

MN/DOT's gINT template data entry procedures

Updated July 2004

***Before starting to input data, check File-System Properties and make sure you are using the most current library and data template files from MN/DOT.**

*Current Library file: MnDOTg6v4.glb	*Current DataTemplate: MnDOTg6.gdt
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Tab 1 - Project

Enter project information in this tab.

gINT Project Description – Leave blank (for Mn/DOT use only)

County - Use pull down menu and select county in which borings were drilled.

Index Sheet Code – Use pull down menu and select **3.0** for English Unit Jobs and **2.0m** for Metric Unit Jobs

State Project Number – Enter Mn/Dot's State Project # with trailer (i.e., 2735-159) (do **not** enter "S.P. or SP")

Trunk Highway – Enter Highway # and general location description (i.e., TH 100 over 42nd Ave). If not near Highway, enter in local road data.

Consultant - Use pull down menu to select Consultant.

Output Units - Use pull down menu Select SI for metric and US for English.

Depth Page 1 - Depth in feet on the first page of the log. Default is 25' or 8m (this is taken care of automatically). This field sets the default for all the boreholes in the project. This value can be overridden for any specific borehole by giving a value in the POINT – Depth Page1 field.

Assoc/Rep BR - Leave blank (for Mn/DOT use only)

Associated SP – Leave blank (for Mn/DOT use only)

Last Update – Leave blank (for Mn/DOT use only)

old gINT ID – Leave blank (for Mn/DOT use only)

Tab 2 - Point

Enter XYZ information and hole depth for individual borings

Yellow fields are required data fields, you must enter data in these fields to print boring

PointID – Enter Hole number. Please use 01 for first hole where there are less than 100 borings and use 001 for first hole where there are more than 100 borings.

Hole Depth – Enter hole depth in English Units (ft.)

Elevation – Enter ground elevation of borehole in English Units (ft. above sea level).

May be determined from contour plans, but must note this in editin tab.

CC_GIS_Projection – Use pull down menu to select proper county projection used for county coordinates. Keep in mind that some of the larger counties have multiple coordinate zones.

NAD 83 N Cnty Coord (US) – Enter Northing (Y) NAD 83 County Coordinate in US units (ft.)

NAD 83 E Cnty Coord (US) – Enter Easting (X) NAD 83 County Coordinate in US units (ft.)

Depth Page 1 - This field allows you to enter in a variable depth per page to fit shallow borings on one page.

Instrumentation – If field instrumentation is installed, use the pull down menu to select type of instrumentation

Structure Type – Use the pull down menu and select from the list.

Environmental Borehole? – Check Box if boring qualifies as an Environmental Borehole according to the Minnesota Dept. of Health Regulations.

Consultant by Point – Use pull down menu and select from list.

Tab 3 - Labin

The tab is used to enter in additional information for each boring.

Bridge Number or Desc. – Enter proposed Bridge number, culvert number or wall name

Crew Chief – Enter First Initial and last name of Drill Crew Chief

Driller – Enter First Initial and last name of Drill Rig Operator

Date End – Enter Date that borehole was completed (month/date/year)

Drill Rig Unit – Enter Name and Model of drill rig (i.e., CME 75). Do not use lookup table (for Mn/DOT use only)

Hammer system – Enter Name and Model of SPT hammer system

WaterDepth – Enter best estimate of groundwater level (either measured or inferred from soil moistures)

Water Method – Enter method of determining groundwater elevation (use lookup table and enter Estimated or Measured)

Grout – Use pull down menu to select grouting operation information

Soil Classifier – Enter initials of person classifying soils

Rock Classifier - Enter initials of person classifying rock

Date Samples Opened – date samples are received and/or opened in lab

Prev Structure Number – bridge number of in-place bridge being replaced

Assoc Structure Number – nearby structure number (if boring is not near bridge)

Tab 4 – Sample

This tab is used to enter information about the drilling and sampling operations. It is also used to enter some lab test information.

Depth – starting depth of operation

Length – operation interval (i.e., length of split spoon sample)

Type – this column describes the drilling or sampling procedure. Use the look up table.

Operation	GINT Entry for TYPE
Vane Shear Test	Vane
Washed Sample (collected during plug drilling)	WS
Augured	Aug
Plug Drilled (Rotary Drilled with Drilling Fluids)	PD
Shelby Tube Thinwall Sample	TW
Split Tube Sample (Standard Penetration Test)	X
Rock Core Drilled	Core
Continuous Soil Sample	CS
Augered and Plug Drilled	A/P

Jetted	Jet
Augered and Jetted	A/J

SPT – enter Standard Penetration Test N value for tests that penetrate the full 18”. If partial sample, report penetration in the following three fields.

