

NWDSN Interim Data Model

February 20, 2004

If you have any questions or suggestions regarding this document, please contact Samuel Smith (ssmith@refractions.net or (250) 213-5791) or Philip Kayal (pkayal@refractions.net or (250) 383-3022).

1. Transferring Data to the NWDSN Server

Data will be transferred to the NWDSN using File Transfer Protocol (FTP). Refractions Research recommends using an FTP client OTHER THAN Windows Explorer - ***WS_FTP***, ***FTP Explorer*** or ***CUTE FTP*** (among others) are suitable.

Direct your FTP client to:

FTP://gislab-60.unbc.ca

Login using the username and password that have been assigned to you. Upon successful login, open the "***operational***" folder that contains a subdirectory for each of the NWDSN data-providers. Open your provider sub-directory as the destination for file uploads.

2. NWDSN Data Layers by February 27, 2004

Three types of data are slated for immediate submission to the NWDSN (i.e. to facilitate data integration by the current fiscal year-end):

- Block Layers
 - o Openings
 - o Disturbance
 - o Silviculture
 - o Silviculture Activity
- Roads Layers
- Hydrology Layers
 - o TRIM
 - Streams
 - Lakes
 - Water lines
 - Water points
 - o Licensee Stream Data
 - o Licensee Water Point Data

3. Interim Data Models

3.1. Block Layers

3.1.1. Blocks.Openings

Forest block openings will describe the spatial extent of areas for which a forest company Licensee has a cutting licence, permit and block ID.

Blocks.Openings will contain the following minimal set of attributes (plus others):

Attribute	XML:GML	Shapefile	IGDS
Spatial Extent <i>Spatial Extent of the Feature (Geometry)</i>	GML	[Shape]	IGDS Linework (with graphically grouped/spatially included textnodes)
LicenceID <i>Forest Licence ID</i>	Licence.Licence	LicenceID	TextNode.Element0
PermitID <i>Forest Permit ID</i>	Permit.Permit	PermitID	TextNode.Element1
BlockID <i>Cut Block ID</i>	CutBlock.CutBlock	BlockID	TextNode.Element2
Source <i>Licensee / NWDSN Data provider</i>	Calculated by Filename/Directory	Calculated by Filename/Directory	Calculated by Filename/Directory
UniqueID <i>Internal Licensee ID for the Block</i>	CutBlock.BlockID	InternalBlockID	TextNode.Element3
CaptureID <i>??? Capture Method ???</i>	???	CaptureID	TextNode.Element4

3.1.2. Blocks.Disturbances

Forest block disturbances will describe the spatial extent of areas under a cut-block within which a disturbance has occurred. Likely disturbances will be harvest activity, otherwise it might be possible to code natural disturbances or other anthropomorphic disturbances.

Blocks.Disturbances will contain the following minimal set of attributes (plus others):

Attribute	XML:GML	Shapefile	IGDS
Spatial Extent <i>Spatial Extent of the Feature (Geometry)</i>	GML	[Shape]	IGDS Linework (with graphically grouped textnodes)
LicenceID <i>Forest Licence ID</i>	Licence.Licence	LicenceID	TextNode.Element0
PermitID <i>Forest Permit ID</i>	Permit.Permit	PermitID	TextNode.Element1
BlockID <i>Cut Block ID</i>	CutBlock.CutBlock	BlockID	TextNode.Element2
Source <i>Licensee / NWDSN Data provider</i>	<i>Calculated by Filename/Directory</i>	<i>Calculated by Filename/Directory</i>	<i>Calculated by Filename/Directory</i>
UniqueID <i>Internal Licensee ID for the Block</i>	CutBlock.BlockID	InternalBlockID	TextNode.Element3
CaptureID <i>??? Capture Method ???</i>	???	CaptureID	TextNode.Element4
DisturbanceCode	??? Activity.ActivityCode	DisturbanceCode	IGDS.Level
DisturbanceStartDate	??? Activity.StatusDate	DisturbanceStartDate	TextNode.Element5
DisturbanceEndDate	??? Activity.TargetDate	DisturbanceEndDate	TextNode.Element6

3.1.3. Blocks.Silviculture

Silviculture block features will describe those portions of cut blocks that have been reserved or prescribed for silviculture (SU's or Strata).

Blocks.Silviculture will contain the following minimal set of attributes (plus others):

Attribute	XML:GML	Shapefile	IGDS
Spatial Extent <i>Spatial Extent of the Feature (Geometry)</i>	GML	[Shape]	IGDS Linework (with graphically grouped textnodes)
LicenceID <i>Forest Licence ID</i>	Licence.Licence	LicenceID	TextNode.Element0
PermitID <i>Forest Permit ID</i>	Permit.Permit	PermitID	TextNode.Element1
BlockID <i>Cut Block ID</i>	CutBlock.CutBlock	BlockID	TextNode.Element2
Source <i>Licensee / NWDSN Data provider</i>	Calculated by Filename/Directory	Calculated by Filename/Directory	Calculated by Filename/Directory
UniqueID <i>Internal Licensee ID for the Block</i>	CutBlock.BlockID	InternalBlockID	TextNode.Element3
CaptureID <i>??? Capture Method ???</i>	???	CaptureID	TextNode.Element4
StandardUnit <i>The type of reserve (as WTP, RMZ etc.) ???</i>	???	StandardUnitType	IGDS.Level/Colour

3.1.4. Blocks.SilvicultureActivity

Forest block silviculture activity features will describe the spatial extent of areas within cut blocks where silvicultural activity has occurred (SU's or strata).

