

Resource Information Branch

GyHost/GyHand: A Data Collecting, Editing and Reporting System Version 2002

User's Manual

**Vegetation Resources Inventory Section
June 2002**

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Ministry of Sustainable Resource Management
Terrestrial Information Branch

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Chapter 1: Set-up Procedures

Setting up the Host PC

Memory and RAM Disk Requirements

The minimum memory required on the Host PC is in the order of 500 KBytes. While most desktop or laptop PCs are configured with the standard 640 KBytes, this lower requirement allows other Terminate and Stay Resident modules to occupy some of the RAM.

The free disk space requirement depends on the volume of data to be kept on-line. However, over and above this, five megabytes are required at run-time for the GyHost program to run efficiently.

Directory SetUp

The GyHost program should reside in a directory named GyHost. This directory may be on the root of a disk drive or be a sub-directory of another directory. All the files required to run both the GyHost and GyHand (now called Gy) programs reside in the GyHost directory with the exception of DOS or other utility programs. A sub-directory named HandHeld is required under GyHost to act as a repository for data to be transferred to and from the physical HandHeld computer. If this directory is not present, it will be created when GyHost is started up. The contents of the HandHeld directory are not maintained and are only relevant during the UpLoad or DownLoad processes. At all other times, this directory's contents are irrelevant.

The steps required to create the Host PC directory and load in the system from the system distribution diskette are:

- Make the directory under which the GyHost directory is to reside the current directory (this will likely be C:)
CD
- Create the GyHost directory thus:
MD GyHost

- Make GyHost the current directory:
CD GyHost
- Insert the distribution diskette which contains the complete system (GyHost02.ZIP, Install.CFG, and Install.EXE) into the A (or B) drive. Install the GyHost system by typing A:INSTALL.

Note: This software is readily available for download from the TIB website listed below:

- <http://www.for.gov.bc.ca/resinv/software/GYHOST/maindoc.htm>

The GyHost directory together with the necessary files and sub-directory has now been set up. The contents of GyHost can be compared to the lists given in the following sub-section. However, some of the files named in the following sub-section may not be present since they are created when the GyHost and/or Gy systems are used.

DOS StartUp Files

CONFIG.SYS in Windows95 and 98

The CONFIG.SYS file on the Host PC must contain the following two lines:

buffers=24

files=249

The buffer's parameter should be a multiple of 8 (necessary for some versions of DOS) and be at least 24.

The files parameter should be an ODD number and be at least 199 (recommend 249).

CONFIG.GYO in Windows NT

The contents of CONFIG.GYO and set up procedures under Windows NT 4.0 and XP are described in Chapter 4.

Operational notes

Note the following when using the GyHost system:

- GyHost automatically re-indexes the databases when necessary following UpLoad, DownLoad and DataTran data transfer so the user does not have to be concerned with this.
- The batch file for executing GyHost is GyHost.BAT. Following the running of GyHost, the batch file deletes all files that have no extension (i.e. ABCDEF.). This is a precautionary step but means that the user must not rely on any user files with no extension being retained in the GyHost directory.

- It may be required to remove all the samples in the GyHost directory. To do this the program is invoked as follows:

GyHost PURGE<Enter>

******Caution: this will erase all samples from the GyHost directory ******

Setting up the HandHeld PC

Memory and Disk Requirements

Any HandHeld must be equipped with at least 2 MBytes of RAM Disk. The RAM Disk, drive C: is initially set up with a sub-directory named 'DOS' which contains many DOS utility programs in read-only memory. These programs cannot be deleted.

A sub-directory GY must be created on the C: drive. This will be the directory in which GyHand will operate and in which all of the Growth & Yield specific information is to be kept. If this directory does not exist, carry out the following procedures:

CD\	This makes the root directory on the current drive the current directory.
MD GY	This creates the GY directory.
CD GY	This makes the directory GY the current directory.

The GY directory receives the sample data from the host PC for field work, maintains the samples through the GyHand program, and is the source of the data sent back to the host PC upon completion of the field work. With the necessary programs and program files set up in the GY sub-directory, but with the databases essentially empty, there should be available in excess of 643 KBytes of RAM Disk.

Keyboard Requirements:

In addition to the normal number and alpha keys, GyHand requires the following keys:

<Esc> Normally used for escaping from the current to the previous screen without updating . Exceptions are some Browsing screens. In case of an ERROR/WARNING, <Esc>will return the cursor to the problem field.

<F1>, <F2>, <F3>, <F4>, <F5>, <F6>, <F7> These are the Hot-Keys, single key operation that are desirable. The Husky FS/2 has single keys for F1 - F4; F5 – F7 are available by pressing the Paw Key + the '5', '6' or '7' key.

Lower case alpha, and, if required by the user, upper case as well.

DOS StartUp Files - Config and Autoexec

CONFIG.SYS

The CONFIG.SYS file on the HandHeld PC must contain the following 2 lines:

```
buffers=24  
files=79
```

The buffer's parameter should be a multiple of 8 (necessary for some versions of DOS) and be at least 24. The files' parameter should be an ODD number and be at least 79.

AUTOEXEC.BAT

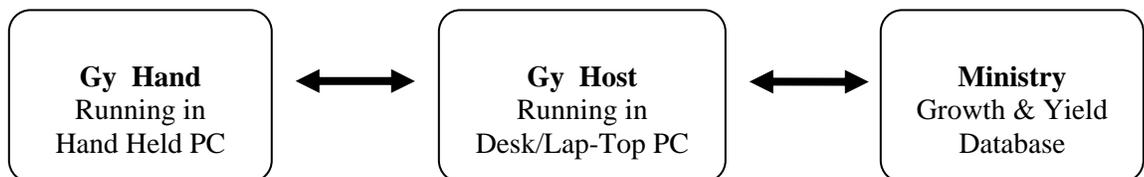
The AUTOEXEC.BAT file on the Husky HandHeld PC must contain the following lines:

```
path c:\;c:\dos  
prompt $p$g
```

Chapter 2: Functional Overview

Data Collecting, Editing and Reporting System Overview

The Sample Data Collecting, Editing and Reporting System for the Growth and Yield Database comprises a Desktop Personal Computer system, a HandHeld Computer system, and the necessary communications processes to link these and the Ministry Growth and Yield Database together.



All the database files used in this system are flat ASCII files termed 'SDF' (System Data Format) with fixed length records, each record being delimited with a 'return/linefeed' character pair.

The smallest unit of data that is handled externally to the GyHost and GyHand programs is the Sample. Samples may be moved between the Ministry database and the GyHost system or between the GyHost system and the HandHeld PC system.

The flow of data through the system depends on whether the Samples are re-measurement or establishment, each of these two cases will be discussed separately here to aid in understanding the process.

Data-Flow for Establishment Samples:

- No data is received from the Ministry for these samples.
- The Samples are created using the GyHand system. No tree information can be originated using GyHost.
- The HandHeld system is used to identify the trees in the sample and record the measurement data.
- Upon completion of the collection activity, the establishment data is uploaded to GyHost using the UpLoad option. The UpLoad facility will first delete those records on GyHost relating to the samples to be uploaded, and then perform the UpLoad.
- The uploaded samples can be viewed with GyHost.
- If the sample data is to be returned to the Ministry at this time, it can be exported to diskette in ASCII format.

Data Flow for Re-Measurement Samples:

- The previous measurement data together with non-measurement specific data is received from the Ministry in ASCII format. There will not be any records in the Current Sample Measurement database (SP_MEAS.DBF). There will, however, be one record for each previously measured sample in the Previous Sample Measurement database (PSPMEAS.DBF).
- The Data Import option is used to bring the previous measurement information into the working directory on the GyHost system in Clipper database format.
- The remeasurement database is downloaded to the HandHeld system using the GyHost DownLoad option for the specified samples. All data relating to each selected sample is downloaded.
- The HandHeld system is used to identify the trees in the sample and record the remeasurement data.
- Upon completion of the collection activity, the establishment and re measurement data is uploaded to GyHost using the UpLoad option. The UpLoad facility will first delete those records on GyHost relating to the samples to be uploaded, and then perform the UpLoad.
- The uploaded samples can be viewed with GyHost.
- If the sample data is to be returned to the Ministry at this time, it can be exported to diskette in ASCII format.

The External Interface between GyHost and the Ministry's Standard Edit Format

The files comprising this interface are as follows:

ACCESS	DOT	SP_MEAS	TR_MEAS	SAMPLE
PLOT	PSPMEAS	TREE	SPECIES	

They have a three character extension, the first character of which will indicate the sample type (G, T, I etc.). The second and third characters are numeric and indicate multiple diskettes (i.e., 01, 02, 03 etc.).

Chapter 3: GyHand - The HandHeld System

Introduction

The sequence of the HandHeld (H/H) software was designed to imitate, as much as possible, the logical sequence of data collection in the field. Therefore, the sample identification and plot size must be entered before any tree can be measured. In the same way, a sub-plot tree cannot be measured before the sub-plot size is known.

It is recommended that the logical sequence built into the software be followed in order to take full advantage of it.

The H/H normally retains information that was last entered in some fields. Therefore, when first turned on, one may find the region, compartment, etc of a sample completed days before. To override this, simply enter the new data to change the identity for the sample required.

<F1> while the cursor is on any of the sample ID fields, will bring up a list of all samples in the system.

Other features

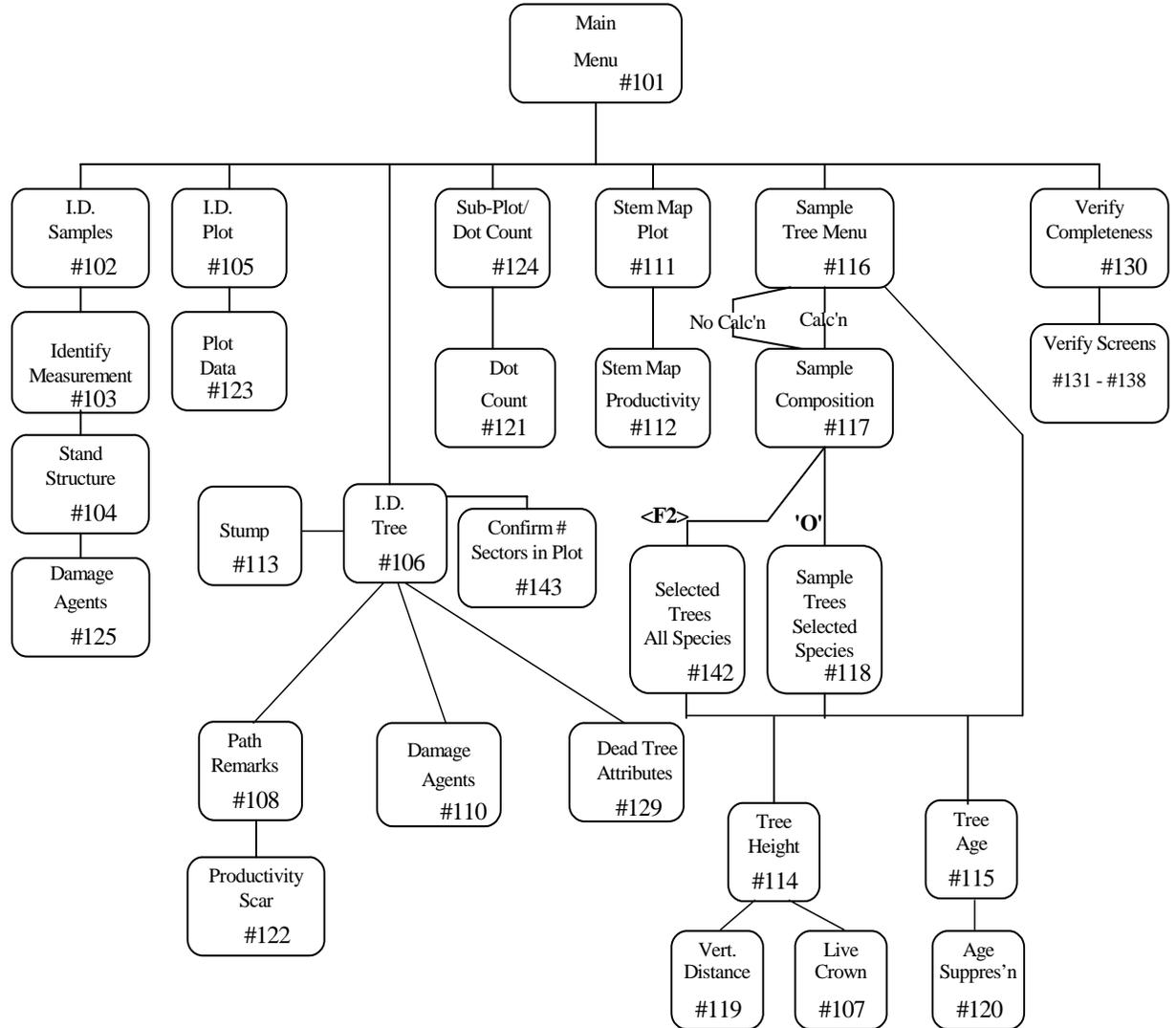
<Esc> normally used for escaping from the current to the previous screen without saving.

< Y > will save the data of an active screen when the message Screen O/K (Y/N) appears.

< N > will return cursor to the first field at the top of the screen.

< ↑ or ↓ > up and down arrows will allow movement around the screens.

HandHeld Screen Structure Chart
Version 2002 (02.06.01)



Hot Keys

- | | |
|--|--|
| F1 Sample or Tree Remarks | F5 Display Incomplete (re)measurements - from ID tree subsystem |
| F2 Display Mapped Trees - from screen #111
Tree Class/Path-Tree Measurements - from others | F6 Stem Map (#111 or #112 - from ID tree subsystem) |
| F3 Previous Measurements - re-measurement | F7/tab Picklist for Tree Species and Damage Type, Agents and Severity |
| F4 Measure Tree - from screen #121, 124
Measure Height - from ID tree sub-system
Measure Missed Tree Data - from screens #135-137 | |

Screen #101

Vers:2002 MAIN MENU

1. Identify Sample
2. Identify Plot
3. Measure Trees
4. Sub-Plot/Dot Cnt.
5. Sample Trees
6. Stem Map
7. Verify Complete

Screen Item	Notes
1. Identify Sample	
2. Identify Plot	<p><i>** It is recommended that these screens be accessed and completed in the same order as they appear so that full advantage can be taken of the editing capabilities of the software.**</i></p> <ul style="list-style-type: none">• The sample and plot must be identified before other measurements can be made• Use the 'up' and 'down' arrows to choose the desired screen and then <Enter>• '<u>Verify Complete</u>' should only be used after all measurements have been done.
3. Measure Trees	
4. Sub-Plot/Dot Cnt.	
5. Sample Trees	
6. Stem Map	
7. Verify Complete	

User Notes:

Screen #102

```

<F1>          ID SAMPLE
Reg Cmp L Ins Sam Tp
 73 16      0 8  G
Csamp
Dia@1.3:Y or 1.37:N
BrkPnt:4.0 Dia/Ht:D
L/S:N SPrg:N Stmps:N
Screen OK (Y/N)?:Y
  
```

Screen Item	Meaning	Default	Valid	Notes
Reg	Region No.	-	1 - 88	Unique provincial numbers
Cmp	Compartment #	-	1 - 206	Unique provincial numbers
L	Comp. Letter	-	∅ or A - Z	Some coastal compartments have a letter
Ins	Installation	-	1 - 99	-
Sam	Sample Number	-	1 - 999	-
Tp	Sample Type	-	GIMPRST	G (natural), I (intensive forestry), M (productivity), P (photo), R (experimental), S (temporary) or T (silviculturally treated) Prompts: "create Y/N at establishment" "N" - will close screen, return to screen #101 "Y" - will create measurement '0'
Csamp	Company Sample	-	-	Character or Alpha if applicable
Dia 1.3	Diameter at 1.3	Y	Y or N	Allows DBH at 1.3 m to be entered for the whole sample
or 1.37	Diameter at 1.37	N	Y or N	Allows DBH at 1.37 m to be entered for the whole sample
BrkPnt	-	-	-	Break point between plot and subplot ≥0.3 for (I) , 4.0 for all others
Dia/Ht	DBH or Height	D	D or H	-
L/S	Lean or Sweep	N	Y or N	For some samples. Applies to whole sample
SPrg	Special Program	N	Y or N	Used for special projects only
Stmps	Meas. Stumps?	N	Y or N	For some samples. Applies to whole sample
Screen OK(Y/N)	-	-	Y or N	Y - saves and moves to next screen N - returns to Csamp

<F1> with cursor on Reg, Comp, L, Ins, Sam, Tp, lists all samples in the machine.

