compilation.

Quality Assurance.

A number of steps have been taken to ensure the quality of data under the following primary areas .

1. Positional accuracy of the content,
2. Completeness of the content.
3. Edge matching to assure the continuity of features running into more than one sheet.

Data Dictionary

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Coverage name : **BUILDING**

Scale of compilation : 1:10,000 & 1: 50,000

Feature Class : Polygons (1:10,000) & Points (1: 50,000)

Description : All Buildings compiled as building polygons or points.

Features : All building features, that can be shown as building polygons.

Attribute table name : BUILDING.PAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	See table below	See table below
SDCODE	3,3,I	See table below	See table below

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION (In 1:10,000 scale)</u>
100	BLDGA	Building -Unspecified – without name
110	BTMPA	Buddhist Temple
112	HTMPA	Hindu Temple (Kovil)
114	CHRHA	Church
116	MOSQA	Mosque
120	USCHA	School – Unclassified
127	UNSTA	University
128	TCHCA	Technical College
129	TREIA	Tertiary Education Institutes
130	UHSPA	Hospital – Unclassified
137	PHSPA	Hospital -Private
134	DSPNA	Dispensary
140	PLCSA	Police Station
142	PLCPA	Police Post
148	UCRTA	Courts - Unclassified
150	MPOFA	Main Post Office
152	SPOFA	Sub Post Office
153	APOFA	Agency Post Office
154	UPOFA	Post Office - Unclassified
160	HOTLA	Hotel
162	RTHSA	Rest House
164	CTBNA	Circuit Bungalow
180	CMTBA	Cemetery Building
184	LTHSA	Light House
170	PTHSA	Private House
172	GVTBA	Other Govt Building
174	HSTSA	Historical Monument
176	BANKA	Bank Building
178	CMMBA	Commercial Buildings
179	FCTRA	Factory Building

190	BLDCA	Building Under Construction
180	RLSTA	Railway Station
181	RLHTA	Railway Halt
182	BUSSA	Bus Stand
184	FLSTA	Filling Station
192	APRTA	Air Port
194	PORTA	Port

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION (In 1:50,000 scale)</u>
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100	BLDGP	Building -Unspecified – without name
110	BTMPP	Buddhist Temple
112	HTMPP	Hindu Temple (Kovil)
114	CHRHP	Church
116	MOSQP	Mosque
120	USCHP	School – Unclassified
127	UNSTP	University
128	TCHCP	Technical College
129	TREIP	Tertiary Education Institutes
130	UHSP	Hospital – Unclassified
137	PHSPP	Hospital -Private
134	DSPNP	Dispensary
140	PLCSP	Police Station
142	PLCPP	Police Post
148	UCRTP	Courts - Unclassified
150	MPOFP	Main Post Office
152	SPOFP	Sub Post Office
153	APOFP	Agency Post Office
154	UPOFP	Post Office - Unclassified
160	HOTLP	Hotel
162	RTHSP	Rest House
164	CTBNP	Circuit Bungalow
180	CMTBP	Cemetery Building
184	LTHSP	Light House
170	PTHSP	Private House
172	GVTBP	Other Govt Building
174	HSTSP	Historical Monument
176	BANKP	Bank Building
178	CMMBP	Commercial Buildings
179	FCTRP	Factory Building
190	BLDCP	Building Under Construction
180	RLSTP	Railway Station
181	RLHTP	Railway Halt
182	BUSSP	Bus Stand
184	FLSTP	Filling Station
192	APRTP	Air Port
194	PORTP	Port

NAME	50,50 C		Name of the building if any.
YEAR	4,4,B		Year of data collection.
METHOD	2,2,B	1	Digitized from 1:50,000 maps
		2	Digitized from 1:10,000 maps
		3	Compiled from 1: 50,000 photographs
		4	Compiled from 1: 20,000 photographs
		5	Compiled from 1: 8,000 photographs
		6	Compiled by Ground Survey
		7	Compiled by Manual Sketching

Coverage name : **TRANS**

Scale of compilation : 1:10,000 & 1: 50,000

Feature Class : Arcs

Description : All Roads and Railways

Features : Linear features showing Roads and Railways

Attribute Table : TRANS.AAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	See table below	See table below
SDCODE	3,3,I	See table below	See table below

