

**POLICIES AND SPECIFICATIONS
FOR TRIM II
(1:20 000) and (1:10 000)
REVISION DATA CAPTURE
VERSION 2.0
May 15, 1997**

DATA MAINTENANCE UNIT
TRIM DATA MAINTENANCE PROJECT
PROVINCIAL BASELINE DIGITAL ATLAS

POLICIES AND PROCEDURES:

DATA EXCHANGE

File: 10340-02-002/

Project: 95-032

NAME OF POLICY: **PROVINCIAL BASELINE DIGITAL ATLAS:
DATA EXCHANGE**

APPLICATION: THESE POLICIES AND PROCEDURES APPLY TO THE IMPORTING OF THIRD PARTY DATA INTO THE PROVINCIAL BASELINE DIGITAL ATLAS.

ISSUANCE: MANAGER, OPERATIONS SECTION, GEOGRAPHIC DATA BC

IMPLEMENTATION: GEOGRAPHIC DATA BC, MINISTRY OF ENVIRONMENT, LANDS AND PARKS.

REFERENCES: BRITISH COLUMBIA SPECIFICATIONS AND GUIDELINES FOR GEOMATICS, DIGITAL BASELINE MAPPING AT 1:20,000, GEOGRAPHIC DATA BC, CONTENT SERIES, VOLUME 3, RELEASE 2.0, JANUARY, 1992.

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RELATIONSHIP TO
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DATA MAINTENANCE UNIT
TRIM DATA MAINTENANCE PROJECT
PROVINCIAL BASELINE DIGITAL ATLAS

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DATA MAINTENANCE UNIT
TRIM DATA MAINTENANCE PROJECT
PROVINCIAL BASELINE DIGITAL ATLAS

POLICIES AND PROCEDURES:

DATA SHARE AND EXCHANGE

File: 10340-02-002/

Project: 95-032

1.0 PURPOSE:

To record the policies and procedures which guide, within the GEOGRAPHIC DATA BC, the exchange of third party spatial information and the inclusion of this information and the associated metadata in the PROVINCIAL BASELINE DIGITAL ATLAS.

2.0 SCOPE:

2.1 APPLICATION

These policies and procedures apply to the exchange of source and other spatial data, including metadata, that is of actual or potential use in the production and maintenance of digital baseline information by the GEOGRAPHIC DATA BC.

2.2 DEFINITIONS

- (a) "DATA ACCURACY" means the degree to which information conforms to pre-determined tolerances.
- (b) "DATA ACQUISITION" means the process of obtaining information required to support program activities. The source is external, with responsibility for the information residing with the supplying agency. The implication is that the acquiring agency has no direct control over data integrity.
- (c) "DATA CAPTURE" means the process of collecting information (in-house or by contract) in the course of normal program activities. The information conforms to given standards for currency, definition and structure. Responsibility for the information (custodianship) resides with the initiating organization, in this case, the GEOGRAPHIC DATA BC.
- (d) "DATA CONTENT" means the maintenance of information such that it continuously conforms to a pre-determined catalogue of specific features or attributes.
- (e) "DATA CURRENCY" means the process of maintaining information so that it accommodates continuous change and remains a useful decision-making tool.
- (f) "DATA EXCHANGE" means the negotiated transfer of data between organizations or agencies.

Inter-agency data exchange is mandated by TREASURY BOARD across government in the interest of efficient resource management, standardization and cost reduction.

The exchange of information has two components, each with associated policy considerations:

- Importation of third party data into the Branch from an external source
- Exportation (or distribution) of data from the Branch to an external agency

(g) "PROVINCIAL BASELINE DIGITAL ATLAS" means the set of five spatial and non-spatial databases intended to provide total provincial coverage in support of the development and management of land-related information. The five databases are:

- The TOPOGRAPHIC DATABASE.
- The GEOGRAPHIC PLACE NAMES (TOPONYMY) DATABASE.
- The GEODETIC CONTROL DATABASE.
- The REMOTE SENSING IMAGE DATA BANK.
- The BASELINE THEMATIC MAPPING DATABASE.

(h) "TERRAIN RESOURCE INFORMATION MANAGEMENT (TRIM) DATA" means the set of three-dimensional digital files produced at a scale of 1:20 000 and providing the base data set for the PROVINCIAL BASELINE DIGITAL ATLAS.

(i) "THE BRANCH" means the GEOGRAPHIC DATA BC, MINISTRY OF ENVIRONMENT, LANDS AND PARKS.

3.0 INTRODUCTORY STATEMENTS:

The policies and procedures contained in this document reflect the commitment of the GEOGRAPHIC DATA BC to pursue specific goals that determine and guide the current approach to and future direction of inter-agency data exchange. These goals are:

- (a) Branch business that is client driven.
- (b) To actively encourage the investigation and implementation of inter-agency data sharing with the objectives of:
 - i) improved data integrity, availability and efficient use
 - ii) reduced redundancy in data collection and retention
 - iii) maximized compatibility with provincial, national and international data standards
- (c) To continue to promote cooperative acceptance of Branch or other recognized

standards for data accuracy and data format to facilitate inter-agency data exchange.

- (d) A commitment to cost reduction achieved by investigating, and, where appropriate, incorporating technology, methodology and implementation innovations to meet evolving Branch requirements.
- (e) To develop the most cost-effective combination of resource allocation, technology and process in implementing data exchange.
- (f) To remain committed to the completion and maintenance of an information base of established accuracy, currency, credibility, and reliability.
- (g) To be the recognized custodian of the data comprising the PROVINCIAL BASELINE DIGITAL ATLAS and as such responsible for the continuing integrity of this information.

4.0 RESPONSIBILITY:

4.1 EXTERNAL AGENCIES

Agencies with a data exchange agreement with the Branch may have a negotiated responsibility for:

- (a) DATA OWNERSHIP
- (b) DATA INTEGRITY (ACCURACY, CURRENCY, COMPLETENESS, RELIABILITY)
- (c) DATA MAINTENANCE, REVISION AND UPDATE

4.2 GDBC OPERATIONS SECTION

The MANAGER, OPERATIONS SECTION, is responsible for ensuring that the policies of the GEOGRAPHIC DATA BC, in relation to data exchange, are communicated to the centres responsible for the following activities:

- (a) PROGRAM PLANNING
- (b) CONTRACT ADMINISTRATION
- (c) SPECIFICATIONS
- (d) DATA FORMAT
- (e) DATA CAPTURE
- (f) DATA ACQUISITION
- (g) TOPONYMY
- (h) QUALITY ASSURANCE

4.3 GDBC CLIENT SUPPORT SERVICES SECTION

The MANAGER, CLIENT SUPPORT SERVICES SECTION, is responsible for ensuring that the policies of GEOGRAPHIC DATA BC, in relation to data exchange, are communicated to the centres responsible for the following activities:

- (b) DATA DELIVERY / TRANSFER
- (c) DATA STORAGE

5.0 DATA EXCHANGE POLICIES:

- 5.1 GEOGRAPHIC DATA BC will, where appropriate, minimize cost, data redundancy, and duplication of effort by integrating or exchanging data with, or obtaining data from other sources.
- 5.2 GEOGRAPHIC DATA BC will introduce third party spatial information and associated metadata into the PROVINCIAL BASELINE DIGITAL ATLAS so as to maximize the currency, completeness and integrity of the Branch information base.
- 5.3 The Branch will protect its own information base by ensuring that exchanged data or information acquired from external sources and incorporated into Branch databases in no way compromises the accuracy, validity, integrity or consistency of Branch information.
- 5.4 Data from an external source that meets or surpasses Branch specifications for digital baseline information will be considered for direct import into the TRIM 1:20 000 database as revision data.
- 5.5 Data from an external source that does not meet Branch specifications, but that does represent a viable source of up-to-date information, will be considered for use in the revision and update process as secondary information supporting client requirements or as a reference in the accurate interpretation of primary source data.

This information may be included with TRIM data but will carry metadata that differentiates it from Branch data.
- 5.6 The Branch will reserve authority over its own directly distributed information.
- 5.7 In the event that Branch information is exchanged with and/or altered by an external agency, the version maintained by the Branch will be recognized as the authorized version.
- 5.8 In the event that information distributed by the Branch contains data from an external source that does not meet Branch specifications, the Branch will negotiate with the supplying agency, on a project by project basis, to retain ownership of and responsibility for that data.
- 5.9 DATA EXCHANGE POLICY will be implemented by the most cost-effective means available.
- 5.10 The incorporation of DATA EXCHANGE into Branch program plans must fit within the fiscal limits of GEOGRAPHIC DATA BC.
- 5.11 The negotiated price and/or cost structure applied to data exchange will conform to the policy approved by TREASURY BOARD for the PRICING AND DISTRIBUTION OF BRITISH COLUMBIA DIGITAL LAND INFORMATION.

6.0 DATA EXCHANGE PROCEDURES:

The Branch recognizes that the exchange of data with other agencies is an expedient source of new and update information. These procedures document the guidelines by which the Branch pursues data exchange opportunities and establish the criteria for Branch acceptance of data from external sources.

6.1 BACKGROUND

The currency of Branch information is as important an element as data content, accuracy or consistency. In some cases, data currency is the most critical requirement.

One goal of the TRIM REVISION AND UPDATE PROGRAM is to provide users with current and accurate data by the most efficient, economical and effective means possible.

To provide current data in a cost effective and timely manner, the Branch supports integrating and/or supplementing original TRIM baseline information with data from sources other than 1:70 000 scale aerial photography. Alternate sources include but not limited to satellite imagery, GPS and current, importable baseline data resident in other agencies.

Effective implementation of data exchange policy minimizes the time lapse between data capture and data distribution. This requires that the Branch:

- Acquire client-identified, specific, and relevant features
- Evaluate and use existing and current data sources wherever appropriate
- Import and incorporate suitable data from external sources

6.2 DATA SOURCES and DATA ACQUISITION

The primary alternative data sources are:

- Feature data exchange with other agencies
- Digitized aerial photography rectified by DEM
- Satellite imagery
- Replacement aerial photography

Alternative data sources are carefully evaluated by the Branch to define the type, scope and reliability of the information. The appropriate internal use of externally acquired data is defined by the accuracy-based confidence level associated with each data set.

Based on the degree of compliance with the rating criteria, a level of confidence is assigned to all acquired data under consideration:

• Level 1:	Acquired data of established integrity that meets or surpasses TRIM specifications Data is fully integrated into the TRIM data set as full map files with descriptive metadata Data can be used as a primary data source Includes aerial photography, satellite imagery, GPS, and any other comparably accurate means of data capture.
• Level 2:	Acquired data of established lineage and integrity that does not meet Branch specifications Data carried in a separate full or partial file with descriptive metadata Noded to the primary data as ancillary information or addenda Data supports a client requirement Can be used as supporting or secondary information
• Level 3:	Acquired data of unknown lineage and integrity that does not meet Branch specifications Used as interim data until more accurate information is available Data carried in a separate full or partial file with descriptive metadata If possible, noded to the primary data Can be used for data confirmation and verification purposes
• Level 4:	Acquired data of unknown lineage and integrity that does not meet Branch specifications and cannot support Branch data Not used; eg., unresolvable format conflicts

Data acquisition is the process whereby information owned elsewhere is transferred to the Branch for use in the revision and update and/or other operational processes. In such cases the Branch has no direct control over data format or quality.

6.3 DATA SPECIFICATIONS

Data exchange is intended to provide current and accurate information on a continual basis as expeditiously as possible. The fundamental consideration for an alternative data source is that it support the established Branch specifications for data capture.

To be incorporated into the database, imported information must adhere to specific rules for data capture and data format. Data of lesser integrity is attached as ancillary data, according to the confidence levels described in Section 6.2, Data Sources and Data Acquisition.

The custodians of third party information are provided with the specifications with which to determine the confidence level of their data. The value of the data for exchange is judged accordingly.

Branch specifications are given in the GEOGRAPHIC DATA BC publication entitled:

BRITISH COLUMBIA SPECIFICATIONS AND GUIDELINES FOR GEOMATICS,
CONTENT SERIES, VOLUME 3, DIGITAL BASELINE MAPPING AT 1:20 000,
RELEASE 2.1
DECEMBER, 1992, or later releases.

Specifications compliance requires a Branch evaluation of data alternatives to determine data suitability. The criteria are availability, integrity, currency, cost, delivery considerations, technological requirements, and methodology.

Using TRIM data specifications as a benchmark, external information is measured against the following criteria:

• Format:	Is the data in digital or analogue format? If digital, is the format Branch compatible?
• Geometry:	Does digital data conform to Branch file and data structure requirements?
• Source:	What is the level of confidence associated with the data capture method?
• Specifications:	What specifications guided data capture; especially those applied to projection, geo-reference, and positional and/or vertical accuracy?
• Currency:	How current is the data?
• Preservation:	Is the data subject to a revision cycle?
• Other Acceptance Criteria:	Is the data easily acquired, managed, imported, assimilated? Is the data available as full or partial files? Is it seamless and feature specific? If the data does not satisfy branch accuracy requirements does it provide other advantages, such as significant savings in cost or time? Is the data capable of supporting Branch requirements as ancillary information?

Note: The use of acquired data must not compromise Branch specifications for baseline information. Original Branch spatial data is never altered horizontally and/or vertically (X, Y, and Z) to join third party data.

6.4 DATA INTEGRITY

Before acceptance into the spatial database, TRIM 1:20 000 digital data files are subjected to a rigorous data verification process. A file is released to Branch clients only after validation of data integrity.

Users indicate that TRIM data is consistently reliable in terms of accuracy, content and structure. To safeguard the data quality users expect, the revision and update process includes a re-validation of data integrity.

The data verification and quality assurance function guarantees the availability to clients of information that meets exacting and consistently reliable standards of accuracy, currency and content. The standards applied to the original TRIM 1:20 000 data sets are designed to support the high confidence level required for critical decision-making. It is self-evident that data imported from external sources must maintain the confidence level associated with the Branch data so as to not compromise the integrity of the original product.

Note: Where external data distributed with Branch data does not meet established data capture requirements it is clearly identified by the associated metadata.