Blows/0”-6” -- enter blows for partial penetration (including penetration distance in tenths of ft.) for the first 6” increment if split tube is not driven the full 18”

Blows/6”-12” – enter blows for partial penetration (including penetration distance in tenths of ft.) for the second 6” increment if split tube is not driven the full 18”

Blows/12”-18” -- enter blows for partial penetration (including penetration distance in tenths of ft.) for the third 6” increment if split tube is not driven the full 18”

Wet Wt – Weight (grams) of moist soil sample used for determining moisture content

Dry Wt – Weight (grams) of dried soil sample used for determining moisture content

Moist Remarks – appears in moisture content column, used when no sample is recovered, refer to following table for entries:

Moisture Remarks Description	Moist Remarks gINT Entry
No Sample Returned	NSR
Not Available	N/A
Sample Contaminated with drilling fluids	MUD

COH Wet Wt – Weight (grams) of thinwall sample for unconfined compression test. Used to determine moist unit weight of sample.

Unconf Dia – diameter of thinwall sample (for unconfined compression test) in inches(default 2.87 in.). Used to determine moist unit weight of sample.

Unconf Ht – height of thinwall sample (for unconfined compression test) in inches (default 6.03 in.). Used to determine moist unit weight of sample.

Cohesion – Enter cohesion value (1/2 unconfined compression strength) in pounds/ sq. foot. DO NOT ENTER POCKET PENETROMETR VALUES IN THIS FIELD.

The following fields are used when rock coring only.

Rec – percent recovery for rock core

RQD – Rock Quality Description, Percent of total core interval consisting of unbroken pieces 4 inches or longer.

ACL – Average Core Length, average length of core that is greater than 4 inches long.

Core break length – length of core break interval

Core Breaks – Number of core breaks (per interval)

Tab 5 – Classification

This tab is used to enter the soil description based on MN/DOT’s Triangular Textural Classification System.

Depth – Enter the top depth of the layer.

Bottom – Enter the bottom depth of the layer

Description – Enter soil description using appropriate abbreviations. Enter soil description only once, program will put description on next page automatically if

necessary. If desired, you may enter additional soil description information at discrete depths anywhere on the log.

Graphic – graphical soil code for log output. Use look up table and refer to the following table

Soil Classification	*graphic
Organics ($\geq 11\%$ organics)	ORG
Sand & Gravel	SG
Clay	CH
Sandy Clay	CH
Sandy Clay Loam	CH
Clay Loam	CH
Silty Clay	MH
Silty Clay Loam	MH
Silt Loam	MH
Silt	MH
Loam	SANDY
Sandy Loam	SANDY
Loamy Sand	SAND
Sand	SAND

*Please refer to Mn/DOT's gINT Materials Graphics List for additional graphics.

NOTE: At bottom of log somewhere, enter in the following:

Bottom of hole – (hole depth)

Water depth information (i.e., Water measured at X ft. during normal drilling operations)

Tab 6 – Remarks

Remarks text – enter driller's notes, other lab tests and any other notes pertinent to the boring log. Use this field to enter in miscellaneous test data such as pocket penetrometer values and SPT Energy Calibration information.

Rock Lines – used for rock coring operations

Unconf Comp – used for unconfined compression test results for rock samples

Special Note: In the remarks column, at the top of the first page of each boring, the Consultant is required to note the latest SPT hammer energy calibration information. This includes information about the calibration energy and the date of the last calibration. An example is shown below.

“SPT hammer calibrated to 73% of potential energy on September 1, 2001.”

Tab 7 – Editin

This tab is used to enter additional location information for the boring.

XYP – Leave blank (for Mn/DOT use only)

Elev. Survey Method – refers to the level of surveying accuracy, use look up table

Latitude – Enter latitude (i.e., 44°15'22.95")

Longitude – Enter longitude (i.e., 93°24'35.47")

*Note: If you have MnCon on your harddrive, you can use the Add-Ins pull down menu to populate these fields.

UTM N – Leave blank (for Mn/DOT use only)

UTM E - Leave blank (for Mn/DOT use only)

Station/Offset (old) – Leave blank (for Mn/DOT use only)

Alignment – Enter alignment designator (i.e, TH 94 WB)

Station – Enter stationing of hole (i.e, 100+00)

Offset – Enter offset from alignment, using (-) for left offsets and (+) for right offsets

Special Note: The fields after “Unique number” are used for Mn/DOT’s internal use only.

Tab 8 – Piezo

This tab is used to enter information about the installation of piezometers. Please call for instructions if you need to use this tab.

Output

To output finished boring logs, go to the main menu and select output. At the top of the screen, use the look up list to select a report template. MN/DOT is using the report entitled “**FDN N60**” for standard finished boring logs and “**FDN DXF**” for exporting abbreviated logs to a dxf (autocadd) format. The current gint project file (.gpj) should appear in the Source File dialog box. Below that, you are allowed to select which borings you want to plot.