User Notes:

Screen #103

```

<F13>          ID MEAS
Measurement      : 0
Meas.Date:2001.08.24
Estb.Date:
StemMap:N SlctLogd:N
THSS:C          SIBEC:N
DBHRf:UpH SuitReMs:Y
Screen OK (Y/N)?:Y
  
```

Screen Item	Meaning	Default	Valid	Notes
<F13>	Hot Keys	-	Anytime	F1 - Accesses area for sample remarks F3 - At remeas., displays prev. measurement
Measurement	Meas. No	-	-	Entered automatically.
Meas. Date	-	-	-	Automatic for establishment, update at remeasurement.
Estb. Date	-	-	-	Automatic for establishment, given for remeasurement
StemMap	-	N	Y or N	If "Y" all trees must be stem mapped
Slct Logd	-	N	Y or N	Y - for selectively logged areas in complex stands
THSS	TopHt Sectr	C	C or A	Top Height from (C)enter sector or (A)ll sectors
SIBEC	-	N	Y or N	Is this a SIBEC sample?
DBHRf	-	-	-	Automatically. PoG for samples<1991 or UpH if >1990
SuitReMs	Suitable	Y	Y or N	Is sample suitable for remeasurement or badly damaged?
Screen OK(Y/N)	-	Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #104

```

<F13>      STND STRUCT
Stand Structure      1

C.Clsr% :Lyr1      50
              :LyrV      2
StHa:      0 SpSt: 0.0
Spacing Type      S
Screen OK (Y/N)? :Y
    
```

Screen Item	Meaning	Default	Valid	Notes
<F13>	Hot Keys	-	Anytime	F1 - Accesses area for sample remarks F3 – Only at remeas. - displays prev. measurement
Stand Struct.	-	-	1,2 or 3	Std. Struct. 1 -simple, 2 -complex, 3 -multi-layer If '3', each tree is in layer 1 or 2. Identify primary layer. If '1' or '2', there is a "V" layer and layer 1 is assumed .
C.Clsr%:Lyr1	Crown Closure	0	10 - 100	CC for layer 1 in increment of 10's
:LyrV	CC layer V	0	0 - 5	Vet layer must have a crown closure of <6%
StHa	Stems/Hectare	0	1 – 99999	For (S) samples in young stands
SpSt	Special Site	0.0	0.0 or 5-50	For use if age and height of sample are not representative
Spacing Type	-	S	S or T	Normally (S)quare but can be (T)riangular
Screen OK(Y/N)	-	Y	Y - N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #105

```

<F1>          ID PLOT
Plot#  1 CtrStk OK?Y
Plot Radius   11.28
      Area     0.0400
Ln   0.00 Wth  0.00
      BA Factr  0.000
T/L Br  0 Dst  0.0

Screen OK (Y/N)? :Y
  
```

Screen Item	Meaning	Default	Valid	Notes
<F1>	Hot Key	-	Anytime	F1 - Accesses area for sample remarks
Plot #	No. of plot	1	1 - 10	1-10 or 1-5 for (I) samples, 1 or 1-3 (est. 80-88) for (G,T) Prompt 'Create (Y/N)' "Y" - will create Meas. '0' "N" - will close screen, return to screen #101
CtrStk OK?	Centre Stake OK	Y	Y - N	"N" if repairs made to plot center stake at remeas.
Plot Radius	-	-	5.0 - 30.9	-
Area	-	-	-	Automatically done if circular, enter if square
Ln	Length	0.0	-	Enter if missing (R samples only)
Wth	Width	0.0	-	Enter if missing (R samples only)
BA Factor	Basal Area Factor	-	-	For prism (S) samples
T/L Br	Tie Line Bear.	∅	0-360	-
Dst	T/L Distance	∅	0.1-999.9	-
Screen OK(Y/N)	-	Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #106

```

<F1234567>TREE P1# 1
Tree 79 D?N Spc: FD
Cs:   Ts: 1  Ss: 2
D13: 15.7  D137: 0.0
CC:2 LC%: 3 TC:2 Lr
Ht: 0.0 St:N NxT 0
Ms/Dp/F: NrTre: 0
Screen OK (Y/N)? :Y
  
```

Screen Item	Meaning	Default	Valid	Notes
<F123456	Hot Keys	-	Anytime	F1 - Accesses area for tree remarks F2 - Recalls trees out of sequence - enter tree number, <enter> choose option - tree class/path or tree measurements F3 - Remeas. - displays previous meas. data F4 - Accesses screen 114 to measure heights F5 - List of trees incompletely measured F6 - Accesses stem map screen F7 - Picklist for tree species
Tree	Tree Number	-	-	Entered automatically; change if out of sequence
D?	Delete tree?	N	Y or N	Accessed by arrowing back Y - deletes tree at establishment or ingrowth at remeas.
Spc	Species	-	-	See Appendix 3 for species symbols
Cs	Center Sector	-	C or ∅	Enter C if largest DBH in center sector. If a SIBEC sample, enter a C for the largest DBH of every species.
Ts	Tagging sector	-	1 - 16	Will remain the same until changed at establishment
Ss	Site sector	-	1 - 16	Will remain the same until changed at establishment/remeas.
D13:	DBH at 1.3m	-	-	Accessed only if chosen for sample in screen 102
D1.37	DBH at 1.37m	-	-	Accessed only if chosen for sample in screen 102
CC	Crown Class	-	1-6	If TC5 entered, CC will revert to 5 and layer to V
LC%:	Live Crown %	-	1-10	LC in 10's 10=100
TC:	Tree Class	-	1-6	TC 2, and 5 will access path screen; 3 and 4 dead tree screen
Lr	Stand Layer	∅	∅, 1,2,V	∅ assumes single layer
Ht:	Ht. (Est/Meas)	0.0	-	Accessed for estimated veteran height or for small tree height
St	Stump	N	Y/N	Accesses Screen 113 for stump measurements
NxT:	Next Tree No.	0	≥1	Appears automatically at remeasurement
Ms/Dp/F	Missed, dropped or fallen	∅	∅ ,M,D,F	Missed trees at prev. meas. or dropped at remeas. Or a tree not found and assumed fallen and dead
NrTre	Near tree No.	0	≥1	Used to identify location of ingrowth or subplot trees
ScreenOK(Y/N)	-	Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

To access stumps, Screen 102 must have a **Y** in stumps or Screen 103 must have a **Y** in selectively logged. In Screen 106, leave diameter, CC, LC and TC blank. Enter **Y** in ST for access to stump measurements in Screen 113.

Screen #107

```

<F12>      Plot#: 1
Ht Base LC Tree#  73
Prv Ht to Lv Cr   0.0
Ht to Live Crwn   6.5
Bt LvCrwn%+50 Bt%- 2
SlDist: 10.0 Sl%:  2
Corr 1.30 Ht LC   6.5
Screen OK (Y/N)? :Y
  
```

Screen Item	Meaning	Notes
<F12>	Hot Key	F1 - Accesses area for tree remarks F2 - Accesses screen for TC and Path
Plot #:1	Plot Number	Comes up automatically; check accuracy if more than one plot in sample
Ht Base LC Tree #	Tree Number	Number of tree being measured for height to live crown
Prev Ht to Lv Cr	Previous Ht to LC	Previous height to live crown, if available - at remeasurement only
Ht. to Live Crwn	Height to live crown	Enter height to live crown directly; or will calculate when all information is entered. To redo, clear Ht to live crown
Bt LvCrwn%+	Bot LC reading %	Bottom of Live Crown reading in per cent
Bot%-	Bottom reading %	Bottom reading in %. Minus (-) is the default; change to plus (+) if desired
SlDist:	Slope Distance	Slope distance in meters to one decimal place
Sl%:	Slope %	Assumed equal to bottom reading; change if not
Corr	Correction	Assumed 1.3 meters; change if not
Ht LC	Height to Live Crwn	Calculated height to live crown comes up automatically. To redo measurements, cursor to the top of screen and zero the Ht. to Live Crown
Screen OK (Y/N)?	Accept screen?	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #108

```

<F123456 PATH:Tr 109
Fk/Ck    0 Scar    0
FrostC   0 DeadTop  0
BrknTop  0 BrkHt:  0.0
Conk     0 Misltoe  0
B.Conk   0 Rot Br   0
Sweep    Lean
Screen OK (Y/N)?:Y
    
```

Screen Item	Meaning	Default	Valid	Notes
<F123456	Hot Key		Anytime	F1 - Accesses area for tree remarks F2 - Recalls tree number out of sequence - enter tree number <enter> and choose option - tree class/path or tree measurements F3 - Remeas. - displays previous meas. data F4 - Accesses screen 114 to measure heights F5 - Lists trees incompletely measured F6 - Accesses stem map screen
Fk/Ck	Fork/Crook	0	0 - 7	Must be \geq than previous at remeasurement
Scar	-	0	0 - 7	Must be \geq than previous at remeasurement
Frost C	Frost Crack	0	0 - 7	Must be \geq than previous at remeasurement
DeadTop	Dead Top	0	0 - 3	
BrknTop	Broken Top	0	Y or N	If Y , must have height to break.
Brk Ht	Ht to Break	0.0	0.1 - 99.9	Accessed only if BrknTop is " 1, 2 or 3 "
Conk	-	0	0 - 7	Must be \geq than previous at remeasurement
Mistletoe	-	0	0 - 7	Must be \geq than previous at remeasurement
B.Conk	Blind Conk	0	0 - 7	Must be \geq than previous at remeasurement
Rot Br.	Rotten Branch	0	0 - 7	Must be \geq than previous at remeasurement
Sweep	-	∅		Accessed only if ' Y ' is entered in screen #102
Lean	-	∅		As above
Screen OK(Y/N)		Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #110

```

<F1234567>DMG AGENTS
Tree# 109 Tag OK:Y
InPlot:Y Dam?(Y/N):Y
1Tp:D Agnt:SG Sv: 1
2Tp: Agnt: Sv:
PrvHt * Ht Suit?:Y
Nat/Plt: NxTree 110
Screen OK (Y/N)?:Y
    
```

Screen Item	Meaning	Default	Valid	Notes
<F123456	Hot Key	-	Anytime	F1 - Accesses area for tree remarks F2 - Recalls tree number out of sequence - enter tree number <enter> and choose option - tree class/path or tree measurements F3 - Remeas. - displays previous meas. data F4 - Accesses screen 114 to measure heights F5 - Lists trees incompletely measured F6 - Accesses stem map screen F7 - When damage is 'Y', picklist for damage agents
Tree #	Tree Number	-	1 - 9999	Must be ≥ 1
Tag OK	Is tree tag okay	Y	Y or N	N - if nail was missing (tag missing for 'M' samples)
InPlot:	Tree inside plot	Y	Y or N	N - for trees measured outside plot. ie for ages
Dam? (Y/N)	-	N	Y or N	(Y)es or (N)o
1Tp:	1 st Damage type	∅	-	If No, cursor will skip balance of screen
Agnt:	Agent	∅	-	See codes in Appendix 14 or use F7
Sv:	Severity	∅	-	See codes in Appendix 14, <ENTER> or use F7
2Tp:	2 nd Damagetype	∅	-	If No, cursor will skip balance of screen
Agnt:	Agent	∅	-	
Sv:	Severity	∅	-	
PrvHt: *	Previous Ht?			The * indicates that a previous height was taken
Ht Suit?	Suitable for Ht?	∅	Y,N,C,V,E,F	Yes, No, Could be, Very difficult, Easy, Flagged
Nat/Plt:	Natural/Planted	N	N or P	P for 'T' samples only
NxTr#	Next Tree No.		>0	Automatically at remeas., sequence at establish.
Screen OK(Y/N)		Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #111

```

<F12>
STEM MAP, PLOT:      1
Offset?             N
Tree #              101
Bearing from PC     20
Slope%              0
Slope Dist          0.80
Screen OK (Y/N)? :Y
  
```

Screen Item	Meaning	Default	Valid	Notes
<F12>	Hot Key		Anytime	F1 - Accesses area for sample remarks F2 - Lists trees not stem mapped if StemMap is Y in 103 Lists trees stem mapped if StemMap:N in Screen 103
Plot: 1	-	1	1 - 10	At reneas. 1-5, 1-10 for I, 1-3 for G & T otherwise '1'
Offset?	Offset center	-	Y or N	Read only. Determined by information on screen #123
Tree #	-	-	≥ 1	Must be ≥1
Bearing from PC	-	-	1 - 360	360 is North
Slope%	-	-	≥ 0	-
Slope Dist	-	-	-	Cannot exceed the plot radius
Screen OK(Y/N) ?		Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #112

```

<F1>
STEM MAP: PRODUCTVTY
Tree #           1
To Tree# Distance(M)
1     5           0.95
2     4           1.10
3    22           0.30
Screen OK (Y/N)?:Y
  
```

Screen Item	Meaning	Notes
<F1>	Hot Key	F1 - Accesses area for tree remarks
Tree #	Tree Number	Number of tree that is being stem mapped
To Tree #	To Tree Number	Number of tree to which the new tree is being mapped to
Distance	-	Distance between the two trees (center to center)
Screen OK	-	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #113

```

<F1256      STUMP
Tree #           1
Diameter cm     12.5
Height m        0.3
New/Old N/O     0
Screen OK (Y/N)? :Y
    
```

Screen Item	Meaning	Default	Valid	Notes
<F1256	Hot Keys	-	Anytime	F1 - Accesses area for tree remarks F2 - Recalls tree numbers out of sequence - enter number and choose option - tree class or tree measurement F5 - List of trees incompletely measured F6 - Accesses stem map screen
Tree #	No. of Stump	-	900 - 979	Use only numbers.900 to 979
Diameter cm	-	0.0	7.4-125cm	Diameter of stumps of merchantable species only
Height m	-	0.0	-	Height of stump
New/Old	-	Ø	N or O	(N)ew <10 years: (O)ld >10 years

User Notes:

Screen #114

```

<F12>      Plot#: 1
InPlt Y Ht Tree# 103
PrvHt      Ht 25.3
Top%+ 75 Bot%- 5
SlDist 30.0 Sl% 5
Ht Corr 1.30 Ht 25.3
VertDist N MeasLC? N
Screen OK (Y/N)? :Y
    
```

Screen Item	Meaning	Notes
<F12>	Hot Key	F1 - Accesses area for tree remarks F2 - Accesses screen for TC and Path
Plot #:1	Plot Number	Comes up automatically; check accuracy if more than one plot in sample
Ht Tree #	Tree Number	Number of tree being measured for height
Prev Ht	Previous Height	Previous height if available - at remeasurement only
Ht.	Height	Enter height directly; or will calculate when all information is entered. To redo height, clear Ht.
Top%+	Top reading %	Top reading in per cent
Bot%-	Bottom %	Bottom reading in per cent. Minus (-) is the default; change to plus(+) if desired
SlDist:	Slope Distance	Slope distance in meters to one decimal place
Sl%:	Slope %	Assumed equal to bottom reading; change if not
Ht Corr	Ht Correction	Assumed 1.3 meters; change if not
Ht	Total Height	Calculated height comes up automatically. To redo height measurements, cursor to the top of screen and zero the Ht.
VertDist	Vert Dist wanted	Default is N. Change to Y if vertical distance is required (Screen #119).
MeasLC?	Measure Live Crown?	Default is 'N'. Change to 'Y' if measured live crown is required (Screen #107).
Screen OK (Y/N)?	Accept screen?	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

If number of tree entered does not exist in sample, the cursor will not proceed.