Even though the reliability and integrity of third party data is established prior to inclusion with Branch information, data verification is practiced as part of the quality assurance function prior to distribution. The process is:

- Acquire data (imagery, control, exchanged information) from external sources
- Capture and represent new information in the data file
- Verify data quality, accuracy, content, consistency, and integrity against the current specifications (data verification and quality assurance)
- Generate metadata and file structure (integrated or auxiliary) to clearly differentiate the data by confidence level

In the event that different data capture sources are used within a single file, the verification process requires a log of data lineage. This includes the owner(s), source(s) and date(s) applicable to original and revision data, method of data capture, technical process, and relevant tolerances. Of primary concern is any information that substantiates data accuracy, reliability and confidence level.

Also considered are the implications to data verification of the varying confidence levels associated with different types of source data. Two decisions preserve the integrity of Branch data prior to distribution:

- Source information must comply with the existing specifications for data capture in order to be integrated with the primary data set
- Data of lower confidence levels is attached to the primary data set as relevant supplementary information but is contained in a uniquely separated or uniquely identified data.

Appendix H TRIM II

APPENDIX H TRIM II

The purpose of this section is to detail the specifications and guidelines that apply to **TRIM II** (TRIM TWO), which is the revision, update and enhancement of Terrain Resource Information Management (TRIM) 1:20 000 digital data files.

The **TRIM II** process conforms to current Branch policy for the maintenance of digital baseline map data. When completed, the criteria that control this function will be documented in the "GEOGRAPHIC DATA BC POLICY AND PROCEDURES MANUAL."

This specifications document describes precise requirements, tolerances and accuracies. These are separated from items of a procedural or operational nature.

NOTE: Some following information is directly related to specifications; some is more appropriate to an operational document. Both are included here until the current "specifications and guideline" document is revised. The intention is to create two documents:

- *Specifications for digital mapping at all scales*
- *Supporting operational guidelines*

H.1 TRIM II Specifications

The information in this section is supplementary to the current specifications given in the GEOGRAPHIC DATA BC publication entitled:

BRITISH COLUMBIA SPECIFICATIONS AND GUIDELINES FOR GEOMATICS,
CONTENT SERIES, VOLUME 3, DIGITAL BASELINE MAPPING AT 1:20 000,
RELEASE 2.1, DECEMBER, 1995.

The delivery of revision data to the Branch requires changes to the current specifications in the following areas:

•	Source Data
•	Deliverable Digital Data Files
•	Feature Codes
•	Display Hierarchy

Each of these items is discussed in the following sections.

H.1.1 source data

Source data refers to any original information used in **TRIM II**. It includes, but is not restricted to: aerial photography; satellite imagery and derived products, such as scanned images; and data imported from external agencies. Three areas that require quantitative accuracies are image resolution, image rectification and data exchange.

H.1.1.1 image resolution

Source data used for **TRIM II** meets the following resolution requirements:

Aerial Photography	The maximum accepted photo scale is 1:70 000
Scanned Aerial Photography	The accepted scan resolution (pixel size) is 15 microns for 1:10 000 and 1:20 000 mapping
Satellite Imagery	The maximum accepted pixel size is 10 metres

H.1.1.2 image rectification

The specifications that guide image rectification will be reviewed on a project by project basis. The following are examples of acceptable control:

- TRIM Control Points

The original TRIM aerotriangulation may be used to control revision imagery. This applies to new aerial photography, scanned aerial photography and satellite imagery.

Additional control points must be added as necessary to meet the standard control placement and density requirements documented in the GEOGRAPHIC DATA BC publication "SPECIFICATIONS FOR AERIAL TRIANGULATION, RELEASE 1.1, NOVEMBER 1991".

Control for satellite images must include a minimum of sixteen (16) points per scene. These may be TRIM aerial triangulation and/or Global Positioning System (GPS) points. Control is distributed such that eight (8) points anchor the perimeter outside the plotting area. The remaining points are randomly distributed inside the plot area.

The inclusion of additional control requires new aerial triangulation processing.

- GPS Points

Supplementary control using differential Global Positioning System technology may be used in areas where TRIM aerotriangulation is limited.

GPS points must conform to the requirements documented in the GEOGRAPHIC DATA BC publication "BRITISH COLUMBIA STANDARDS, SPECIFICATIONS AND GUIDELINES FOR CONTROL SURVEYS USING GLOBAL POSITIONING SYSTEM TECHNOLOGY, RELEASE 1.0, NOVEMBER 1990".

- Vector Points (Intersections)

Geographic coordinates may be derived for discrete, well defined features that are identifiable in both the TRIM vector file and the update image.

On-screen, "fit to vector," ortho-rectification may only be used in conjunction with higher orders of control and must be weighted accordingly.

Acceptable residual errors are less than five (<5) metres.

- Point Transfer

Point transfer methodology will conform to the processes and standards established by the Branch.

Points will be accurate to within plus or minus four (± 4) metres of their adjusted ground coordinate values.

- Digital Elevation Model

A DEM used to control image rectification must be accurate to the pixel resolution of the image used. For example, an image with a resolution of ten (10) metres will require a DEM gridded to ten (10) metres.

H.1.1.3 data exchange

Data exchange is the process whereby information owned elsewhere is transferred to the Branch for use in the revision and update process. In this case the Branch has no direct control over data format or quality.

Information procured through data exchange is carefully evaluated by the Branch to define the type, scope and reliability of the information. The appropriate internal use of externally acquired data is defined by the accuracy-based confidence level associated with each data set.

For detailed information, refer to GEOGRAPHIC DATA BC document entitled "Provincial Baseline Digital Atlas: Policies and Procedures for Data Exchange".

Based on the degree of compliance with the rating criteria, a level of confidence is assigned to all acquired data under consideration:

• Level 1:	Acquired data of established integrity that meets or surpasses TRIM specifications Data is fully integrated into the TRIM data set as full map files with descriptive metadata Data can be used as a primary data source Includes aerial photography, satellite imagery, GPS, and any other comparably accurate means of data capture.
• Level 2:	Acquired data of established lineage and integrity that does not meet Branch specifications Data carried in a uniquely separated or uniquely identified with descriptive metadata Noded to the primary data as ancillary information or addenda Data supports a client requirement Can be used as supporting or secondary information
• Level 3:	Acquired data of unknown lineage and integrity that does not meet Branch specifications Used as interim data until more accurate information is available Data carried in a separate full or partial file with descriptive metadata If possible, noded to the primary data Can be used for data confirmation and verification purposes
• Level 4:	Acquired data of unknown lineage and integrity that does not meet Branch specifications and cannot support Branch data Not used; eg., unresolvable format conflicts

• **DATA SPECIFICATIONS**

Data exchange is intended to provide current and accurate information on a continual basis as expediently as possible. The fundamental consideration for an alternative data source is that it support the established Branch specifications for data capture.

To be incorporated into the database, imported information must adhere to specific rules for data capture and data format. Data of lesser integrity is attached as ancillary data, according to the confidence levels described above.

The custodians of third party information are provided with the specifications with which to determine the confidence level of their data. The value of the data for exchange is judged accordingly.

Specifications compliance requires a Branch evaluation of data alternatives to determine data suitability. The criteria are availability, integrity, currency, cost, delivery considerations, technological requirements, and methodology.

Using TRIM 1:20 000 data specifications as a benchmark, external information is measured against the following criteria:

- Format: Is the data in digital or analogue format? If digital, is the format Branch compatible?
- Geometry: Does digital data conform to Branch file and data structure requirements?
- Source: What is the level of confidence associated with the data capture method?
- Specifications: What specifications guided data capture; especially those applied to projection, geo-reference, and positional and/or vertical accuracy?
- Currency: How current is the data?
- Preservation: Is the data subject to a revision cycle?
- Other Acceptance Criteria:
 - Is the data easily acquired, managed, imported, assimilated?
 - Is the data available as full or partial files? Is it seamless and feature specific?
 - If the data does not satisfy branch accuracy requirements does it provide other advantages, such as significant savings in cost or time? Is the data capable of supporting Branch requirements as ancillary information?

Note: The use of acquired data must not compromise Branch specifications for baseline information. Original Branch spatial data is never altered horizontally and/or vertically (X, Y, and Z) to join third party data.

- **DATA INTEGRITY**

Before acceptance into the spatial database, TRIM 1:20 000 digital data files are subjected to a rigorous data verification process. A file is released to Branch clients only after validation of data integrity.

Users indicate that TRIM data is consistently reliable in terms of accuracy, content and structure. To safeguard the data quality users expect, the revision and update process includes a re-validation of data integrity.

The data verification and quality assurance function guarantees the availability to clients of information that meets exacting and consistently reliable standards of accuracy, currency and content.

The standards applied to the original TRIM 1:20 000 data sets are designed to support the high confidence level required for critical decision-making. It is self-evident that

data imported from external sources must maintain the confidence level associated with the Branch data so as to not compromise the integrity of the original product.

Note: *Where external data distributed with Branch data does not meet established data capture requirements it is clearly identified by the associated metadata.*

Even though the reliability and integrity of third party data is established prior to inclusion with Branch information, data verification is practiced as part of the quality assurance function prior to distribution. The process is:

- Acquire data (imagery, control, exchanged information) from external sources
- Capture and represent new information in a uniquely separated or uniquely identified data.
- Verify data quality, accuracy, content, consistency, and integrity against the current specifications (data verification and quality assurance)
- Generate metadata and file structure (integrated or auxiliary) to clearly differentiate the data by confidence level

In the event that different data capture sources are used within a single file, the verification process requires a log of data lineage. This includes the owner(s), source(s) and date(s) applicable to original and revision data, method of data capture, technical process, and relevant tolerances. Of primary concern is any information that substantiates data accuracy, reliability and confidence level.

Also considered are the implications to data verification of the varying confidence levels associated with different types of source data. Two decisions preserve the integrity of Branch data prior to distribution:

- Source information must comply with the existing specifications for data capture in order to be integrated with the primary data set
- Data of lower confidence levels is attached to the primary data set as relevant supplementary information but is contained in a uniquely separated or uniquely identified data.

A feature code will be added to all features which will eliminate the need for Addition and Deletion files for a specific Map Sheet.

For Example: In the past the Pos (Positional) file had associated with it a Pos_Add (Positional Addition) and a Pos_Del (Positional Deletion) file. Now there will be only one file, the Pos (Positional) which will contain feature Codes for both Additions and Deletions.

All New Feature additions, modification additions, deletions with NO replacement or deletions WITH replacement made to the DIGITAL ELEVATION MODEL, NON-POSITIONAL FILE, PLANIMETRIC POSITIONAL FILE and TOPONYMY FILE must be identified by a letter in the feature code indicating it=s status.

The present feature code structure consisting of two letters and eight digits will remain the same. **The seventh digit is to change to a letter indicating the status of that feature.**

Example:

- GA24850000 River Stream (Definite) an existing feature.
- GA2485W000 New Feature Additions
- GA2485X000 Deletes with NO replacement
- GA2485Y000 Deletion WITH Replacement
- GA2485Z000 Modified Addition (any change to the feature)

Feature "WoodedArea", JA33750000, is removed from the PLANIMETRIC POSITIONAL FILE and placed in a separate WOODED AREA FILE. The new positional file number is "6"; the file identifier is "W".

Revision data from an external source not integrated with the primary data set is placed in a SUPPLEMENTARY DATA FILE. The new positional file number is "7"; the file identifier is "S".

After revision, the data set for each map sheet will include the following digital data files:

POSITIONAL FILE		
NUMBER	FILE TYPE	FILE IDENTIFIER
1	Digital Elevation Model	D
2	TRIM II Contour File	M
3	Non-Positional File	N
4	Planimetric Positional File	P
5	Toponymy File	G
6	Wooded Area File	W
7	Supplementary Data File	S
4	Tie Edges for Zones	Z

The above digital data files are delivered in the MOEP format specified in Part I, Section 7 - Transfer File Format.

All seven files comprised of the revision data set are required, even though some may contain no information. A new text feature record attached to each file carries the date of revision that indicate the file was part of the last update.

H.1.2.1 TRIM II positional data sets

The following additions apply to the seven files comprising a TRIM II positional data set:

H.1.2.1.1 TRIM II history text records

The following gives the structure and content of the text feature record that contains revision history information:

Text elements require a preceding type "05" attribute record. For this feature, this record contains the required font and weight.

- The "05" record is organized as follows:

Byte	Content
•	record type (05)
•	feature code
•	font number
•	weight value

The "06" record defines the origin, orientation and scale of the text.

- The "06" record is organized as follows:

Byte	Content
•	record type (06)
•	feature code
•	X, Y, Z location <i>The X, Y, Z triplet denotes the bottom left corner of the first character of the text string. The Z (elevation) value is always equal to "0".</i>
•	text rotation angle
•	size of annotation in millimetres at ground scale

The "06" record is followed by one or more "00" records containing the text string characters.

- The "00" record is organized as follows:

Byte	Content
•	record type (00)
•	feature code
•	revision history text string

Example:

05	KN00020000	31 2				
06	KN00020000	328654000	6510351000	0000000	0.0000	100000
00	KN00020000	Revision History Text String				

The TRIM II history text string must include the following information (examples provided) in the given order, each item separated by one space:

- **FILE NAME / FILE IDENTIFIER:**92K.071D
- **FILE TYPE:** DEM
- **SUBMISSION DATE (date of revision data capture date)"yyyymmdd":** 19951224
- **REVISION VERSION NUMBER:**..... V.1.0
- **VERSION CONTROL DATE "yyyymmdd":**..... 19951016
Note: This is the capture date of the source data (aerial photography, satellite imagery, etc.) not the date of data compilation.
- **SPECIFICATION RELEASE NUMBER:**.....R.2.0
Note: This is the version used at the time of revision data compilation.

The TRIM II history text record is located in the **north east corner** of the file. It is placed so that the geographic coordinates are inside the file (neatline)200 metres south and west of top right corner.. The text string may run outside the file area to avoid feature conflict.

