

Star Carr Terrestrial Laser Scan Data June 2011: Metadata

Dr Laura Basell, University of Southampton. Produced for English Heritage and ADS to accompany raw files of TLS scan data

Please read this document before attempting to open files!

This document follows guidelines set out in Andrews 2009, "Metric Survey Specifications for Cultural Heritage" for TLS Metadata.

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Please note that if you are using the data you are also advised to read the report on Star Carr sent to English Heritage 2011

Principal Investigator

Dr Chris Bradley, University of Birmingham

Co-Investigators:

Dr. T. Grapes, Dr. L. Basell, Prof. Tony Brown, Dr I. Boomer

Metadata for Star Carr: Scan metadata

File name of the raw data

Two files have been provided:

- BasellTLS_StarCarr_06_2011.imp

This file is the scanner proprietary format.

- BasellTLSStarCarr_06_2011.pts

This is an export format from Cyclone, under "Text-all ASCII formats". Although the extension is .pts this file opens in Notebook with the all the usual ASCII columns.

Date of capture

June 13th – June 15th 2011

Scanning system used – with manufacturer's serial number

Leica 2000 TLS s/n 611110702

Company name

Laser scanning work conducted by Dr Laura Basell, University of Southampton

Monument name

Star Carr

Monument number (if known)

80206

Survey number (if known):

Survey 1 of work done by LB. Of total surveys done at the site, not known.

Scan number (unique scan number for this survey):

BasellTLSStarCarr_1

Total number of points:

9269649

Point density on the object (with reference range):

10cm horizontal, 10cm vertical at a range of 100m

A record of the weather conditions during scanning (external scanning only):

Weather conditions were generally fine, but with strong winds on the first day and rain on the afternoon of the 15th. All adversely affected scans were discarded (i.e. these data do not include any scans conducted on June 13th). Scans from June 14th and 15th were used but rain only started once scanning was complete.

Metadata for Star Carr: Project metadata

A single project metadata file is required with the project. This must include the following:

Filename(s) of the raw data used in the registration

ScanWorld1 through to ScanWorld7 were registered using:

OrigTSdataSC.txt

CBsc.txt

Data of capture (month and year)

June 2011

Scanning system used – with manufacturer's serial number

Leica 2000 TLS s/n 611110702

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Monument name

Star Carr

Monument number (if known)

80206

Survey number (if known):

Survey 1 of work done by LB. Of total surveys done at the site, not known.

Number of individual scans

Data provided includes the registered and merged data from 106 scans. Some of these were user initiated of fine scans of targets prior to acquiring targets the usual way. These are held in 7 Scan Worlds that can be accessed through the .imp file.

Laser scanning work conducted by Dr Laura Basell, University of Southampton

Scan number (unique scan number for this survey):

BasellTLSStarCarr_1

Scan numbers of all scans

ScanWorld 1

Scan 1 (310 x 350 points)

Scan 2 (247 x 181 points)

Scan 3 (179 x 237 points)

Scan 4 (170 x 176 points)

Scan 5 (107 x 90 points)

Scan 6 (74 x 106 points)

Scan 7 (777 x 1905 points)

Scan 7 (792 x 1905 points)

Scan 7 (779 x 1905 points)

Scan 7 (791 x 558 points)

Scan 8 (786 x 13 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

ScanWorld 2

Scan 1 (92 x 127 points)

Scan 2 (67 x 26 points)

Scan 3 (88 x 1 points)

Scan 4 (105 x 132 points)

Scan 5 (219 x 227 points)

Scan 6 (276 x 133 points)

Scan 7 (805 x 1663 points)

Scan 8 (791 x 1875 points)

Scan 8 (796 x 1020 points)

Scan 9 (159 x 401 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

ScanWorld 3

Scan 1 (207 x 205 points)

Scan 2 (44 x 90 points)

Scan 3 (101 x 103 points)

Scan 4 (90 x 168 points)

Scan 5 (780 x 1935 points)

Scan 5 (780 x 1935 points)

Scan 5 (780 x 1935 points)

Scan 5 (778 x 478 points)

Coarse Scan (46 x 1 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

ScanWorld 4

Scan 1 (66 x 65 points)

Scan 2 (98 x 149 points)

Scan 3 (118 x 118 points)

Scan 4 (197 x 470 points)

Scan 5 (73 x 77 points)

Scan 6 (42 x 21 points)

Scan 7 (779 x 1935 points)

Scan 7 (775 x 1935 points)

Scan 7 (771 x 1935 points)

Scan 7 (766 x 478 points)

Fine Scan (38 x 38 points)

Coarse Scan (1 x 16 points)

Coarse Scan (3 x 9 points)

Coarse Scan (2 x 4 points)

Coarse Scan (5 x 8 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

ScanWorld 5

Scan 1 (93 x 89 points)

Scan 2 (24 x 49 points)

Scan 3 (87 x 74 points)

Scan 4 (67 x 96 points)

Scan 5 (98 x 123 points)

Scan 6 (45 x 74 points)

Scan 7 (776 x 1920 points)

Scan 7 (787 x 1920 points)

Scan 7 (781 x 1920 points)

Scan 7 (772 x 523 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

ScanWorld 6

Scan 1 (161 x 71 points)

Scan 2 (161 x 71 points)

Scan 3 (114 x 127 points)

Scan 4 (108 x 122 points)