Screen #115

```

<F12>   Pl  1 Tr 103
AgeCore Taken (Y/N) :N
PrvBHAge:  0 Age: 40
  New Age:  0 Pith?:Y
Bor Ht:1.30  Ri5:  9
Ri10:  9    Ri20: 15
In Plot?Y Supprs'd:N
Screen OK (Y/N)? :Y
    
```

Screen Item	Default	Notes
<F12>		F1 - Accesses area for tree remarks F2 - Accesses TC and Path screen
Pl	Current plot no.	Plot number that tree is in: change as required
Tr	Tree number	Tree number selected for age measurement: change as required
AgeCore Taken	N	<Y or N> If core taken <Y>, age need not be entered at this time
PrvBHAge	Previous BH age	At remeasurement, previous breast height age if applicable
Age	-	Current BH age
New Age	-	New age at remeasurement
Pith?:	∅	Was pith hit? Y (es), N (o) or R (otten) or E (stimate)
Bor Ht:	1.30 m	Should be and is assumed to be 1.3 m: change if not
Ri5:	0	Length of last 5 years in mm
Ri10:	0	Length of last 10 years in mm
Ri20:	0	Length of last 20 years in mm
In Plot?	Y	Is tree inside plot
Supprs'd:	N	Sign of suppression in the age core; (Y)es, (N)o, (P)ossibly Y or P will access Screen #120
Screen OK (Y/N)?	Y	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Re-entering (changing) the “New Age” will delete all the data associated with it – Pith, Ri5, Ri10, Ri20, and Supprs’d.

Screen #116

SAMPLE TREE	
1	ID Sample Trees
2	ID SmpTrees-NoCalc
3	Measure Height
4	Measure Age
Choose and <Enter>	

Screen Item	Notes
1. ID Sample Trees	Calculates species composition and systematically allows for selection and measurement of sample trees.
2. ID SmpTrees-NoCalc	- Same as above but does not calculate/recalculate species composition. - - - - Use only if no changes have been made to the data since last calculated - - - -
3. Measure Height	Accesses screen #114 for height measurements
4. Measure Age	Accesses screen #115 for age measurements
	<ul style="list-style-type: none"> • Use the 'up' and 'down' arrows to choose the desired screen and <Enter>

User Notes:

Screen #117

SAMPLE COMPOSITION				
L	SP	BA%	NT	ST
	FD	53.3	12	11
	CW	33.4	9	5
	HW	12.8	3	1
	DR	0.4	1	0
Layer , Den:		13.52		
F2=Selected; O=Order				

Screen Item	Meaning	Notes
L	Layer	- If single layer, will appear blank - If Vet layer, will display a 'V' - If double layer, will display '1' or '2'
SP	Species	
BA%	Basal Area %	Per cent basal area of the species for the layer
NT	Number of Live Trees	Total number of living trees for the species indicated
ST	Number of Suitable Trees	Number of suitable height trees for the species
QMD	Quadratic Mean Diameter	Accessed by moving the cursor to the right of the screen

Note: To take full advantage of the software, it is recommended that the following procedure be used **and only** after all trees have been measured.

Arrow **up** (↑) or **down** (↓) to access other species or layer.

1. < F2 > To access screen #142 which lists all sample trees chosen for height measurement.
2. < O > To access screen #118 to view and choose trees for height measurement. These will be listed by species and in descending order of DBH. For the first two major species, site height trees will be identified with a 'S' or 'N' if not suitable for height. The top height tree for the sample will be identified with a "T" If the top height tree is also a site height tree, it will appear as a 'B'

Return to screen #117 by < esc > once back

Repeat step '2' for each species present

User Notes:

Screen #118

ALL SAMPLE TREES:FD					
?S P Tree Ss DBH HA					
HS 1	109	6	35.7	*	
NS 1	111	8	33.4		
M 1	103	2	32.1	**	
O 1	10	7	31.2		
THt: SHt: 2 OHt: 5					
H,A,R,O,P,F2,Esc					

ALL SAMPLE TREES:FD						
?S P Tree TC CC In S						
HS 1	109	1	2	Y	Y	
NS 1	111	1	2	Y	N	
M 32.	103	2	2	Y	E	
O 31.	10	1	3	Y	F	
THt: SHt: 2 OHt: 5						
H,A,R,O,P,F2,Esc						

Screen Item	Meaning	Notes
?	Status previously assigned	- (Y)es,(N)o,(C)ould be (V)ery difficult, (E)asy and (F)lagged - (T)opHt, (S)ite Tree, (B)oth topHt and site tree, (O)ther. Changes to H, D, L, or M when measured. X means the tree was rejected for ht measurement. If SIBEC field in screen #103 was 'Y'. S if suitable, N if not
S	SIBEC tree	
P	Plot Number	-
Tree	Tree Number	-
Ss	Site Sector Number	-
DBH	DBH	-
H	Measured height	At remeasurement, an '*' will appear if the height was previously taken
A	DBH age taken	At remeasurement, an '*' will appear if the DBH age was previously taken
		<u>The following will also appear by cursoring to the right</u>
TC	Tree Class	- Will appear as 1,2, or 5 for Vets
CC	Crown Class	-Will appear as 1,2,3,4, or 5 for Vets
In	Inside/outside plot	- Tree was entered as being inside or outside plot
S	Original tree height suitability	- Yes, No, Could be, Easy, Very difficult or Flagged
THt	Top Height tree	- Number of 'top height' trees (automatically chosen by the program)
SHt	Site Height trees	- Number of 'site height' trees (automatically chosen by the program)
OH:	Other Heights	- Number of 'other height' trees selected by user for height measurement
H	Height	-Select tree for height measurement
A	Age	-Select tree for age measurement
R	Reject	- Reject tree for height measurement
O	Other Height	- Chosen as 'other height'
P	Path	- Accesses path screens
F2	Hot Key	- Toggles between Selected Trees and available trees for measurement
Esc	Escape	Escapes to Screen #117 - Sample Composition

User Notes:

Screen #119

```

<F12>      Plot#: 1
Tr# 103 Vrt Dst 25.3
Top%+ 75 Bot%- 5
SlDist 30.0 Sl% 5
Cor 1.30 VrtDst 25.3
Bearing of Lean: 10
DistPog 12.0 Sl%- 5
Screen OK (Y/N)? :Y
  
```

Screen Item	Meaning	Notes
<F12>	Hot Key	F1 - Accesses area for tree remarks F2 - Accesses screen for TC and Path
Plot #:1	Plot Number	Comes up automatically; check accuracy if more than one plot in sample
Tr#	Tree Number	Number of tree being measured
Vrt Dst	Vertical Distance	Enter vertical distance directly or will calculate when all information is entered
Top%+	Top reading %	Top reading in per cent
Bot%-	Bottom %	Bottom reading in per cent. Minus (-) is the default; change to plus(+) if desired
SlDist:	Slope Distance	Slope distance in meters to one decimal place
Sl%:	Slope %	Assumed equal to bottom reading; change if not
Cor	Correction	Assumed 1.3 meters; change if not
Vrt Dst	Vertical Distance	Calculated vertical distance comes up automatically. To redo measurements, cursor to the top of screen and zero the Vrt Dst.
Bearing of Lean	Bearing of Lean	Bearing of Lean
DistPog	-	Distance to point of germination in meters to one decimal place
Sl%	Slope %	Slope per cent
Screen OK (Y/N)?	Accept screen?	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #120

```

<F12>   Pl 1 Tr    5
          BH Age   : 75
Core Length      :107
Suppressed Age   : 35
Suppressed Lngth: 39
Suppressed 10yrs: 11
Released 10 yrs : 22
Screen OK (Y/N)? :Y
    
```

Screen Item	Meaning	Valid	Notes
<F12>	Hot Keys	Any Time	F1 - Accesses area for tree remarks F2 - Accesses screen for TC and Path
Pl	Plot Number	-	Same as plot number in screen from which it came
Tr	Tree Number	-	Same as tree number in screen from which it came
BH Age / New Age	Breast Height Age		Transferred from previous screen. BH Age at establishment, New Age at remeasurement.
Core Length	Core Length in mm	1 - 999	
Suppressed Age	-	1 - 500	
Suppressed Lngth	Suppressed Length mm	1 - 999	
Suppressed 10yrs	Length of 10yrs of suppression	1 - 200	
Released 10yrs	Length of 10yrs of release	1 - 200	
Screen OK (Y/N)		Y or N	Must be two times the suppressed length Y - returns to the Age screen #115 N - returns cursor to top of screen

User Notes:

Screen #121

<F4>			DOT COUNT	
Spc	D-0	D-1		
FD	2	3		
CW	1	2		
Blank Spc. to Delete				
Esc when Done				

Screen Item	Meaning	Default	Valid	Notes
<F4>	Hot Key	-	Anytime	F4 - Accesses tree measurements (screen 106)
Spc	Species	∅	-	See Appendix 3 for species symbols
D-0	DBH class '0'	0	-	0.30 - 1.3 metres in height
D-1	DBH class '1'	0	-	0.1 to 1.9cm in DBH
				<u>For Intensive Forestry Samples Only</u>
D-2 to D-10	DBH classes	0	-	In 2.0cm classes (2.0-3.9, 4.0-5.9,etc)
D-11	DBH class	0	-	All trees greater than 20.0cm in DBH

User Notes:

Screen #122

```

-PRODUCTIVITY SCAR--
      TREE#      1
Base      0
Mid       0
Top       0
Screen OK(Y/N)?: Y
  
```

Screen Item	Meaning	Default	Valid	Notes
Tree #	Tree No.		1 - 1000	-
Base	-	0	0 - 8	Base is from germination point to 1.3m
Mid	-	0	0 - 8	Mid is from 1.3m to the mid point on the tree
Top	-	0	0 - 8	Top from the mid point on the tree to the top
Screen OK(Y/N)	-	Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #123

```

<F1>      DATA:Pl# 1
Aspect 180 Slope% 10
Elev 400 Sl Pos M
PlotCentre OFFSET? N
Bearing to PC      0
Slope %           0
Slope Distance 0.00
Screen OK (Y/N)? :Y
    
```

Screen Item	Meaning	Default	Valid	Notes
<F1>	Hot Key	-	Anytime	Accesses area for sample remarks
Aspect	-	0	0-360	If slope is >0, then aspect must also be >0
Slope %	-	0	0 - \pm 100	If aspect is >0, then slope must also be >0
Elev	Elevation	-	1 - 2500m	Elevation in meters
Sl Pos.	Slope Position	-	-	Valid codes are C,D,F,L,M,T and U - C (rest), D (epression), F (lat), L (ower), - M (id-slope), T (oe), and U (pper-slope)
Stem Offset?	-	N	Y or N	Accessed only if screen #103 had Y for stem map. If Y , bearing and slope distance must be >0
Bearing to PC	-	0	1 - 360	Bearing from compass location to plot center
Slope %	-	0	-100 - 100	Slope from compass to plot center
Slope Dist	Distance in 'm'	0.00	1 - 9	Slope distance from compass location to plot center
Screen OK(Y/N)		Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

At remeasurement, Aspect, Slope%, Elevation and Slope Position fields are only accessible if previously blank.

Once entered and the screen is accepted, changes cannot be made.

Screen #124

<pre> <F14> SbPlot/DtC 1 Sub-Plot Rad. 5.64 Area 0.0100 BA Factr 0.000 Screen OK (Y/N)?:Y </pre>	<pre> <F1> SbPlot/DtC 1 Sub-Plot Rad. 5.64 Area 0.0100 +-S-Plot/Dot Count-+ Meas S-Plot Trees Do Dot Count +-----+ Screen OK (Y/N)?:Y </pre>
--	---

Screen Item	Meaning	Default	Valid	Notes
<F14>	Hot Keys	-	Anytime	F1 - Accesses area for sample remarks F4 - Accesses area for tree measurement
Sb-Plot/DtC	SubPlot No.	1	1-10	-Entered for establishment
Sub-plot Rad.	Sub-Plot Radius	None	-	-Present at remeasurement otherwise must be entered -Area will come up automatically -Enter BA Factor for 'S' samples only [for (I) samples an ingrowth radius comes up and must be entered]
Screen OK(Y/N)		Y	Y or N	Y - saves and prompts: - S-Plot/Dot Count box Toggle for: - Meas S-Plot trees or Do Dot Count N - returns to top of screen

User Notes:

Screen #125

```

<F137>    Dmg Agents
Compl/Partl/Blank P
BDstrb:N  Dist:  0.0
Type1:I   Type2:
DmAg1:AB  DmAg2:
DSev1: 15  DSev2:
Yr1:  0   Yr2:  0
Screen OK (Y/N)? :Y
  
```

Screen Item	Meaning	Default	Valid	Notes
<F137>	Hot Key	-	As available	F1 - Accesses area for plot remarks F3 – Only at remeas.- displays previous meas. data F7 – For pop-up screens for Types and Agents.
Compl/Partl/Blank	-	-	C,P or \emptyset	(C)omplete, (P)artial, or (\emptyset)no damage
BDstrb:	Buffer Dist	N	Y or N	Has the buffer been disturbed?
Dist:	Distance	0.0	-	Distance from plot circumference to disturbance
Type1	1 st type of damage		Various	See appendix 14 or press F7
DmAg1	1 st damage agent		Various	See appendix 14 or press F7
DSev1	Severity of 1 st agent		1 - 100	Calculated percentage of damage to sample
Yr1	Yr damage occurred	0	0 or year	Enter year if known
Type2	2 nd type of damage		Various	See appendix 14 or press F7
DmAg2	2 nd damage agent		Various	See appendix 14 or press F7
DSev2	Severity of 2 nd agent		1 – 100	Calculated percentage of damage to sample
Yr2	Yr damage occurred	0	0 or Year	Enter year if known
Screen OK (Y/N)		Y	Y or N	Y - saves and moves to next screen N - returns cursor to top of screen

User Notes:

Screen #129

```

<F12456>   Dead Tree
Tree#      4 CertCode 1
Spc   FD   CertCode 1
Vertical Position  S
Brk Top? Y BrHt   5.0
WldLfeAp 2 DownPos
DeadTree Stmp (Y/N) N
Screen OK (Y/N)? :Y
  
```

Screen Item	Meaning	Default	Valid	Notes
Tree#	Tree Number	-	-	Same as tree number in screen from which it came
CertCode	No. Certainty Code	0	1 - 3	See Appendix 22
Spc	Species	-	-	Same as tree species in screen from which it came
CertCode	Spc. Certainty Code	0	1 - 3	See Appendix 22
Vertical Position	Vertical Position	-	S or D	See Appendix 22; S only for establishment
Brk Top?	Broken Top Y/N	N	Y or N	
BrHt	Height to Break	0.0		Accessed only if Brk Top is 'Y'
WldLfeAp	WildLife Appearance	0	1 - 9	See Appendix 22
Down Pos	Down Position	-	S or G	(S)uspended or on the (G)round. Only accessible if Vertical position is ' D '
DeadTree Stmp	Dead Tree Stump?	N	Y or N	- Is the stump that of a dead tree?
Screen OK (Y/N)		Y	Y or N	Y - returns to Near Tree No. in screen 106 N - Returns cursor to top of screen

User Notes:

Screen #130

Verify Complete

1. Trees Stem Mapd?
2. Damage Agents?
3. Sample Trees
4. Trees in Sample?
5. All Trees Measd?
6. All Hghts Taken
7. All AgeCores Tkn?
8. Crown Cls BrkDwn

Screen Item	Notes
1. Trees Stem Mapd?	If the sample was stem mapped, will list trees not stem mapped. Otherwise will give a warning if less than three trees are stem mapped.
2. Damage Agents?	Checks that damage agents/severity information is entered for the sample, if at least one tree has information; or vice versa.
3. Sample Trees	Summarizes the number of height and age trees taken by species and by type - top height, site or other.
4. Trees in Sample?	Summarizes the number of trees in the sample and sub-sample. The latter will be further subdivided into dot count and others. A warning is given if there are less than 110 trees.
5. All Trees Measd?	Lists trees that have not been remeasured or have not been completely measured.
6. All Hghts Taken	Lists trees chosen for height measurement that have not been measured.
7. All AgeCores Tkn	Lists trees that do not have the age core entered as 'Y' or BHage entered.
8. Crown Cls BrkDwn	Lists number of trees and their per cent of crown class by layer.