H.1.2.1.2 DIGITAL ELEVATION MODEL

ADDITION TO PART 1, SECTION 6, DEM

The TRIM II DEM contains the information specified in PART II - DETAILED GEOGRAPHIC OBJECT SPECIFICATIONS. DEM points extend beyond the 1:20 000 neat line by two hundred (200) metres, as specified in PART I, SECTION 3 - DIGITAL DATA FILES - 3.1(b). Changes to the DEM may require generation of a TRIM II CONTOUR FILE. The contour information is carried in a separate file accompanying the positional information. Digital planimetric contour detail is clipped to the neat line as defined in PART 1, SECTION 2 - CARTOGRAPHIC FRAMEWORK - 2a

The TRIM II Digital Elevation Model (DEM) data set includes the following files:

POSITIONAL FILE		
NUMBER	FILE TYPE	FILE IDENTIFIER
1	Digital Elevation Model	D
2	TRIM II Contour File	M

The following criteria apply to TRIM II DEM UNDER FIRST REVISION:

Note: *The intention is to capture only significant changes in the terrain, not to redo existing DEM's, even though there may be systematic errors.*

The following Break lines are deleted from the DEM and replaced with corresponding features from the Planimetric file with correct feature codes

Breakline.type≡Hydrographic≡ HA90200130 replaced with natural break lines such as rivers (GA24850000).

Breakline.type≡Hypsographic≡ HA90200120 replaced with non-hydrographic break lines such as cliff (HB05650000)

Breakline.type≡TransportationandOtherManMade≡ HA90200140 replaced with break lines such as roads and railways (DA25150000 , DE22950000)

AreaofExclusion HC90000000 replaced with active mines and pits (AG17750000, AG21550000).

AreaofIndefiniteContours HC90000100 replaced with Glacier / Icefield features (GD12300000, GD14450000)

The DEM must comply with PART I, SECTION 6 - DIGITAL ELEVATION MODELS, 6.2.3 DEM DATA CAPTURE RULES of the specifications currently in effect (including subsequent update bulletins):

The following is the high level process for creating a **TRIM II** DEM file, when break line planimetry is added and/or edited.

- All break lines are removed from the original DEM, leaving the mass DEM points, **except** for:
 - 0.0.1 Breakline.type≡Round≡ HA90200110
 - 0.0.2 Breakline.type≡Sharp≡ HA90200000
- Planimetric break line data is duplicated from the **TRIM II** positional file and feature coded according to Branch specifications.
 - i Breakline.type≡Hydrographic≡ HA90200130
 - ii Breakline.type≡Hypsographic≡ HA90200120
 - iii Breakline.type≡TransportationandOtherManMade≡ HA90200140
 - iv AreaofExclusion HC90000000
 - v. AreaofIndefiniteContours HC90000100
- The new break lines from the **TRIM II** file are added to the original mass DEM points to form a **TRIM II** DEM file.
- DEM points that are within ten (10) metres of a break line are removed.
- Crossing **three dimensional** break lines are noded at ground elevation at numerically exact, coordinated points. Eg. Transportation features are noded to the Hydrographic features.
- For the first revision of the DEM all hydrographic and transportation break lines shall be completely replaced, however the DEM points that are added or deleted due to elevation change must be recorded.

- Prior to capture of a NEW DEM the following events must occur.
 - 1) the branch must be notified
 - 2) The residual difference between the revision model set-up points and the original model set-up points DIFFER MORE than **twenty (20) metres**.
- If required in areas of major change (ie. Coquihalla Highway) to the vertical information, DEM points are captured as follows:
 - **Linear Features:** to the limits of a two hundred (200) metre corridor surrounding the feature; one hundred (100) metres on either side and one hundred (100) metres beyond either end.
 - **Areal Features:** to the limits of an area extending one hundred (100) metres beyond the perimeter of the feature.
- New DEM points and break lines are placed into the **TRIM II** DEM file using the correct feature codes methodology.
- All break lines will be removed from the outside two hundred (200) metre zone for the **TRIM II** DEM files / no break lines are to be placed in the outside two hundred (200) metre zone for the **TRIM II** DEM files.
- Existing and new break lines will be correctly joined X, Y and Z at the edge of the map sheet.
- A Representational quality digital CONTOUR FILE is the new deliverable for the contour file.
 - POSITIONAL FILE NUMBER is **2**, FILE IDENTIFIER is **M**. This replaces the digital RAW CONTOUR FILE.
 - The file is correct for the **X, Y, AND Z** values. (Three dimensional).
 - The contours are classified as closed polygons following the RIGHT HAND, POLYGON, and CONTINUITY RULES.
 - The uphill side is the inside of the polygon.
 - Feature continuity is maintained by using a construction line to close the intermediate polygon line work where cartographic clarity requires the lines to be *dropped* due to congestion.
 - Feature continuity is maintained by using a construction line to close the polygon for the annotation location.
 - When contours cross Double Line Rivers they are to be changed to construction between High Water Marks (Left Bank - Right Bank).

- The annotations for the contours will be correct in **X, Y, AND Z** values.
- Placement of the annotations can be derived from the original REPRESENTATIONAL files, except where there would be a conflict of information.
- The original digital REPRESENTATIONAL CONTOUR files will be supplied by the Branch for this purpose.
- All contours must be joined explicitly x, y and Z between sheet edges.

H.1.2.1.3 planimetric data set

The TRIM II planimetric data set consists of the following files:

POSITIONAL FILE NUMBER	FILE TYPE	FILE IDENTIFIER
3	Non-Positional File	N
4	Planimetric Positional File	P
5	Toponymy File	G
6	Wooded Area File	W
7	Supplementary Data File	S

Note: *The intention is to capture only detectible change in the planimetric data, not to redo existing positional and non-positional files, even though there may be systematic errors.*

The following requirements apply to TRIM II planimetric files:

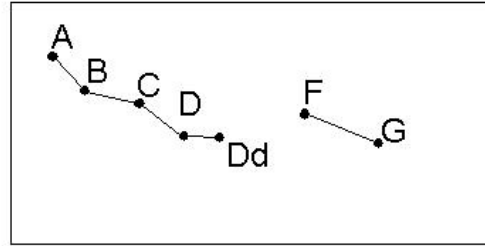
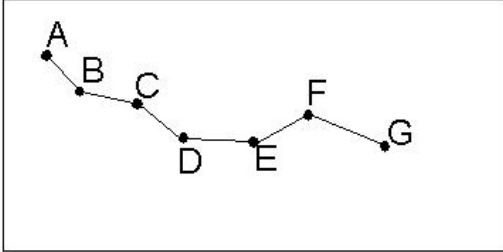
- Each PLANIMETRIC POSITIONAL FILE contains positionally correct, complete, edited planimetric map data for one 1:20 000 map sheet. The accuracy tolerances are:
 - **Horizontal:** less than or equal to ten (#10) metres ("X" and "Y")
 - **Vertical:** less than or equal to five (#5) metres ("Z")
- All TRIM II planimetric and elevation data must be submitted in continuous three dimensional form (i.e., easting, northing and elevation).
- The digital data contained in the TRIM II planimetric files includes only those map features given in the in PART II - DETAILED GEOGRAPHIC OBJECT SPECIFICATIONS (including subsequent update bulletins) and APPENDIX H - TRIM II of this manual.
- All features will be collected according to the guidelines set out in PART I - GENERAL SPECIFICATIONS and PART II - DETAILED GEOGRAPHIC OBJECT SPECIFICATIONS.

The following is a clarification of the data capture rules for deletions or modifications of line work.

- Deletions.

When deleting a portion of a line, delete only the portion that is changed.

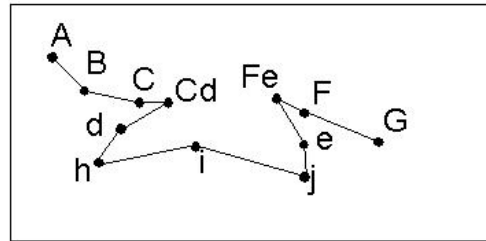
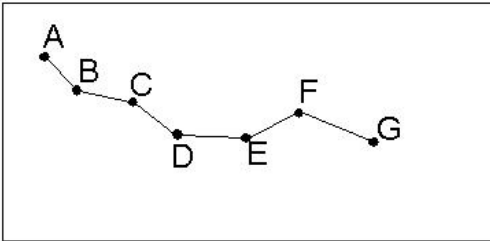
This may require the creation of a new node.



In this example, the portion of the line was deleted between the existing points of D and F and a new point was created called D,d,

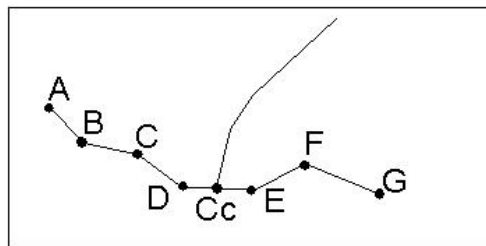
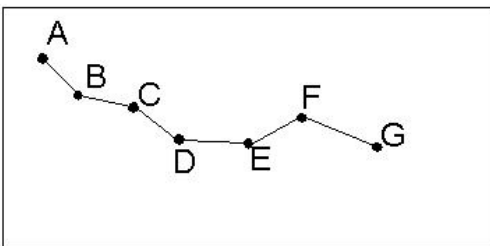
- Modifications of lines.

When modifying a portion of a line, delete only the changed portion.



- Addition of lines.

When capturing a new stream insert a new node for the entrance of the new stream called Cc.



- All data files are completed to the limits of the 1:20 000 map sheet. This includes areas outside provincial boundaries wherever aerial triangulation coverage permits.

- For each revision block, support of the "seamless" database requires continuity of features between files in X, Y and Z regardless of zone and:
 - Where **TRIM II** features (both linear and areal data) do not explicitly join an existing feature at the join between original and **TRIM II** data, the end node of the new feature must carry a symbol to indicate this.
 - The "no join" symbol is placed only on the outer edges of the files forming the perimeter of the revision area determined by the Branch. It is not placed in any other location in the perimeter files, nor in any of the interior files of the revision block.
 - The symbol denoting feature termination is:
 Revision.type"NoJoin" - FR00010100

- Non-positional data
 - New non-positional data is placed into the **TRIM II NON-POSITIONAL FILE**.
 - Deleted (with NO replacement) non-positional data is placed into the **TRIM II NON-POSITIONAL FILE**.
 - Deleted (WITH replacement) non-positional data is placed into the **TRIM II NON-POSITIONAL FILE**.
 - Modified non-positional data Additions (any change to the feature) are placed into the **TRIM II NON-POSITIONAL FILE**.

- Planimetric positional data
 - New Planimetric positional data is placed into the **TRIM II PLANIMETRIC POSITIONAL FILE**.
 - Deleted (with NO replacement) planimetric positional data is placed into the **TRIM II PLANIMETRIC POSITIONAL FILE**.
 - Deleted (WITH replacement) planimetric positional data is placed into the **TRIM II PLANIMETRIC POSITIONAL FILE**.
 - Modified Planimetric positional data Additions (any change to the feature) are placed into the **TRIM II PLANIMETRIC POSITIONAL FILE**.

- The **SUPPLEMENTARY DATA FILE** includes:
 - Acquired data of established lineage and integrity that does not meet Branch specifications for accuracy and / or content.
 - Full or partial files with descriptive metadata.
 - Data noded, where possible, to the primary data as ancillary information or addenda.
 - Non-trim data supporting a client requirement.
 - Can be used as supporting or secondary information.
 - Interim data used until more accurate information is available.
 - Data used for confirmation and verification purposes.

- Toponymy
 - New toponymy is placed into the **TRIM II** TOPONYMY FILE.
 - Deleted (with NO replacement) Toponymy data is placed into the **TRIM II** TOPONYMY FILE.
 - Deleted (WITH replacement) Toponymy data is placed into the **TRIM II** TOPONYMY FILE.
 - Modified Toponymy data Additions are placed into the **TRIM II** TOPONYMY FILE.
 - New toponymic information conforms to the guidelines set out in APPENDIX B - REPRESENTATION FILE EDITING GUIDELINES (CARTOGRAPHIC ENHANCEMENT and APPENDIX C - GEOGRAPHICAL NAMES (TOPONYMY)).

NOTE:

***The Branch Data Base listing of rescinded and added Geographical names will be supplied to contractor.
It is the responsibility of the contractor to ensure the completeness of the Geographical Names contained in the Toponymy file.***

Rule 1): Any features that are deleted with a replacement code **must** have a corresponding Modified Addition.code.

Rule 2): Contours files (M) **are exempt** from these feature changes.

Rule 3): Wooded (W) files **must be delivered with no feature code changes.**

Verification plots are required for all positional files submitted (refer to APPENDIX A - DELIVERABLES). The following plots are produced from the **TRIM II** 1:20 000 positional files:

- One Planimetric additions plot on paper, line width of 0.3mm.
- One Toponymy additions plotted in purple on paper.
- One colour combined Planimetric (no elements marked for deletion), Toponymy and Contour plot on paper.
- One polygon closure plot on paper.
- One DEM plot on paper.
- One combined Orthophoto and colour Vector plot on paper containing; **if Ortho are part of the contract**,
Planimetry, no contours and no elements marked for deletion (Minimum 300 d.p.i.)

- Each verification plot contains an identification title.
- Data that describes symbols or patterned construction elements used to generate the hard copy plot is included in the PLANIMETRIC POSITIONAL FILE.

H.1.3 FEATURE CODES

ADDITION TO PART 2, SECTION 2, DETAILED SPECIFICATIONS

The **TRIM II** process requires additional feature codes to identify new and/or modified data. Codes are assigned by the Branch, as required, according to CCSM guidelines.

The following features, codes and descriptions are appended to PART II - DETAILED GEOGRAPHIC OBJECT SPECIFICATIONS.

H.1.3.1 TRIM II specific features

- **Burn Area (symbol)** [JA90500000](#)
- **Burn Areas** [JA13300400](#)
 - A naturally burned area.
 - Captured to scale in the positional file.
 - Data capture rule(s): right hand, polygon.
 - Capture **all** Burn areas from a stereomodel using the Drip Line Rule, where applicable.
 - See **H.2 Compilation and Operational Notes**.
 - Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres.
 - Not noded to pre-existing wooded areas unless specified by the Branch.
 - Symbol is captured as a point in the non-positional file.