Scan 5 (57 x 98 points)

Scan 6 (790 x 1905 points)

Scan 6 (790 x 1905 points)

Scan 6 (781 x 1905 points)

Scan 6 (775 x 563 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

ScanWorld 7

Scan 1 (110 x 110 points)

Scan 2 (47 x 33 points)

Scan 3 (326 x 226 points)

Scan 4 (107 x 208 points)

Scan 5 (45 x 72 points)

Scan 6 (90 x 610 points)

Scan 7 (73 x 1340 points)

Scan 8 (775 x 1950 points)

Scan 8 (769 x 1075 points)

Scan 9 (145 x 1550 points)

Scan 10 (106 x 623 points)

Scan 11 (211 x 1964 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Fine Scan (38 x 38 points)

Total number of points

926949

Filename of the control data

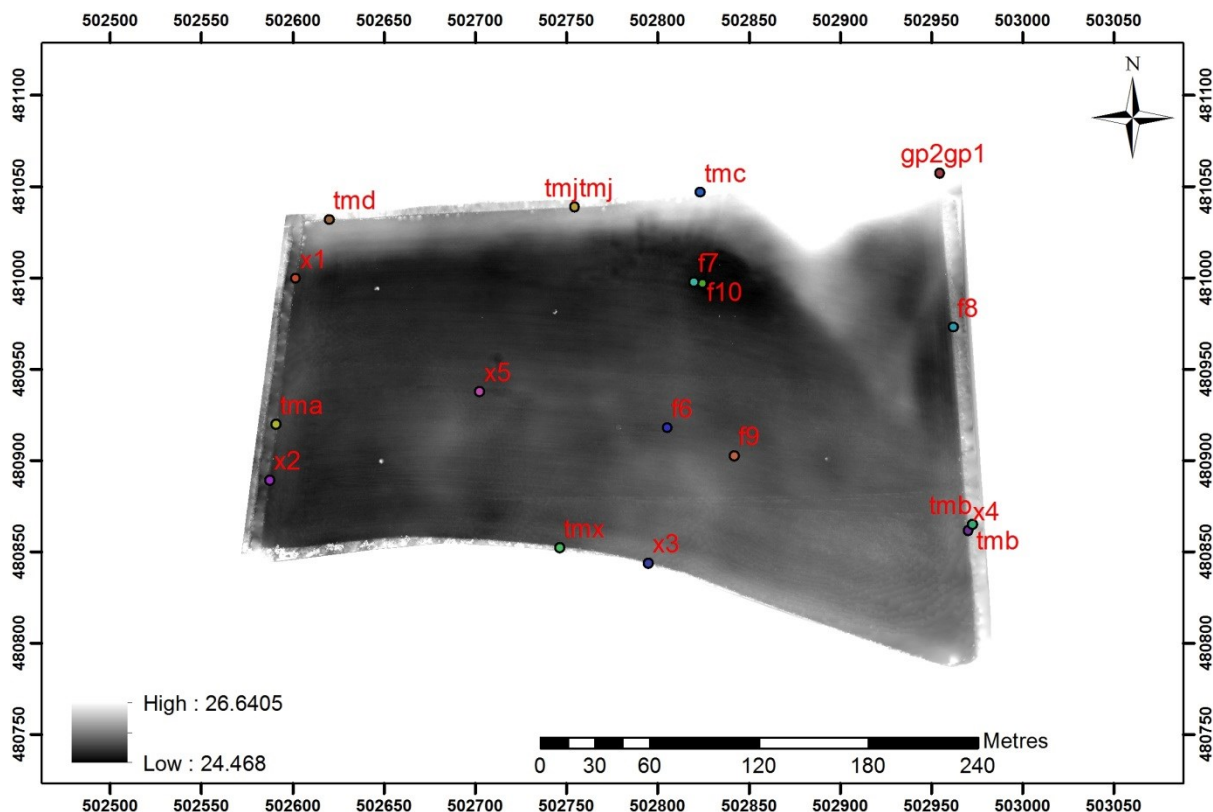
CBsc.txt

This stands for "Chris Bradley Star Carr" as it was Chris who ascertained the real world co-ordinates for the control points LB used for Total Station Survey. See report to EH for full details of this process.

Description of registration method

Please see report to EH for full details of this process. All scans registered to local site grid using targeted points and resection calculation.

An index plan showing the data collected with individual scan points named



Weather during survey (external scans only)

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Any scanner specific information

No.

Control Point Data

X	Y	Z	TargetID
502972.3	480865.1	25.5352	tmb
502754.5	481038.8	25.881	tmj
502823.2	481046.6	26.892	tmc
502970.2	480861.8	25.9645	x4
502954.5	481057.3	27.82363	gp2
502746.2	480852.4	25.30847	tmx
502972.3	480865.1	25.59939	tmb
502794.7	480844	26.5432	x3
502824.5	480996.9	25.09349	f10
502841.8	480902.7	25.82452	f9
502954.5	481057.3	27.43259	gp1
502961.9	480973	25.55462	f8
502754.5	481038.8	25.92371	tmj
502805.3	480917.8	25.84376	f6
502819.7	480997.5	25.08828	f7
502620	481031.8	25.79762	tmd
502601.6	480999.5	25.41509	x1
502590.9	480919.9	25.46203	tma
502702.3	480937.8	25.38618	x5
502587.3	480889.4	26.04243	x2