- Use the '↑' and '↓' arrows to choose the desired screen and then <enter>
- *'Verify Complete' should be used after all measurements have been made or after any changes to the data.*

User Notes:

Screen #142

ALL SELECTED TREES				
?SPl	Tree	Ts	DBH	Sp
HS	1	102	1 30.3	FD
T	1	153	2 32.1	FD
M	1	104	2 12.2	FD
HN	1	115	3 29.8	FD
M	1	109	4 20.2	FD
H,A,R or EscTo Exit				

All SELECTED TREES					
?SPl	Tree	H	A	TC	Lyr
HS	1	102	* *	1	
T	1	103		2	
M	1	104		2	
HN	1	105	*	1	
M	1	109	* *	1	
H,A,R or EscTo Exit					

All SELECTED TREES				
?SPl	Tree	InPl	SuitH	
HS	1	102	Y	Y
T	1	103	Y	F
M	1	104	Y	Y
HN	1	105	Y	C
M	1	109	N	Y
H,A,R or EscTo Exit				

Screen Item	Meaning	Notes
?	Status	<p>S - assigned as site tree</p> <p>D - measured site tree</p> <p>T - assigned as 'top height' tree</p> <p>H - measured 'top height tree'</p> <p>B - assigned as both site and top height tree</p> <p>L - measured site and top height tree</p> <p>O - selected as 'other tree height'</p> <p>M - measured 'other tree height'</p> <p>N - Top height or site tree not suitable for height measurement</p>
S	SIBEC tree	If SIBEC field in screen #103 was 'Y'. S if suitable, N if not
Pl	Plot Number	Usually '1' but can be 1 - 10 for a multi plot sample
Tree	Tree Number	In ascending order by plot
Ts	Tagging Sector Number	-
DBH	-	- diameter at breast height
Sp	Species	-
<u>The following will appear by cursoring to the right</u>		
H	Height	An '*' will appear if height was taken at a previous measurement
A	Age	An '*' will appear if a DBH age was taken at a previous measurement
TC	Tree Class	-
Lyr	Layer	If single layer: blank or 'V': otherwise '1' or '2'
In Pl	Inside Plot ?	Y - inside the plot; N - not inside the plot
SuitH	Original height suitability	Yes, No, Could be, Easy, Very difficult or Flagged
H	Height	Will access screen #114 for measuring tree heights
A	Age	Will access screen #115 for recording tree age
R	Reject	Will remove tree from selected height tree status
Esc	Escape	Closes screen and accesses screen #117

Screen #143

```

VERIFIFY SECTORS

Plot#: 1
Highest Tag Sect: 8
Highest SiteSect: 4

Screen OK (Y/N)? Y
    
```

Screen Item	Meaning	Valid	Notes
Plot#	Plot number	1 - 10	- will show the plot number being worked on
Highest Tag Sect:	Highest tagging sector used	1 - 40	- will list the highest tagging sector number used in the plot
Highest SiteSect:	Highest site sector used	1 - 40	- will list the highest site sector number used in the plot
Screen OK (Y/N):	Is information in screen OK		N - will access tree screen #106 to correct sector numbers Y - will access the Main Menu Screen #101

User Notes:

Chapter 4: GyHost - The Host System

Introduction

GyHost is designed to be run in one of the following ways:

- Under DOS in either Real or Protected mode.
- In a Windows environment.

Running in a DOS environment

GyHost may be run in a DOS environment in either a Real Mode or Protected Mode. If you have at least 2 MBytes of RAM, **GyHost** should be used whether or not you have the capability of running in protected mode. The program will determine this and execute in the most appropriate way.

Setting up GyHost and GyHand under Windows Operating System

Introduction

While both GyHost and GyHand are DOS programs, your Windows system may be configured to run them as you would run normal Windows programs.

We will discuss the required setup procedures for Windows 98, Windows NT 4.0 and Windows XP.

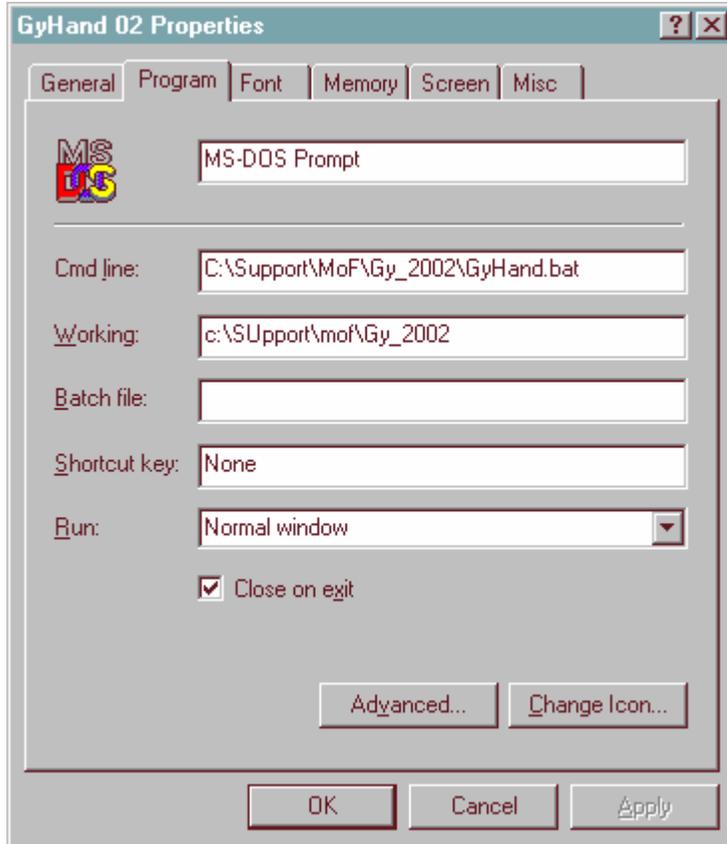
As a starting point, you should have the GyHost02 diskette which contains the complete zipped up GyHost / GyHand system or go to the TIB website to obtain the software.

Create a suitably named directory, i.e. GyHost02 and unzip GyHost02.zip into it.

Setting up under Windows 98

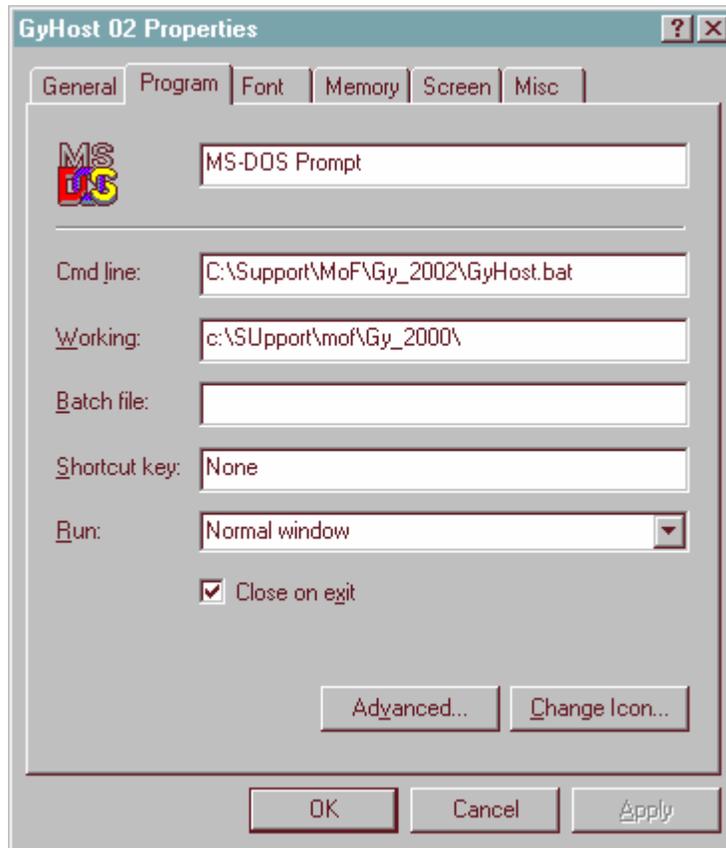
This procedure may also apply to Windows 95.

1. Clone the MS-DOS Prompt shortcut to create another copy by Right-clicking on it and selecting 'Copy' then right clicking on the desk-top and clicking 'Paste'
2. Change the title of the new copy to 'GyHand02'
3. Right-click on this new shortcut and select properties.
4. Choose the Program tab.



5. In the 'Cmd_Line:' field, enter <path>\Gy.bat where <path> is the full path of the GyHost directory.
6. In the 'Working:' field, enter <path> as above.
7. Ensure the 'Close on Exit' box is checked.
8. Apply the changes then press [OK].

- Repeat steps 1 through 8, this time cloning from the GyHand02 shortcut just created. Enter a name of GyHost02, and use 'GyHost.bat' instead of 'Gy.bat'. The <path> is the same as for GyHand.



Setting up under Windows NT 4.0

- Copy the file CONFIG.GY0 from the GyHost directory into c:\winnt\system32\.
- Using Windows NT Explorer, highlight the Gy_Host.exe entry.
- Right-click and select properties.
- Select the 'Programs' tab and press the 'Windows NT ...' button
- In the Windows NT PIF settings associated with the 'Config filename', change the contents to "%SystemRoot%\SYSTEM32\CONFIG.GY0"
- Follow the same procedure (steps 2 through 5) for the Gy_Hand.exe
- Select Start → Settings → Task Bar, select the Start Menu Programs Tab and then press the [Add] button.
- Browse for 'GyHost.bat' in your GyHost02 directory and select it.
- Press next and select the program group in which both GyHost and GyHand will be housed.
- Next enter the name which will appear on the sub-menu and press finish.
- Repeat steps 7 through 10 for Gy.bat.

12. Your Start → Programs will now contain an entry for the program group which, itself will have an entry for each of GyHost and Gy.

Setting up under Windows XP

Editing “Config.nt” file

Although the same procedures can be followed as for Windows NT 4.0 the simplest method to set the number of files is as follows:

1. Select [Start] → [Run].
2. Type [cmd] in the dialogue box, if it is not already in view.
3. At the “C Prompt” [C:\>] type “edit c:\windows\system32\config.nt” and <enter>.
4. Locate at the bottom of the screen the line where “files=200”. Change it to “files=249” or some other odd number.
5. Save the changes and exit.

Creating Icons and Program Shortcuts under Start-up Menu

To enter an Icon in the Desktop for **GYHost** do the following:

1. Select [Start] → [Programs] → [Windows Explorer].
2. Find the directory where GyHost software resides.
3. Right click the mouse on the file named GYHOST.BAT and <Copy>.
4. Go up to the top of Windows Explorer and select Desktop.
5. Right click the mouse and enter <Paste>.
6. The icon for GYHOST.BAT will now appear on the Desktop.
7. Repeat steps 1-5 for GYHAND.BAT.

To enter a shortcut under Programs do the following:

1. Select [Start] → [Programs] → [Windows Explorer].
2. Copy the file named GYHOST.BAT as above.
3. Find C:\Documents and Settings\{User Name}\Start Menu\Programs.
4. Right click the mouse to paste this file on the Programs Start Menu.
5. Repeat these steps with GYHAND.BAT.

Starting GyHost

With the current directory as GyHost, type: **GyHost<Enter>**

This will invoke the GyHost program and present the Main Menu to the user.

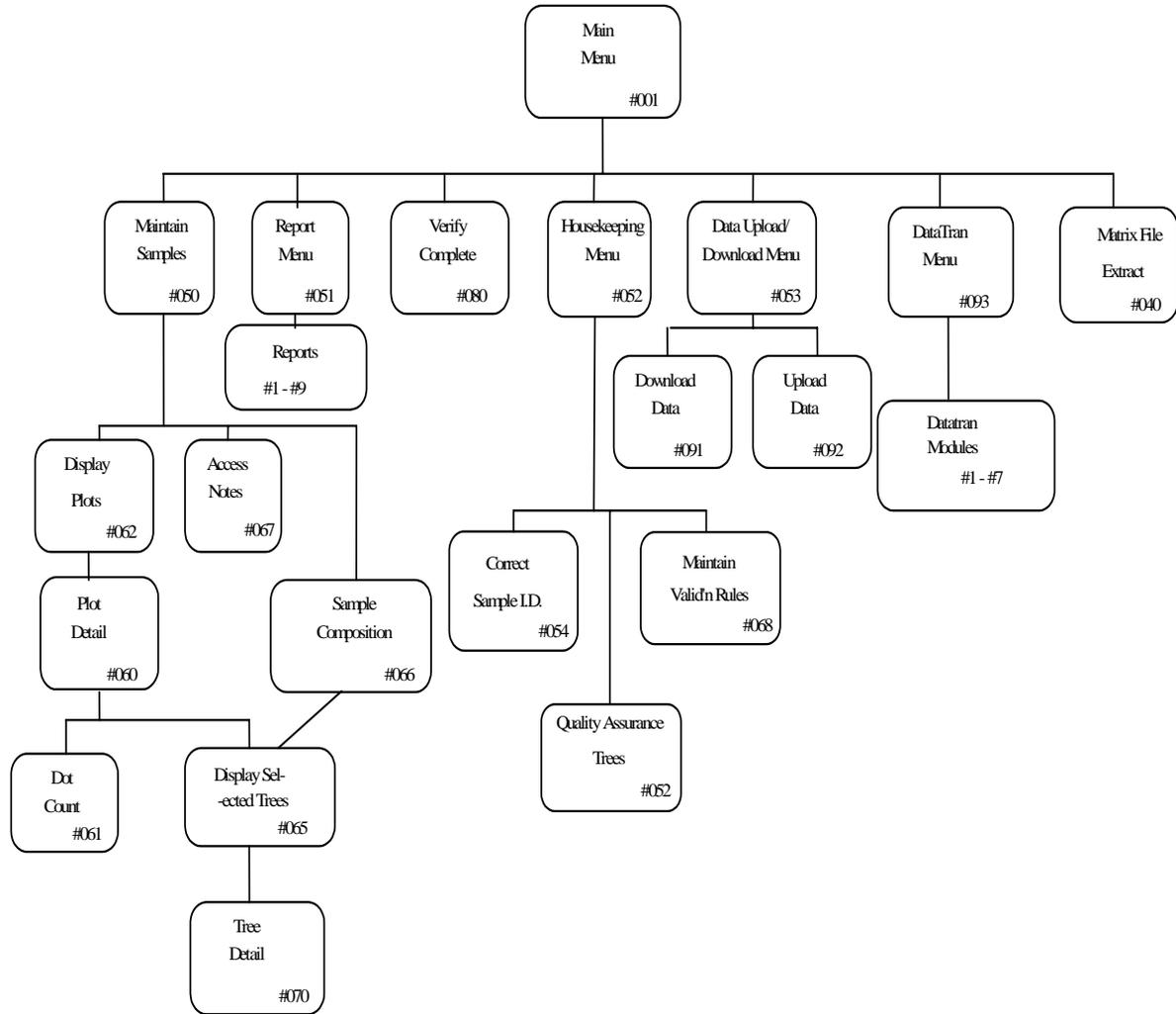
Note: The first time that GyHost is invoked a message will come up regarding the use of printers. Follow the instructions on the screen for printer and port set-up as well as skipping/retaining the message.