- **Burn Regenerating** (area symbol) [JA90600000](#)
- **Burn Regenerating** (area outline) [JA13300500](#)
 - A naturally burned area showing obvious signs of regeneration.
 - Captured to scale in the positional file.
 - Data capture rule(s): right hand, polygon.
 - Capture **all** Burn Regenerating areas from a stereomodel using the Drip Line Rule, where applicable.
 - See **H.2 Compilation and Operational Notes**.
 - Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres.
 - Not noded to pre-existing wooded areas unless specified by the Branch.
 - Symbol is captured as a point in the non-positional file.

- **Cut Block** (area symbol for non-positional file) [JA90100000](#)
- **Cut Block** [JA13300000](#)
 - An area logged that does not show obvious signs of regeneration.
 - Captured point to point.
 - Capture Cut Blocks exactly as depicted on photos
 - Trees in Cut Blocks are to be captured using the appropriate Cut Block feature code. Eg. River fringe, stand of trees.
 - Capture using the Drip Line Rule.
 - See **H.2 Compilation and Operational Notes**
 - Less than six percent (6%) crown cover and less than two (2) metres in height.
 - Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres.
 - Not noded to pre-existing wooded areas unless specified by the Branch.
 - This feature replaces Wooded Area on hierarchy list.

- **Cut Block, Regenerating** (area symbol for non-positional file) [JA90200000](#)
- **Cut Block, Regenerating** [JA23750000](#)
 - An area logged that shows obvious signs of regeneration but with the cut area **clearly defined**.
 - Captured point to point.
 - Capture using the Drip Line Rule, where applicable.
 - See **H.2 Compilation and Operational Notes**
 - Greater than six percent (6%) crown cover **and/or** more than two (2) metres in height.
 - Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres.
 - Regenerating selectively logged areas will be captured with this code when edges are clearly defined.

- Not noded to pre-existing wooded areas unless specified by the Branch.
 - This feature replaces Wooded Area on hierarchy list.
 - Regenerating selectively logged areas will be captured under this code when edges are clearly defined. Should
-
- **Log Landing** [FI92100030](#)
 A clearing within a wooded area or cut block for the collection of logs prior to transportation.
 - Greater than one-quarter (0.25) hectares.

 - **Log Landing (symbol)** [FI92100130](#)
 A clearing within a wooded area or cut block for the collection of logs prior to transportation.
 - Less than one-quarter (0.25) hectares.

 - **Logged"Selective"** (area symbol for non-positional file) [JA90300000](#)
 - **Logged.type"Selective"** [JA13300200](#)
 Removal of specific trees in a stand that meet a particular logging criteria.
 - Selectively logged areas will be captured with this code when edges are not clearly defined.
 - The boundary is considered **indefinite**.
 - Captured to scale in the positional file.
 - Data capture rule(s): right hand, polygon.
 - Capture **all** cut blocks.
 - Selectively logged areas can be composed of a patched pattern.
 - Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres.
 - Not noded to pre-existing wooded areas unless specified by the Branch.
 - Symbol is captured as a point in the non-positional file.

 - **Revision.type"NoJoin"** [FR00010100](#)
 The symbol that indicates where **TRIM II** features (both linear and areal data) do not explicitly join an existing feature at the neat line.
 - The end node of the new feature carries the symbol.
 - The "no join" symbol is placed only on the outer edges of the files forming the perimeter of the revision area determined by the Branch. It is not placed in any other location in the perimeter files, nor in any of the interior files of the revision block.

- **Road.surface"Rough".type"Decommissioned"** [DA25150120](#)

A rough road that has been decommissioned, to allow uninterrupted natural regrowth on the road bed.

Usually a trench has been dug across the road to prevent access.

This code to be used only with the written permission from the Ministry of Forests.

- **Text.type"20000"** [KN00020000](#)

The **TRIM II** history text record is located in the **north east corner** of the file. It is placed so that the geographic coordinates are inside the file (neatline) 200 metres south and west of top right corner.. The text string may run outside the file area to avoid feature conflict.This is the **TRIM II** history record that indicates:

 - The **File Name** (map number), File Identifier
 - The File Type
 - The date of **TRIM II** data capture (compilation date)
 - The **TRIM II** version number
 - The version control date. This is the capture date of the source data (aerial photography, satellite imagery, etc.) **not** the date of data compilation.
 - The specification release number in place at the time of **TRIM II** data compilation

- **Windfall (Area symbol for non-positional file)** [JA90400000](#)
- **Windfall Areas** [JA13300300](#)

A area that show obvious signs of fallen trees due to wind.

 - Captured to scale in the positional file.
 - Data capture rule(s): right hand, polygon.
 - Capture **all** windfall areas from a stereomodel using the Drip Line Rule, where applicable.

See H.2 Compilation and Operational Notes.

 - Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres.
 - Not noded to pre-existing wooded areas unless specified by the Branch.
 - Symbol is captured as a point in the non-positional file.

1:20 000 Data Capture Rule Changes

- **Road.Over-grown** [DA25150100](#)

A road that has been over-grown with vegetation and inaccessible by 4 wheel drive.

 - Captured in the positional file.
 - Data capture rule(s): continuity, connectivity, and network.
 - Minimum length fifty (50) metres.
 - Captured as a single line to apparent centre line of the feature.
- **Road.surface"Rough"** [DA25150000](#)

Minimum length **fifty (50) metres**.

 - "turnout" capture as part of road using appropriate road feature code.
 - "turn around" capture as part of road using appropriate road feature code. It may be necessary to capture this feature as "landing" if impossible to determine it is a turn around.
 - "T turn around" capture as part of road using appropriate road feature code.
- **Road.surface"Rough".type"Decommissioned"** [DA25150120](#)

Minimum length **fifty (50) metres**.
- **Trail** [DD31700000](#)

New minimum length **one hundred (100) metres**.
- **Trail.type"Skid"** [DD31700120](#)

A random pathway travelled by ground skidding equipment while moving trees or logs to a landing.

 - (Place in Supplementay Data File For TRIM II if required to be captured as part of the contract.)
 - Only clearly visible main skid trails are captured, **when greater than fifty (50) metres in length**.
- Wooded Areas are **Not** captured.

Previous data is placed in a separate "Wooded Area" file.

Existing rivers or streams that are altered use the applicable TRIM feature codes.

Previously, the two hundred metre length was a guideline, and a representative number of streams could be captured. The new standard **ALL** streams meeting the 200 metre minimum length will be captured in TRIM II.

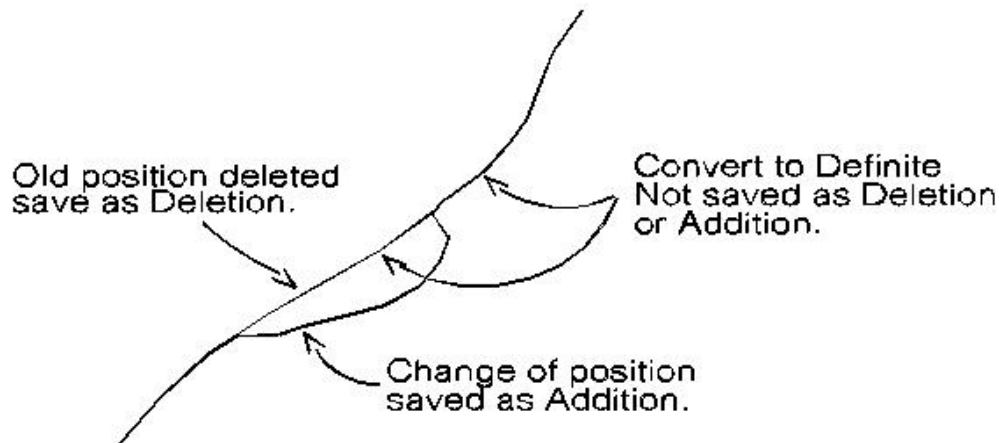
If stream does not exist in TRIM CLASSIC the new stream will be represented with the new feature code.

The NEW rivers and streams are assigned new feature codes. The new Feature Codes have been duplicated from the original with the seventh digit of the code being changed to a AW≡, AX≡, AY≡, or AZ≡. This indicates the status of the feature.

These changes allow for easy recognition of enhancements.

- **All River / Stream Intermittent (GA24850150) are to be changed to River / Stream Definite (GA24850000) and not stored as an Addition or Deletion. This is a Global Feature Code change by the contractor.**

Original data being translated should be automatically converted to River / Stream Definite and not saved as Deletion or Addition. However, Any Positional (X,Y) or elevation (Z) changes will be saved in Addition and or Deletion.



Must follow 20,20,20 rule

***20, 20, 20 Rule**

- All features before being revised must have been moved by more than 20 metres X, Y or Z.
- Does not supersede the downhill data capture rule.

Capture at 1:10 000 only

- **Cliff-Terrain Drop off (New Planimetric Feature)** [HB05650100](#)
A definite elevation change in the terrain / topography of the surface.
Drop off is greater than one half contour interval at map scale.
Capture at 1:10 000 only

- **Cliff-Terrain Drop off Indefinite (New Planimetric Feature)** [HB05650200](#)
A definite elevation change in the terrain / topography of the surface.
Drop off is greater than one half contour interval at map scale.
Capture at 1:10 000 only

- **Lone Tree (symbol) (New Planimetric Feature)** [JA92050100](#)
A tree growing freely in a generally open area.
Capture **only** if they are a Land Mark feature and can be used as a location point on the ground.
Capture at 1:10 000 only

- **Opening (Area outline) (New Planimetric Feature)** [JA05600100](#)
- **Opening (Area symbol) (Area symbol for non-positional file)** [JA05600110](#)
A natural occurring clear area, exclusive of alpine, agricultural and right of ways.
 - Not noded to pre-existing wooded areas unless specified by the Branch.
 - Area outlines are captured as a set of connecting points along the perimeter of the feature.
 - Areal features need not be closed at map sheet boundaries, however the node at the end of that feature on the boundary must be numerically identical to the starting point of that feature on the adjoining sheet.**Capture at 1:10 000 only**

- **Ridge (New Planimetric Feature)** [HB06650100](#)
A ridge is an elongated stretch of elevated ground.
 - Drop off is greater than one contour interval at map scale.
 - Minimum length one hundred (100) metres.
 - When this Planimetric feature is moved to the DEM this feature replaces the existing sharp breaklines from the 1:20 000.**Capture at 1:10 000 only**

- **Rock Bluff (New Planimetric Feature)** [HB25000100](#)
A definite elevation change in the terrain / topography of the surface.
 - Drop off is greater than one half contour interval at map scale.
 - Minimum 25 metres.**Capture at 1:10 000 only**

- **Rock Outcrop (Area outline)** [HB25400000](#)
Small mass of rock projecting above surrounding terrain.
Capture at 1:10 000 only

- **Rock Outcrop (symbol)** [HB25400100](#)
mass of rock projecting above surrounding terrain.
 - Minimum area 0.25 hectares.
 - Capture at ground.**Capture at 1:10 000 only**

- **Scrub Area** [JD26200000](#)
An area of low vegetation characterized by stunted trees, bushes and shrubs.
 - Minimum area 0.25 hectares.**Capture at 1:10 000 only**

- **Snag** [JA31500110](#)
Any tree that is dominant and dead: must have no foliage and be standing.
Capture at 1:10 000 only

- Verification plots are required for all positional files submitted.
The following plots are produced from the **TRIM II** 1:10 000 positional files:

- One colour combined Planimetric, Toponymy, Non-positional and Contour plot **with no deletions** on paper.
- One polygon closure plot on paper.
- One DEM plot on paper.

- Each verification plot contains an identification title.

- All Text and Geographical Names will be scaled according to 1:10 000, (14m)
(One half the size of 1:20 000 text, 28m)

H.1.1.3.2 FEATURE HEIRARCHY

DATA CAPTURE (CONSTRUCTION LINES) HIERARCHY:

1. HYDROGRAPHIC FEATURES
 - COASTLINE
 - DAM
 - LAKES
 - RIVERS AND STREAMS
 - DYKE
2. TRANSPORTATION FEATURES
 - RAILROADS
 - ROADS
 - CUTLINES
 - AIR FEATURES
 - PIPELINE
 - TRANSMISSION LINE
3. OTHER HYDROGRAPHIC FEATURES
 - GLACIER
 - ICEFIELD
 - MARSH
 - SWAMP
4. LANDFORM FEATURES
 - SLIDE
 - MORAINE
 - SCREE
5. LANDMARK FEATURES
 - BUILT-UP AREAS
 - BUILDINGS
 - Alphabetically by Feature Name
 - DESIGNATED AREAS
 - Alphabetically by Feature Name
6. LAND COVER FEATURES
 - NURSERY
 - ORCHARD
 - VINEYARD
 - CUT BLOCK
 - CUT BLOCK, REGENERATED
 - LOGGED "SELECTIVE", INDEFINITE
 - LOG LANDING

DEM DATA CAPTURE HIERARCHY:

- AREA OF INDEFINITE CONTOURS ALL FEATURE CLASSES
- AREAS OF EXCLUSION ALL FEATURE CLASSES
- HYDROGRAPHIC LAKE, MARSH, SWAMP, FLOODED LAND
- TRANSPORTATION CUT/EARTHWORK
- SUPPLEMENTARY BREAK LINES ROUND AND SHARP

TRIM II NODING HIERARCHY:

- NEW FEATURES SAME AS FOR PLANIMETRIC DATA CAPTURE
- LIKE FEATURES ; EG. ROAD AND RAIL, STREAM AND STREAM -
INCORPORATE NEW DATA WITH OLD DATA TO THE POINT WHERE X, Y, & Z ARE
COINCIDENT
- FEATURES FOR TRIM ARE HELD TO BE DOMINANT.