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION</u>
200	EXPRL	Expressway
210	MNRDL	Main Roads
211	MRBRL	Main road on Bridge
212	MRBNL	Main road on Bund
213	MRTNL	Main road along Tunnel
214	MRCWL	Main road on Causeway
220	SDRDL	Secondary/Minor Roads
221	SRBRL	Secondary/Minor Road on Bridge
222	SRBNL	Secondary/Minor road on Bund
223	SRTNL	Secondary/Minor road along Tunnel
224	SRCWL	Secondary/Minor road on Causeway
240	TRCKL	Jeep/Cart Track
241	TRBRL	Track on Bridge
242	TRBNL	Track on Bund
243	TRTNL	Track along Tunnel
244	TRCWL	Track on causeway
245	LANEL	Lane
250	FTPHL	Footpath
251	FPBRL	Footpath on Bridge
252	FPBNL	Footpath on Bund
253	FPTNL	Footpath along Tunnel
260	RAILL	Railways
261	RLBRL	Railway line on Bridge
262	RLBNL	Railway line on Bund
263	RLTNL	Railway line along Tunnel
265	RNWYL	Runway
267	TXWYL	Taxiway
270	BRDGL	Bridge
272	RDUCL	Road Under Construction

273	FRRYL	Ferry Service
275	RLCPL	Railway Crossing – Protected (line)
274	MISCL	Line Unidentified (applicable for 10,000 raw data)

TYPE	4,4,C	eg. A12 or B1 BGS BGD NBG	Type and Number for Roads Broad Gauge Single Railways Broad Gauge Double Railways Narrow & Broad Gauge
NAME	30,30,C	*	Name of the Roads if available.
YEAR	4,4,B		Year of data collection.
METHOD	2,2,B	1 2 3 4 5 6 7	Digitized from 1:50,000 maps Digitized from 1:10,000 maps Compiled from 1: 50,000 photographs Compiled from 1: 20,000 photographs Compiled from 1: 8,000 photographs Compiled by Ground Survey Compiled by Manual Sketching

Note:

- Name of the Road, Lane etc. eg. KIRULA ROAD.
- Road Directions are stored as annotation feature class.

Coverage name : LUSE

Scale of compilation : 1:1,000 & 1: 50,000

Description : All vegetation areas.

Feature Class : Arcs and Polygons

Features : Arcs that define vegetation/land cover polygons listed below and polygons of such vegetation areas.

Arc Attribute Table : No arc attributes

Polygon Attribute Table : LUSE.PAT

Attribute Descriptions:

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	See table below	See table below
SDCODE	3,3,I	See table below	See table below

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION</u>
300	MNGRA	Mangrove
305	MRSA	Marsh
306	SWMPA	Swamp
310	PDDYA	Paddy
315	PDYAA	Paddy-abandoned
320	TEAA	Tea
322	RBBRA	Rubber
324	CCNTA	Coconut
331	CNMNA	Cinnamon
332	CTNLA	Citranella
333	CSHWA	Cashew
334	PLMRA	Palmyrah
335	OLPMA	Oil Palm
336	SGCNA	Sugarcane
337	OTHRA	Other cultivations
338	MIXDA	Mixed tree and other perennial crops
339	SPRSA	Sparsely used cropland
340	FRSDA	Dense Forest
342	FRSOA	Open Forest
344	FRSPA	Forest Plantation
345	FRSUA	Forest - Unclassified
346	SCRBA	Scrub land
350	CHNAA	Chena
352	GRSLA	Grassland
360	NLNDA	Associated non-agricultural land
362	BRRNA	Barren land

364	QRRYA	Quarry
365	DSTSA	Distorted surface
366	ROCKA	Rock
368	PARKA	Park
369	PLGDA	Playground
370	HOMSA	Homesteads/Garden
380	AQTCA	Aquatic farms
382	AGRCA	Agricultural farms
384	LSVTA	Livestock farms
399	UNCLA	Unclassified
378	CMTYA	Cemetery
372	SANDA	Sand areas
376	BLTPA	Built up area (only in 50,000)
390	HYDRA	All Water areas - Unclassified

YEAR	4,4,B		Year of data collection.
METHOD	2,2,B	1	Digitized from 1:50,000 maps
		2	Digitized from 1:10,000 maps
		3	Compiled from 1: 50,000 photographs
		4	Compiled from 1: 20,000 photographs
		5	Compiled from 1: 8,000 photographs
		6	Compiled by Ground Survey
		7	Compiled by Manual Sketching.

Coverage name : **HYDRO**

Scale of compilation : 1:10,000 & 1: 50,000

Feature Class : Arcs & Polygons

Description : All water bodies natural or man made

Features : Linear and Polygon features showing Rivers, Streams, Channels.