Multi-tasking in Windows

Running GyHost or GyHand will tie up a lot of the computer's memory. If other applications are running slower than desirable, the user can free up those resources by doing the following:

At the "Command Prompt" in the GyHost directory type an "f" after GyHost or GyHand: i.e. **C:\>Gyhost02\gyhost f <Enter>** or **gyhand f <Enter>**.

Host Screen Structure Chart
Version 2002 (02.06.01)



Screen 1. Maintain Samples

```

Data Collecting, Editing and Reporting System

Main Menu
1. Maintain Samples
2. Reports Menu
3. Verify Complete
4. Housekeeping Menu
5. PC + HandHeld Communication Menu
6. PC + Diskette 'DataTran' Transfer Menu
7. FPC Matrix File Extract
9. If you CANNOT see highlight - press 9
ESC to Return to DOS

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```

<Enter> “1. Maintain Samples” and the following screen appears requesting sample identity. By pressing <Tab> while the cursor is on Region, a list of samples in the Database appears. Cursor to the desired sample and <Enter>.

```

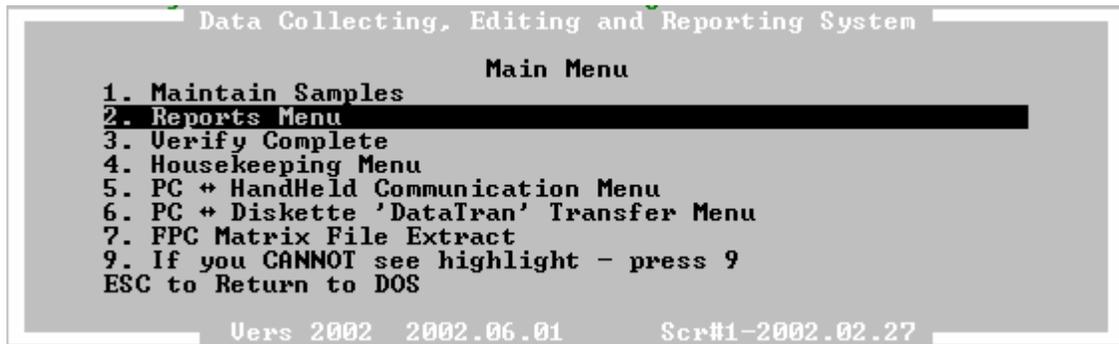
Data Collecting, Editing and Reporting System Maintain Samples
-----SAMPLE----- MEASUREMENT -----
Reg. Comp. Let Inst Sample Type No Date
55 18 0 1 G 4 2002.03.19
Screen# 50 Vers 2002 - 2002.03.16
-----SAMPLE CHARACTERISTICS----- B E C -----
Forest Reg.UAN District DCK - - -DAMAGE- - - Zone SBPS Sub-Zone dc
TSA.. 0 TFL.. 44 Complete/Partial.... P Variant. 0 U Phase.
Agency. Data Owner... SRM 1Typ D DmAgst SA Sev 30 BGC Trans (Y/N)..... N
Comp. Sample.. 1Year 0 SOIL MOIST. REGIME
Sample Estab. 1961. . 2Typ DmAgst Sev Dom SubDom Rnge -
Date of Meas..... 2002.03.19 2Year 0 SOIL NUTRIENT REGIME
Stand Struct 1 Stand Orig N DBH/HT BREAKPOINT Single Range. -
Primary Lyr. Spac Type. S Breakpoint 4.0 Site Series 1..... 1
Plant Yr. 0 Stock Age. 0 Diameter or Height D SS Phase 1.....
Special Site I 0.0 SIBEC N - - - MAPPING - - - SS1 Proport of Plot 10
Special Program.. N L/S. N NAD 83 UTM: Zone 10 - SILVI. TREATMENT -
Selective Logged (Y/N).... N TpE: 0 TpN: 0 Type Date
Stem Mapped (Y/N)..... N SaE:500730 SaN:5870441 . .
Samp Method. Samp Stat. A BCGS Map No 093B096 . .
- CROWN CLOSURE - Poly# 498 Openg# 0 . .
Lyr Grnd Air SPHa Flgt# 2842 Photo# 101 Buffer Disturbance. N
1 30 0 0 Contractor L,L & R Disturb Distance 0.0
2/U 0 0 0 Field Crew Louise Suit for Remeasure Y
(E)dit Sample; (P)lot; (S)tand Composition; (A)ccess Notes or ESC to Exit:

```

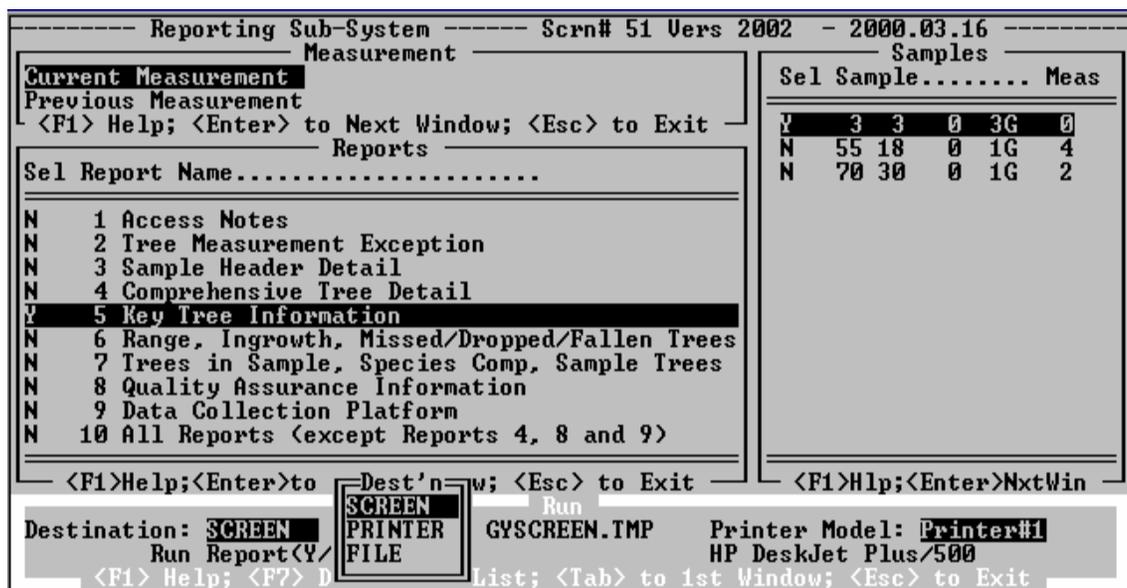
Once the sample identity is entered, the user can edit the sample header data by pressing:

- (E)dit
- or
- view (P)lot and (T)ree attributes or (D)ot count information
- or
- (S)ample composition followed by viewing the (T)ree attributes as in above
- or
- enter or edit the (A)ccess Notes.

Screen 2. Reports Menu



<Enter> “**2. Reports Menu**” to view the data in one of the ten predetermined report formats. These reports are intended to aid in determining the quality of data collected. Data cannot be edited in these reports.



Having selected the Reports Menu from the Main Menu the user is then given the option of selecting the (C)urrent or (P)revious Measurement, of one or more samples, one or more reports and destination as (P)rinter, (S)creen, or (F)ile.

- 1. Access Notes Report** - Describes the route to the permanent sample.
- 2. Remeasurement Exception Report** - This report displays the most important collected variables that were beyond the edit range. Values outside this range are identified by an *. The system checks for tagging sector, species, dbh, tree class, crown class, and height.
- 3. Sample Header Detail Report** - This report displays sample header data, and dot count information.

4. **Comprehensive Tree Detail Report** - This report displays all the tree data for each tree in the sample
5. **Key Tree Information Report** - This report displays the key tree data for each tree in the sample plus a minor amount of header data. This report may be used in the field as a hard copy.

Glossary of Headings for Report # 5

L Y	Layer number
S u	Height suitability
Ms No	Measurement number
Tree No	Tree tag number
Sector Cs Ts Ss	Sectors Center sector Tagging sector Site sector
Sp	Tree species
DBH 1.3M	Diameter at 1.3 meters
Dia 1.37M	Diameter at 1.37 meters
TC	Tree class
- Path - f s c d b c m b r	Pathological indicators Fork Scar Frost crack Dead top Broken top (Ht to Brk shown under dead tree) Conk Mistletoe Blind conk Rotten branch
C C	Crown class
LC% Est Msd	Live crown as a per cent of the total tree height Estimated in 10's Actual to 0.1m
Ht	Tree height in meters
S t	Status and type of the height
BH Age	Breast height age
S ?	Suppressed?

Sw	Sweep
Ln	Lean
OP	Outside plot
DmAg1 Tag Sv	Most damaging agent Type and agent codes. May be blank Severity
DmAg2 Tag Sv	Second most damaging agent Type and agent codes. May be blank Severity
Near Tree	Near tree number
Miss Dr/F	Missed at previous measurement Dropped at this measurement/not found; assumed fallen and dead
Dead Tree S/D Brk Top Ht Brk Wl Ap Cert T# Cert Sp	Standing or down Broken top? Height to break Wild Life Appearance Tree number certainty code Species certainty code

6. **Tree Range, Ingrowth, Missed/Out of Plot Trees Report** - This report displays the range of tree numbers used in the sample and should be used to avoid duplicating tree numbers. It also displays ingrowth trees larger than 15 cm, trees suspected of being missed at previous measurement(s), trees to be dropped because they were found to be outside the plot boundary at remeasurement, and information on dead trees.
7. **Trees/Sample, Species Composition, Sample Tree Report** - This report displays the number of trees (by species) in the sample and sub-sample with the diameter ranges. It also displays the number of height sample trees taken and their range of diameters by species. This report aids in determining if the correct number and correct range of trees were measured for height. This report also displays the sample trees in detail.

Glossary of Headings for Report #7 (Height Sample Trees)

P1	Plot number
Sp	Species
Tree	Tree tag number
S u	Height suitability
DBH	Diameter at 1.3m
Hght CurP	Current height in meters. An * under the P indicates a height taken at previous measurement
S T	Status and type of height
BHAge CurPS	Current age. If previous measurement exists, it is incremented and has an * under the P. The letters under the S indicates suppression.

New Age	Age taken at this measurement
A C	Age core taken?
SI	Site index
C s	If SIBEC plot, shows SIBEC trees as S or Not suitable
T s	Tagging sector number
S s	Site sector number
- Path - f s c d b c m	Pathological indicators Fork Scar Frost crack Dead top Broken top Conk Mistletoe
HtB	Height to break
Ln	Lean
Sw	Sweep
OP	Outside plot
RadInc 5 10 20	Radial increment in mm for: 5 years 10 years 20 years

8. **Quality Assurance Information Report** - This report displays randomly chosen trees for the purpose of field checks.
9. **Data Collection Platform Report** - This report displays the number of trees and the platform (HH or PC) where the trees were last modified.
10. **All Reports (except Reports 4, 8, 9)** - Select this option to print all reports of one sample or all reports of all samples in the database.

Configuring a Network Printer

Introduction

GyHost02 permits users to print reports to one of two locally connected printers as well as a network connected printer.

The Reports selection screen has a field in which the user can select to which of the attached printers the report(s) should be directed. Local ports will only appear if they have a printer attached to them. The network port will only appear if the appropriate port mapping is done before entering GyHost.

Mapping the Network Port:

MS-DOS processes running under Windows 95/98 and NT 4.0 allow for up to 3 parallel (or printer) ports. As a matter of convenience, GyHost assumes that ports LPT1 and LPT2 may have locally connected printers and LPT3 (referred to as 'Net3' in GyHost) may have a network-attached printer.

The use of LPT1 and LPT2 needs no explanation except to say that only ports with 'ready' printers will be selectable.

The use of Net3 will only be possible if the following mapping is done immediately before Gy_Host.exe is invoked. A convenient place to insert the mapping command is in GyHost.bat – the batch file that invokes Gy_Host.exe.

In GyHost.bat you will see the following lines:

```
rem net use lpt3 \\<ServerID>\<PrinterName>
gy_host %1, 199
rem net use lpt3 /delete
```

You will notice that the 'net use ...' commands have been remarked out with the 'rem ' prefix.

The first 'net use ...' is the enabling command, the second (appearing following the 'Gy_Host ...' line) is the disabling command.

Alternatively, you can enhance your enabling 'net use' line to give it a limited lifetime. In this case you will not need the 'net use .../delete' following the 'Gy_Host ...' line.

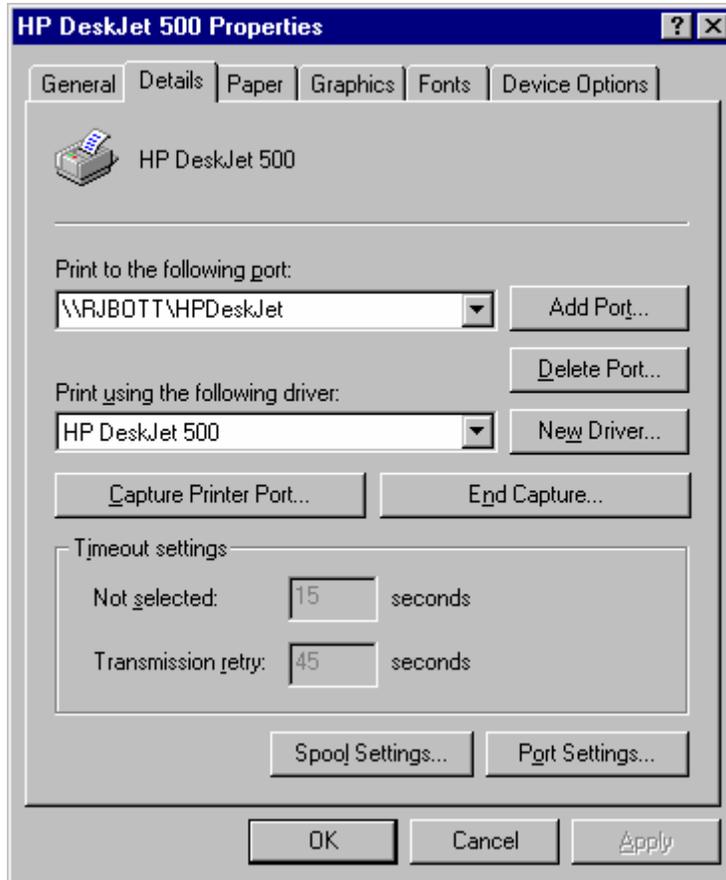
If you are connecting to a remote printer through a printer server, you will need to remove these 'rem ' characters and replace the <Server ID> and the <Printer ID> with ID's suitable for your print server.

See the discussion on the following page. If these steps do not reveal your remote printer ID's, consult your network administrator.

Under Windows 95/98:

To determine the Server and Printer ID, do the following:-

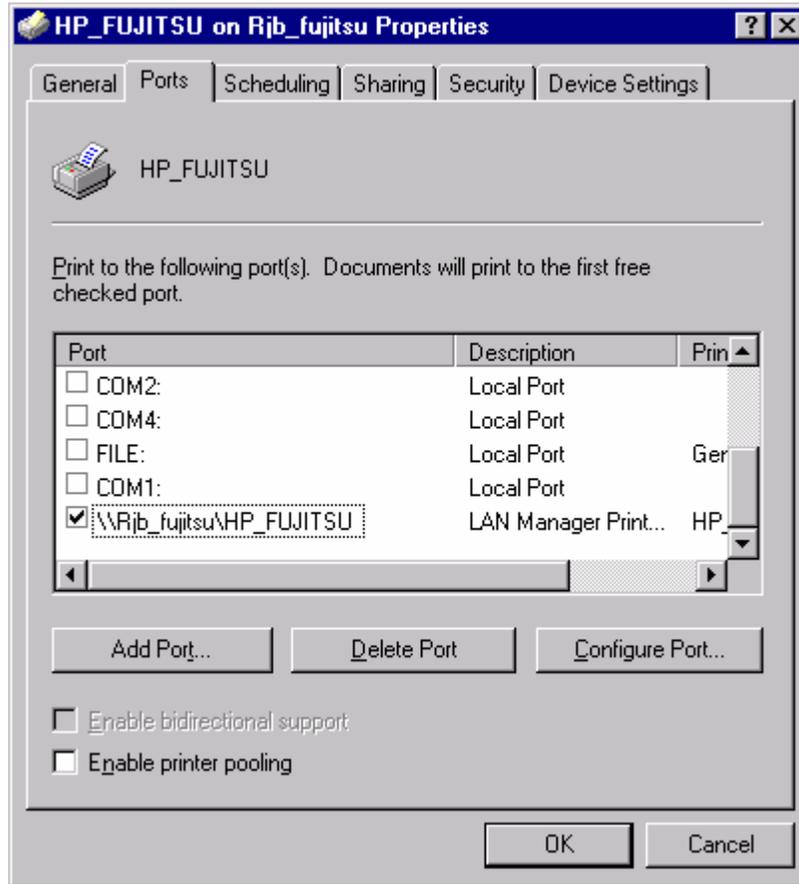
1. Select Start → Settings → Printers
2. Right-click on your network printer and select → Properties.
3. Choose the Details tab and note the contents of the 'Print to the following port:' box as shown below:



The Server ID is contained between the '\\\' and the single '\', the Printer ID is contained after the single \'.

Under Windows NT:

1. Select Start → Settings → Printers
2. Right-click on your network printer and select → Ports.
3. Locate your network printer – it will be towards the end of the list and will be checked as shown below.
4. Note the Server and Printer ID's.



You may need to make the 'Port' column wider to be able to see the whole Server and Printer ID. You can do this by dragging the column separator following 'Port' to the right.

Under Windows XP:

1. Select Start → Settings → Printers and Faxes.
2. Right-click on your network printer and select → Properties and Ports.
3. Locate your network printer – it will be towards the end of the list and will be checked as shown below.
4. Note the Server and Printer ID's.

Printing Reports on Unsupported Printers

Introduction:

The GyHost system uses the R&R report writer to produce the reports included under the “Reports Menu” GyHost main menu selection

The supported printers that you may select are as follows:

1. HP DeskJet Plus/500
2. Canon BJ-300/330 (IBM Mode)
3. Epson EX, FX High-Speed Draft
4. Centronix 351/352/353
5. HP LaserJet (Original)
6. IBM/Lexmark PPSII 2380/2381
7. Custom Printer Configuration
8. Print to File Configuration

Option 8 should be used when producing reports to a file (to be discussed later).

Note: If you are using a Universal Serial Bus (USB) connected printer, you must use Option 8 - Print to File Configuration.

Options 1 through 6 above are for the indicated printers, but it is possible that one of these may match a printer not included in the list. Option 1 has worked on several printers including the Lexmark Optra S1255.

If the printer you are using does not appear in the above list, use option 7 – Custom Printer Configuration to access the R&R Configuration Manager as shown below.

```
R&R Configuration Manager MENU
Select type

Printer 1 type: HP DeskJet Plus/Desk
Name: HP DeskJet Plus/Desk
Printer 2 type: Canon BJ-300/BJ-330
Name: Canon BJ-300/BJ-330
Printer 3 type: Epson EX,FX,JX,LX,RX
Name: Epson EX,FX,JX,LX,RX
Printer 4 type: Centronics 351/352/3
Name: Centronics 351/352/3
Printer 5 type: HP LaserJet (Original)
Name: HP LaserJet (Original)
Printer 6 type: IBM/Lexmark PPSII 23
Name: IBM/Lexmark PPSII 23
Printer 7 type: CUSTOM
Name: Custom Configuration
Printer 8 type: CUSTOM
Name: Print to File Config

HP DeskJet Plus/DeskJet 500
HP LaserJet (Original)
HP LaserJet +
HP LaserJet 2000
HP LaserJet 4
HP LaserJet 500+
HP LaserJet II
HP LaserJet II D Duplex
HP LaserJet II D Simplex
HP LaserJet II P
HP LaserJet III
HP LaserJet III D Duplex
HP LaserJet III D Simplex
HP LaserJet III Si Duplex
HP LaserJet III Si Simplex
HP LaserJet III Si Standard
HP PaintJet
HP ThinkJet
```

Select printer and <enter>



<esc> and <esc> again

Cursor to **Save** and <enter>

Cursor to **Quit** and <enter>

Cursor to **Exit** and <enter> This will take you back to the Reporting Sub-System screen.

Printing Reports from GyHost using MS Word

If none of the printer models listed above work with the connected printer, the reports may be printed using MS Word. This process involves using GyHost to produce the reports to a file using Option 8 - Print to File Configuration, then using MS Word to open the reports, set up the page size and font and finally print them.

In the Reports screen of GyHost, select the "Destination" as FILE, enter a "FileName" (you may leave this as "GYREPORT.TMP") and ensure the "Printer Model" is Printer#8. This will write the report to the file GYREPORT.TMP in the directory in which GyHost is installed.

Before starting up MS Word, it is a good idea to shut down GyHost. Under most Windows operating systems, the GyHost and GyHand programs monopolize CPU resources resulting in other Windows programs running much slower.

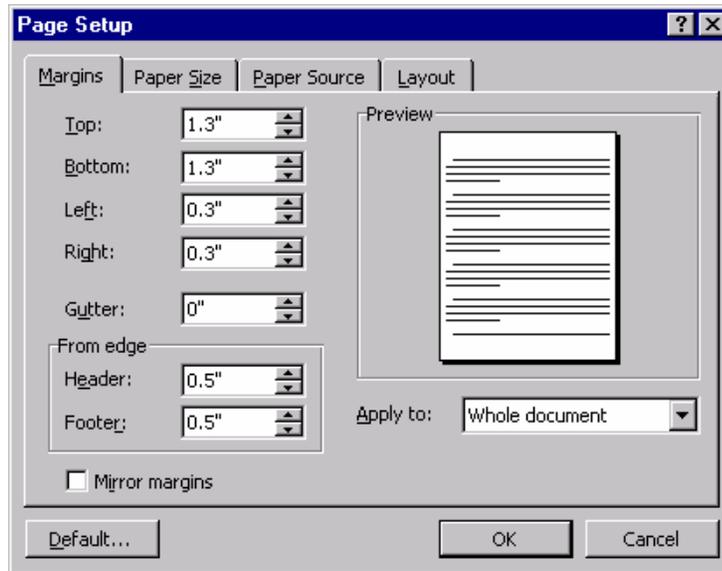
Using MS Word, open the file "GYREPORT.TMP" in the appropriate directory.

The pagination is incorrect – the page breaks do not line up with the report pages. This can easily be resolved by doing the following:

Page Setup

Choose File → Page Setup.

Selecting the Margins tab, and set the values as follows:

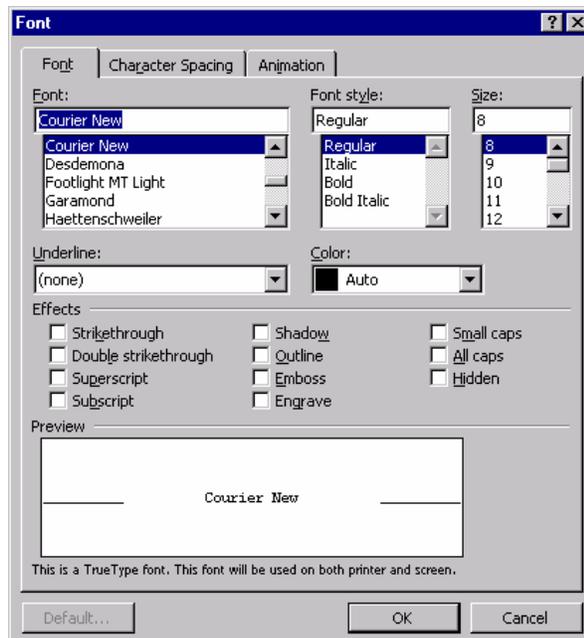


Also, select the Paper Size tab and ensure: the Paper Size is "Letter"; the Width is 8.5"; the Height is 11"; and, the Orientation is Portrait.

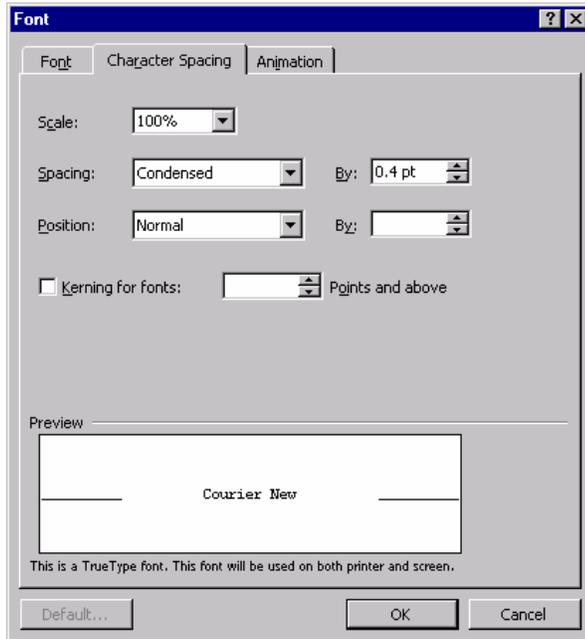
Font Selection

Choose Format → Style → Modify → Format → Font”.

Selecting the Font tab, set the values as follows:



Selecting the Character Spacing tab, set the values as follows:



Printing Reports:

Pagination may be verified by selecting the browse by page option at the bottom of the vertical scroll bar and then pressing the 'previous page' and 'next page' double arrow up and down buttons. You should see the report move from one page to the next retaining exactly 3 blank line at the top of each page.

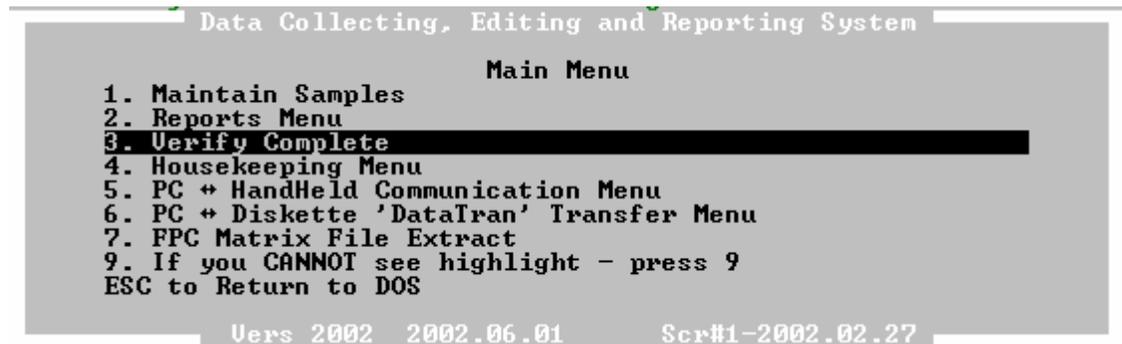
If you do not see this, ensure that you do not have any lines wrapping to the next in one or more of the reports. Report #5 is likely to be the biggest offender here – it has the most characters on a line. If you do see line wrap, either decrease the left and/or right margins in the page setup or increase the character condensation to .4 or more in the Font Character Spacing screen.

When the setup is correct, you may print the reports in the same way you normally print documents from MS Word.

If you wish to retain the reports in this customized format, save them as a .DOC file.

For those wishing to print Report 8 through MS Word, you will need a different Page Setup. Change the "Top" and "Bottom" to 1" and the "Orientation" to Landscape. Notice the Top and Bottom margins are now 1". For these reasons, Report 8 cannot be easily formatted in the same file as the other reports – it is easier to produce it to a separate file and use the format indicated above.

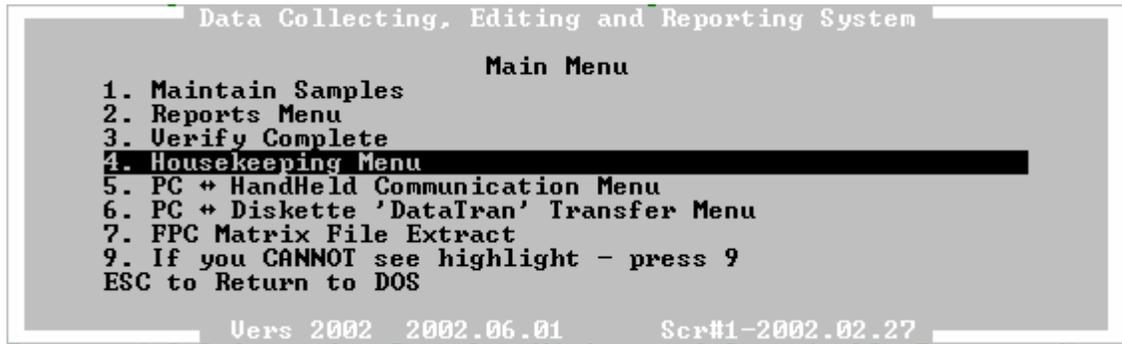
Screen 3. Verify Complete



<Enter> “**3. Verify Complete**”. This option will allow the user to choose any or all of the eight Verify Complete Reports for one sample or all samples in the database with the destination to printer, file or screen.

- 1. Trees Stem Mapped?** - This report checks that either three living trees per plot were stem mapped (stem mapped to the centre stake) or all trees in the sample (if the stem map code is “Y”).
- 2. Damage Agents OK?** - This report checks that if damage agents were recorded for one or more trees in the sample, that the header also contains damage agents data and vice versa.
- 3. Sample Trees** - This report lists the species composition and the number of site height trees and other trees measured for height and age as well as the top height tree.
- 4. Trees in Sample?** - This report provides a summary of the number of trees in the sample (i.e. plot, sub-plot, and dot count).
- 5. All Trees Measured?** - This report provides a list of trees not completely measured for the new measurement or at establishment.
- 6. All Heights Taken?** - This report provides a list of trees chosen for height measurement but not done.
- 7. All Cores Taken?** – This report checks that the top height tree and all site trees have an age or a ‘Y’ entered in the age core taken in Screen #115.
- 8. Crown Class BreakDown** – This report provides the break down in number of trees and per cent of crown classes by layer.
- 9. All of the Above** - This option allows the user to report on all of the verify complete reports for one sample or for all samples in the database.

Screen 4. Housekeeping Menu



<Enter> “**4. Housekeeping Menu**” The housekeeping menu allows three types of functions:

1. **Correct Sample ID** - This function allows the user to change (at establishment only) the Reg., Compt., Let., Inst., Sample number. **The sample type cannot be changed.**
2. **Maintain Validity Checks** - This function allows viewing or modification of the validation rules and warning messages. Note that this function is only available to the Branch.
3. **Quality Assurance Trees** - This function allows viewing and modification of number of trees used for quality assurance.

Screen 5. P.C. - HandHeld Communication Menu



<Enter> “5. PC ↔ HandHeld Communication Menu”. This will give the user two options:

- Download Sample Data to Hand Held
- Upload Sample Data from Hand Held

Download Sample Data to Handheld

<Enter> “1. DownLoad Sample Data to HandHeld”.

- Screen #91 will show all the samples that are present in Sample.dbf in the GyHost directory, one on each line. If there are more than can fit in the window, they can be accessed with the cursor keys. A warning message advises that, if the download process is completed, all the application files currently resident on the HandHeld computer will be overwritten. **It is therefore important to ensure that all previously entered data on the HandHeld computer that is to be retained is uploaded prior to this DownLoad operation.**
- Those samples that are required to be downloaded must now be identified. This is done by moving the cursor up and down the list of samples and changing the Extract(Y/N) value from 'N' to 'Y'. It can be changed back to 'N' during this operation if a mistake is made.
- When all required samples have been selected, press <Esc>. This will terminate the selection process.