H.1.3.3 feature table

FEATURE CODE	FEATURE DESCRIPTION	MINIMUM SIZE	FEATURE COLOUR	IGDS LEVEL	IGDS COLOUR	DATE
JA13300400	Burn (Area)		brown	52	016	1997/05/08
JA90500000	Burn (Area Symbol)		brown	52	018	1997/05/08
JA13300500	Burn.Regenerating (Area)		yellow	52	019	1997/10/14
JA90600000	Burn.Regenerating (Area Symbol)		yellow	52	020	1997/10/14
JA13300000	CutBlock		green	52	161	1997/10/09
JA90100000	CutBlock (area symbol)		green	52	164	1997/10/09
JA23750000	CutBlock. Regenerating		green	52	162	1997/10/09
JA90200000	CutBlock. Regenerating (area symbol)		green	52	163	1997/10/09
FI92100030	LogLanding	> 0.25 hectares	black	17	058	1996/02/22
FI92100130	LogLanding (symbol)	< 0.25 hectares	black	17	059	1996/02/22
JA13300200	Logged≡Selective≡		green	52	230	1997/05/07
JA90300000	Logged≡Selective≡ (area symbol)		green	52	165	1997/05/07
AG21550110	Pit.type≡GravelSand≡(symbol)		black	1	116	1997/02/26
FR00010100	Revision.NoJoin		red	54	141	1996/01/01
DA25150120	Road.Rough.Decommissioned (MOF)	50 metres	orange	17	205	1996/02/22
DA25150100	Road.Over-grown	50 metres	brown	17	010	1997/05/08
DA25150000	Road.Rough	50 metres	orange	17	025	1996/01/01
KN00020000	Text.20000		purple	60	181	1996/01/01
DD31700000	Trail	100 metres	brown	17	008	1996/02/22
DD31700120	Trail.Skid	50 metres	brown	17	162	1996/02/22
JA13300300	Windfall (Area)		brown	52	014	1997/05/08
JA90400000	Windfall (Area symbol)		brown	52	017	1997/05/08

Table continued on following page.



H.1.3.3 FEATURE TABLE *continued*:

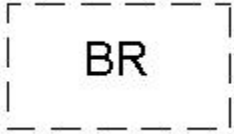
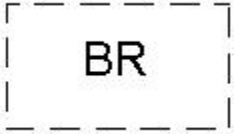
HB05650100	Cliff-TerrainDropOff*	100 metres	purple	48	019	1997/03/06
HB05650200	Cliff-TerrainDropOff.Indefinite*	100 metres	purple	48	025	1997/05/07
JA92050100	LoneTree (symbol)*		green	52	010	1997/03/06
JA05600100	Opening (area outline)*	>0.25 hectares	green	52	013	1997/10/09
JA05600110	Opening (area symbol)*		green	52	012	1997/10/09
HB06650100	Ridge*	100 metres	red	48	023	1997/03/06
HB250000100	Rock.Bluff *	25 Metres	black	48	027	1997/06/03
HB25400000	Rock.Outcrop (area outline)*	0.25 hectares	red	48	020	1997/03/06
HB25400100	Rock.Outcrop (area symbol)*		red	48	021	1997/03/06
JD26200000	ScrubArea*		green	52	004	1996/05/17
JA31500110	Snag (symbol)*		orange	52	002	1997/03/06

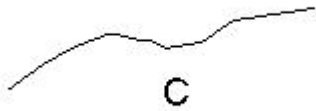
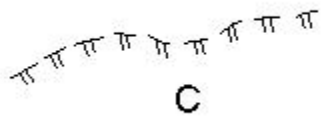
* Captured at 1:10 000 only.

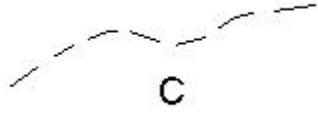
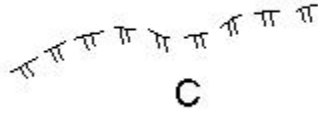
Geographic Object Specifications

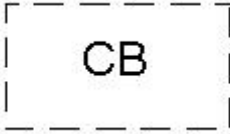
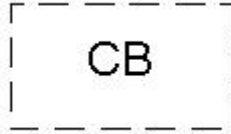
The following Geographic object Specifications are arranged alphabetically by feature to facilitate the maintenance of feature tables. The intent is to accommodate the insertion of addenda in a way that minimizes the need for document modification and reprinting.

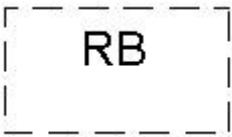
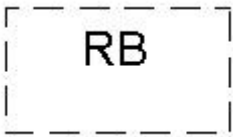
Subclass: Burn		(area outline) (area symbol)	JA13300400 JA90500000	02 01
Definition: A naturally burned area.				
Positional Verification		Cartographic Representation		
<p style="text-align: center;">AREA SYMBOL</p> <p>0.25mm width line 3.0mm dash 1.5mm between dashes</p> <p style="text-align: center;">B</p>  <p>plot colour BROWN</p> <p>UPPER CASE text SANSERIF font text height = 28m</p>		<p style="text-align: center;">AREA SYMBOL</p> <p>0.25mm width line 3.0mm dash 1.5mm between dashes</p> <p style="text-align: center;">B</p>  <p>AREA OUTLINE plot colour BROWN IGDS level = 52 IGDS colour =016 IGDS weight = 1</p> <p>UPPER CASE text MOEP font 31 text height = 28m or size 60</p>		
<p>Remarks:</p> <ul style="list-style-type: none"> • Captured to scale in the positional file. • Data capture rule(s): right hand, polygon. • Capture all Burn areas from a stereomodel using the drip line rule. See H.2 Compilation and Operational Notes. • Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres. • Not noded to pre-existing wooded areas unless specified by the Branch. • Area Symbol is captured as a point in the non-positional file. • Area Symbol placed within Area Outline 				
DEM N				



<i>Subclass:</i> Burn.Regenerating (area outline) (area symbol)		JA13300500 JA90600000	02 01
<i>Definition:</i> A naturally burned area showing obvious signs of regeneration.			
Positional Verification		Cartographic Representation	
AREA SYMBOL BR 0.25mm width line 3.0mm dash 1.5mm between dashes  plot colour YELLOW UPPER CASE text SANSERIF font text height = 28m		AREA SYMBOL BR 0.25mm width line 3.0mm dash 1.5mm between dashes  AREA OUTLINE plot colour YELLOW IGDS level = 52 IGDS colour =019 IGDS weight = 1 UPPER CASE text MOEP font 31 text height = 28m or size 60	
<i>Remarks:</i> <ul style="list-style-type: none"> ⊘ Captured to scale in the positional file. ⊘ Data capture rule(s): right hand, polygon. ⊘ Capture all Burn areas regenerating from a stereomodel using the drip line rule. See H.2 Compilation and Operational Notes. ⊘ Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres. ⊘ Not noded to pre-existing wooded areas unless specified by the Branch. ⊘ Area Symbol is captured as a point in the non-positional file. ⊘ Area Symbol placed within Area Outline 			
DEM N			





<i>Subclass:</i> Cliff-TerrainDropOff		HB05650100	02
<p><i>Definition:</i> A definite elevation change in the terrain / topography of the surface. Drop off is greater than one half contour interval at map scale. Capture at 1:10 000 only</p>			
Positional Verification		Cartographic Representation	
<p>0.25mm width line</p>  <p>plot colour PURPLE</p> <p>UPPER CASE text SANSERIF font text height = 14m</p>		<p>0.25mm width line variable tick length 1.5mm between ticks Ticks - point downhill</p>  <p>plot colour BLACK</p> <p>IGDS level = 48 IGDS colour =019 IGDS weight = 1</p> <p>UPPER CASE text MOEP font 31 text height = 14m or size 30</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured in the positional file. • Capture at top of feature. • Data capture rule(s): right hand. Feature to left downhill. • Minimum length one hundred (100) metres. • Identification coded as Text.type"Landform" - KC14300320 in the non-positional file. • Place for clarity only. • When the Planimetric feature is moved to the DEM this feature replaces existing sharp breaklines from the 1:20 000. 			
DEM BreakLine.type"Sharp" - HA90200000			



<i>Subclass:</i> Cliff-TerrainDropOff.Indefinite		HB05650200	02
<p><i>Definition:</i> A definite elevation change in the terrain / topography of the surface. Drop off is greater than one half contour interval at map scale. Capture at 1:10 000 only</p>			
Positional Verification		Cartographic Representation	
<p>0.25mm width line</p>  <p>plot colour PURPLE</p> <p>UPPER CASE text SANSERIF font text height = 14m</p>		<p>0.25mm width line variable tick length 1.5mm between ticks Ticks - point downhill</p>  <p>plot colour BLACK</p> <p>IGDS level = 48 IGDS colour =025 IGDS weight = 1</p> <p>UPPER CASE text MOEP font 31 text height = 14m or size 30</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured in the positional file. • Capture at top of feature. • Data capture rule(s): right hand. Feature to left downhill. • Minimum length one hundred (100) metres. • Identification coded as Text.type"Landform" - KC14300320 in the non-positional file. • Place for clarity only. • When the Planimetric feature is moved to the DEM this feature replaces existing sharp breaklines from the 1:20 000. 			
DEM BreakLine.type"Sharp" - HA90200000			



<i>Subclass:</i> CutBlock (area symbol)		JA13300000 JA90100000	02 01
<i>Definition:</i> A logged area that does not show obvious signs of regeneration.			
Positional Verification		Cartographic Representation	
<p>AREA SYMBOL CB</p> <p>0.25mm width line 3.0mm dash 1.5mm between dashes</p>  <p>plot colour GREEN</p> <p>UPPER CASE text SANSERIF font text height = 28m</p>		<p>AREA SYMBOL CB</p> <p>0.25mm width line 3.0mm dash 1.5mm between dashes</p>  <p>AREA OUTLINE plot colour BROWN IGDS level = 52 IGDS colour = 161 IGDS weight = 1</p> <p>UPPER CASE text MOEP font 31 text height = 28m or size 60</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured to scale in the positional file. • Data capture rule(s): right hand, polygon. • Capture all cut blocks. See H.2 Compilation and Operational Notes. • Less than six percent (6%) crown cover and less than two (2) metres height. • Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres. • Not noded to pre-existing wooded areas unless specified by the Branch. • Area Symbol is captured as a point in the non-positional file. • Area Symbol placed within Area Outline 			
DEM N			





<i>Subclass:</i> CutBlock.type"Regenerating" (area symbol)		JA23750000 JA90200000	02 01
<i>Definition:</i> A logged area that shows obvious signs of regeneration, but with the cut block clearly defined .			
Positional Verification		Cartographic Representation	
AREA SYMBOL RB RB 0.25mm width line 3.0mm dash 1.5mm between dashes  plot colour GREEN UPPER CASE text SANSERIF font text height = 28m		AREA SYMBOL RB 0.25mm width line 3.0mm dash 1.5mm between dashes  AREA OUTLINE plot colour BROWN IGDS level = 52 IGDS colour = 162 IGDS weight =1 UPPER CASE text MOEP font 31 text height = 28m or size 60	
<i>Remarks:</i> <ul style="list-style-type: none"> • Captured to scale in the positional file. • Data capture rule(s): right hand, polygon. • Capture all cut blocks. See H.2 Compilation and Operational Notes. • Greater than six percent (6%) crown cover and/or greater than two (2) metres in height. • Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres. • Not noded to pre-existing wooded areas unless specified by the Branch. • Area Symbol is captured as a point feature in the non-positional file. • Area Symbol placed within Area Outline 			
DEM N			

Subclass: LoggedASelective (area symbol)		JA13300200 JA90300000	02 01
Definition: Removal of specific trees in a stand that meet a particular logging criteria.			
Positional Verification		Cartographic Representation	
<p style="text-align: center;">AREA SYMBOL</p> <p>0.25mm width line 3.0mm dash 1.5mm between dashes</p> <p style="text-align: center;">SL</p>  <p>plot colour GREEN</p> <p>UPPER CASE text SANSERIF font text height = 28m</p>		<p style="text-align: center;">AREA SYMBOL</p> <p>0.25mm width line 3.0mm dash 1.5mm between dashes</p> <p style="text-align: center;">SL</p>  <p>AREA OUTLINE plot colour GREEN IGDS level = 52 IGDS colour = 230 IGDS weight = 1</p> <p>UPPER CASE text MOEP font 31 text height = 28m or size 60</p>	
<p>Remarks:</p> <ul style="list-style-type: none"> • Captured to scale in the positional file. • The boundary is considered indefinite. • Data capture rule(s): right hand, polygon. • Capture all Selectively logged areas from a stereomodel using the drip line rule, where applicable. See H.2 Compilation and Operational Notes. • Selectively logged areas can be composed of a patched pattern. • Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres. • Not noded to pre-existing wooded areas unless specified by the Branch. • Area Symbol is captured as a point in the non-positional file. • Area Symbol placed within Area Outline 			
DEM N			

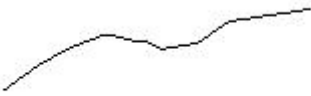
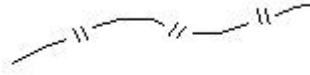
Subclass: LogLanding		F192100030	02
(symbol)		F192100130	01
<i>Definition:</i> A clearing within a wooded area or cut block for the collection of logs prior to transportation.			
Positional Verification		Cartographic Representation	
TO SCALE	SYMBOL	TO SCALE	SYMBOL
0.25mm width line	0.25mm width line	0.25mm width line	0.25mm width line
3.0mm length dash	0.8mm open circle	3.0mm length dash	0.8mm filled circle
1.5mm between dashes		1.5mm between dashes	
			
plot colour BLACK	plot colour BLACK	plot colour BLACK	plot colour BLACK
		IGDS level = 17	IGDS level = 17
		IGDS colour = 058	IGDS colour = 059
		IGDS weight = 1	
<i>Remarks:</i>			
<ul style="list-style-type: none"> • Captured in the positional file. • Data capture rule(s): RIGHT HAND, POLYGON, CONTINUITY, CONNECTIVITY, AND NETWORK. • To scale if one-quarter (0.25) hectare or greater. • Symbol if less than one-quarter (0.25) hectare. 			
<i>Other:</i>			
<ul style="list-style-type: none"> • Area outlines are captured as a set of connecting points along the perimeter of the feature. • Areal features need not be closed at map sheet boundaries, however the node at the end of that feature on the boundary must be numerically identical to the starting point of that feature on the adjoining sheet. 			
DEM N			