Attribute Table Name : HYDRO.AAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	See table below	See table below
SDCODE	3,3,I	See table below	See table below

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION</u>
410	STRML	Boundary/feature of all Streams
412	STRMV	Stream virtual line
420	CHNLL	Irrigation Channel
422	CHNLV	Irrigation Channel virtual line
424	CHNAL	Channel (Abandoned)
425	CNNLL	Canal
428	TNNLL	Tunnel
430	RSVRL	Reservoir boundaries
432	LAKEL	Lake boundaries
434	TANKL	Tank boundaries
436	TANKV	Tank boundaries - virtual
436	TNKAL	Tank- abandoned boundaries
438	PONDL	Pond boundaries
440	LAGNL	Lagoon boundaries
442	LAGNV	Lagoon boundaries - virtual
444	LEWYL	Lewaya/Salt pan boundaries
446	LEWYV	Lewaya/Salt pan boundaries – virtual
448	WTRHL	Water holes boundaries
450	BUNDL	All bund lines
451	BNDAL	Bund line (Abandoned)
452	DAML	All Dam lines
453	SPLLL	Spill line
454	ANCTL	Anicut Line
460	OUTBL	Outline of the country
462	OUTBV	Outline of the country - virtual
490	HYDRV	Arcs to close polygons at the sheet edge.
492	ILNDL	Island Boundaries
NAME	50,50,C	* Name of the water feature (if available).

YEAR	4,4,B		Year of data collection.
METHOD	2,2,B	1	Digitized from 1:50,000 maps
		2	Digitized from 1:10,000 maps
		3	Compiled form 1: 50,000 photographs
		4	Compiled form 1: 20,000 photographs
		5	Compiled form 1: 8,000 photographs
		6	Compiled by Ground Survey
		7	Compiled by Manual Sketching

Note:

* Name of the River, Stream etc. eg. KELANI GANGA or YAN OYA.

Attribute Table Name : HYDRO.PAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	See table below	See table below
SDCODE	3,3,I	See table below	See table below

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION</u>
411	STRMA	Areas of all Minor Streams
431	RSVRA	Reservoirs
433	LAKEA	Lakes
435	TANKA	Areas of all tanks
437	TNKAA	Areas of all abandoned tanks
439	PONDA	Areas of all Ponds
441	LAGNA	Areas of all Lagoons
445	LEWYA	Areas of Lewaya/Salt pan
449	WTRHA	Areas of all Water holes
470	CNNLA	Areas of Canals
499	SEAA	All Sea areas
475	BNDAA	Bund abandoned areas
474	BUNDA	Bund areas
473	TNNLA	Tunnel areas
472	CHNAA	Channel - abandoned
421	CHNLA	Channel area
470	CNNLA	Canal area
494	ILNDA	Island areas

NAME	50,50,C	*	Name of the water feature (if available).
YEAR	4,4,B		Year of data collection.

Coverage name : **TERRAIN**

Scale of compilation : 1:10,000 & 1: 50,000

Feature Class : ARCS & POINTS

Description : All Contours and Height points

Features : All Contour lines and points in which the heights are known.

Arc Attribute Table : TERRAIN.AAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	See table below	See table below
SDCODE	3,3,I	See table below	See table below

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION</u>
500	INDXL	Index Contours
502	INDUL	Index Contours - Uncertain
510	INTRL	Intermediate Contours
512	INTUL	Intermediate Contours - Uncertain
514	SUPPL	Supplementary Contours
520	UNCRL	Uncertain Contours
530	BATHL	Bathematic Contours

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
ELEVATION	5,5,I	as applicable	Elevation
YEAR	4,4,B	as applicable	Year of data collection.
METHOD	2,2,B	1 2 3 4 5 6 7	Digitized from 1:50,000 maps Digitized from 1:10,000 maps Compiled from 1: 50,000 photographs Compiled from 1: 20,000 photographs Compiled from 1: 8,000 photographs Compiled by Ground Survey Compiled by Manual Sketching

Point Attribute table : TERRAIN.PAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	SPHTP	All Spot Height Points

SDCODE	3,3,I	540	All Spot Height Points
ELEVATION	4,4,F,3		Elevation
YEAR	4,4,B		Year of data collection.
METHOD	2,2,B	1	Digitized from 1:50,000 maps
		2	Digitized from 1:10,000 maps
		3	Compiled from 1: 50,000 photographs
		4	Compiled from 1: 20,000 photographs
		5	Compiled from 1: 8,000 photographs
		6	Compiled by Ground Survey
		7	Compiled by Manual Sketching