```
OkTo Continue and Extract Selected Samples?(Y/N)
```

- The prompt 'Ok To Continue and Extract Selected Samples?(Y/N)' shows. Pressing 'Y' will continue the download process by extracting all the relevant records from the application databases for the selected samples. Pressing 'N' will, prompt the command 'Choose HandHeld Device' menu.

- When the extract process is complete, the program asks 'OkTo Copy new version of HandHeld Program? (Y/N)'. **<Y> should only be needed once at the beginning of the Field Season.**
- When GyHost has assembled all the data to download, it presents a menu asking the user to select a HandHeld Device - Ministry HandHeld or any other.

Downloading to the Ministry HandHeld Computer

- A set-up screen is presented to the user. The instructions presented here should be followed. They start with ensuring that the HandHeld is physically **connected from** either COM1 or COM2 on the host PC to the left-hand connector on the Husky. The user should follow the instructions given on the GyHost screen by entering the commands into the HandHeld. Before 'Y' is pressed to signal the setup is complete, the user should see the 'HCOM' screen on the HandHeld showing the logo.
- When 'Y' is pressed on GyHost, a selection box is presented. This asks the user to confirm/change communication parameters. Changing parameters should not normally be necessary after the initial setup. If changes are required, pressing <Tab> will present a picklist from which a suitable value can be selected by cursoring to it and pressing <Enter>. The initial value can be retained by escaping from this picklist. When 'Y' is entered for 'Save&Exit' the communication program takes over.

The communications program shows the following on a fresh screen:

```
Husky Command Line FileTransfer Utility Version1.05
(c) Copyright Husky Computers Ltd. December 1992.
```

- If a communications error occurred, a screen similar to that shown below will be displayed:

```
Husky Command Line File Transfer Utility Version 1.05
(C) Copyright Husky Computers Ltd. December 1992.

ERROR: Could not connect to handheld.
ECHO is off
A problem has occurred...
No remote attached - please check connection.
ECHO is off

Review Communications...
(R)etry the whole procedure if error(s) occurred, K_ENTER if all OK
```

If (R)etry is attempted, communications is retried. If anything else is entered, the communications process is exited.

- Text will show on the screen to show the user the progress of the transmission. It will end with a report of the free disk space on the HandHeld PC drive C:. The message

'Review Communications and Continue'
'(R)etry, or anything else to proceed'

will show regardless as to whether communication was successful or not. If communication could not be established with the HandHeld or a communication error occurred, press 'R' to retry communications. If all is well press anything else.

Downloading to Any Other HandHeld Computers

Selecting this option causes GyHost to shell out to DOS with the current directory being HandHeld under the GyHost directory. All the files to be transferred to the HandHeld computer are contained in this directory.

Using whatever software is supplied with the particular HandHeld computer, all the files in the HandHeld directory are transmitted to the HandHeld.

When this activity is complete and the DOS prompt shows, type: EXIT<Enter>

This will return the PC to the GyHost system.

Upon completion of the communication sub-system, GyHost returns to the 'UpLoad/DownLoad' Menu at which point the user may <Esc> back to the main menu. In certain cases, upon returning to the main menu, the databases are re-opened. This will show on the screen and is a normal process.

Using the GyHand System

With the current directory as GY, type the following to start the GyHand: GY<Enter>

This will invoke the GyHand program and present the Main Menu to the user.

Refer to the GyHand User's Manual for instructions on how to use GyHand.

Bear in mind the following points when using the GyHand system:

- GyHand automatically re-indexes the databases following UpLoad and/or DownLoad to/from the Host PC so the user does not have to be concerned with this. However, if the user wishes to ensure the databases are correctly sequenced:
Type: GY REINDEX <Enter>
- The batch file for executing GyHand is GY.BAT. Following the running of GyHand, the batch file deletes all files that have no extension (i.e. ABCDEF.). This precautionary step means that the user must not rely on any user files with no extension being retained in the GY directory.
- It may be required to remove all the samples in the GY directory. To do this, invoke the program as follows:
GyHand PURGE<Enter>
{Caution this will erase all samples from the HandHeld PC}
- When GyHand is invoked with GY, the screen will show the databases being opened and/or re-indexed. If this is not fully visible, or, if some of the menu appears to be off the top of the screen, it can be brought down by holding the paw key and <↓> until the top line of the menu is visible.

Upload Sample Data to Handheld

<Enter> “2. UpLoad Sample Data to HandHeld”.

The user is presented with a menu asking to select a HandHeld device - Ministry HandHeld or any other.

Uploading from the Ministry HandHeld Computer

- A set-up screen is presented to the user. The instructions presented here should be followed. They start with ensuring that the HandHeld is physically connected from either COM1 or COM2 on the host PC to the left-hand connector on the Husky. The user should follow the instructions given on the GyHost screen by entering the commands into the HandHeld. Before 'Y' is pressed to signal the setup is complete, the user should see the 'HCOM' screen on the HandHeld showing the logo.
- When 'Y' is pressed on GyHost, a selection box is presented. This asks the user to confirm/change communication parameters. Changing parameters should not normally be necessary after the initial setup. If changes are required, <Tab> will present a picklist from which a suitable value can be selected by cursoring to it and <Enter>. The initial value can be retained by escaping from this picklist. When 'Y' is entered for 'Save&Exit' the communication program takes over. The following is shown on a fresh screen:

```
Husky Command Line FileTransfer Utility Version1.05  
(c) Copyright Husky Computers Ltd. December 1992.
```

- If communication fails during the UpLoad, text similar to that shown below will appear:

```
Husky Command Line File Transfer Utility Version 1.05  
(C) Copyright Husky Computers Ltd. December 1992.  
  
ERROR: Could not connect to handheld.  
ECHO is off  
A problem has occurred...  
No remote attached - please check connection.  
ECHO is off
```

- At this point, the upload can be (R)etried for the same module, or the whole upload process can be aborted with <Esc>.
- Text on the screen to will show the user the progress of the transmission. It will end with a report of the free disk space on the HandHeld PC drive C:. The message