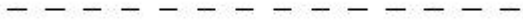

<i>Subclass:</i> LoneTree (symbol)		JA92050100	01
<p><i>Definition:</i> A tree growing freely in a generally open area. Capture ONLY if they are a Land Mark Feature and can be used as a location point on the ground. Capture at 1:10 000 only</p>			
Positional Verification		Cartographic Representation	
SYMBOL 0.25mm width line 3.0 mm cross capture at a 0 degree angle  plot colour GREEN		SYMBOL 0.25mm width lines 3.75mm high 3.00mm wide (enlarge for clarity)  plot colour BLACK IGDS level =52 IGDS colour =010 IGDS weight = 1	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured as a point in the positional file. • Data capture rules(s): POINT FEATURE. 			
DEM N			

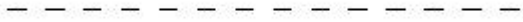

Subclass: Opening		(area outline) (area symbol)	JA05600100 JA05600110	02 01
<i>Definition:</i> A natural occurring clear area, exclusive of alpine, agricultural and right of ways. Capture at 1:10 000 only				
Positional Verification		Cartographic Representation		
AREA OUTLINE 0.25mm width line 05mm dot 1.5mm between dots	AREA SYMBOL OP	AREA OUTLINE 0.25mm width line 0.5mm dot 1.5mm between dots	AREA SYMBOL OP	
				
plot colour GREEN		plot colour GREEN		
UPPER CASE text SANSERIF font text height = 14m		UPPER CASE text moep font 31 text height = 14m or size 30		
<i>Remarks:</i> <ul style="list-style-type: none"> • Captured to scale in the positional file. • Data capture rule(s): right hand, polygon, continuity, connectivity, and network. • Significant small canopy openings forested areas only (0.25 Ha. Minimum) • Captured using the Drip Line Rule. <p>See H.2 Compilation and Operational Notes</p> <ul style="list-style-type: none"> • Area symbol placed within Area Outline • Area Symbol is captured as a point in the non-positional file. 				
<i>Other:</i> <ul style="list-style-type: none"> • Not noded to pre-existing wooded areas unless specified by the Branch. • Area outlines are captured as a set of connecting points along the perimeter of the feature. • Areal features need not be closed at map sheet boundaries, however the node at the end of that feature on the boundary must be numerically identical to the starting point of that feature on the adjoining sheet. 				
DEM N				



<i>Subclass:</i> Pit.type≅GravelSand≅ (area outline) (symbol)		AG21550000	02
		AG21550110	01
<i>Definition:</i> An excavation from which sand or gravel is actively being removed.			
Positional Verification		Cartographic Representation	
TO SCALE	SYMBOL	TO SCALE	SYMBOL
0.25mm width line	pit	0.25mm width line	pit
3.0mm length dash		1.0mm tick length	
1.5mm between dashes		0.2mm tick width	
			
PIT	PIT	PIT	PIT
plot colour BLACK		plot colour BLACK	
UPPER CASE text		IGDS level = 1	IGDS level = 1
SANSERIF font		IGDS colour = 021	IGDS colour = 116
text height = 28m		IGDS weight = 1	IGDS weight = 1
		UPPER CASE text	
		MOEP font 31	
		text height = 28m or size 60	
<i>Remarks:</i>			
<ul style="list-style-type: none"> • Captured in the positional file. • Data capture rule(s): RIGHT HAND, POLYGON, CONTINUITY, CONNECTIVITY, AND NETWORK. • Greater than or equal to one half (0.5) hectare capture to scale. • Less than one half (0.5) hectare capture as Symbol. • Identification coded as Text.type"Landmark" - KC90200000 in the non-positional file. 			
<i>Other:</i>			
<ul style="list-style-type: none"> • Area outlines are captured as a set of connecting points along the perimeter of the feature. • Areal features need not be closed at map sheet boundaries, however the node at the end of that feature on the boundary must be numerically identical to the starting point of that feature on the adjoining sheet. 			
DEM AreaofExclusion - HC90000000			

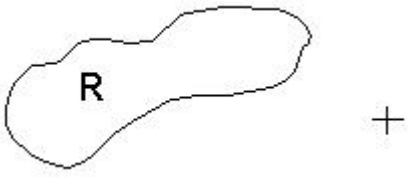

<i>Subclass:</i> Revision.type"NoJoin" (symbol)		FR00010100	01
<i>Definition:</i> Where a TRIM II feature (linear data or polygon) does not explicitly join an existing feature at the neat line, the end node of the new feature must have a symbol placed to show this.			
Positional Verification		Cartographic Representation	
0.2mm width line 1.0mm length arms from centre point 60E angles * plot colour RED		0.2mm width line 1.0mm length arms from centre point 60E angles * plot colour RED IGDS level = 54 IGDS colour = 141 IGDS weight = 2	
<i>Remarks:</i> <ul style="list-style-type: none"> • Capture in the positional file. • Data capture rule(s): CONNECTIVITY, AND NETWORK. • These symbols are placed only on the outer edges of the files forming the perimeter of the revision area determined by the Branch. • It is not placed in any other location in the perimeter files, nor in any of the interior files of the revision block. • These cells or markers will be deleted from the file, when the adjacent file is revised, and the feature can be correctly noded. 			
DEM N			

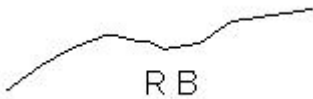
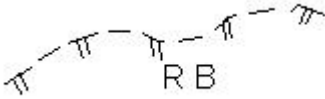
<i>Subclass:</i> Ridge		HB06650100	02
<p><i>Definition:</i> A ridge is an elongated stretch of elevated ground. Drop off is greater than one contour interval at map scale. Capture at 1:10 000 only</p>			
Positional Verification		Cartographic Representation	
<p>0.25mm width line</p>  <p style="text-align: center;">RIDGE</p> <p>plot colour RED</p> <p>UPPER CASE text SANSERIF font text height = 14m</p>		<p>0.25mm width line variable tick length 1.5mm between ticks</p>  <p style="text-align: center;">RIDGE</p> <p>plot colour BLACK</p> <p>IGDS level = 48 IGDS colour =023 IGDS weight = 1</p> <p>UPPER CASE text MOEP font 31 text height = 14m or size 30</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured in the positional file. • Minimum length one hundred (100) metres. • Identification coded as Text.type"Landform" - KC14300320 in the non-positional file. • When the Planimetric feature is moved to the DEM this feature replaces existing sharp break lines from the 1:20 000. 			
DEM BreakLine.type"Sharp" - HA90200000			



<i>Subclass:</i> Road"Over-grown"		DA25150100	02
<i>Definition:</i> A road that has been over-grown with vegetation and inaccessible by 4 wheel drive.			
Positional Verification		Cartographic Representation	
0.25mm width line 1.5mm dash 1.5mm between dashes  plot colour BROWN		0.25mm width line 5.0mm dash 1.0mm between dashes  plot colour ORANGE igds level = 17 igds colour =010 igds weight = 1	
<i>Remarks:</i> <ul style="list-style-type: none"> • Captured in the positional file. • Data capture rule(s): continuity, connectivity, and network. • Minimum length fifty (50) metres. • Captured as a single line to apparent centre line of the feature. 			
DEM BreakLine.type"TransportationandOtherManMade" - HA90200140			


<i>Subclass:</i> Road.surface"Rough"		DA25150000	02
<i>Definition:</i> A specially prepared route on land for the movement of vehicles (other than railway vehicles) from place to place. Includes road access to log landings.			
Positional Verification		Cartographic Representation	
0.25mm width line 1.5mm dash 1.5mm between dashes  plot colour ORANGE		0.25mm width line 5.0mm dash 1.0mm between dashes  plot colour ORANGE igds level = 17 igds colour = 025 igds weight = 1	
<i>Remarks:</i> <ul style="list-style-type: none"> • Captured in the positional file. • Data capture rule(s): continuity, connectivity, and network. • Minimum length fifty (50) metres. • Captured as a single line to apparent centre line of the feature. <i>Other:</i> <ul style="list-style-type: none"> • Logging road (secondary). • 4 wheel drive recommended. • "turnout" capture as part of road using appropriate road feature code. • "turn around" capture as part of road using appropriate road feature code. It may be necessary to capture this feature as "landing" if impossible to determine it is a turn around. • "T turn around" capture as part of road using appropriate road feature code. 			
DEM BreakLine.type"TransportationandOtherManMade" - HA90200140			

<i>Subclass:</i> Road.surface"Rough".type"Decommissioned"		DA25150120	02
<p><i>Definition:</i> A rough road that has been decommissioned, to allow uninterrupted natural regrowth on the road bed.</p> <p>Usually a trench has been dug across the road to prevent access.</p> <p>This code to be used only with the written permission from the Ministry of Forests.</p> <p>Each instance will be judged individually.</p>			
Positional Verification		Cartographic Representation	
<p>0.25mm width line 1.5mm dash 1.5mm between dashes</p>  <p>plot colour ORANGE</p>		<p>0.25mm width line 5.0mm dash</p>  <p>plot colour ORANGE</p> <p>igds level = 17 igds colour = 205 igds weight = 1</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured in the positional file. • Data capture rule(s): continuity, connectivity, and network rule. • Minimum length fifty (50) metres. • captured as a single line to apparent centre line of feature. 			
DEM BreakLine.type"TransportationandOtherManMade" - HA90200140			

<i>Subclass:</i> Rock.Outcrop (area outline) (symbol)		HB25400000 HB25400100	02 01
<i>Definition:</i> Small mass of rock projecting above surrounding terrain. Capture at 1:10 000 only			
Positional Verification		Cartographic Representation	
TO SCALE 0.25mm width line	SYMBOL 0.25mm width line 1.5mm height	TO SCALE 0.25mm width line	SYMBOL 0.25mm width line 1.5mm height
			
plot colour RED		plot colour RED	
UPPER CASE text SANSERIF font text height = 14m		igds level = 48 igds colour =020 igds weight = 1	
		igds level = 48 igds colour =021 igds weight = 0	
		UPPER CASE text moep font 31 text height = 14m or size 30	
<i>Remarks:</i> <ul style="list-style-type: none"> • Captured in the positional file. • Data capture rule(s): right hand, polygon. • Minimum area 0.25 hectares. • Identification coded as Text.type=Landform= - KC14300320 in the non-positional file. • Capture at ground. • Text placed within Area Outline 			
DEM N			

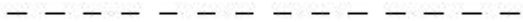
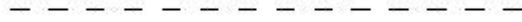
<i>Subclass:</i> Rock.Bluff		HB25000100	02
<p><i>Definition:</i> A definite elevation change in the terrain / topography of the surface. Rock face is visible. Drop off is greater than one half contour interval at map scale. Minimum length 25 metres. Capture at 1:10 000 only</p>			
Positional Verification		Cartographic Representation	
<p>0.25mm width line</p>  <p>plot colour BLACK</p> <p>UPPER CASE text SANSERIF font text height = 14m</p>		<p>0.25mm width line variable tick length 1.5mm between ticks</p>  <p>plot colour BLACK</p> <p>IGDS level = 48 IGDS colour =027 IGDS weight = 1</p> <p>UPPER CASE text MOEP font 31 text height = 14m or size 30</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured in the positional file. • Capture at top of feature. • Data capture rule(s): right hand. Feature to left downhill. • Minimum length 25 metres. • Identification coded as Text.type=Landform= - KC14300320 in the non-positional file. • When this Planimetric feature is moved to the DEM this feature replaces existing sharp breaklines from the 1:20 000. 			
DEM BreakLine.type"Sharp" - HA90200000			

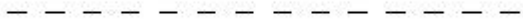

<i>Subclass:</i> ScrubArea (area outline)		JD26200000	02
<i>Definition:</i> An area of low vegetation characterized by stunted trees, brushes and shrubs. Capture at 1:10 000 only			
Positional Verification		Cartographic Representation	
<p>AREA OUTLINE 0.25mm width line "SCRUB" text 3.0mm length dash 1.5mm between dashes</p>  <p>plot colour GREEN UPPER CASE text SANSERIF font text height = 14m</p>		<p>AREA OUTLINE 0.25mm width line "SCRUB" text 1.5mm scallops</p>  <p>plot colour GREEN igds level = 52 igds colour = 004 IGDS Weight = 1 UPPER CASE text MOEP font 31 text height = 14m or size 30</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured in the positional file. • Data capture rule(s): right hand, polygon, continuity, connectivity, and network. • Minimum area 0.25 hectares • Place identification as text.type"LandCover" in Non-Positional file. • Text placed within Area Outline • Place for clarity only. 			
DEM N			



<i>Subclass:</i> Snag (symbol)		JA31500110	01
<p><i>Definition:</i> Any tree that is dominant and dead; must have no foliage and be standing. Capture ONLY if they are a Land Mark Feature and can be used as a location point on the ground. Capture at 1:10 000 only</p>			
Positional Verification		Cartographic Representation	
SYMBOL 0.25mm width line 2.0m tick length capture at a 0 degree angle <div style="text-align: center;">+</div> plot colour ORANGE		SYMBOL 0.25mm width lines 3.75mm high 3.00mm wide (enlarge for clarity) <div style="text-align: center;"></div> plot colour BLACK igds level =52 igds colour =2 igds weight = 1	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Captured as a point in the positional file. • Data capture rules(s): POINT FEATURE. 			
DEM N			