Blocks.SilvicultureActivity will contain the following minimal set of attributes (plus others):

Attribute	XML:GML	Shapefile	IGDS
Spatial Extent <i>Spatial Extent of the Feature (Geometry)</i>	GML	[Shape]	IGDS Linework (with graphically grouped textnodes)
LicenceID <i>Forest Licence ID</i>	Licence.Licence	LicenceID	TextNode.Element0
PermitID <i>Forest Permit ID</i>	Permit.Permit	PermitID	TextNode.Element1
BlockID <i>Cut Block ID</i>	CutBlock.CutBlock	BlockID	TextNode.Element2
Source <i>Licensee / NWDSN Data provider</i>	Calculated by Filename/Directory	Calculated by Filename/Directory	Calculated by Filename/Directory
UniqueID <i>Internal Licensee ID for the Block</i>	CutBlock.BlockID	InternalBlockID	TextNode.Element3
CaptureID <i>??? Capture Method ???</i>	???	CaptureID	TextNode.Element4
StandardUnit <i>??? Unique SU code</i>	StandardUnit.StandardUnit	StandardUnitID	TextNode.Element5
BaseTechnique	Activity.TechniqueCode	BaseTechnique	IGDS.Level
BaseMethod	Activity.MethodCode	BaseMethod	IGDS.Color
BaseObjective	Activity.Objective1-3	BaseObjective	TextNode.Element6
ActivityStartDate	Activity.???	ActivityStartDate	TextNode.Element7
ActivityEndDate	Activity.???	ActivityEndDate	TextNode.Element8

3.2. Roads Layers

3.2.1. Roads.RoadPermits

Road Permit features will be submitted as single-line features, representing the centre-lines of forest roads.

Roads.RoadPermits will contain the following minimal set of attributes (plus others):

Attribute	XML:GML	Shapefile	IGDS
Spatial Extent <i>Spatial Extent of the Feature (Geometry)</i>	GML	[Shape]	IGDS Linework (with graphically grouped textnodes)
RoadPermitID <i>Road Permit ID</i>	RoadSection. RoadPermitID	RoadPermitID	TextNode.Element0
RoadSectionID	RoadSection. RoadSectionID	RoadSectionID	TextNode.Element1
CaptureID <i>??? Capture Method ???</i>	???	CaptureID	TextNode.Element4
RoadName <i>Road Common Name</i>	RoadSection. RoadName	RoadName	TextNode.Element2
RoadStatus <i>Status of the road</i>	RoadSection. RoadStatus	RoadStatus	IGDS.Level/Colour
RoadClass	RoadSection. RoadClass	RoadClass	IGDS.Level/Colour

3.3. Hydrology Layers

3.3.1. TRIM Hydrology

The NWDSN will for reference, post the following TRIM hydrographic layers:

- Streams (Rivers, Streams, etc.)
- Lakes (Lakes, Reservoirs, Ponds, etc.)
- Water lines (Flooded Lands, Marshes, etc.)
- Water points (Sink holes, etc.)

3.3.2. Hydrology.Lines

Licensees will submit their own linear hydrographic data to be super-imposed against, but not integrated into, the TRIM layers. Hydrology.Lines will likely be for the most part stream information.

Hydrology.Lines will be submitted as single-line features, with the following minimal set of attributes (plus others):

Attribute	XML:GML	Shapefile	IGDS
Spatial Extent <i>Spatial Extent of the Feature (Geometry)</i>	GML	[Shape]	IGDS Linework (with graphically grouped textnodes)
StreamClass <i>Stream Classification (S1-14)</i>	NA (could be <i>Stream.StreamClass</i>)	StreamClass	IGDS.Level/Colour
Fish <i>Fish presence in the stream</i>	NA (could be <i>Stream.FishConfirmed</i>)	FishConfirmed	TextNode.Element0
FishSpecies1	NA (could be <i>Stream.FishSpecies1</i>)	FishSpecies1	TextNode.Element1
FishSpecies2	NA (could be <i>Stream.FishSpecies2</i>)	FishSpecies2	TextNode.Element2
FishSpecies3	NA (could be <i>Stream.FishSpecies3</i>)	FishSpecies3	TextNode.Element3

3.3.3. Hydrology.Points

Licensees will also be able to submit their own hydrographic point data to be super-imposed against but not integrated into the TRIM layers.

Hydrology.Points will contain the following minimal set of attributes (plus others):

Attribute	XML:GML	Shapefile	IGDS
Spatial Extent <i>Spatial Extent of the Feature (Geometry)</i>	GML	[Shape]	IGDS Linework (with graphically grouped textnodes)
PointType	NA (could be <i>HydroPoint.PointType</i>)	PointType	IGDS.Level/Colour
Description	NA (could be <i>HydroPoint.Description</i>)	Description	TextNode.Element0

3.4. Forest Health and Overview Layers

Participants agreed that no Forest Health and Overview data would be submitted in the current round of NWDSN integrations.

If it is available, Refrations Research would still be interested in acquiring forest health and overview data from NWDSN participants, in order to better understand these data types for future model development.