```

|
|
|Review Communications
|
|(R)etry the whole File Upload Procedure, or anything else to
proceed|
|_____|

```

will show regardless as to whether communication was successful or not. If communication could not be established with the HandHeld or a communication error occurred, press 'R' to retry communications. If all is well, press anything else.

Uploading from any Other HandHeld Computers

The 'Any Other' option is selected by cursoring to that option in the list and <Enter>.

This causes GyHost to shell out to DOS with the current directory being HandHeld under the GyHost directory. This directory is empty.

Using whatever software is supplied with the particular HandHeld computer, the following files are transferred from the HandHeld to the HandHeld directory:

- *.DBF All Files with the .dbf extension
- *. All Files with no extension

When this activity is complete and the DOS prompt shows, type:
EXIT <Enter>

This will return the PC to the GyHost system.

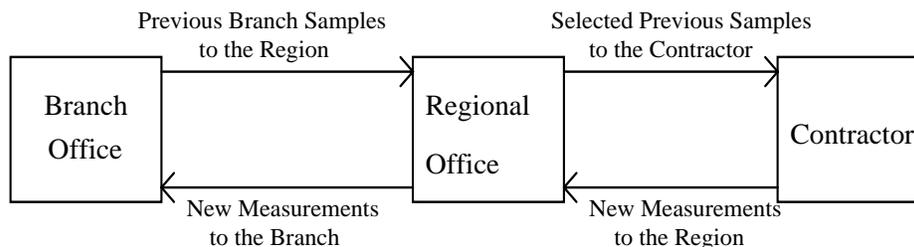
Screen 6. PC - Diskette 'DataTran' Transfer Menu



Features of the Sub-System

The DataTran sub-system provides the mechanism for transferring samples between Hard Drive directories and between a Hard Drive directory and a diskette, displaying the contents of directories or diskettes, and deleting samples in the host directory on the Hard Drive.

When Samples are transmitted between the Branch and the Regions, and the Regions and individual contractors, they are contained on a diskette. The following diagram illustrates the movement of data among these three groups.



DataTran provides the mechanisms to achieve the above movement as well as facilities to assist the organization of the data within a users area of responsibility.

The Branch office creates the initial diskettes containing the previous measurements outside of the scope of this system. This data may, however, be processed at the Branch to distribute the samples among the various regional offices. This processing will be identical to that used at the regional offices to distribute the data among the contractors and will be described in that context later. Similarly, the diskettes received by the Branch office from the regional offices may be processed to review and/or consolidate the data and this process will be described in the context of the regional offices receiving the diskette(s) from the contractors for consolidation and/or reporting.

The Branch office will send to each regional office, diskettes containing the data for that region. The regional office will use the Import Previous Measurements DataTran facility to bring these data into his/her computer.

The regional office will transfer to a holding directory, one for each contractor, the samples to be re measured for that contractor. The Transfer Samples option from the DataTran menu will be used for this. Individual diskettes, one for each contractor, can be created directly from these holding directories using the 'Export Previous Measurements' option from the DataTran menu. The regional office will send this new previous samples diskette to the contractor.

The contractor will, upon receiving the 'previous samples' diskette, load it into his/her system using the 'Import Previous Measurements' DataTran option.

When the contractor has completed the measurements or re measurements, the 'Export New Measurements' DataTran option is used to create a diskette to return to the regional office.

The regional office uses the 'Reload Samples' option to load these new measurements into previously created sub-directories. The 'Transfer Samples' option is used to move these samples into the GyHost directory to enable the regional staff to review the new measurement data. If the data is incomplete, the regional office can use the 'Export New Measurements' DataTran option to put the samples onto a diskette and return them to the contractor. The previous measurements could be put onto a different diskette using the 'Export Previous Measurements' option as discussed above.

The regional office can use the 'Transfer Samples' facility to move all of his/her contractor's sample measurements into one directory and then use the 'Export New Measurements' DataTran option to put these on a diskette to be sent to the Branch office.

When this diskette is received at the Branch office, further consolidation can take place, before passing the resulting diskette out of this system to be input into the Ministry database.

Structure of Data on the Hard Drive and Diskette

With certain exceptions in versions 2K and later, data on the user's Hard Drive will have a database structure (.dbf and .ntx files) while ALL data on diskettes will have a flat file format. The exception is that it is now possible to export data to a dataset on a hard drive directory. This will enable a large set of samples to be assembled for emailing (possibly a zipped version).

In the same way, samples may be imported from Flat Files on the hard drive.

DataTran will ensure that the above convention is maintained.

All database files on the Hard Drive are standard Clipper/dBASE structure with the accompanying index files (.ntx suffix).

The flat files will have a structure similar to their related database files, but without the database header or any field delimiters. Fields are fixed length character format according to the definition in the databases, and each record is delimited with a carriage return (ASCII 13).

<Enter> **“6. PC<>Diskette ‘DataTran’ Transfer Menu”**. The Transfer Menu allows seven options:

1. 'Import Previous Measurements From FlatFile To HardDrive'

- This menu item is selected when it is required to copy previous measurements into the system. This is required when the Regional office is importing the previous measurements from the Branch office or when a contractor is importing the previous measurements for his/her particular samples from the Regional office. During the execution of this option, ALL previous measurements for each selected sample are deleted and ALL new measurements are replaced.
- Next, the user is requested to insert the Original Branch Diskette as follows:
- When the diskette containing the previous measurements has been inserted and any key pressed, the user is asked to specify from where the previous data is coming and to where it is to be copied:
- The source diskette drive letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible drives. In this second case, the appropriate drive is selected by cursoring to it and <Enter> is pressed to select it. Whichever way the drive is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.
- The source directory on the diskette containing the previous measurement dataset is next requested. It can be entered by first pressing <\> followed by the path containing the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous measurement dataset. The user can cursor to the appropriate

directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required.

- The destination hard drive or partition letter is requested. It can be entered or <Tab> can be pressed to pop up a picklist of all possible hard drive/partitions available. The user cursor to the appropriate one and selects it with <Enter>. Whichever way the hard drive/partition is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
- The destination directory on the hard drive/partition selected above which is to receive the previous measurements is next requested. It can be entered by first pressing <\> followed by the path defining the directory. <Tab> can be pressed to show a picklist of all possible directories on the particular hard drive/partition. The user can cursor to the required selection and select it with <Enter>. Whichever way the directory is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
- The chosen selections are shown in the information window titled 'Source and Destination'.
- Following the selection of the source and destination drives and directories, the samples in the marker file (PspMeas.???) from the source drive-directory are shown in the 'Select Samples to Import' browse window. By default, all samples showing are set to (Y)es for copying. If any are NOT required, they can be de-selected by entering (N)o instead of (Y)es. The cursor up and down keys are used to navigate among the displayed samples. <Enter> will terminate the de-selection process.
- The program will now create temporary files from the flat diskette files in a temporary sub-directory TempDT. After this, it will import the selected samples into the destination drive/directory from the temporary databases. The user is kept informed of progress as these functions execute.
- Upon completion of the above, the program reverts to the DataTran menu.

At any point in the above process where user input is required, <Esc> can be pressed. The effect of this is in most cases, to return to the previous user input screen where information can be changed.

2. 'Export Previous Measurements From HardDrive To FlatFile

This menu item is selected when it is required to copy previous measurement data from the Hard Drive to a diskette. This is required when the Branch Office is exporting particular previous measurements to the Regional Offices or when a Regional Office is exporting particular previous measurements to the Contractor.

- Next the user is requested to identify the drive and directory containing the previous measurements to be re-exported.
- The source hard drive or partition letter is requested. It can be entered or <Tab> can be pressed to pop up a picklist of all possible hard drive/partitions available. The user cursor to the appropriate one and selects it with <Enter>. Whichever way the hard drive/partition is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
- The source directory on the hard drive/partition selected above which contains the previous measurements is next requested. It can be entered by first pressing <\> followed by the path defining the directory. Alternatively, <Tab> can be pressed to show a picklist of all directories that contain the PspMeas.dbf marker file on the particular hard drive/partition. The user can cursor to the required selection and select it with <Enter>. Whichever way the directory is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
- The above selections are shown in the information window titled 'Source and Destination'.
- Following the selection of the source drive and directory, the samples in the marker file from the source drive-directory are shown in the 'Select Samples to ReExport' browse window. By default, all samples showing are set to (N)o for copying. If any are required, they can be selected by entering (Y)es instead of (N)o. The cursor up and down keys are used to navigate among the displayed samples. Pressing <Enter> will terminate the selection process. The program checks that all selected samples are of the same type. If they are not, re selection is forced.
- If the Re-exporting previous measurements samples are to be incorporated into an existing diskette dataset, that diskette should be mounted here. If a new dataset is to be created for the Re-Exporting previous measurements, it is best to leave the diskette drive empty for now.
- The user is required to enter the drive and directory into which the Re-exporting dataset is to be merged. If a new dataset is to be created for the

Re-Exporting previous measurements, the user should identify the drive, but set the directory to spaces.

- The destination diskette drive letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible drives. In this second case, the appropriate drive is selected by cursoring to it and <Enter> is pressed to select it. Whichever way the drive is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.
- The destination directory on the diskette containing the previous measurement dataset into which the ReExporting dataset is to be merged is next requested. It can be entered by first pressing <\> followed by the path defining the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous measurement dataset. The user can cursor to the appropriate directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required. As mentioned above, if a previous measurement ReExporting dataset is to be created, the directory should be changed to spaces at this time.
- Following this process, the destination for the previous measurement ReExporting samples is shown in the 'Source and Destination' information window. In the case of creating a new diskette dataset, the drive will show, but the directory will be blank and the diskette file extension will show as '.x??', where 'x' is the sample type of the ReExporting dataset.
- Temporary database files are created in the TempDT sub directory for each of the flat files on the diskette. If the requirement is to create new ReExported diskette files, empty databases are created in TempDT. Messages will show on the bottom line of the screen showing the creation/copying process.
- The samples selected for export are shown in the 'ReExport Previous Measurements' window. If there was an existing dataset on the diskette which was selected, this dataset will show in an adjacent window captioned previous diskette measurement. If any of the datasets to be exported already exist in the diskette dataset, they are highlighted in the 'ReExport previous measurements window. This will enable the user to change the export? flag from (Y)es to (N)o if he or she wishes not to overwrite the specific diskette dataset sample with the new one.
- The ReExport Progress report shows the copying of the source data into the temporary directory TempDT.
- If a destination drive and directory has not yet been specified, it is requested.

- The destination diskette drive letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible drives. In this second case, the appropriate drive is selected by cursoring to it and <Enter> is pressed to select it. Whichever way the drive is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.
- The destination directory on the diskette which is to receive the previous measurements is next requested. It can be entered by first pressing <\> followed by the path defining the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous measurement dataset. The user can cursor to the appropriate directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required.
- The destination extension for the diskette dataset is requested. The first alphabetic character must be as displayed, the next two characters are at the discretion of the user.
- The Source and Destination window is updated with the destination directory and dataset extension.
- Finally, the progress of the copying of the assembled ReExport dataset from TempDT to the Diskette is shown on the bottom line of the display.
- Upon completion of the above, the program reverts to the DataTran menu. At any point in the above process where user input is required, <Esc> can be pressed. The effect of this is, in most cases, to return to the previous user input screen where information can be changed.

3. 'ReLoad New Measurements from the FlatFile to HardDrive.

- This menu item is selected when it is required to re-load samples that have been exported. It is used when a Contractor wishes to re-load his previously exported measurements or when either the Regional office or Branch office wishes to load new measurements sent by a contractor or Regional office.
- The diskette and Hard Drive partition/drive and directory are identified using the window below.
- The source diskette drive letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible drives. In this second case, the appropriate drive is selected by cursoring to it and <Enter> is pressed to select it. Whichever way the drive is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.

- The source directory on the diskette containing the exported dataset is next requested. It can be entered by first pressing <\> followed by the path defining the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous measurement dataset. The user can cursor to the appropriate directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required.
- The destination hard drive or partition letter is requested. It can be entered or <Tab> can be pressed to pop up a picklist of all possible hard drive/partitions available. The user cursors to the appropriate one and selects it with <Enter>. Whichever way the hard drive/partition is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
- The destination directory on the hard drive/partition selected above which is to receive the previously exported measurements is next requested. It can be entered by first pressing <\> followed by the path defining the directory. <Tab> can be pressed to show a picklist of all possible directories on the particular hard drive/partition. The user can cursor to the required selection and select it with <Enter>. Whichever way the directory is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
- The above selections are show in the information window titled 'Source and Destination'.
- Those samples that are NOT required to be reloaded should have the Extract field changed from (Y)es to (N)o. Those that are required can be left as they are.
- Pressing <Enter> will cause the system to create temporary database files in the TempDT sub-directory for the selected samples from the flat files on the diskette.
- Note that if a remeasured sample is being reloaded, and the previous measurement is not on the hard drive, both measurements will be listed on the screen as indicated below, and the system will require the previous measurement.
- The user may, change selected sample-measurements to (N)o. Under normal circumstances both measurements of each sample should be (Y)es. When the above window is satisfactorily set up, <Enter> is pressed.
- After the original Branch diskette has been inserted, any key is pressed and a window appears requesting the diskette drive and directory.

- The source diskette drive letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible drives. In this second case, the appropriate drive is selected by cursoring to it and <Enter> is pressed to select it. Whichever way the drive is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.
- The source directory on the diskette containing the original Branch dataset is next requested. It can be entered by first pressing <\> followed by the path defining the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous measurement dataset. The user can cursor to the appropriate directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required.
- Following this, the system appends to the temporary databases in TempDT, the previous measurement records from the original diskette dataset.
- It only remains for the temporary databases to be incorporated into the specified destination directory. The progress of this is shown in the Re-Load Progress Report window.
- Upon completion of the above, the program reverts to the DataTran menu.

At any point in the above process where user input is required, <Esc> can be pressed. The effect of this is, in most cases, to return to the previous user input screen where information can be changed.

4. 'Export New Measurements from HardDrive to FlatFile.

- This menu item is selected when it is required to copy new measurement data from the Hard Drive to a diskette. This is required when the Contractor is exporting the new measurements to the Regional office or when the Regional office is exporting new measurements to the Branch office. This process can add new sample measurements to or replace new sample measurements in an existing diskette dataset.
- Next the user is requested to identify the drive/partition and directory containing the new measurements to be exported.
- The hard drive or partition letter is requested. It can be entered or <Tab> can be pressed to pop up a picklist of all possible hard drive/partitions available. The user cursors to the appropriate one and selects it with <Enter>. Whichever way the hard drive/partition is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.

- The source directory on the hard drive/partition selected above which contains the new measurements is next requested. It can be entered by first pressing <\> followed by the path containing the directory. Alternatively, <Tab> can be pressed to show a picklist of all directories that contain the Sp_Meas.dbf marker file on the particular hard drive/partition. The user can cursor to the required selection and select it with <Enter>. Whichever way the directory is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
- The above selections are shown in the information window titled 'Source and Destination'.
- Following the selection of the source drive and directory, the samples in the marker file from the source drive-directory are shown in the 'Select Samples to Export' browse window. By default, all samples showing are set to (N)o for copying. If any are required, they can be selected by entering (Y)es instead of (N)o. The cursor up and down keys are used to navigate among the displayed samples. Pressing <Enter> will terminate the selection process. The program checks that all selected samples are of the same type. If they are not, re selection is forced.
- If the exporting samples are to be incorporated into an existing diskette dataset, that diskette should be mounted here. If a new dataset is to be created, it is best to leave the diskette drive empty for now.
- The user is required to enter the drive and directory into which the exporting dataset is to be merged. If a new dataset is to be created, the user should identify the drive, but set the directory to spaces.
- The destination diskette drive letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible drives. In this second case, the appropriate drive is selected by cursoring to it and <Enter> is pressed to select it. Whichever way the drive is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.
- The destination directory on the diskette containing the new measurement dataset into which the exporting dataset is to be merged is next requested. It can be entered by first pressing <\> followed by the path defining the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous measurement dataset. The user can cursor to the appropriate directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required. As mentioned above, if a new exporting dataset is to be created, the destination directory should be set empty at this time.

- For incorporating the measurements into an existing diskette dataset, temporary database files are created in the TempDT sub directory for each of the flat files on the diskette. If the requirement is to create a new exported diskette dataset, empty databases are created in TempDT. Messages will show on the bottom line of the screen showing the creation/copying process.
- The samples selected for export are shown in the 'Export Samples' window. If there was an existing dataset on the diskette which was selected, this dataset will show in an adjacent window captioned 'Floppy Samples' following the pressing of <Tab> to select that window. If any of the datasets to be exported already exist in the diskette dataset, they are highlighted in the 'Export Samples' window. This will enable the user to change the export? flag from (Y)es to (N)o if he or she wishes not to overwrite the specific diskette dataset sample with the new one. <Enter> will begin extracting the specified sample measurements to the TempDT directory.
- The Export Progress report shows the copying of the source data into the temporary directory TempDT.
- If a destination drive and directory has not yet been specified, it is requested.
- The destination diskette drive letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible drives. In this second case, the appropriate drive is selected by cursoring to it and <Enter> is pressed to select it. Whichever way the drive is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.
- The destination directory on the diskette which is to receive the new measurements is next requested. It can be entered by first pressing <\> followed by the path defining the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous measurement dataset. The user can cursor to the appropriate directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required.
- The Source and Destination window is updated with the destination directory and dataset extension.
- Finally, the progress of the copying of the assembled export dataset from TempDT to the Diskette is shown on the bottom line of the display.
- Upon completion of the above, the program reverts to the DataTran **menu.**

At any point in the above process where user input is required, <Esc> can be pressed. The effect of this is, in most cases, to return to the previous user input screen where information can be changed.

5. 'Transfer .DBF Samples Between HardDrive Directories'.

- This menu item is selected when it is required to transfer or copy selected samples between directories on the Hard Drive. Transfer implies deleting the original after the copy process is completed; copy implies retaining the original after the copy is completed. The procedure is as follows:
 - The source and destination drives and directories are specified.
 - The source hard drive or partition letter is requested. It can be entered or <Tab> can be pressed to pop up a picklist of all possible hard drive/partitions available. The user cursor to the appropriate one and selects it with <Enter>. Whichever way the hard drive/partition is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
 - The source directory on the hard drive/partition selected above which contains the samples to be transferred is next requested. It can be entered by first pressing <\> followed by the path defining the directory. <Tab> can be pressed to show a picklist of all possible directories on the particular hard drive/partition. The user can cursor to the required selection and select it with <Enter>. Whichever way the directory is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
 - The destination hard drive or partition letter is requested. It can be entered or <Tab> can be pressed to pop up a picklist of all possible hard drive/partitions available. The user cursor to the appropriate one and selects it with <Enter>. Whichever way the hard drive/partition is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
 - The destination directory on the hard drive/partition selected above into which the samples are to be transferred is next requested. It can be entered by first pressing <\> followed by the path defining the directory. <Tab> can be pressed to show a picklist of all possible directories on the particular hard drive/partition. The user can cursor to the required selection and select it with <Enter>. Whichever way the directory is selected, the choice is validated and, if it is invalid, an error message will appear and re-selection is required.
 - When the selection is complete, the user is asked if the samples are to be deleted from the source after the transfer is complete.

- All the samples from the source directory are presented in the transfer window with the Extract status defaulted to (N)o. Those samples to transfer will need to have their status changed to (Y)es.
- When all the required samples have had their Extract status changed, <Enter> is pressed and the transfer progress window is shown while the copying occurs. Following the copy process, if a transfer was requested (as opposed to a copy), confirmation of the deletion of the source samples is required.
- If (Y)es is pressed, a window shows the progress of the source deletion.
- Upon completion of the above, the program reverts to the DataTran menu.

At any point in the above process where user input is required, <Esc> can be pressed. The effect of this is, in most cases, to return to the previous user input screen where information can be changed.

6. 'Delete Samples From Host Directory'.

This menu item is selected when it is required to delete selected samples in the host directory.

- All samples in the directory that you are presently in, are presented in a window. The most recent measurement number for these samples is shown in brackets alongside the word ALL. ALL is shown to reinforce the fact that ALL measurements will be deleted.
- When those samples required to be deleted are selected by setting the extract status to (Y)es, <Enter> is pressed. This window asks the user if he or she is sure the deletion should proceed.
- A response of (Y)es will delete the required samples.
- Upon completion, the program reverts to the DataTran menu.
- At any point in the above process where user input is required, <Esc> can be pressed. The effect of this is, in most cases, to return to the previous user input screen where information can be changed.

7. 'Display Sample Identification'.

This menu item is selected when it is required to display samples on the Hard Drive or a Diskette.

- If a display of diskette samples is required, that diskette must be inserted prior to the entry of the drive and directory.
- The source diskette drive or the Hard Drive partition letter can be entered, or, alternatively, <Tab> can be pressed to show a list of possible

drives and partitions. In this second case, the appropriate drive is selected from the displayed picklist by cursoring to it and pressing <Enter>. Whichever way the drive or partition is selected, the choice is validated, and if it is invalid or the drive is empty, an error message will appear and re selection is required.

- The source directory on the diskette or hard drive containing the dataset to be displayed is next requested. It can be entered by first pressing <\> followed by the path defining the directory. If the dataset is in the root directory, just <\> on it's own will suffice. Alternatively, <Tab> can be pressed to show a list of all directories on the diskette that contain a previous or current measurement dataset. The user can cursor to the appropriate directory and press <Enter> to select one of these. Whichever way the directory is selected, the choice is validated, and, if it is invalid, an error message will appear and re-selection is required.
- Having selected the source drive and directory, they are displayed in the 'Source' window.
- All the Samples that comprise the dataset on the selected drive - directory are now displayed in the Sample Display. The measurement number refers to the highest number in that dataset.
- Upon completion of the above, the program reverts to the DataTran **menu.**

At any point in the above process where user input is required, <Esc> can be pressed. The effect of this is, in most cases, to return to the previous user input screen where information can be changed.

Screen 7. FPC Matrix File Extract

```
Data Collecting, Editing and Reporting System
Main Menu
1. Maintain Samples
2. Reports Menu
3. Verify Complete
4. Housekeeping Menu
5. PC + HandHeld Communication Menu
6. PC + Diskette 'DataTran' Transfer Menu
7. FPC Matrix File Extract
9. If you CANNOT see highlight - press 9
ESC to Return to DOS
Vers 2002 2002.06.01 Scr#1-2002.02.27
```

<Enter> “7. FPC Matrix File Extract” to prepare FPC Matrix Establishment Reports at the end of the field season, for sample type ‘G’ only.

The user is asked if samples are ready for extract and, if yes, is asked to select those samples for extraction.

Once done, the user has three choices:

1. **FPC Matrix File Extract** - Prepares reports of previously selected samples and asks the user for destination.

Note: If any missing data is found, the program automatically prepares option 3. FPC Matrix File Extract Error Report.

2. **Yearly Establishment List** - Prepares list of established samples which can be printed or seen on the screen.
3. **FPC Matrix File Extract Error Report** - Prepares a list of any missing data encountered which can be printed or seen on the screen.