

To: Users of the British Columbia Specifications and Guidelines for Geomatics
Volume3 January 1992
and
Policies and Specifications for TRIM II (1:20 000 and 1:10 000) Revision Data
Capture, Version 2.0 (May 15, 1997)

From: Base Mapping and Data Exchange Unit, Base Mapping and Geomatic Services
Branch

Subject: TRIM II - Update of Specifications

Date: April 01, 2004

Effectively Immediately

*British Columbia Specifications and Guidelines for Geomatics
Content Series/ Volume 3
Digital Baseline Mapping at 1:20 000 Release 2.0 January 1992*

Appendix A - Deliverables A.1 Data Capture Deliverables

Photos / DIAPs if available

AT Scans

Digital Orthophotos / Mosaics

Preset Models

Digital Positional File

Data File 1

Data File 2

Data File 3

Data File 4

Data File 5

Data File 6

Data File 7

Digital Elevation Model

Enhanced Contour File

Non-Positional File

Planimetric Positional File

Toponymy File

Supplementary Data File

Wooded Area File

All TRIM data will be delivered in SAIF format that meets the current Exchange Data schema unless otherwise notified by Base Mapping and Geomatic Services (BMGS)

On the Web see: http://srmwww.gov.bc.ca/bmgs/dataexchange/data_exchange/bda20revx_csn.pdf

Verification Plots:

- one DEM plot on paper
- one combined planimetric and contour plot in colour on paper
- one polygon closure plot on paper
- one additions plot on paper
- one ortho plot with planimetric overlay

Model set up records for all models covering the sheet.

Sheet sign-off record indicating quality control procedures completed.

Quality Assurance check statistics and related information.

- Right Hand Rule
- Downstream Rule
- Continuity Rule
- Polygon Rule
- Connectivity Rule
- Edge Joins
- Compliance with the relationship to TRIM II Revisions for codification see : Policies and Specifications for TRIM II (1:20 000) and (1:10 000) Revision Data Capture Version 2.0 (May 15, 1997) On the web see: <http://srmwww.gov.bc.ca/bmgs/trim/trm2spsc/trm2spsc.pdf>

This section no longer applies to these specifications.

A.2 Cartographic Enhancement Deliverables

A.3 Edit Notations

All references to MOEP will now be referred to as BMGS (Base Mapping and Geomatic Services)

This section no longer applies to these specifications.

A.4 Procedures for Marking Contractor Toponymy Submissions

A.5 General Deliverables

Contractors will submit Operating Procedures as part of the deliverables that will include the following:

- production diagram
- resume of all production personnel
- photogrammetric equipment annual calibration reports (scanning)
- quality assurance procedures
- In-house Process Inspection Procedures

A.6 BMGS Audit Process

<i>Province of British Columbia</i>												
<i>Ministry of Sustainable Resource Management</i>												
<i>Base Mapping and Geomatic Services</i>												
TRIM AUDIT												
<i>Project Area:</i>		Kalum					<i>Project Number:</i>					
<i>Project Size:</i>		<i>(No. of sheets)</i>					<i>Number of Audited Sheets:</i>					
<i>Sheet Number:</i>												
<i>Companies:</i>							<i>No. of Sheets:</i>					
		1)										
		2)										
		3)										
		4)										
<i>Project Manager:</i>												
<i>Project Delivery Date:</i>												
<i>Received by:</i>												
<i>Audit Date:</i>												
<i>Audited by:</i>												
<i>Recommendation:</i>												

TRIM Audit Line/Point Checking Criteria and Error Descriptions

- * *Archived File: The most current TRIM File available in the Branch Archive*
- * *Revision File: The updated TRIM File submitted by the Contractor*

Line Work

- Step 1 Checks deleted and deletion with replacement lines to ensure that they came from the archived file
- Step 2 Checks to ensure that addition and modified lines were not in the archived file
- Step 3 Redundant
- Step 4 Checks the integrity of the archived file to ensure that features haven't been moved

Point Check (Plan)