Coverage name : **PLACES**

Scale of compilation : 1:1,000 & 1: 50,000

Feature Class : POINTS

Description : All places and features symbolised as points

Features : All places, culverts, that are symbolised as points

Arc Attribute Table : PLACES.PAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	See table below	See table below
SDCODE	3,3,I	See table below	See table below

<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION</u>
600	PLCEP	Place Name
602	VILLP	Village Name
604	GNDVP	GN Division Name
605	TOWNP	Town Name
606	ESTTP	Estate Name
607	JUNCP	Junction Name
610	TRNSP	Transformer point
612	SPLLP	Spill point
614	SLCEP	Sluice Point
616	ANCTP	Anicut Point
618	CLVTP	Culvert
620	RLCPP	Railway Crossing – Protected
622	RLCUP	Railway Crossing – Un protected
624	KLMPP	Kilo meter posts
	TRIGP	Trig Points
626	HLPDP	Helicopter pad
628	WTRFP	Water Fall
630	MISCP	Miscellaneous point
632	TBWLP	Tube Well
640	TOWRP	Tower
645	FORDP	Ford

NAME 50,50,C Name of the place if any.

YEAR 4,4,B Year of data collection.

METHOD 2,2,B

1	Digitized from 1:50,000 maps
2	Digitized from 1:10,000 maps
3	Compiled form 1: 50,000 photographs
4	Compiled form 1: 20,000 photographs

5	Compiled form 1: 8,000 photographs
6	Compiled by Ground Survey
7	Compiled by Manual Sketching

Coverage name : ADMIN

Scale of compilation : 1:1,000 & 1: 50,000

Feature Class : Arcs and Polygons

Description : Administrative boundaries and administrative areas.

Features :Administrative boundaries and polygons of DS divisions and the Local Government areas.

Arc Attribute Table: ADMIN.AAT

Attribute Descriptions.

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
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GFCODE	5,5,C	See table below	See table below
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SDCODE	3,3,I	See table below	See table below
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<u>SDCODE</u>	<u>GFCODE</u> (in the order of Hierarchy)	<u>FEATURE DESCRIPTION</u> (in the order of Hierarchy)
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700	EEZBL	Exclusive Economic Zone
705	CTZBL	Contiguous Zone limit
707	TTWBL	Territorial waters limit
710	OUTBL	Outline of the country
712	OUTBV	Outline of the country - Virtual
720	PRVBL	Province boundary
730	DSTBL	District boundary
740	DSDBL	DS Division boundary
750	LGVBL	Local Govt. boundary
760	GNDBL	GN boundary
770	ADMNV	Arcs to close all ADMIN boundaries

YEAR	4,4,B		Year of source data compiled.
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METHOD	2,2,B	1	Digitized from 1:50,000 maps
		2	Digitized from 1:10,000 maps
		3	Compiled form 1: 50,000 photographs
		4	Compiled form 1: 20,000 photographs
		5	Compiled form 1: 8,000 photographs
		6	Compiled by Ground Survey
		7	Compiled by Manual Sketching

Polygon Attribute Table: ADMIN.PAT

Attribute Descriptions.

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
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PROV	3,3,C	CP	Central Province
		EP	Eastern Province
		NP	Northern Province
		NC	North Central Province
		NW	North Western Province
		SG	Sabaragamuwa Province
		SP	Southern Province
		UP	Uva Province
		WP	Western Province

DISTRICT	12,12,C	AMPARA	Ampara
		ANURADHAPURA	Anuradhapura
		BADULLA	Badulla
		BATTICALOA	Batticaloa
		COLOMBO	Colombo
		GALLE	Galle
		GAMPAHA	Gampaha
		HAMBANTOTA	Hambantota
		JAFFNA	Jaffna
		MANNAR	Mannar
		MATARA	Matara
		MATALE	Matale
		MULLATIVU	Mullativu
		KALUTARA	Kalutara
		KANDY	Kandy
		KEGALLE	Kegalle
		KILLIOCHCHI	Killinochchi
		KURUNEGALA	Kurunegala
		MONERAGALA	Monaragala
		NUWARAELIYA	Nuwaraeliya
		POLONNARUWA	Polonnaruwa
		PUTTLAM	Puttlam
		RATNAPURA	Ratnapura
		TRINCOMALEE	Trincomalee
		VAVUNIA	Vavunia

DSAREA 12,12,C see table annexed see table annexed

SDCODE 4,4,I see table annexed see table annexed

LGAREA ??,??, C MCCOLOMBO Colombo M.C
UCGAMPAHA Gampaha U.C.
DSGAMPAHA Gampaha DS Div.