<i>Subclass:</i> Text.type"20000"					KN00020000		06																																																																																		
<i>Definition:</i> This feature is utilized for tracking of File Name (map number), File Identifier, File Type, Submission Date, Revision Version Number, Version Control Date, Specifications Release Number.																																																																																									
Positional Verification				Cartographic Representation																																																																																					
TEXT SAMPLE 92K.071D DEM 1995 1224 V.1.0 1995 10 16 R.2.0 plot colour PURPLE UPPER /LOWER CASE text (as per sample below) SANSERIF font text height = 28m				TEXT SAMPLE 92K.071D DEM 1995 1224 V.1.0 1995 10 16 R.2.0 plot colour PURPLE IGDS level = 60 IGDS colour = 181 IGDS weight = 0 UPPER /LOWER CASE text (as per sample below) MOEP font 31 text height = 28m or size 60																																																																																					
<i>Remarks:</i> <ul style="list-style-type: none"> • Captured in ALL files. • Data capture rule(s): TEXT FEATURE. • The TRIM II history text record is located in the north east corner of the file. It is placed so that the geographic coordinates are inside the file (neatline)200 metres south and west of top right corner.. The text string may run outside the file area to avoid feature conflict. • The X, Y coordinates reflect the lower left origin of the text string, the Z coordinate is always zero (0). • The revision history text string must include the following information (examples provided) in the given order, each item separated by one space (except FILE NAME and FILE IDENTIFIER): <p>File name/ Identifier : 92K.071D File Type : DEM Submission Date (date of revision data capture date) "yyyymmdd": 19951224 Revision Version Number: V.1.0 Version Control Date "yyyymmdd": 19951016 <i>Capture data of the source data, not the date of data compilation.</i> Specification Release Number: R.2.0 <i>This is the specification version used at the time of revision data compilation</i></p> <p>Sample:</p> <table border="1"> <thead> <tr> <th>Positional file #</th> <th>File Name</th> <th>File Identifier</th> <th>File Type</th> <th>File Type</th> <th>Submission Date</th> <th>Revision Version #</th> <th>Version Control Date</th> <th>Specifications Release #</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>92K071</td> <td>A</td> <td>DEM</td> <td>Digital Elevation Addition Model</td> <td>19951224</td> <td>V.1.0</td> <td>19951016</td> <td>R.2.1</td> </tr> <tr> <td>1</td> <td><i>file</i></td> <td>D</td> <td>DEM</td> <td>Digital Elevation Model</td> <td>yyyymmdd</td> <td>V#.#</td> <td>yyyymmdd</td> <td>R#.#</td> </tr> <tr> <td>2</td> <td><i>file</i></td> <td>M</td> <td>Contour</td> <td>Contour File</td> <td>yyyymmdd</td> <td>V#.#</td> <td>yyyymmdd</td> <td>R#.#</td> </tr> <tr> <td>3</td> <td><i>file</i></td> <td>N</td> <td>Non-pos</td> <td>Non-Positional File</td> <td>yyyymmdd</td> <td>V#.#</td> <td>yyyymmdd</td> <td>R#.#</td> </tr> <tr> <td>4</td> <td><i>file</i></td> <td>P</td> <td>Pos</td> <td>Positional File</td> <td>yyyymmdd</td> <td>V#.#</td> <td>yyyymmdd</td> <td>R#.#</td> </tr> <tr> <td>5</td> <td><i>file</i></td> <td>G</td> <td>Toponymy</td> <td>Toponymy File</td> <td>yyyymmdd</td> <td>V#.#</td> <td>yyyymmdd</td> <td>R#.#</td> </tr> <tr> <td>6</td> <td><i>file</i></td> <td>W</td> <td>Wooded</td> <td>Wooded Area File</td> <td>yyyymmdd</td> <td>V#.#</td> <td>yyyymmdd</td> <td>R#.#</td> </tr> <tr> <td>7</td> <td><i>file</i></td> <td>S</td> <td>SupData</td> <td>Supplementary Data File</td> <td>yyyymmdd</td> <td>V#.#</td> <td>yyyymmdd</td> <td>R#.#</td> </tr> </tbody> </table> <p>Note: data in shaded columns is not included in the text string</p>									Positional file #	File Name	File Identifier	File Type	File Type	Submission Date	Revision Version #	Version Control Date	Specifications Release #	1	92K071	A	DEM	Digital Elevation Addition Model	19951224	V.1.0	19951016	R.2.1	1	<i>file</i>	D	DEM	Digital Elevation Model	yyyymmdd	V#.#	yyyymmdd	R#.#	2	<i>file</i>	M	Contour	Contour File	yyyymmdd	V#.#	yyyymmdd	R#.#	3	<i>file</i>	N	Non-pos	Non-Positional File	yyyymmdd	V#.#	yyyymmdd	R#.#	4	<i>file</i>	P	Pos	Positional File	yyyymmdd	V#.#	yyyymmdd	R#.#	5	<i>file</i>	G	Toponymy	Toponymy File	yyyymmdd	V#.#	yyyymmdd	R#.#	6	<i>file</i>	W	Wooded	Wooded Area File	yyyymmdd	V#.#	yyyymmdd	R#.#	7	<i>file</i>	S	SupData	Supplementary Data File	yyyymmdd	V#.#	yyyymmdd	R#.#
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3	<i>file</i>	N	Non-pos	Non-Positional File	yyyymmdd	V#.#	yyyymmdd	R#.#																																																																																	
4	<i>file</i>	P	Pos	Positional File	yyyymmdd	V#.#	yyyymmdd	R#.#																																																																																	
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6	<i>file</i>	W	Wooded	Wooded Area File	yyyymmdd	V#.#	yyyymmdd	R#.#																																																																																	
7	<i>file</i>	S	SupData	Supplementary Data File	yyyymmdd	V#.#	yyyymmdd	R#.#																																																																																	

<i>Subclass:</i> Text.type"20000"	KN00020000	06
DEM N		

<i>Subclass:</i> Trail.type"Skid"		DD31700120	02
<p><i>Definition:</i> A random pathway travelled by ground skidding equipment while moving trees or logs to a log landing. Capture at 1:10 000 only unless otherwise specified in contract.</p>			
Positional Verification		Cartographic Representation	
<p>0.25mm width line 1.5mm dash 1.5mm between dashes</p>  <p>plot colour BROWN</p>		<p>0.25mm width line 1.5mm dash 1.5mm between dashes</p>  <p>plot colour BROWN</p> <p>igds level = 17 igds colour = 162 igds weight = 1</p>	
<p><i>Remarks:</i></p> <ul style="list-style-type: none"> • Capture in the positional file. • Data capture rule(s): connectivity and network. • Minimum length fifty (50) metres. • Capture as a single line to apparent centre line of feature. • Only clearly visible main skid trails are captured. • Do not capture minor or low order skid trails that are offshoots from the main skid trails. • When Skid Trails are captured at 1:20 000 (as per contract) the feature is to be placed in the Supplementary Data file. 			
DEM BreakLine.type"TransportationandOtherManMade" - HA90200140			

<i>Subclass:</i> Trail		DD31700000	02
<i>Definition:</i> A narrow path or route, not wide enough for the passage of a four-wheeled vehicle, suitable for hiking or cycling.			
Positional Verification		Cartographic Representation	
0.25mm width line 1.5mm dash 1.5mm between dashes  plot colour BROWN		0.25mm width line 1.5mm dash 1.5mm between dashes  plot colour BROWN igds level = 17 igds colour = 008 igds weight = 1	
<i>Remarks:</i> <ul style="list-style-type: none"> • Capture in the positional file. • Data capture rule(s): connectivity and network. • Minimum length one hundred (100) metres. • Capture as a single line to apparent centre line of feature. • Only clearly visible main skid trails are captured. • Do not capture minor or low order skid trails that are offshoots from the main skid trails. • Named trails are to be captured. • Significant unnamed trails are to be captured. • Park paths and board walks are considered trails. • Sidewalks are not considered trails. 			
DEM BreakLine.type"TransportationandOtherManMade" - HA90200140			

Subclass: Windfall		(area symbol)	(area outline)	JA13300300 JA90400000	02 01
<i>Definition:</i> A area that show obvious signs of fallen trees due to wind.					
Positional Verification			Cartographic Representation		
0.25mm width line 3.0mm dash 1.5mm between dashes		AREA SYMBOL WF	0.25mm width line 3.0mm dash 1.5mm between dashes		AREA SYMBOL WF
					
plot colour BROWN			AREA OUTLINE plot colour BROWN IGDS level = 52 IGDS colour =014 IGDS weight = 1		
UPPER CASE text sanserif font text height = 28m			UPPER CASE text MOEP font 31 text height = 28m or size 60		
<i>Remarks:</i>					
<ul style="list-style-type: none"> • Captured to scale in the positional file. • Data capture rule(s): right hand, polygon. • Capture all windfall areas from a stereomodel using the drip line rule, where applicable. See H.2 Compilation and Operational Notes. • Minimum accuracy requirements: X - ten (10) metres, Y - ten (10) metres, Z - twenty (20) metres. • Not noded to pre-existing wooded areas unless specified by the Branch. • Symbol is captured as a point in the non-positional file. • Area Symbol placed within Area Outline 					
DEM N					

H.2 TRIM II COMPILATION AND OPERATIONAL NOTES

A new look for TRIM II files!

The Branch is changing Trim II from a File Based System to a Feature Code System.

A feature code will be added to all features which will eliminate the need for Addition and Deletion files for a specific Map Sheet.

For Example: Presently the Pos (Positional) file has associated with it a Pos_Add (Positional Addition) and a Pos_Del (Positional Deletion) file. Now there will be only one file, the Pos (Positional) which will contain feature Codes for both Additions and Deletions.

POSITIONAL FILE NUMBER	FILE TYPE	FILE IDENTIFIER
1	Digital Elevation Model	D
2	TRIM II Contour File	M
3	Non-Positional File	N
4	Planimetric Positional File	P
5	Toponymy File	G
6	Wooded Area File	W
7	Supplementary Data File	S
4	Tie Edges for Zones	Z

The present feature code structure consisting of two letters and eight digits will remain the same. **The seventh digit is to change to a letter indicating the status of that feature.**

The following existing feature codes will be changed to:

GA10450110 replaces GA90002110 for (Falls"symbol")

GA93950110 replaces GA90001110 for (Canal.type"LeftBank')

GA93950120 replaces GA90001120 for (Canal.type"RightBank")

Rule 1): Any features that are deleted with a replacement code **must** have a corresponding Modified Addition.code.

Rule 2): Contours files (M) **are exempt** from these feature changes.

Rule 3): Wooded (W) files **must be delivered with no feature code changes.**

Example:

GA24850000 River Stream (Definite) an existing feature.

GA2485**W**000 New Feature Additions

GA2485**X**000 Deletes with NO replacement

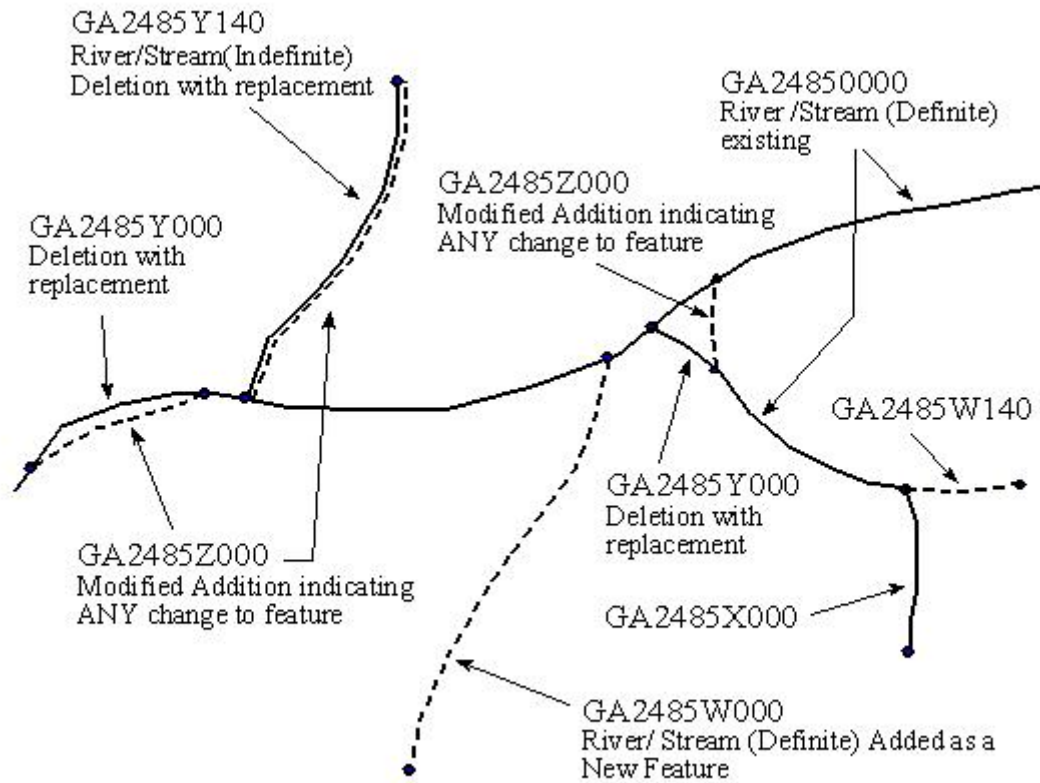
GA2485**Y**000 Deletion WITH Replacement

GA2485**Z**000 Modified Addition (any change to the feature)

The following pages illustrate examples of the new feature codes for:

- . Hydrographic Features (Figure 1)
- . Transportation Features (Figure 2)
- . Point Features (Figure 3)

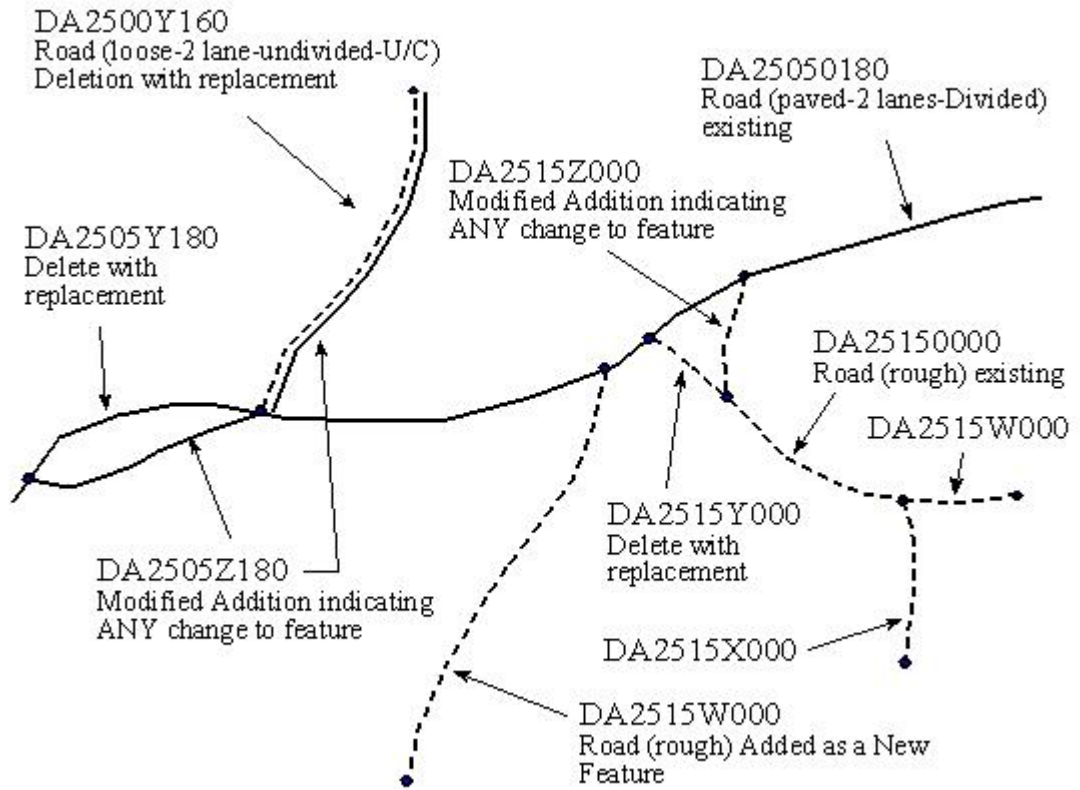
Figure 1.
Hydrographic Features



Example 1.