- Step 1 Checks to see if the archived file had duplicate points in it
- Step 2 Checks for duplicate points in the revision file except for deleted features
- Step 3 Checks for duplicate points marked as addition features in the revision file
- Step 4 Checks for duplicate points marked as deletion features in the revision file
- Step 5 Checks for duplicate points marked as deletion in the revision file
- Step 6 Checks the deleted features against the addition features for possible errors
- Step 7 Checks for additional point features in the revision file that existed in the archived file
- Step 8 Checks for deleted point features in the revision file that didn't exist in the archive file
- Step 9 Checks for addition point features to ensure that they haven't been removed from the revision file
- Step 10 Check to ensure that point features in the archived file minus the point features in the revision file
match those points marked as deletions
- Step 11 Check to ensure that point features in the archived file minus the point features in the revision file
match those points marked as additions

Point Check (DEM)

- Step 1 Checks to see if the archived file had duplicate points in it
- Step 2 Checks for duplicate points in the revision file except for deleted features
- Step 3 Checks for duplicate points marked as addition features in the revision file
- Step 4 Checks for duplicate points marked as deletion features in the revision file
- Step 5 Checks for duplicate points marked as deletion in the revision file
- Step 6 Checks the deleted features against the addition features for possible errors
- Step 7 Checks for additional point features in the revision file that existed in the archived file
- Step 8 Checks for deleted point features in the revision file that didn't exist in the archive file
- Step 9 Checks for addition point features to ensure that they haven't been removed from the revision file
- Step 10 Check to ensure that point features in the archived file minus the point features in the revision file
match those points marked as additions

Trim Check Error Code

75	Duplicate line segments
126	Dangling Lines
127	Unlike Features at intersections

Appendix "B"

TRIM Audit
Rejection, Acceptance with Penalty

Automatic Rejection

1	Open Polygonal Features
2	3D Junctions (drainage)
3	Down Stream Rule
4	Edge Joins
5	Line Check steps 4
6	Processing Problems (translation, achievability, georeference, blunders, feature codes)
7	Addition/Deletion mis-coding
8	Interpretation (coding errors, indefinite/definite, blunders)
9	Uphills/Anomalies

Acceptance with Penalty

Allowable average errors per sheet over total audit area

Allowable total errors per sheet **6**

Allowable single feature errors per sheet

Category "A" Errors

1	Interpretation (consistency)	4
2	Ortho Photo (smear, banding etc)	4
3	3D Junction errors (other than drainage)	4
4	Minimum size	4
5	Minimum area	4
6	Symbolized Features	4
7	Directionality	4

Category "B" Errors

8	Coding errors (y-z, w-x)	6
9	Symbols (non-pos)	10
10	Various Contractor Supplied Reports	5

Allowable single feature errors per sheet

Allowable total errors per sheet **15**

Allowable average errors per sheet over total audit area

Allowable total (Categories "A" + "B") errors per sheet **21**

Allowable average (Categories "A" + "B") errors per sheet
over total audit area

Appendix "C"

TRIM Audit
Recommended Monetary Penalties

Based on a \$100,000.00 Contract

Category "A" Errors	1 Error per mapsheet average = \$2,000.00, Maximum allowable 1.5 errors per sheet average = \$3000.00
Category "B" Errors	1 Error per mapsheet average = \$100.00, Maximum allowable 6 errors per sheet average = \$600.00

The **Maximum** Penalty for "A" and "B" combined would be \$3,600.00

The **Minimum** Penalty shall be 1 % of the total contract amount

* Note: All penalties shall be levied at the discretion of the Contract Administrator

Example 1

Contract Price	\$100,000.00	Recommended Penalty
Number of Category "A" Errors	1.5	\$3,000.00
Number of Category "B" Errors	6	\$600.00
Total Calculated Penalty		\$3,600.00

Example 2

Contract Price	\$100,000.00	Recommended Penalty
Number of Category "A" Errors	0.2	\$400.00
Number of Category "B" Errors	2	\$200.00
Total Calculated Penalty		\$600.00
Minimum Penalty 1 %		\$1,000.00