*

GNAREA ??,??,C

Note:

- Since the DS area list is too long this may be put in an appendix.

* Name of Local authority with MC, UC or DS as appropriate at the beginning.

Coverage name : **RESERVES**

Scale of compilation : 1:1,000 & 1: 50,000

Description : All reservation areas.

Feature Class : Arcs and Polygons

Features : Arcs that define reservation cover polygons listed below and polygons of such reservation areas.

Arc Attribute Table : No arc attributes

Polygon Attribute Table : RESERVES.PAT

Attribute Descriptions:

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
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GFCODE	5,5,C	See table below	See table below
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SDCODE	3,3,I	See table below	See table below
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<u>SDCODE</u>	<u>GFCODE</u>	<u>FEATURE DESCRIPTION</u>
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800	FRRSA	Forest Reserves.
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810	WLRSA	Wildlife Reserves
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NAME	50,50,C	*	Name of the reservation
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YEAR	4,4,B		Year of data collection.
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METHOD	2,2,B	1	Digitized from 1:50,000 maps
		2	Digitized from 1:10,000 maps
		7	Compiled from 1: 50,000 photographs
		8	Compiled from 1: 20,000 photographs
		9	Compiled from 1: 8,000 photographs
		10	Compiled by Ground Survey
		7	Compiled by Manual Sketching.

Coverage name : **UTILITY**

Scale of compilation : 1:10,000 only

Feature Class : Arcs

Description : All Utilities

Features : Linear features showing all utilities

Attribute Table : UTILITY.AAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	PWERL WTERL WTNNL	Power transmission lines Water pipe lines Water Tunnel
TYPE	8,8,C	15KV	Voltage
SDCODE	3,3,I	900 910 920	Power transmission lines Water pipe lines Water Tunnel
NAME	30,30,C		Name of the utility if any.
YEAR	4,4,B		Year of data collection.
METHOD	2,2,B	1 2 3 4 5 6 7	Digitized from 1:50,000 maps Digitized from 1:10,000 maps Compiled form 1: 50,000 photographs Compiled form 1: 20,000 photographs Compiled form 1: 8,000 photographs Compiled by Ground Survey Compiled by Manual Sketching

Coverage name : **CONTROL**

Scale of compilation : 1:10,000 & 1: 50,000

Feature Class : Arcs and Points

Description : Horizontal and Vertical control traverses and points

Features : Primary, secondary, and tertiary traverses, primary, secondary, & tertiary triangulation points, GPS control points, Fundamental Benchmarks, primary, secondary, & tertiary level lines.

ARC Attribute Table: CONTROL.AAT

Attribute Descriptions:

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	4,4,C	PTVL	Primary Traverse Line
		STVL	Secondary Traverse Line
		TTVL	Tertiary Traverse Line
		PLVL	Primary Level Line
		SLVL	Secondary Level Line
		TLVL	Tertiary Level Line
TRID	4,4,C		Traverse/level line number
YEAR	4,4,B		Year of data collection.

POINT Attribute Table: CONTROL.PAT

Attribute Descriptions:

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	4,4,C	PTGP	Primary triangulation point
		STGP	Secondary Triangulation Point
		TTGP	Tertiary Triangulation Point
		GPSP	GPS control point
		PTVP	Primary Traverse Point
		STVP	Secondary Traverse Point
		TTVP	Tertiary Traverse Point
		FBMP	Fundamental Bench Mark
STID	4,4,C		Station ID Number
NORTHING	6,6,F,3		North coordinate
EASTING	6,6,F,3		East coordinate
ELEVATION	4,4,F,3		Elevation
YEAR	4,4,B		Year established or observed

Coverage name : **GRID**

Scale of compilation : 1:10,000 & 1: 50,000

Feature Class : Arcs

Description : All Grid lines

Features : Linear features showing the sheet limits & grids

Attribute Table : GRID.AAT

Attribute descriptions :

<u>Item</u>	<u>Item Format</u>	<u>Value Domain</u>	<u>Value Description</u>
GFCODE	5,5,C	GRIDL	Tile limits & Grids
SDCODE	3,3,I	999	

Feature Definitions

Note:

We shall start spending time on this once the other parts are finalised. The purpose of documenting feature definition is to identify the features without any ambiguity. Since most features in our data base are self defined, some of them need not be defined at all. However there is a need to include 'Rules of Compilation' for each feature. But features like Main Road, Secondary Road, Lane, Track, need clear definitions.