- GA24850000 River Stream (Definite) an existing feature.
- GA2485W140 New Feature Additions
- GA2485X000 Deletes with NO replacement
- GA2485Y140 Deletion WITH Replacement
- GA2485Z000 Modified Addition (any change to the feature)

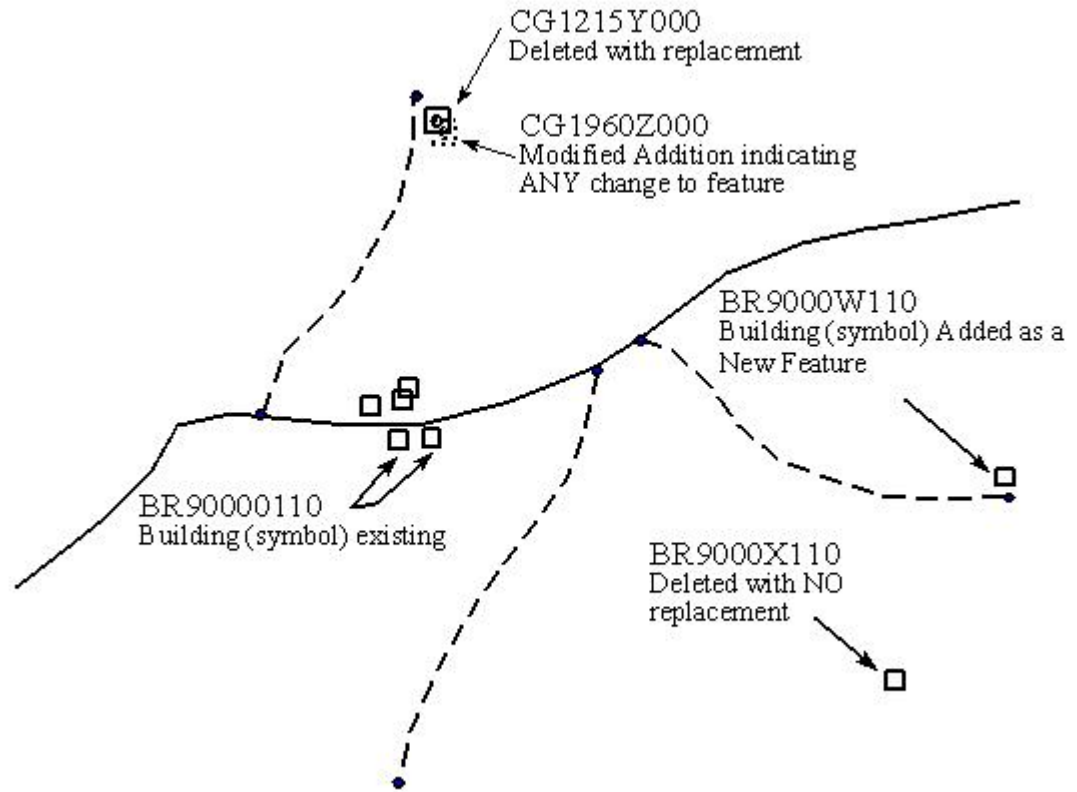
Figure 2.
Transportation Features



Example 1.

- DA25150000 River Stream (Definite) an existing feature.
- DA2515W000 New Feature Additions
- DA2505X180 Deletes with NO replacement
- DA2485Y000 Deletion WITH Replacement
- DA2505Z160 Modified Addition (any change to the feature)

Figure 3.
Point Features



Example 1.

- BR90000110 Building (symbol) an existing feature.
- BR9000W110 New Feature Additions
- BR9000X110 Deletes with NO replacement
- CG1215Y000 Deletion WITH Replacement
- CG1960Z000 Modified Addition (any change to the feature)

Aerial Triangulation Features

-

Hydrographic Features

- Feature code **GA248500150 (river/stream intermittent) no longer used. Recode as GA24850000 (river/stream definite).**
- Intermittent Lakes Now can have Definite Stream flowing into it
- Glaciers have to move by more than 50 metres before recompilation / and update of features is required.
- Sand bars below high water mark will not be captured or updated.

Hypsographic Features

-

Land Cover Features

- Cut Line Features can be noded as 2D features (X, Y).
Quarter section farm clearings should be left as is for the time being - do not capture the section as a cut block.
- Cut blocks **MUST** be **NEW** compilation. **(Existing tree line can not be copied to represent cut block boundary)**
- All features should be captured on the ground including cut blocks.
Capture cut blocks exactly as depicted on photos.
- Trees in cut blocks are to be captured as cut block boundaries.eg. River fringe, capture as cut block boundary.
- A burned area that has been logged or where silviculture has taken place the area in question will be a cut block of cut block regenerating.
- When Skid Trails are captured (as per contract) the feature is to be placed in the Supplementary Data file.

Drip Line Rule

- The definition of the boundary of a forest opening is the Tree drip line of surrounding forest cover as it is the only boundary type recognizable on both aerial photography and field surveys (Figure 1). it can be mapped as a line outlining the canopy edge. This definition assumes the use of aerial photography and its inherent limitations in delineating vegetation conditions obscured by forest canopy. Positional accuracy and level of detail of the mapped boundary depends on the scale of aerial photography and mapping technique used.

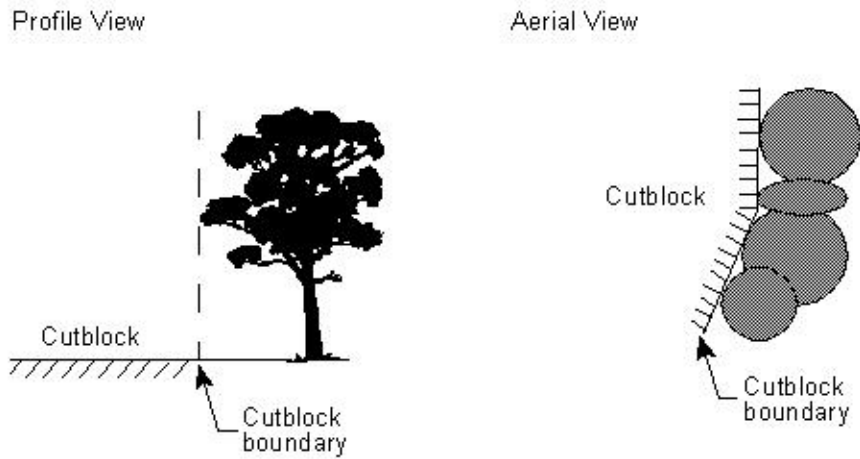


Figure 1: Drip line boundary of openings

Irregularly shaped tree crowns (Figure2) should be excluded from boundary definitions. The boundary line should be projected from the neighbouring trees.

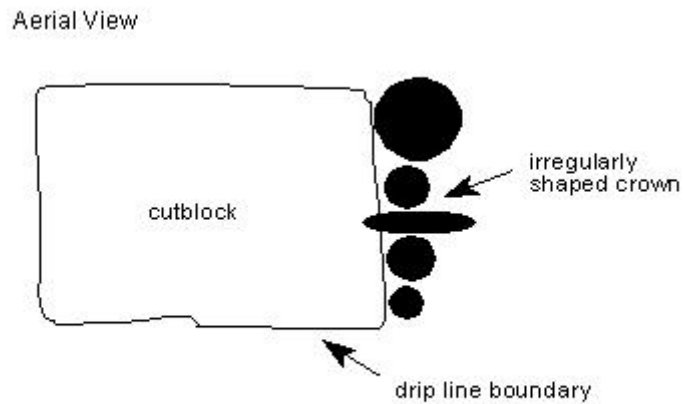


Figure 2: Irregular tree crowns

If tree crowns are not resolvable (usually from high level, 1:70 000, 1:80 000 scale aerial photography), cutblock boundary should be mapped as the centre of image gradient, - aligned contrast between light and dark tones on the photograph, (Figure 3).

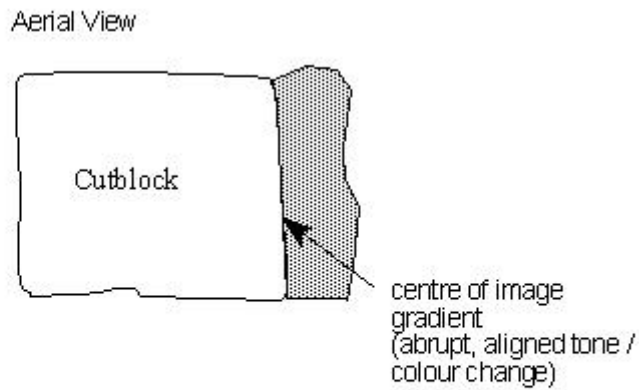


Figure 3: Tree crowns not resolvable

Land Form Features

-

Land Mark Features

- Capture clearings at oil and gas wells as designated areas.
-

Text Features

-
-

Transportation Features

- "Turnout" capture as part of road using appropriate road feature code.
- "Turn around" capture as part of road using appropriate road feature code. It may be necessary to capture this feature as "landing" if impossible to determine it is a turn around.
- "T turn around" capture as part of road using appropriate road feature code.

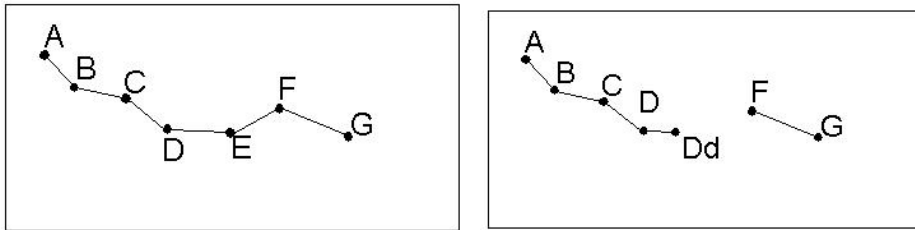
General:

- Construction lines for features noded in 2D only have to be coincident in X and Y
ie. Dam top and lake coincident construction lines have different Z values.
- 20, 20, 20 Rule:
All Feature before being revised must have been moved by more than 20 metres X, Y or Z.
Does not supersede the downhill data capture rule.

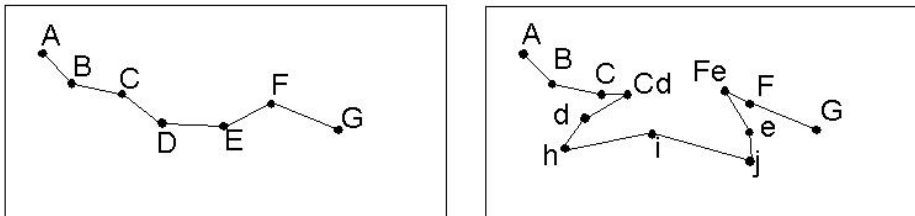
The following is a clarification of the data capture rules for deletions or modifications of line work.

Deletions.

When deleting a portion of a line, delete only the portion that is changed.
This may require the creation of a new node.

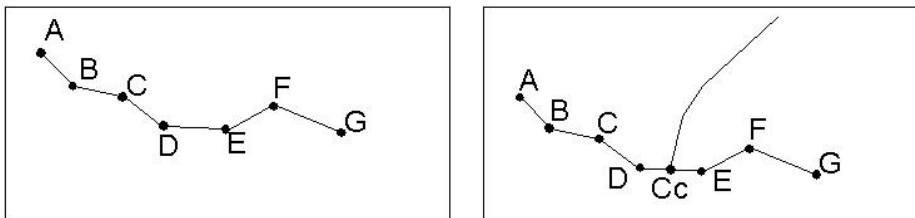


In this example, the portion of the line was deleted between the existing points of D and F and a new point was created called D,d,



Modifications of lines.

When modifying a portion of a line, delete only the changed portion.



Addition of lines.

When capturing a new stream insert a new node for the entrance of the new stream called Cc.

H.2.1 Methodology for Supplementary Data

Methodology for Supplementary Data

Accuracy attributes will be attached to all features based upon the method of data capture. The proposed code would be assigned by the Branch for Supplementary Data.

The following is the proposed Hierarchy for the determination of accuracy.

Accuracy Code	Source
A10	Photogrammetric Compilation
A20	Differential GPS
A30	Coordinate Geometry with Control
A40	Ortho Photography
A50	Mono-Restitution
A60	Satellite Imagery
A70	Table Digitizing/Scanning
A80	Non-Differential GPS
A90	Rubber Sheeting
A100	Location by reference sketch

Accuracy code is based on an Alpha-Numeric system